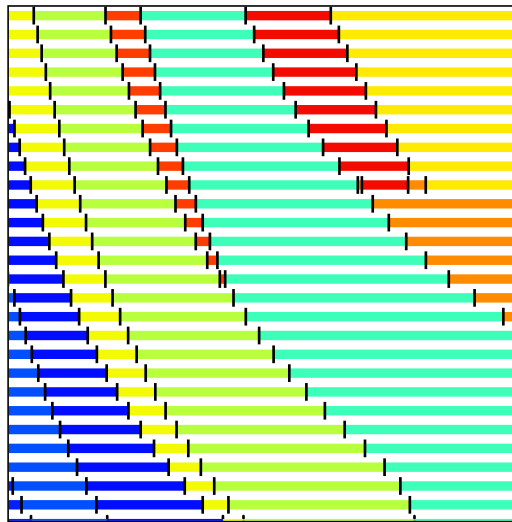


Best hits of 11110110111: model-free selection and parameter-free sensitivity calculation of spaced seeds

(supplementary file)

Laurent Noé, ...



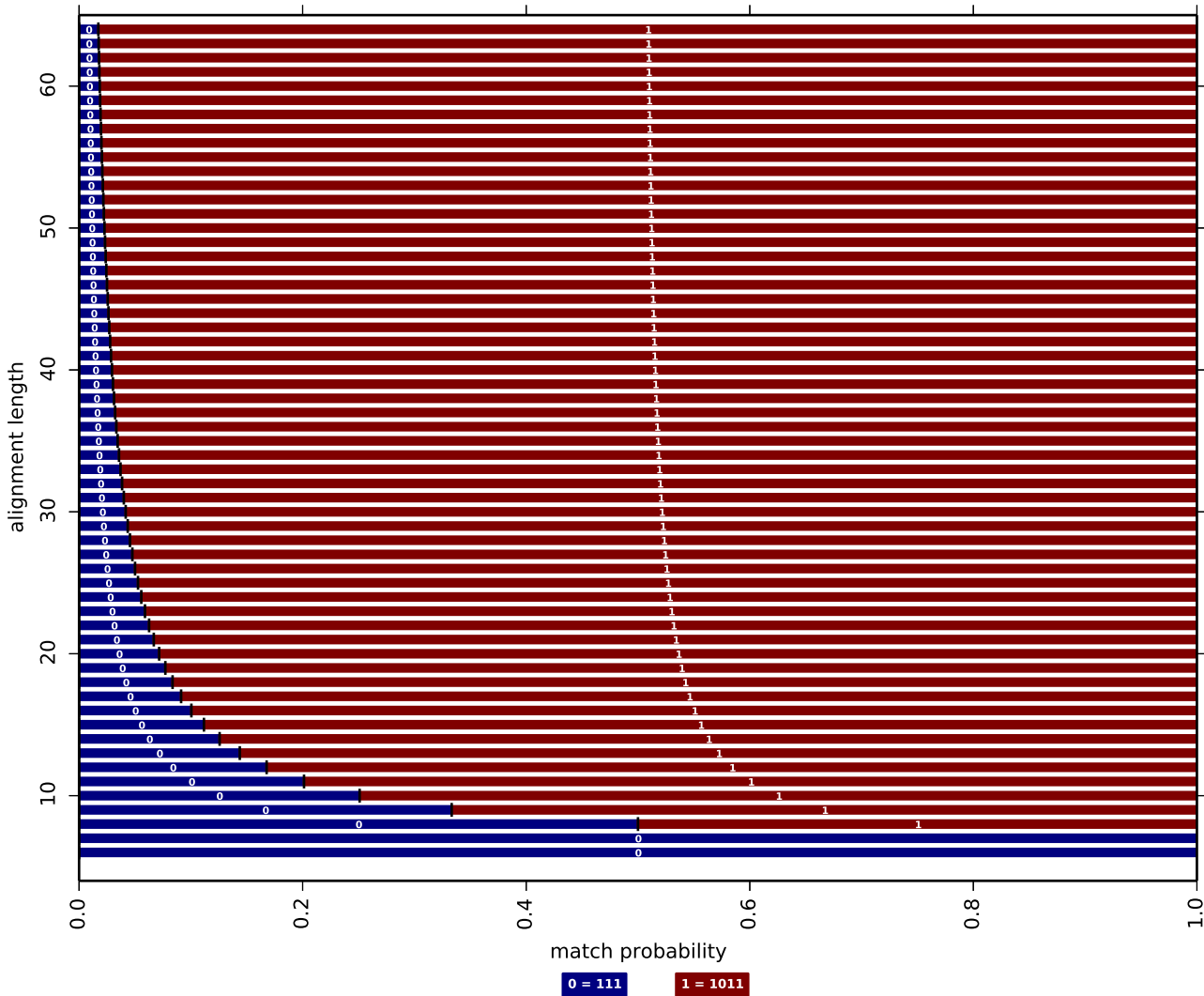
Dec 12, 2016

paper : http://cristal.univ-lille.fr/~noe/files/spaced_seed_dominance.pdf

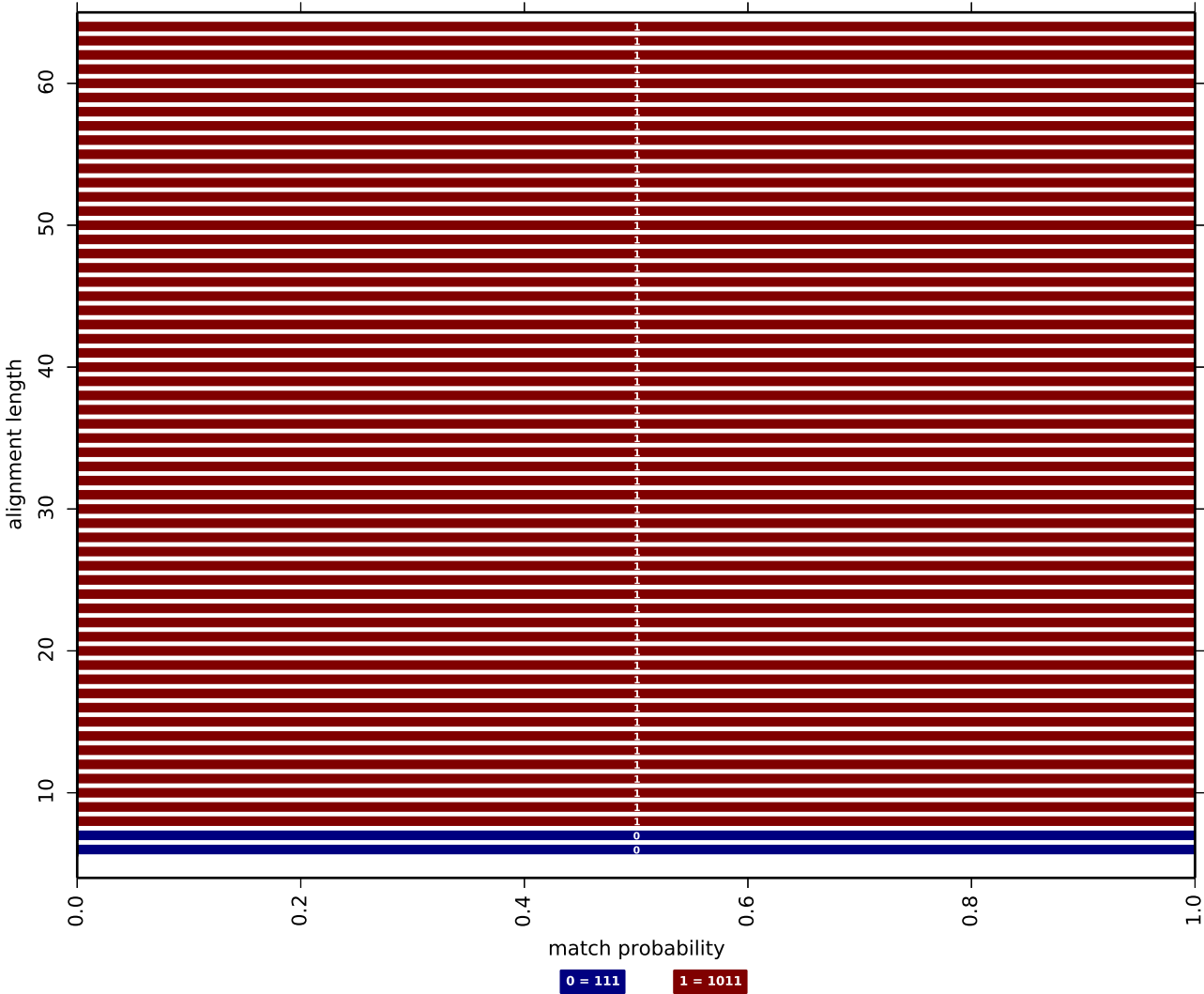
additional plots : http://cristal.univ-lille.fr/~noe/files/spaced_seed_dominance_plots.pdf

scripts used and data provided : http://bioinfo.lifl.fr/yass/iedera_dominance/

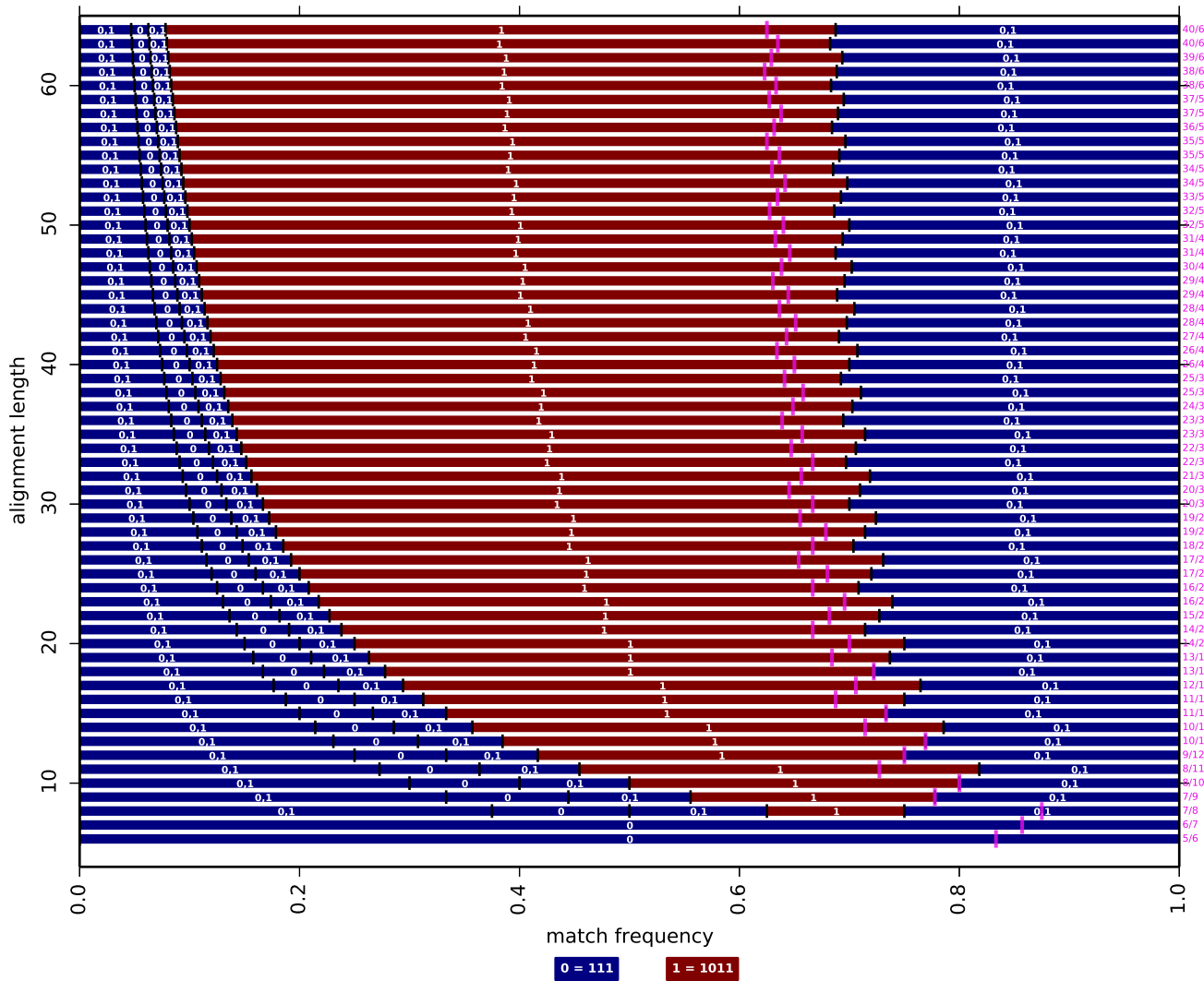
Bernoulli (n:1,w:3)



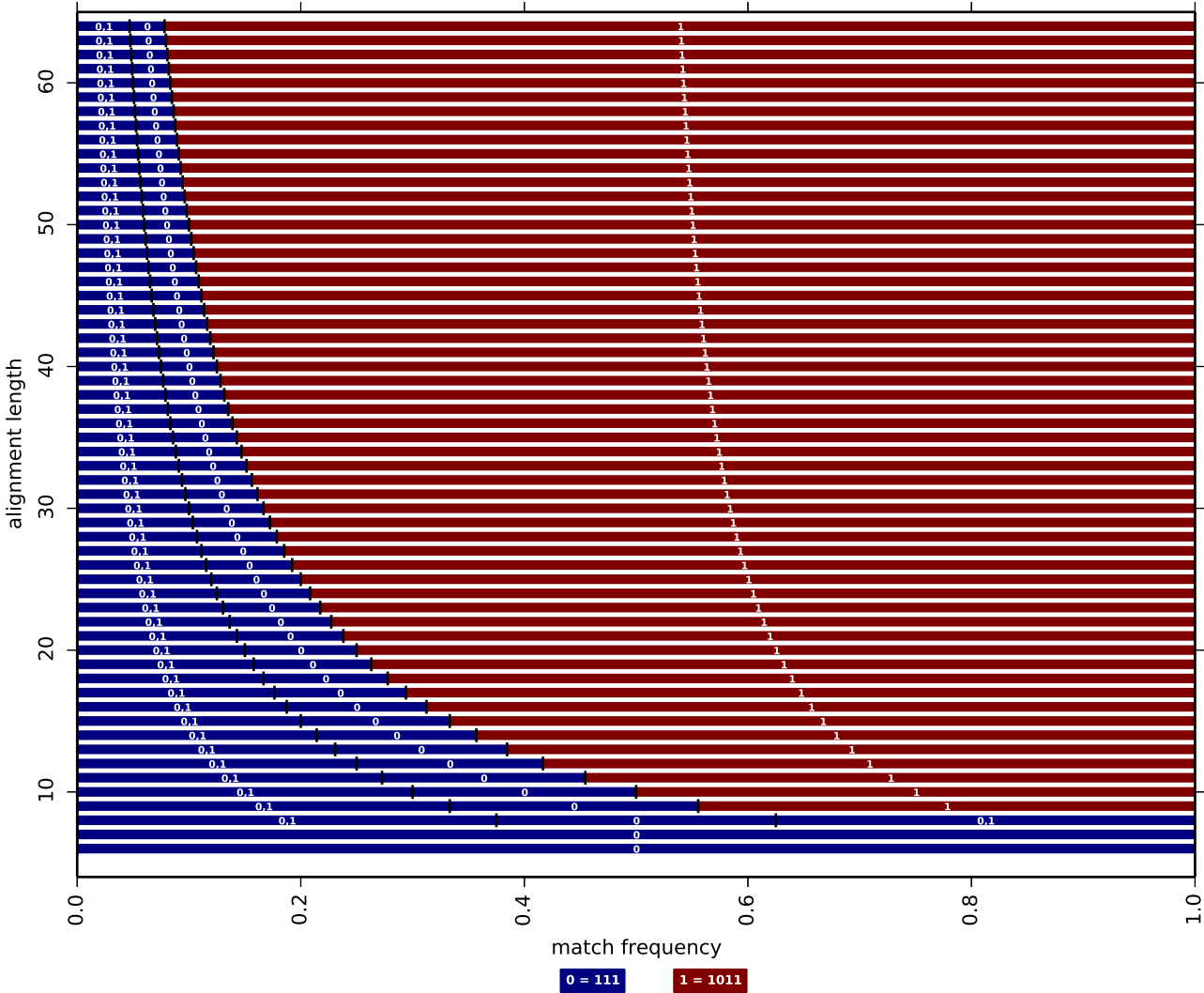
\int_x^1 Hit Integration (n:1,w:3)



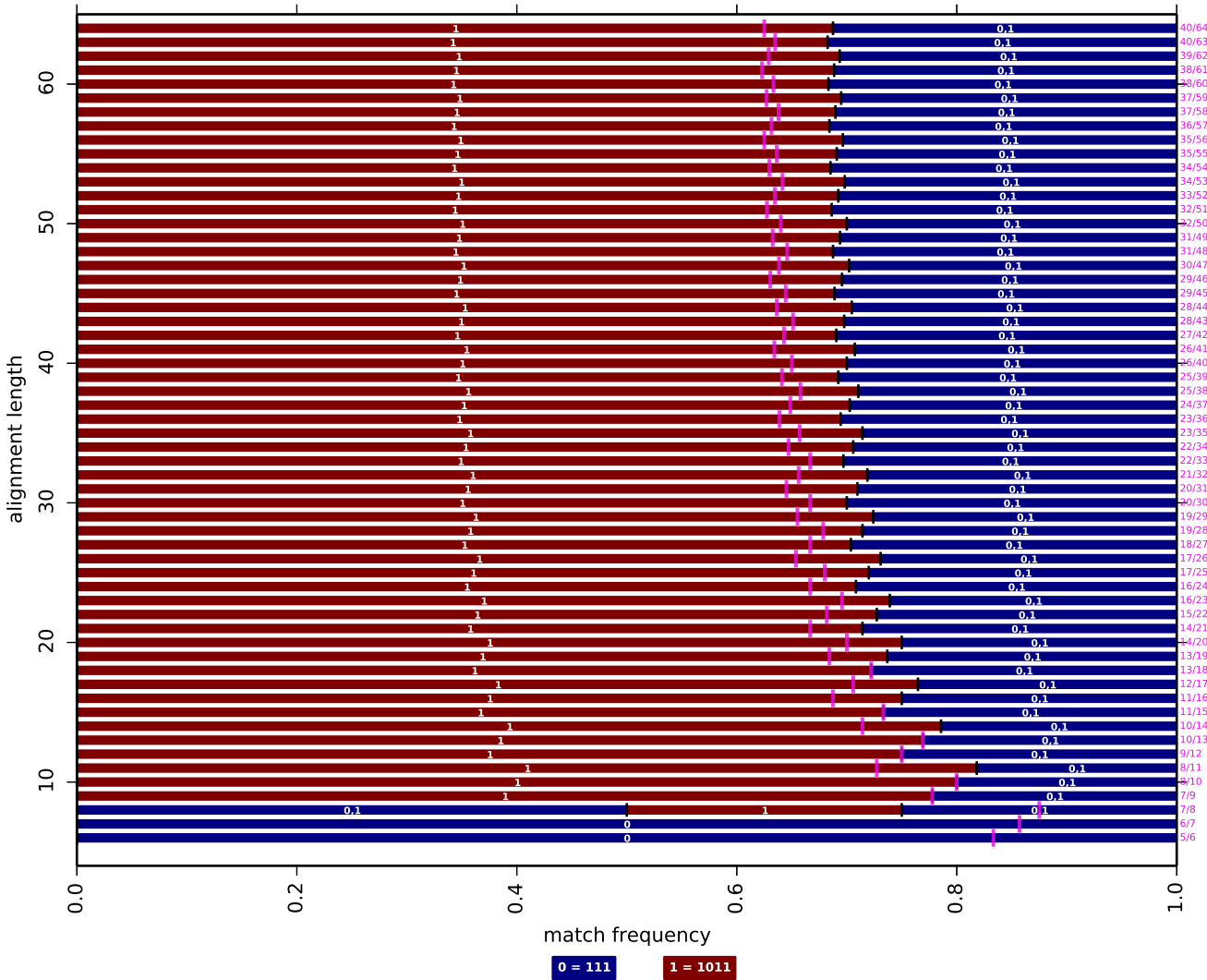
Dirac (n:1,w:3)



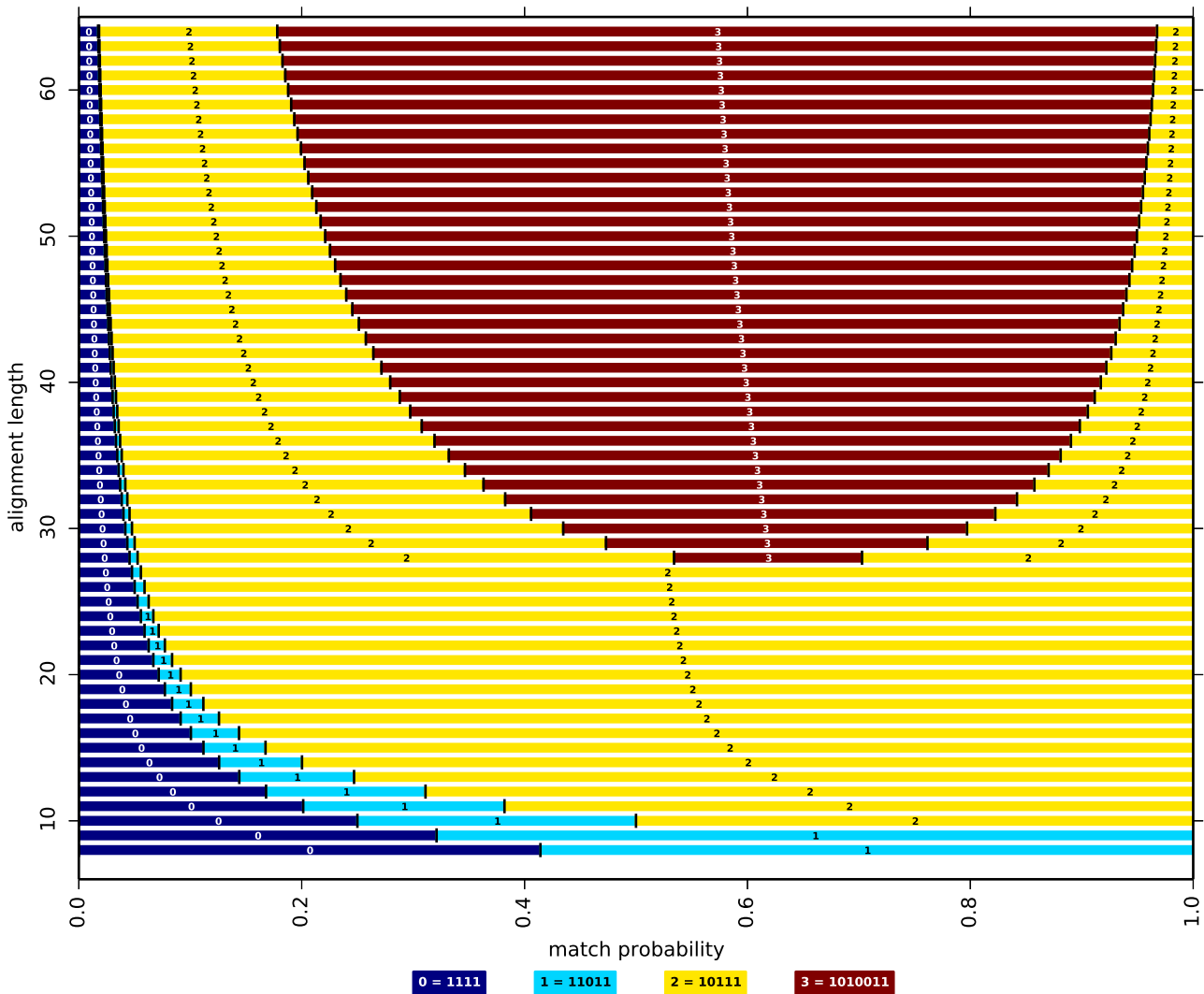
$$\sum_0^x \text{Heaviside}(n:1,w:3)$$



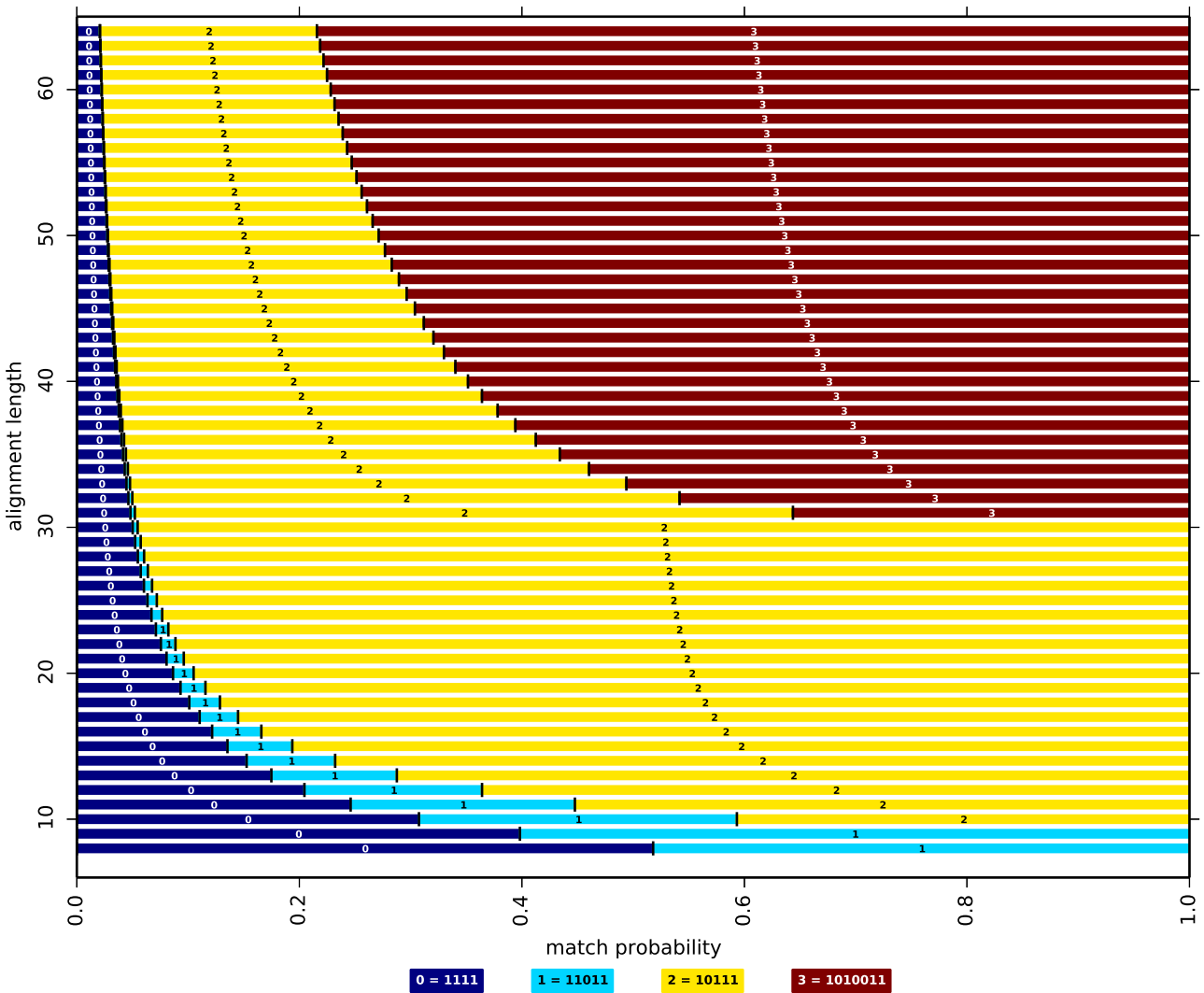
$$\sum_x^1 \text{Heaviside}(n:1,w:3)$$



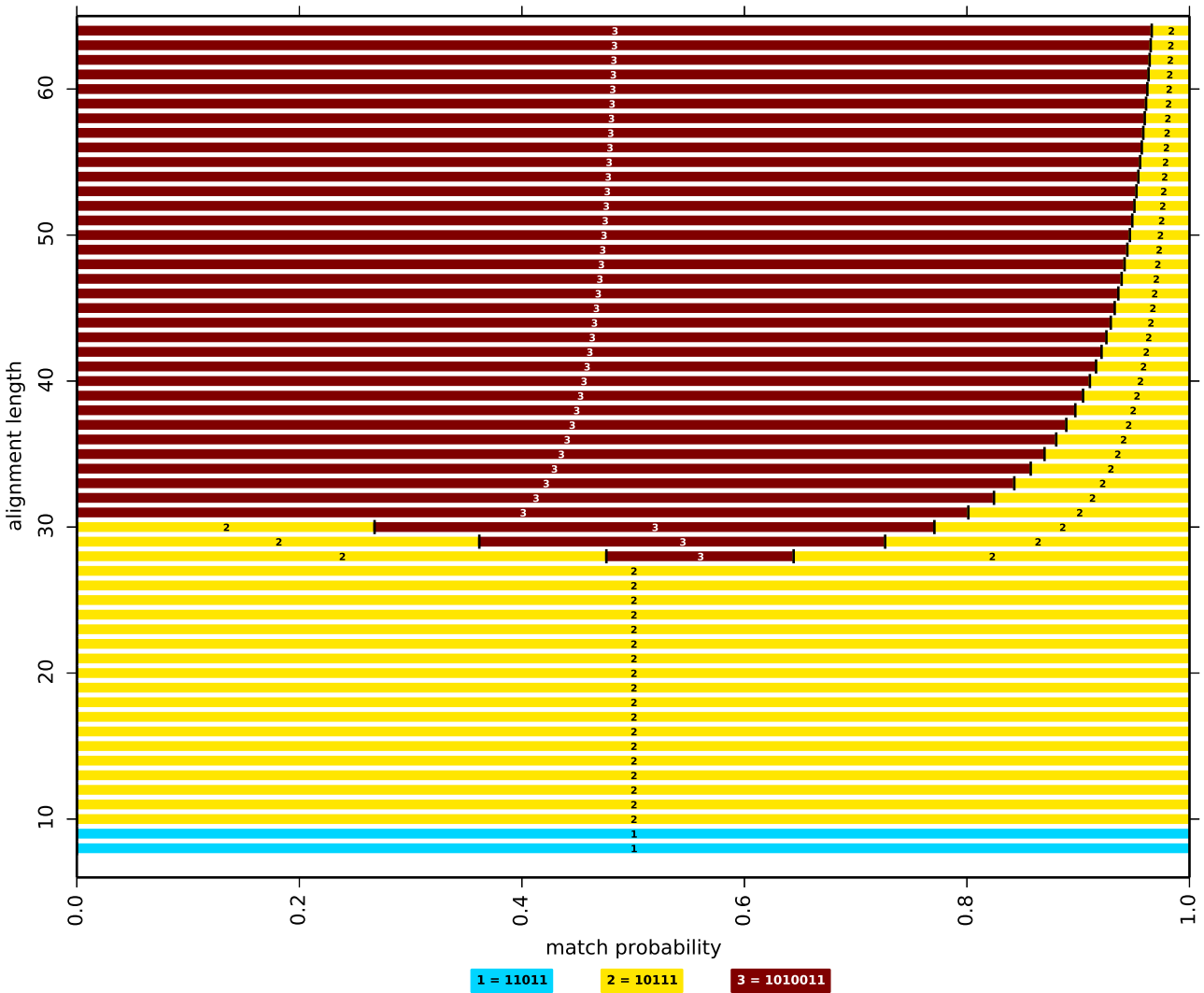
Bernoulli (n:1,w:4)



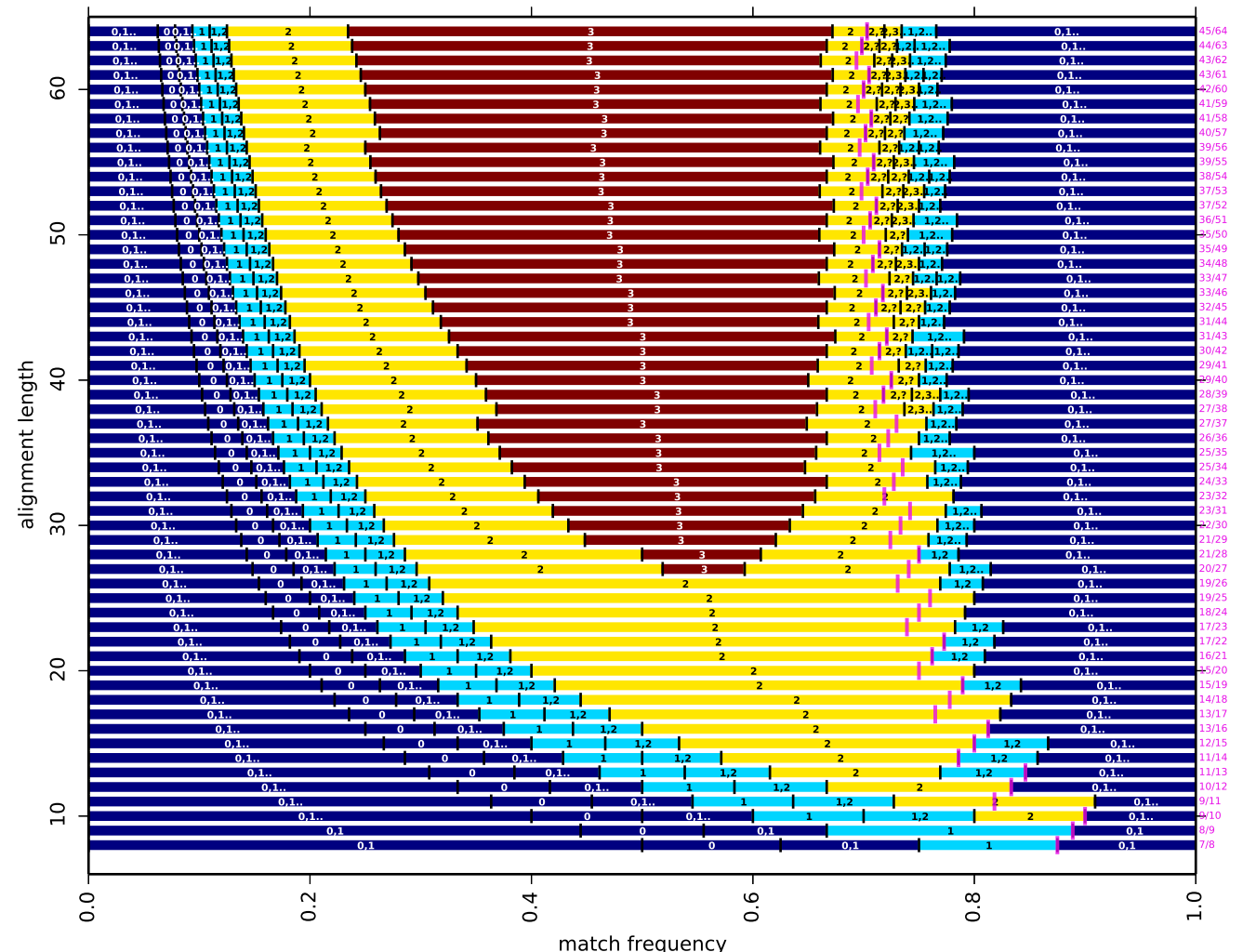
\int_0^x Hit Integration (n:1,w:4)



\int_x^1 Hit Integration (n:1,w:4)

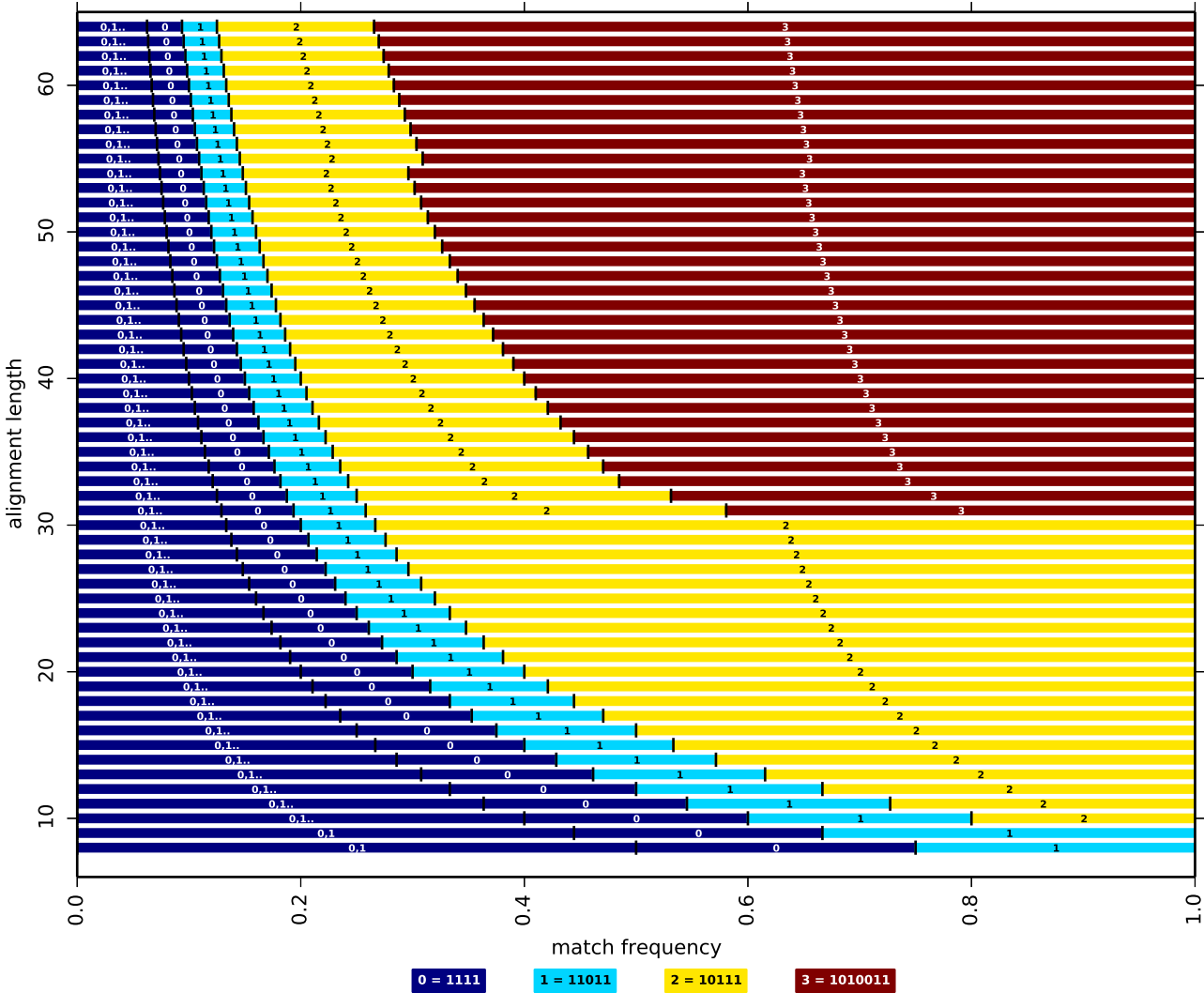


Dirac (n:1,w:4)

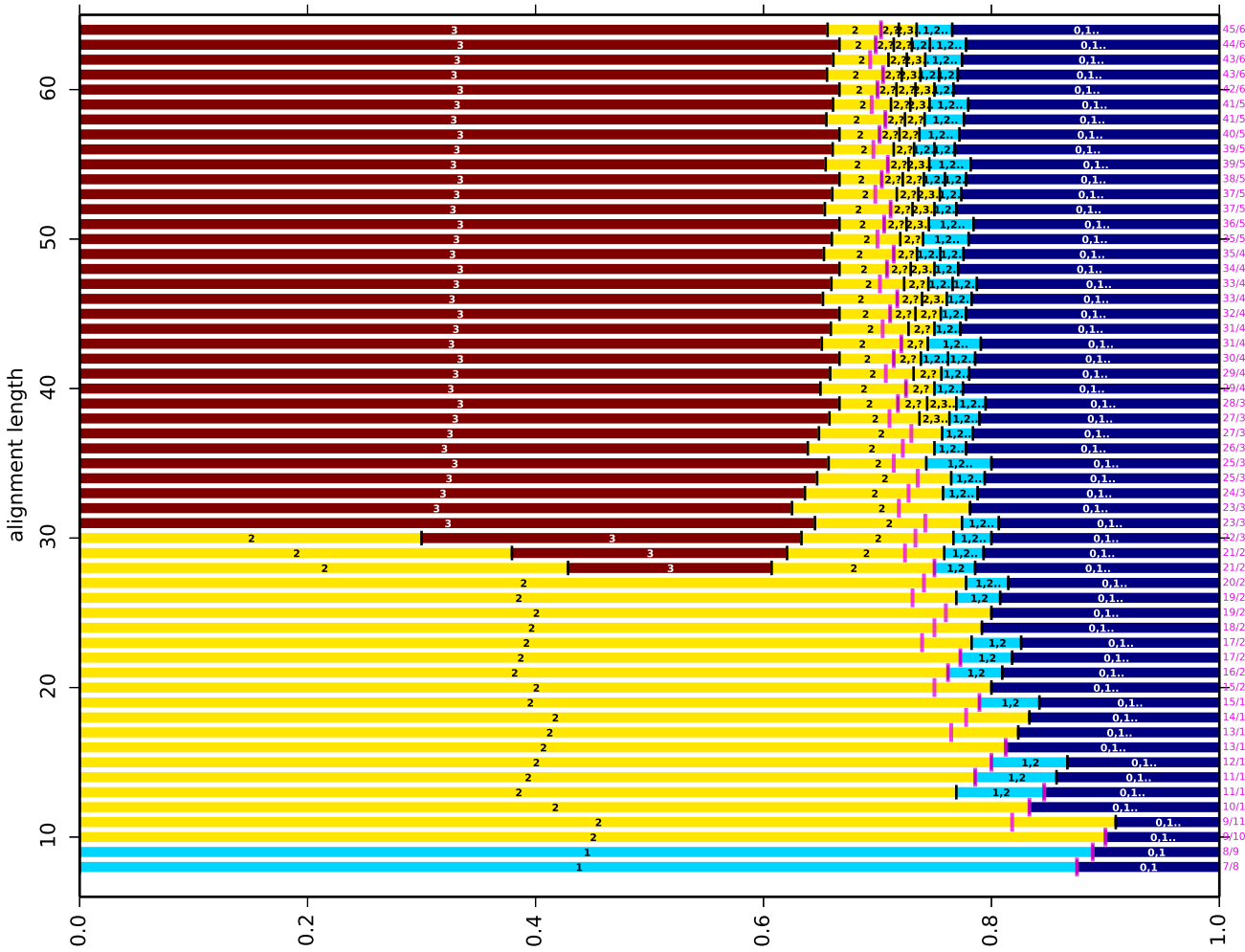


0 = 1111
1 = 11011
2 = 10111
3 = 1010011

$$\sum_0^x \text{Heaviside}(n:1,w:4)$$



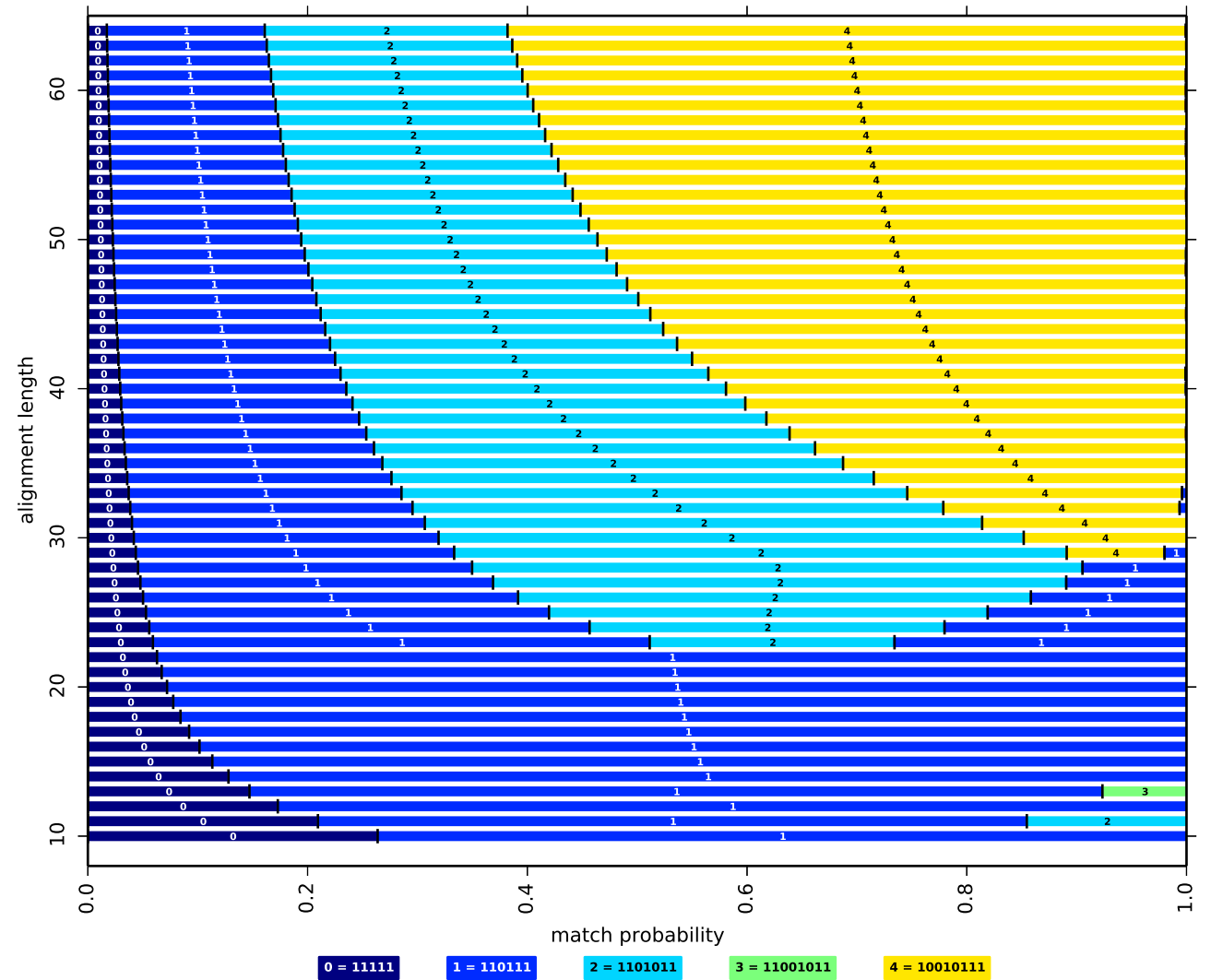
$$\sum_x^1 \text{Heaviside}(n:1,w:4)$$



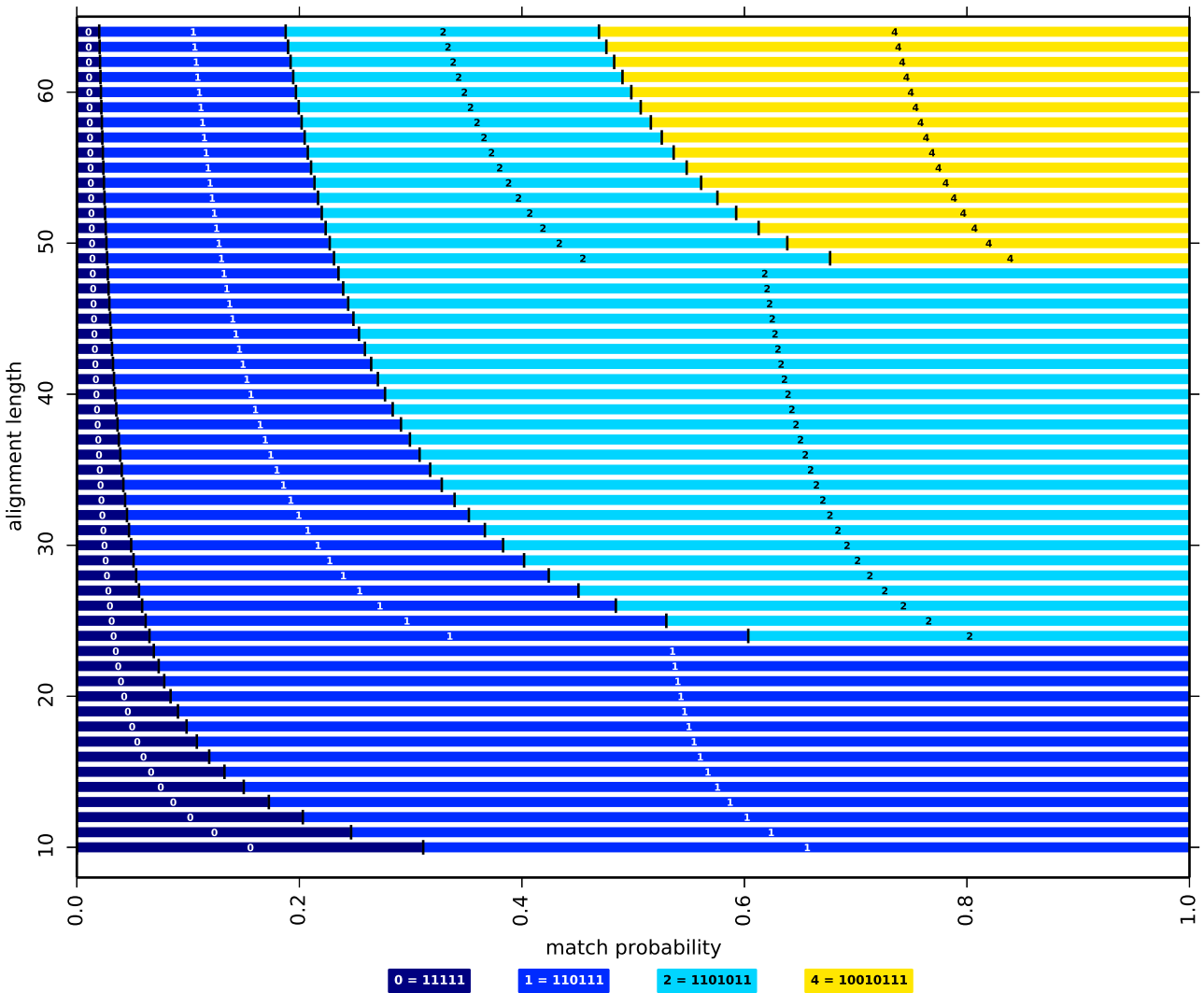
0 = 1111 1 = 11011 2 = 10111 3 = 1010011

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8/9
7/8

Bernoulli (n:1,w:5)



\int_0^x Hit Integration (n:1,w:5)



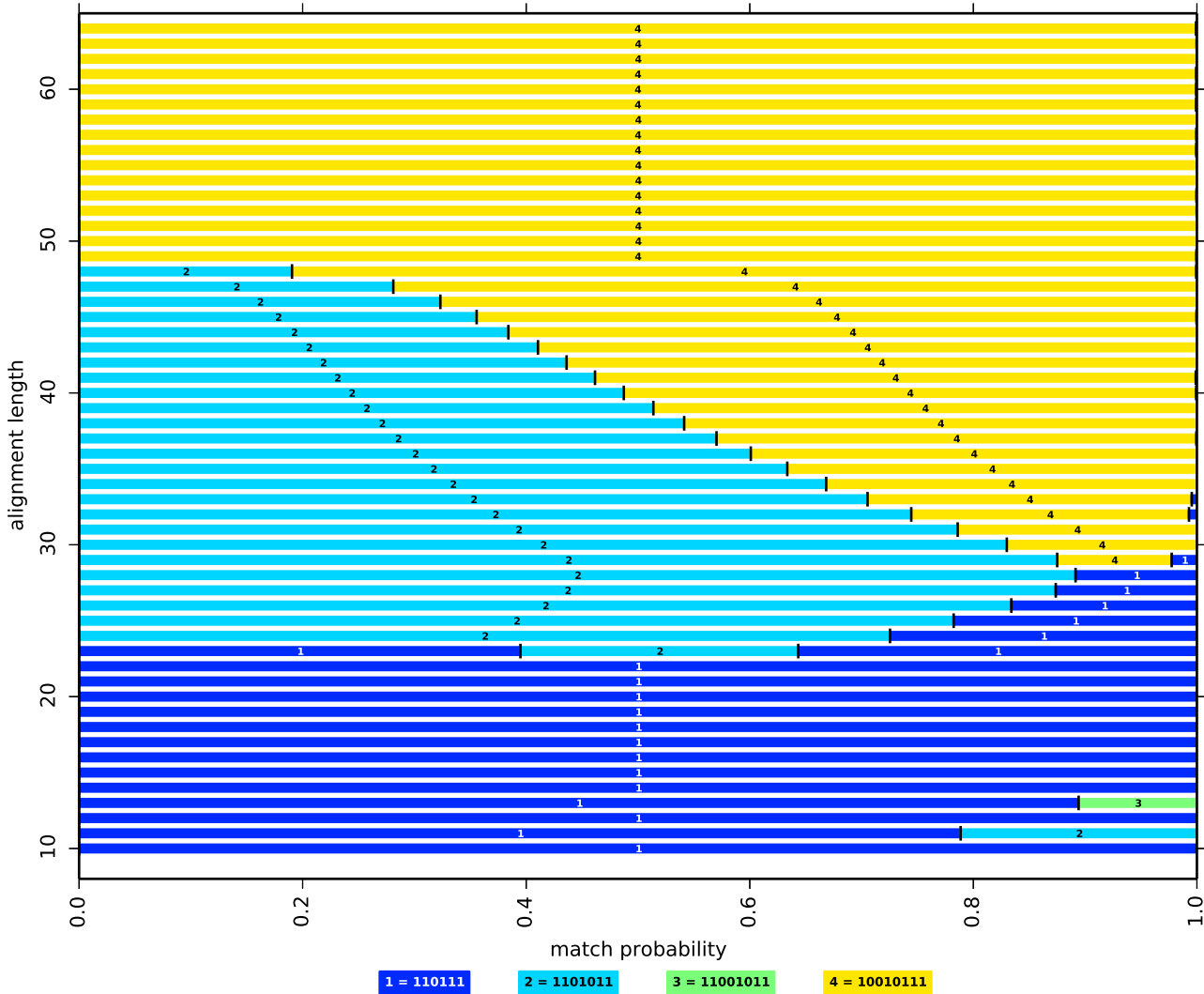
0 = 11111

1 = 110111

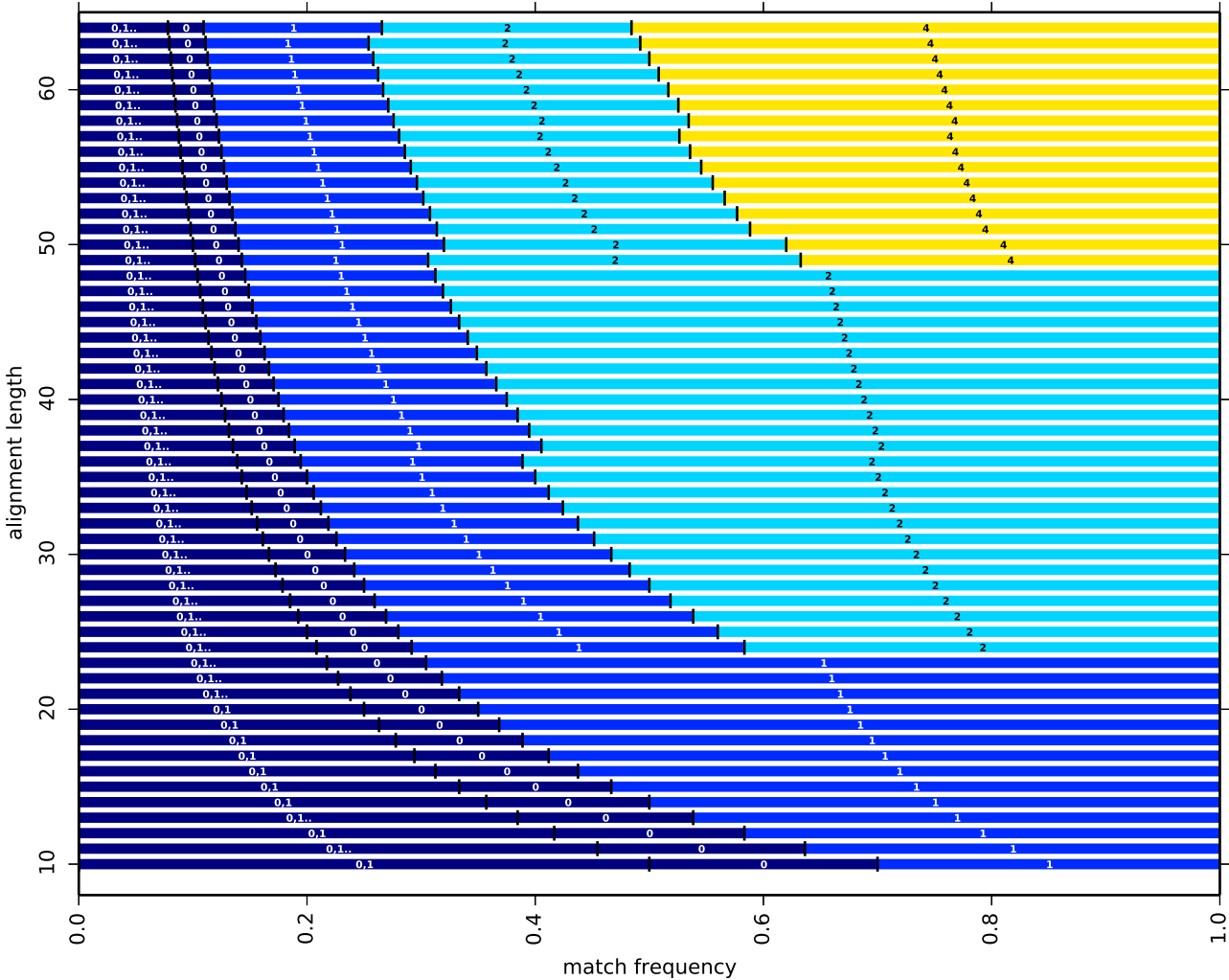
2 = 1101011

4 = 10010111

\int_x^1 Hit Integration (n:1,w:5)

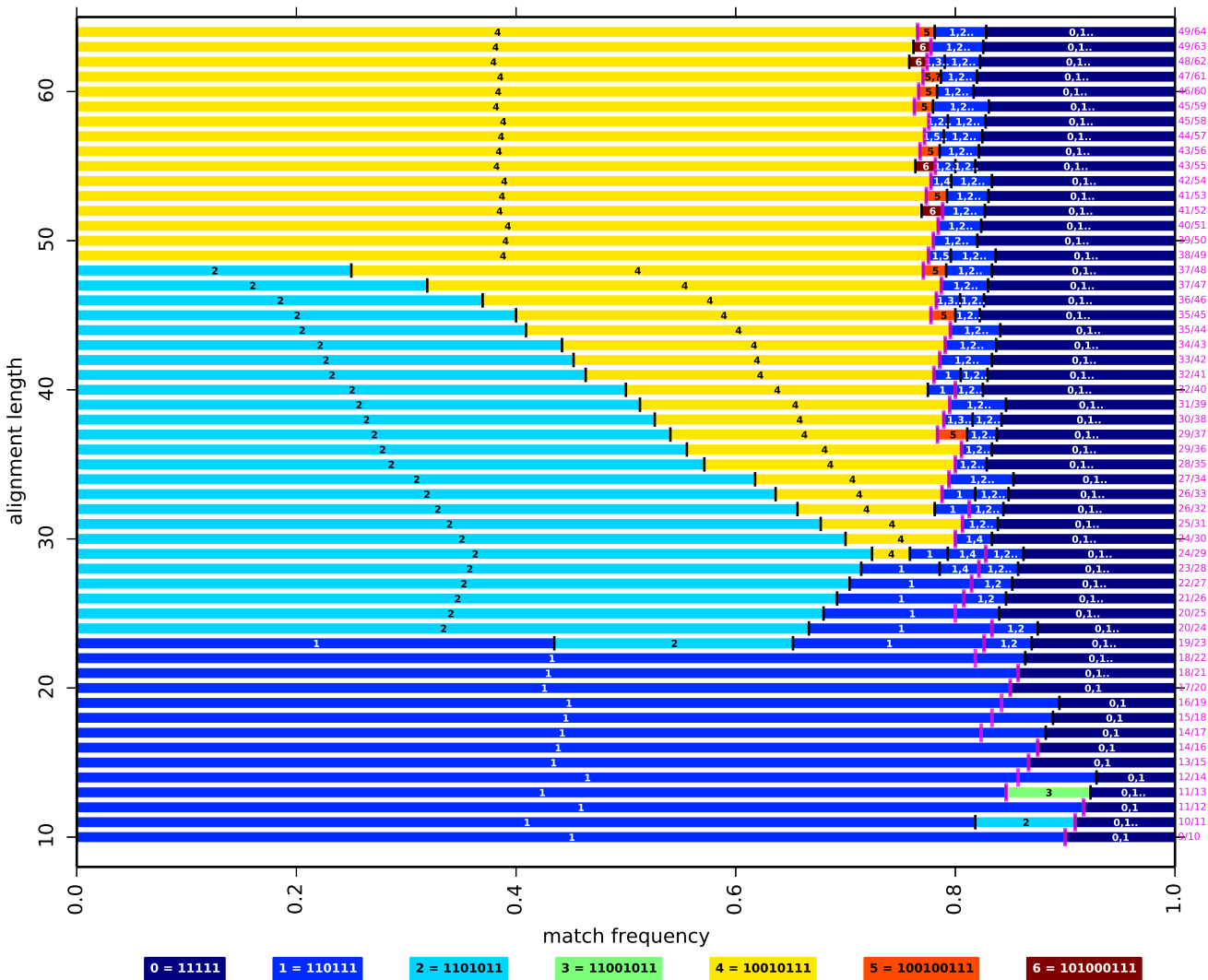


$$\sum_0^x \text{Heaviside}(n:1,w:5)$$

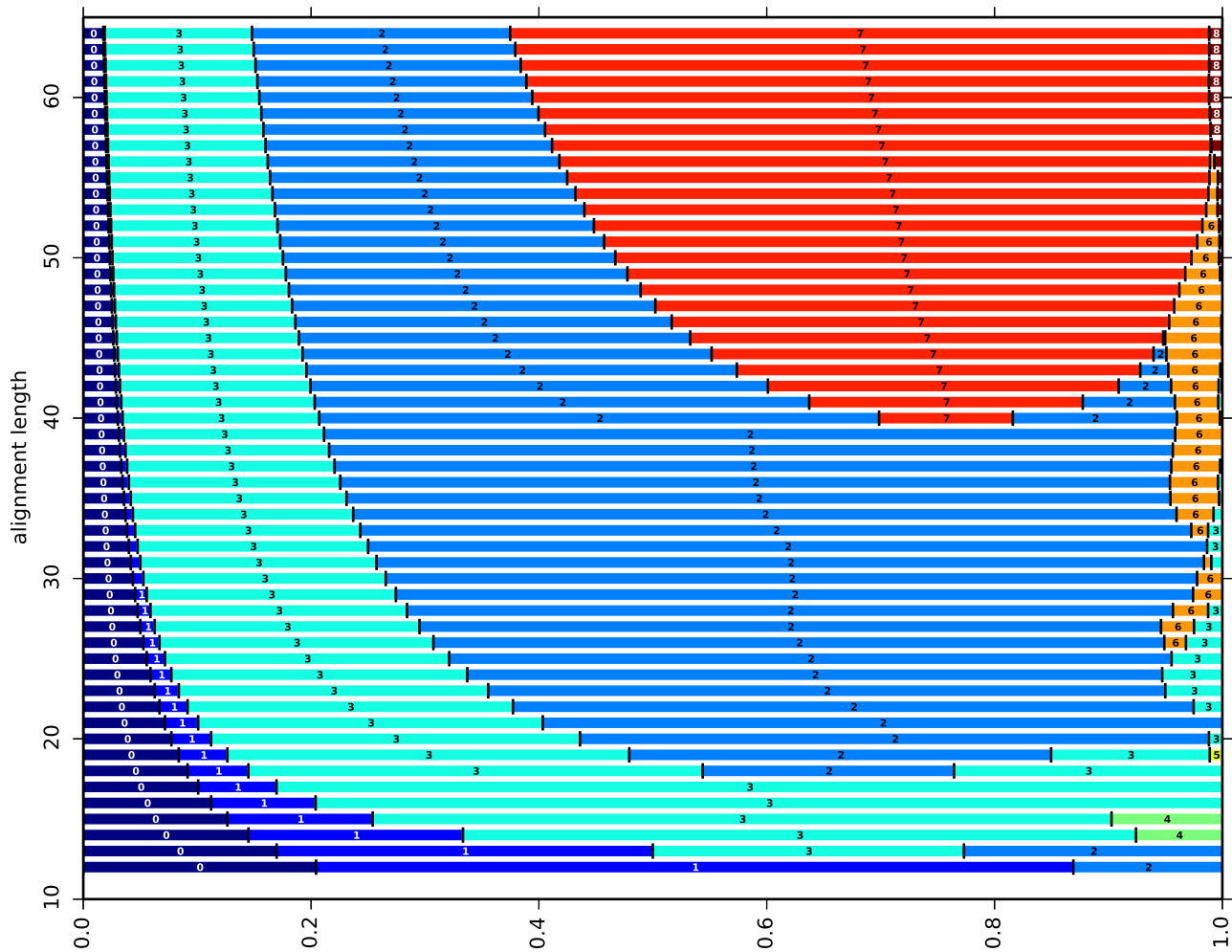


- 0 = 11111
- 1 = 110111
- 2 = 1101011
- 3 = 11001011
- 4 = 10010111
- 5 = 100100111
- 6 = 101000111

$$\sum_x^1 \text{Heaviside}(n:1,w:5)$$



Bernoulli (n:1,w:6)



0 = 111111
1 = 1110111

2 = 11010111

3 = 11011111

4 = 110100111

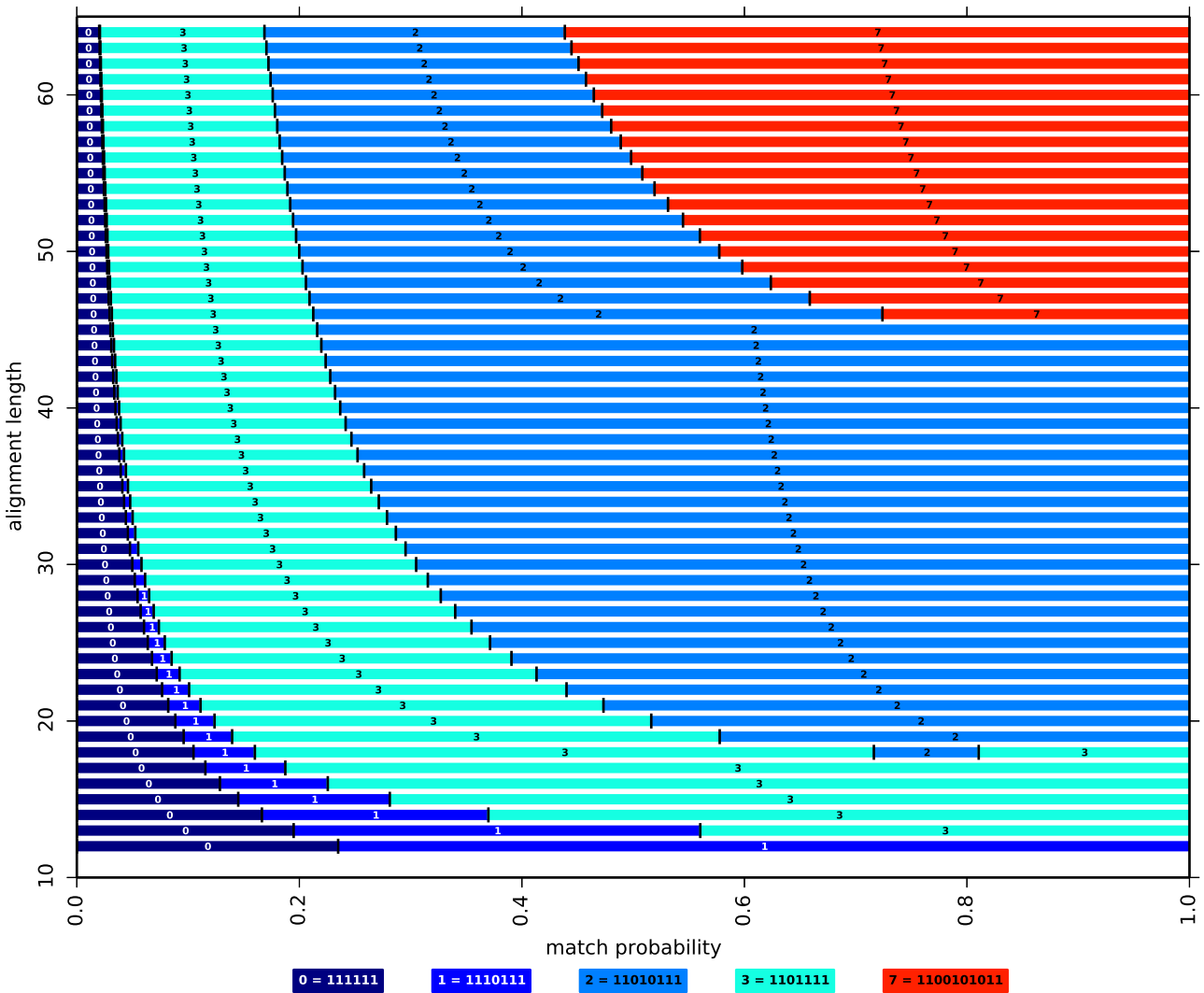
5 = 101110001011

6 = 101110111

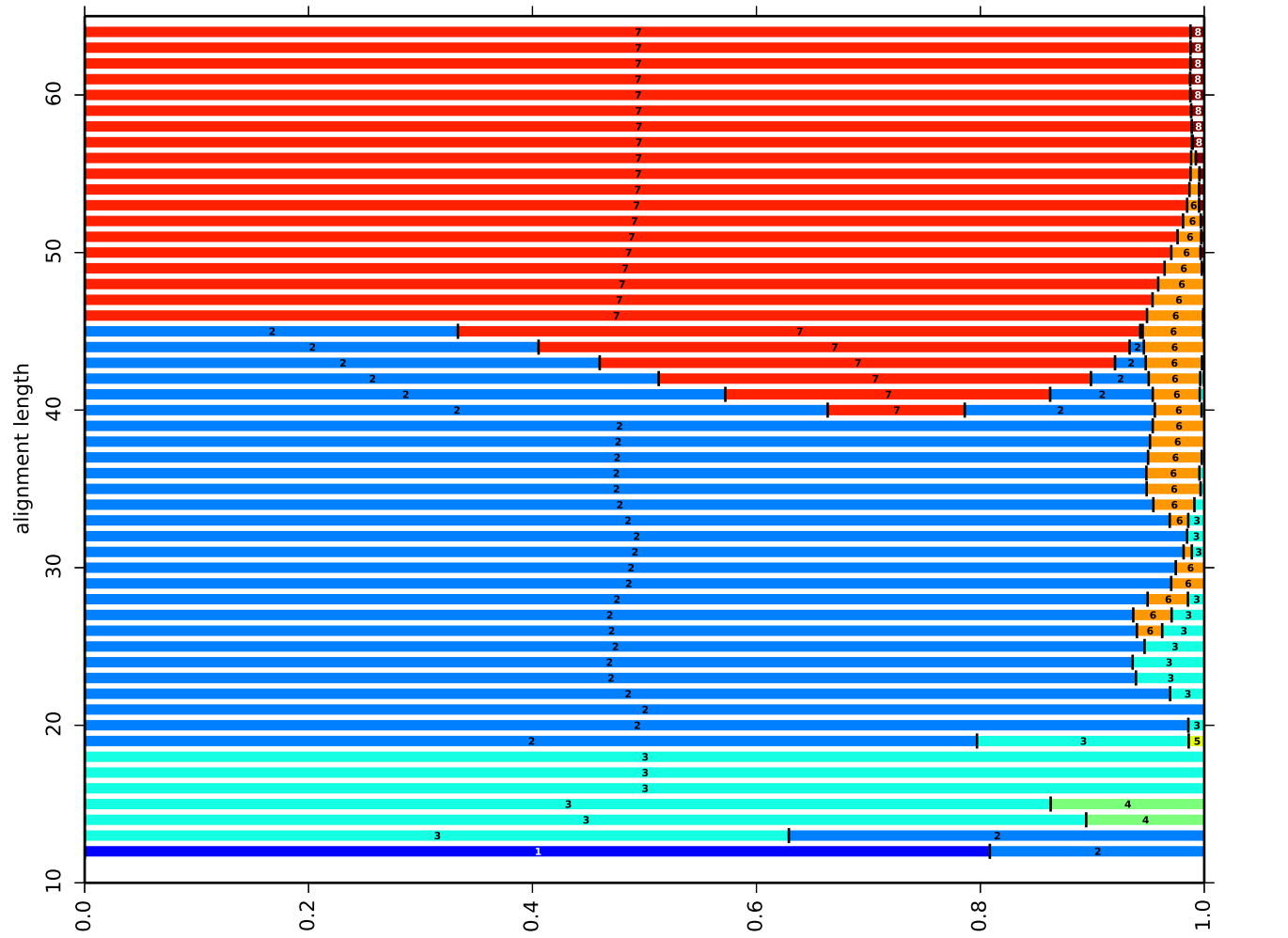
7 = 1100101011

8 = 1001010111

\int_0^x Hit Integration (n:1,w:6)



\int_x^1 Hit Integration (n:1,w:6)



1 = 1110111

2 = 11010111

3 = 11011111

4 = 110100111

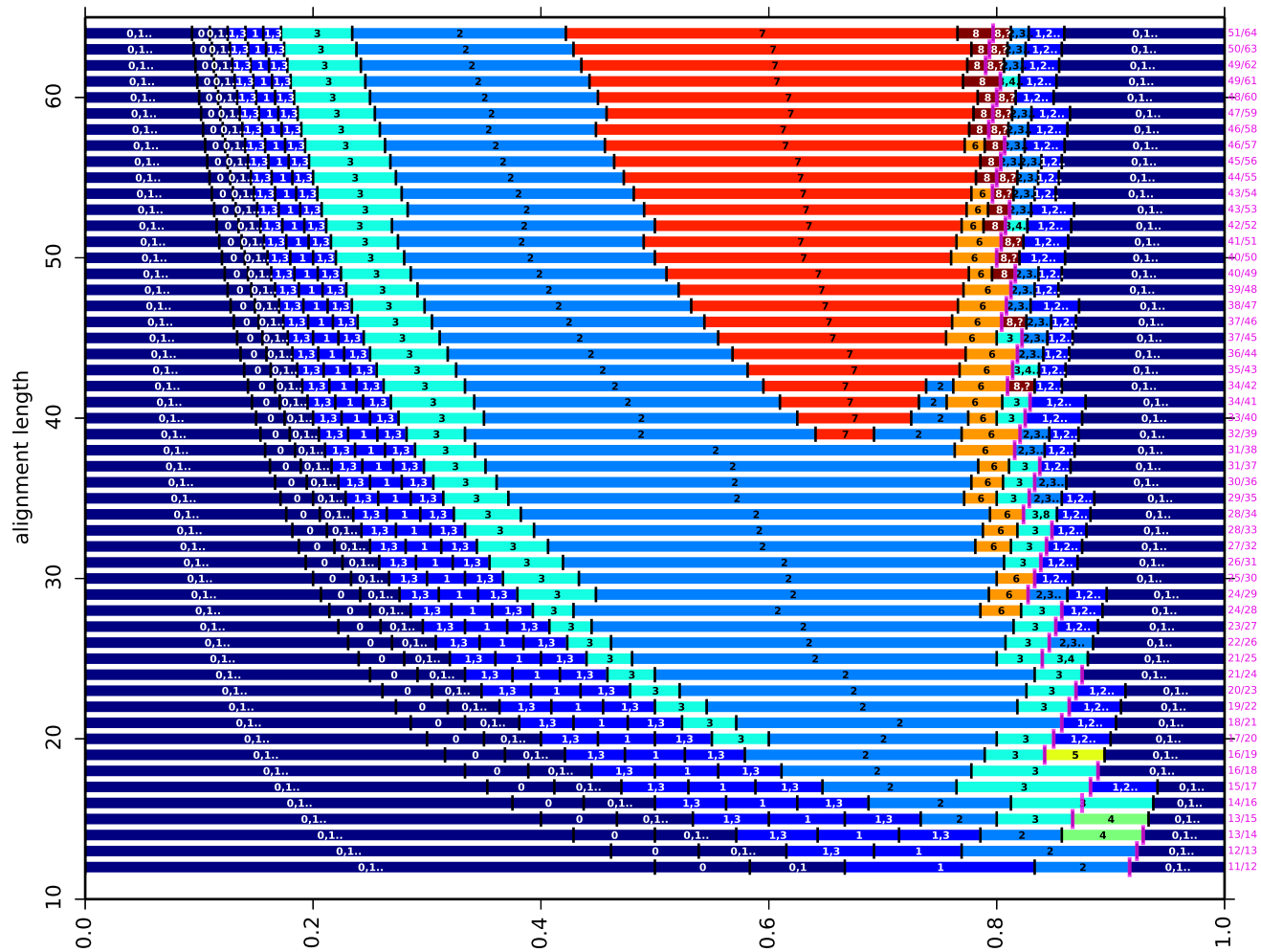
5 = 101100001011

6 = 10110111

7 = 1100101011

8 = 1001010111

Dirac (n:1,w:6)



0 = 111111
1 = 1110111

2 = 11010111

3 = 11011111

4 = 110100111

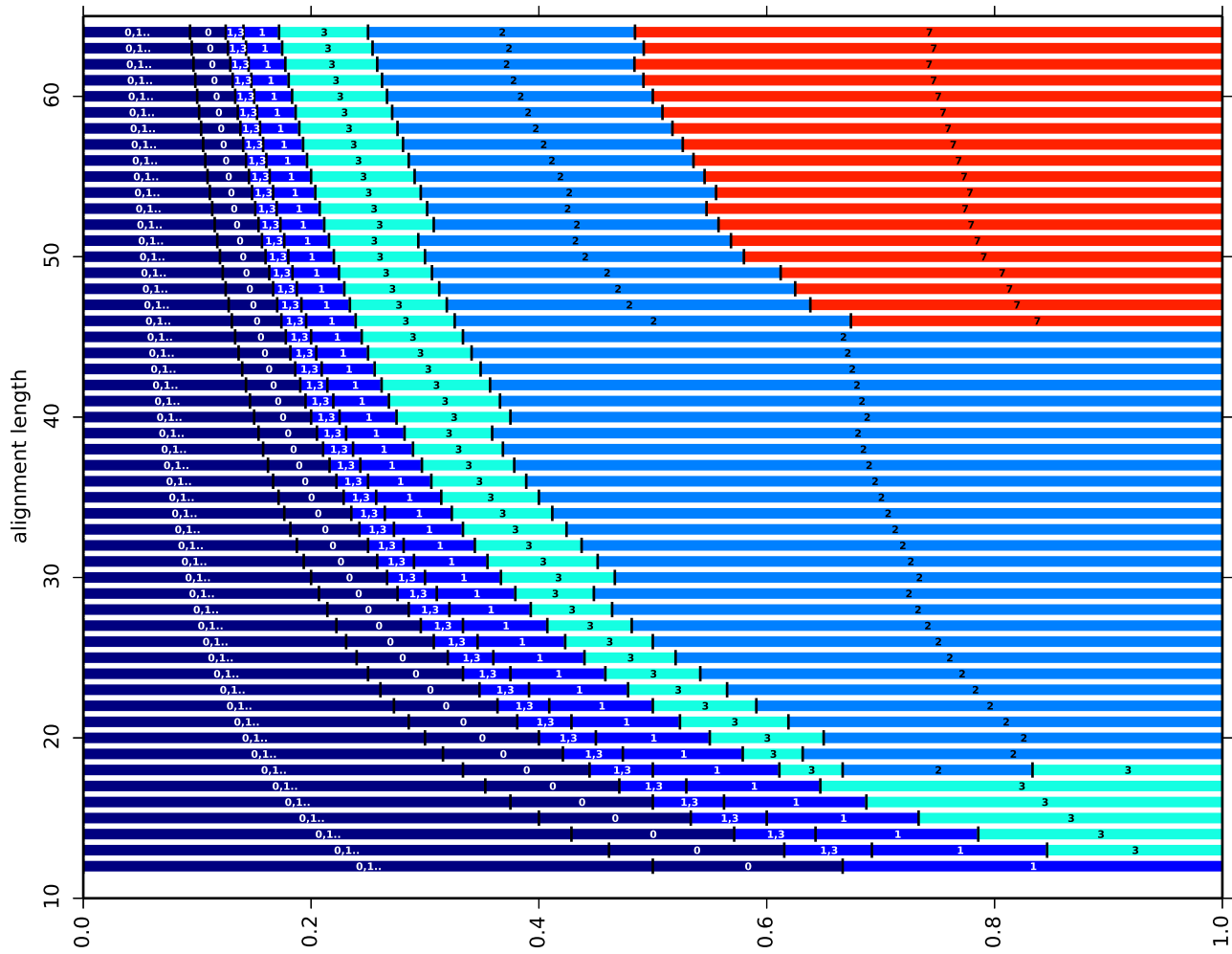
5 = 101100001011

6 = 10110111

7 = 1100101011

8 = 1001010111

$$\sum_0^x \text{Heaviside}(n:1,w:6)$$



0 = 111111
1 = 1110111

2 = 11010111

3 = 11011111

4 = 110100111

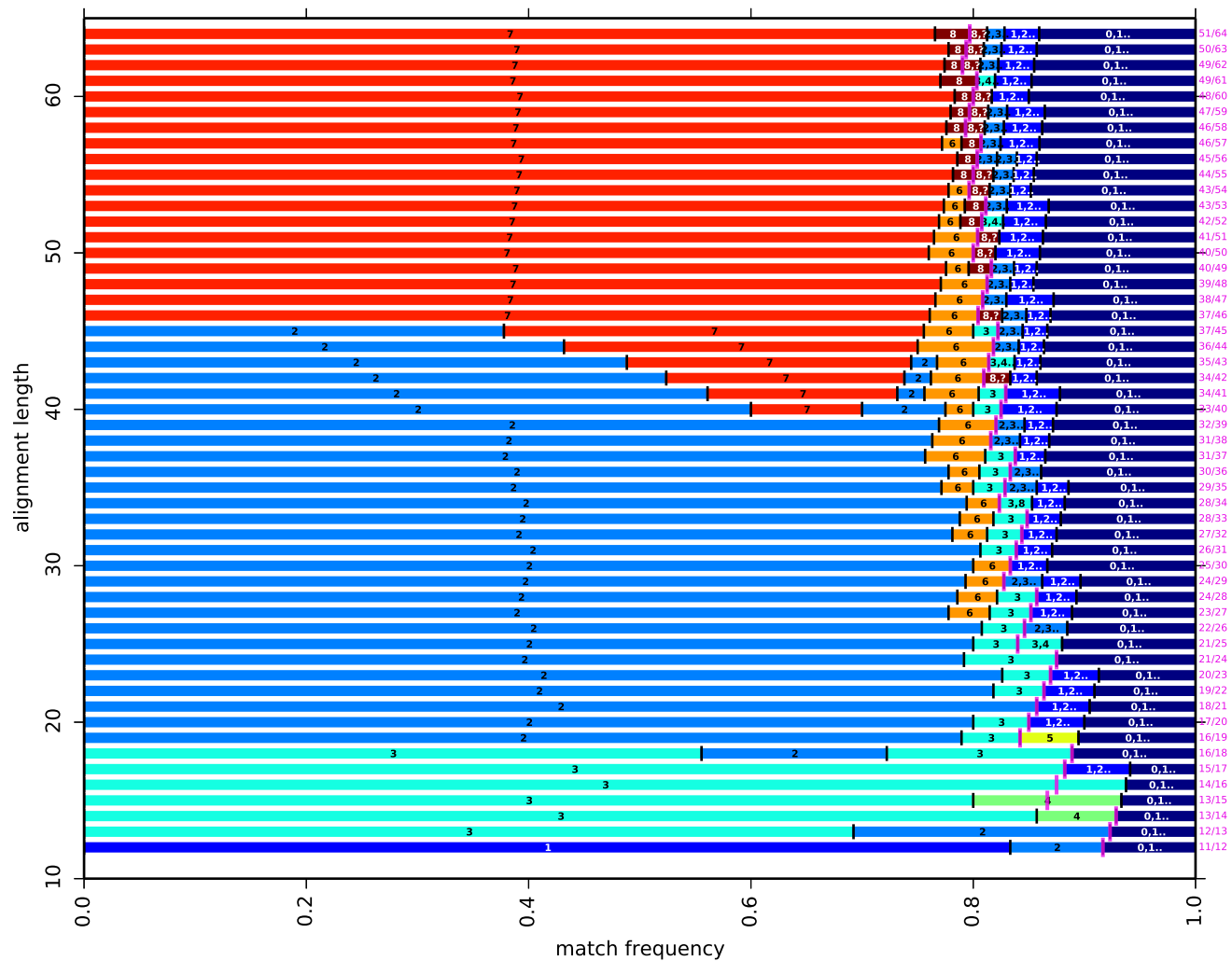
5 = 101110001011

6 = 101110111

7 = 1100101011

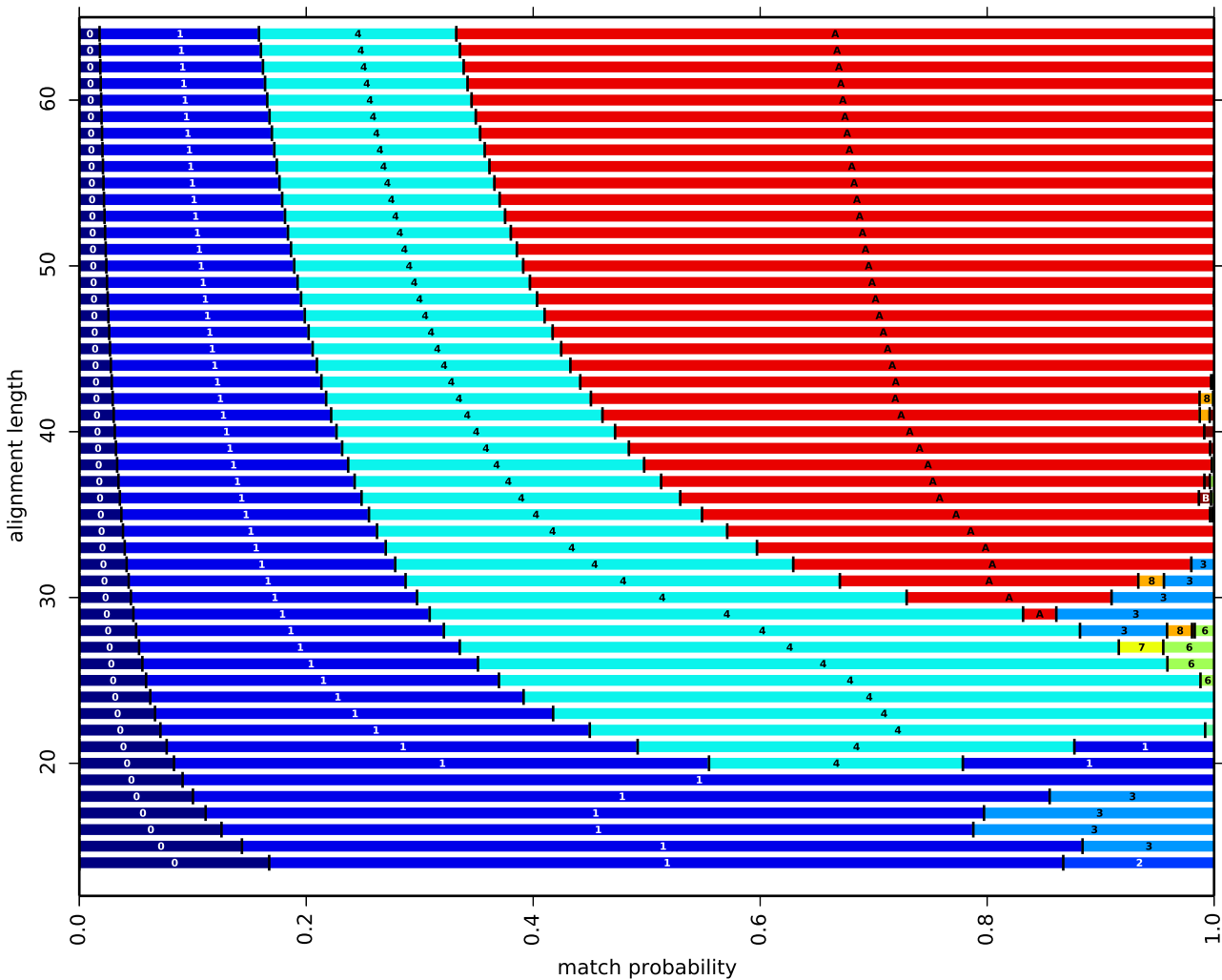
8 = 1001010111

$$\sum_x^1 \text{Heaviside}(n:1,w:6)$$



- 0 = 111111
- 1 = 1110111
- 2 = 11010111
- 3 = 11011111
- 4 = 110100111
- 5 = 101100001011
- 6 = 101101111
- 7 = 1100101011
- 8 = 1001010111

Bernoulli (n:1,w:7)



0 = 1111111
1 = 1110111

2 = 11101011
3 = 111001011

4 = 110110111
6 = 11011111

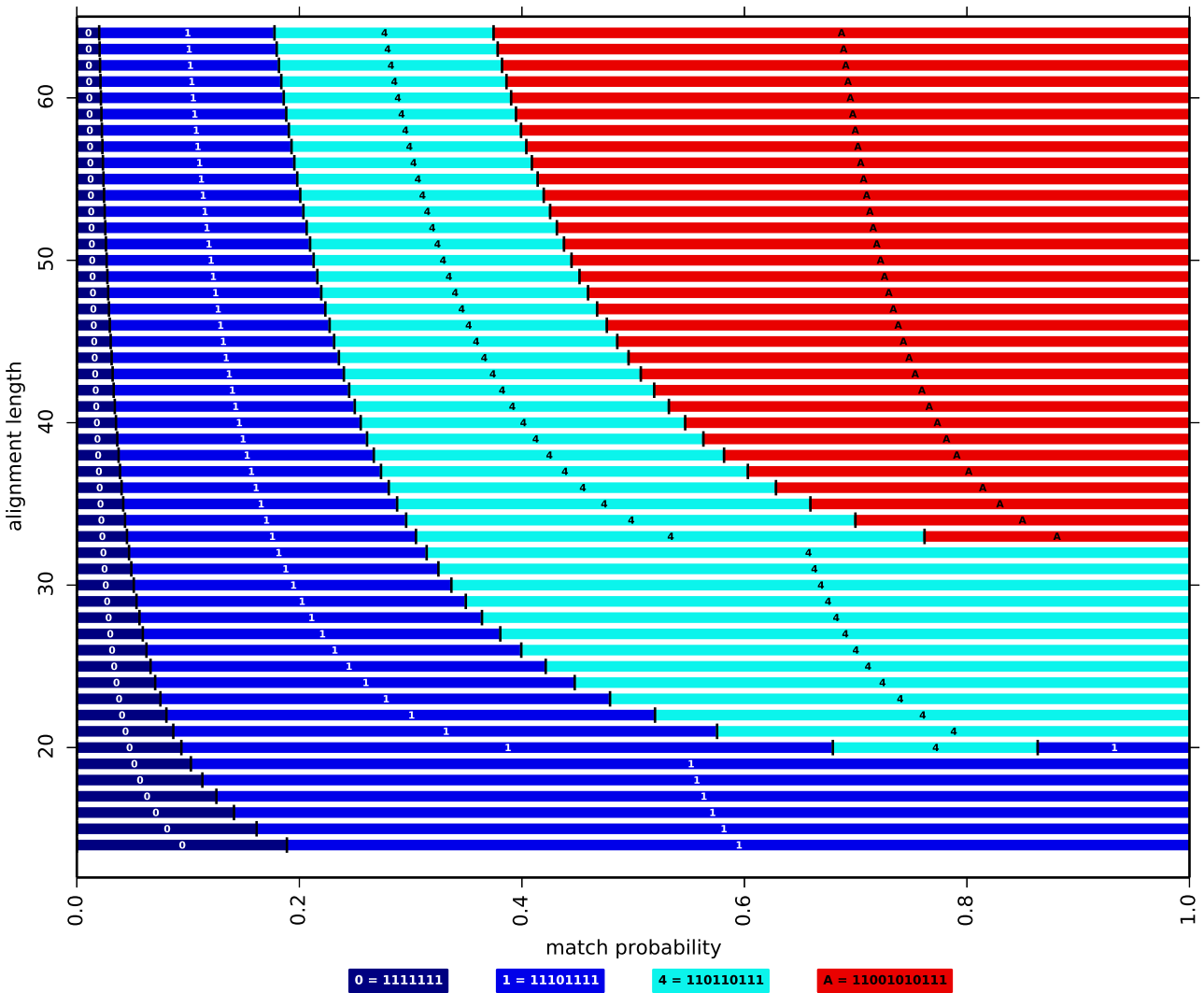
7 = 110101111

8 = 10111001011

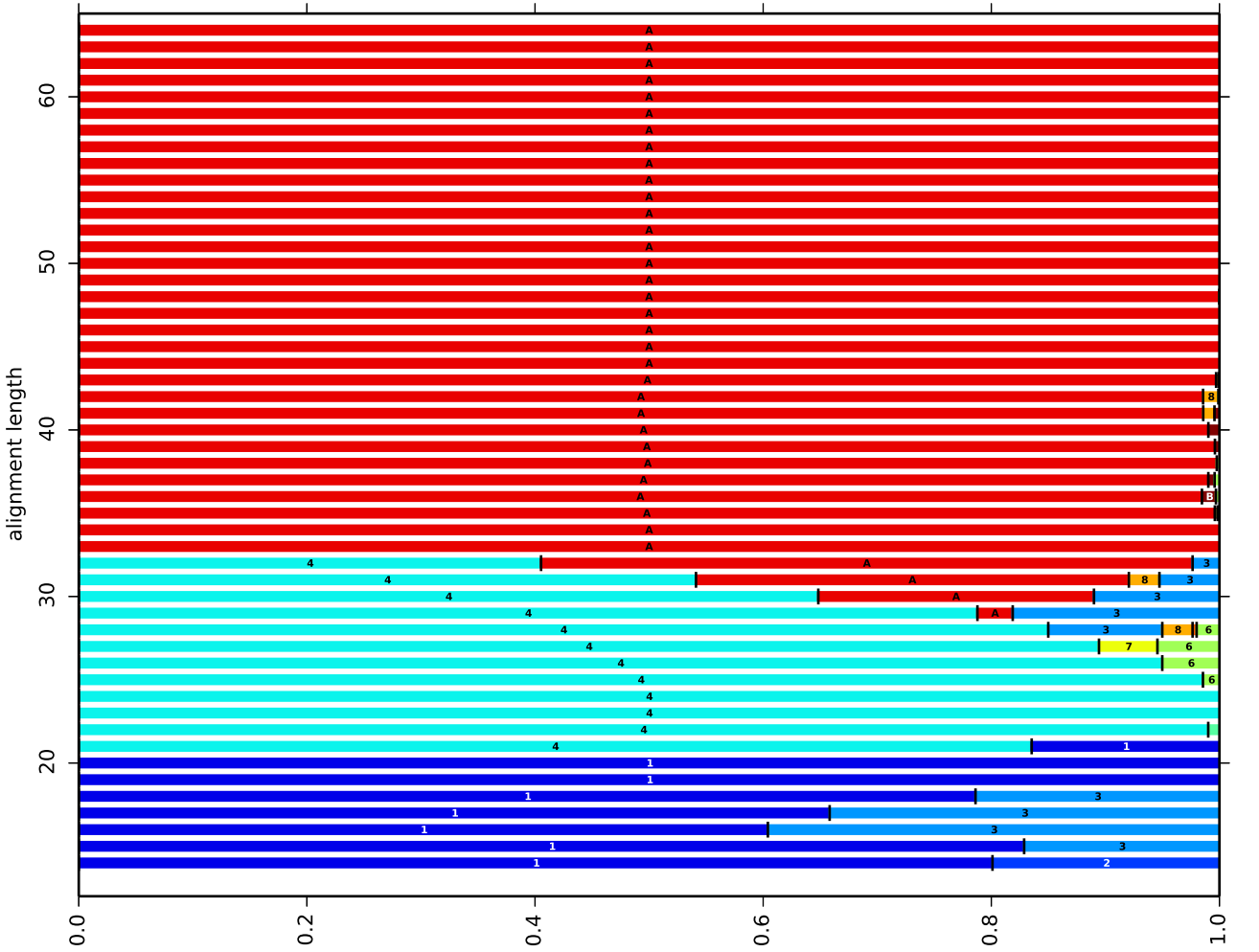
A = 11001010111

B = 10011010111

\int_0^x Hit Integration (n:1,w:7)



\int_x^1 Hit Integration (n:1,w:7)



1 = 11101111
2 = 111010111

3 = 1110010111
4 = 110110111

6 = 11011111

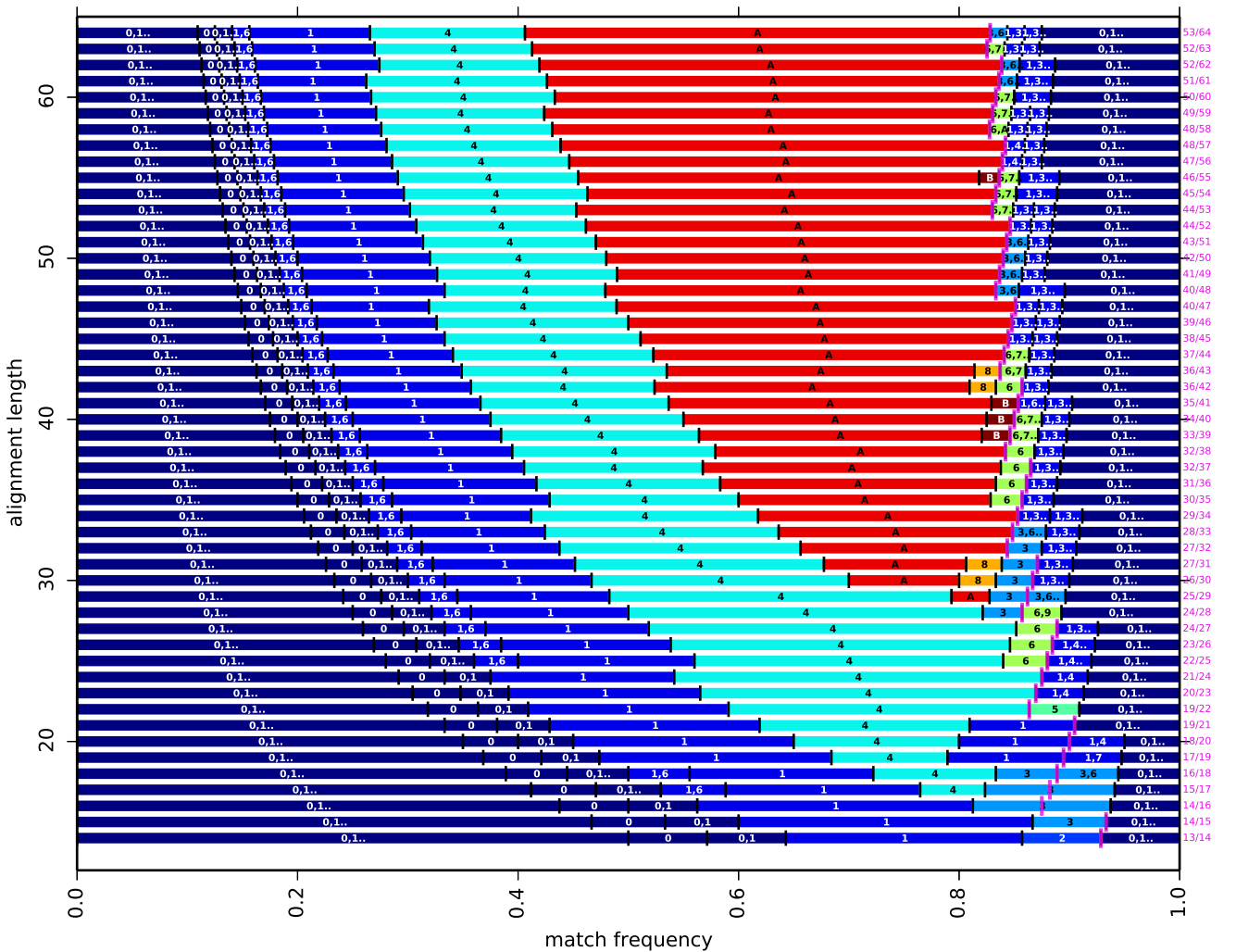
7 = 110101111

8 = 10111001011

A = 11001010111

B = 10011010111

Dirac (n:1,w:7)



0 = 1111111
1 = 11101111

2 = 111010111
3 = 1110010111

4 = 110110111
5 = 1110000100111

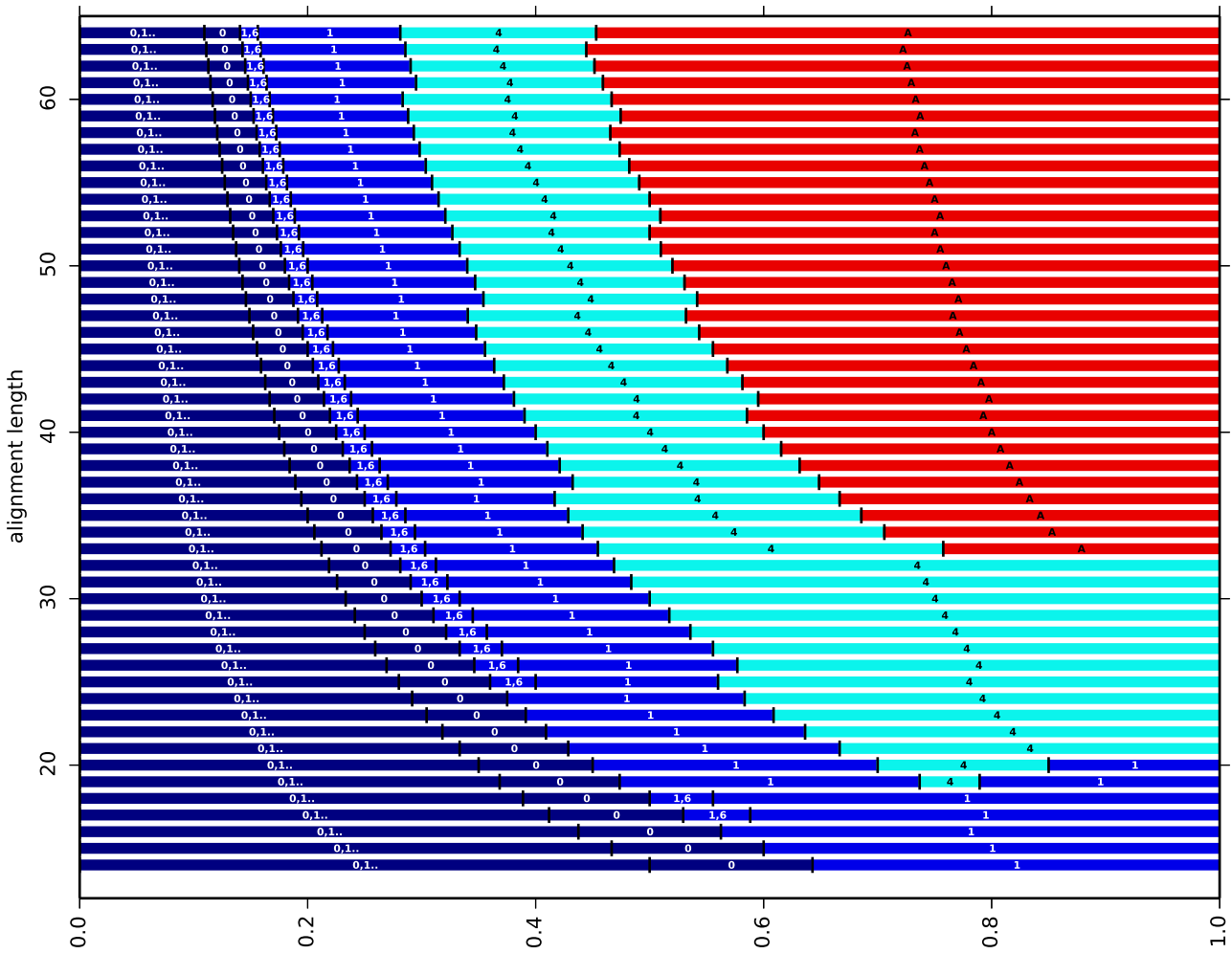
6 = 110111111
7 = 110101111

8 = 10111001011
9 = 10110010111

A = 11001010111

B = 10011010111

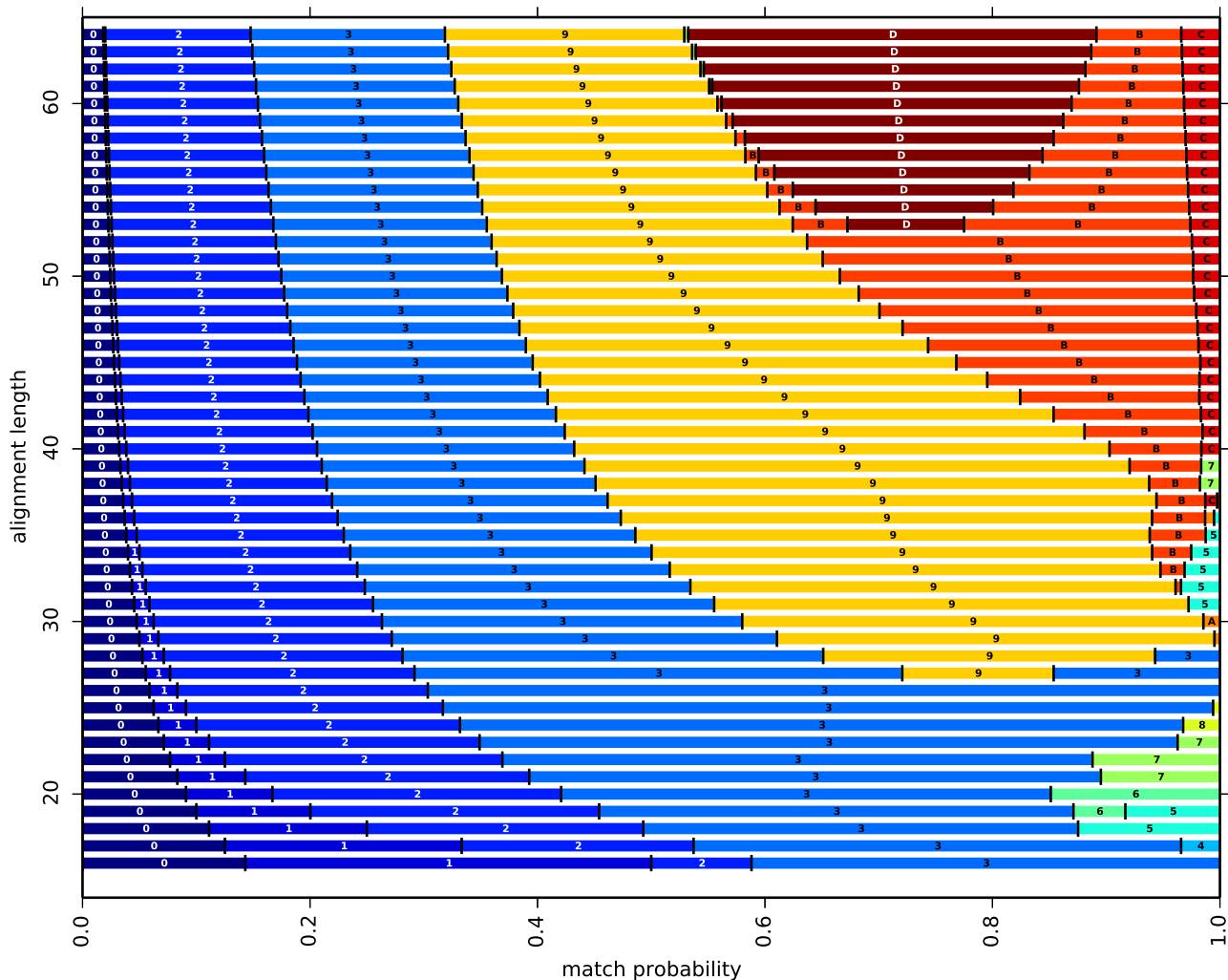
$$\sum_0^x \text{Heaviside}(n:1,w:7)$$



match frequency

- 0 = 1111111
- 1 = 11101111
- 2 = 111010111
- 3 = 1110010111
- 4 = 110110111
- 5 = 1110000100111
- 6 = 110111111
- 7 = 110101111
- 8 = 10111001011
- 9 = 10110010111
- A = 11001010111
- B = 10011010111

Bernoulli (n:1,w:8)



0 = 11111111
1 = 111101111

2 = 111011111
3 = 1110110111

4 = 11101001111
5 = 101110010111

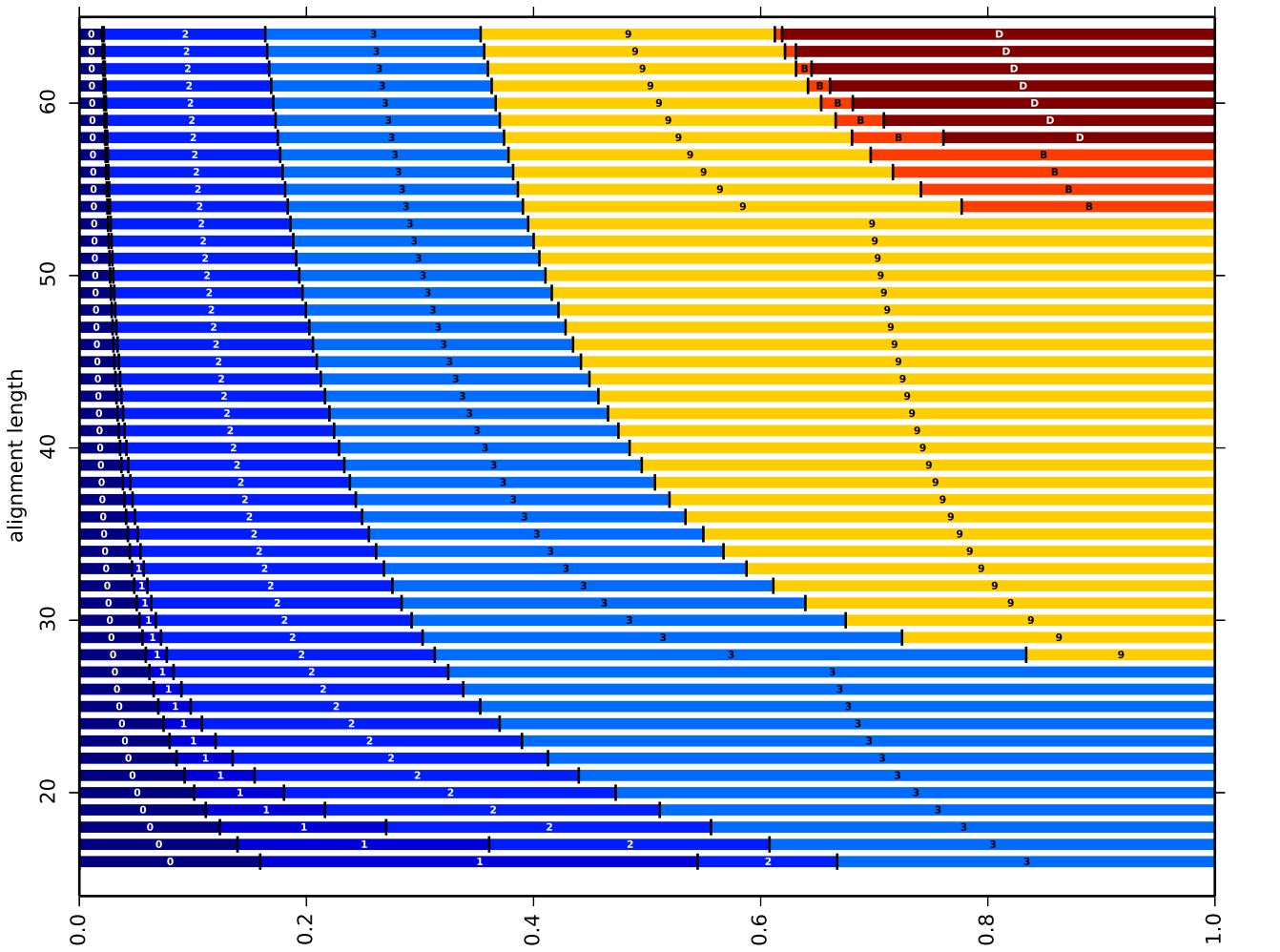
6 = 111010010111
7 = 1110010010111

8 = 11100010010111
9 = 11011010111

A = 1011101111
B = 110010101111

C = 100110101111
D = 11001001010111

\int_0^x Hit Integration (n:1,w:8)



0 = 11111111

1 = 111101111

2 = 111011111

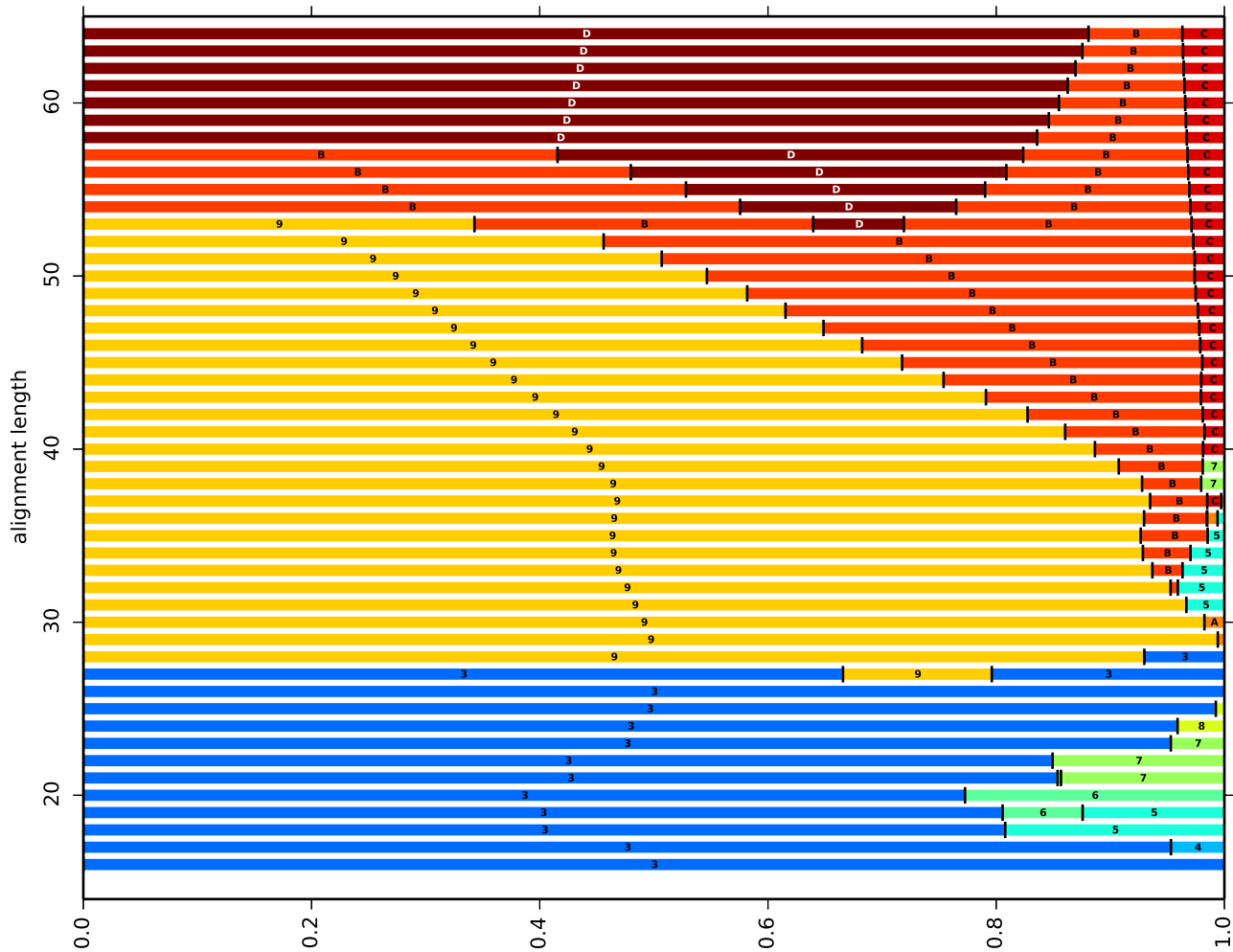
3 = 1110110111

9 = 11011010111

B = 110010101111

D = 11001001010111

\int_x^1 Hit Integration (n:1,w:8)



3 = 1110110111
4 = 1110100111

5 = 101110010111
6 = 111010010111

7 = 1110010010111
8 = 11100010010111

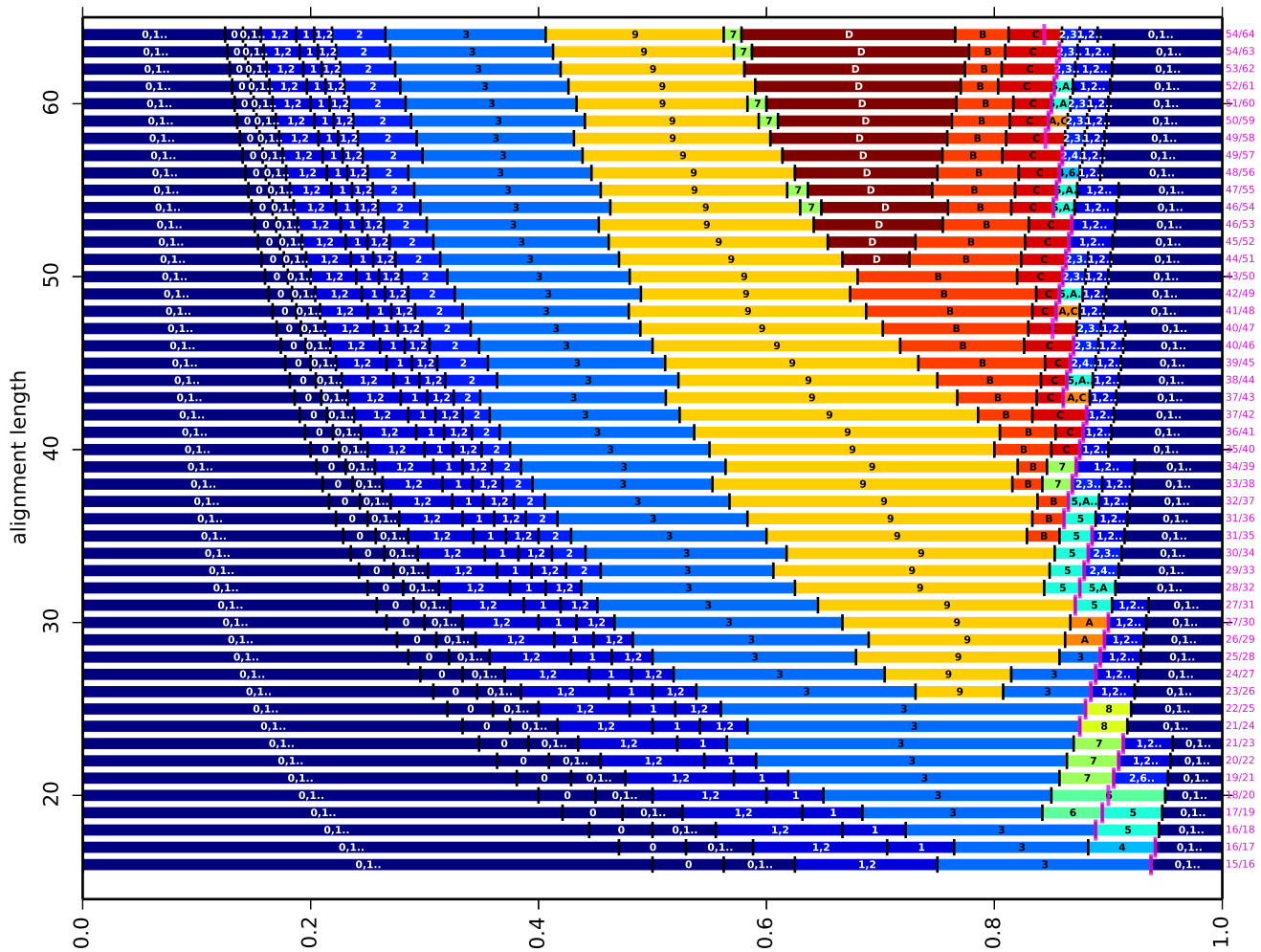
9 = 11011010111
A = 101110111

B = 110010101111

C = 100110101111

D = 11001001010111

Dirac (n:1,w:8)



0 = 11111111
1 = 111101111

2 = 111011111
3 = 1110110111

4 = 11101001111
5 = 101110010111

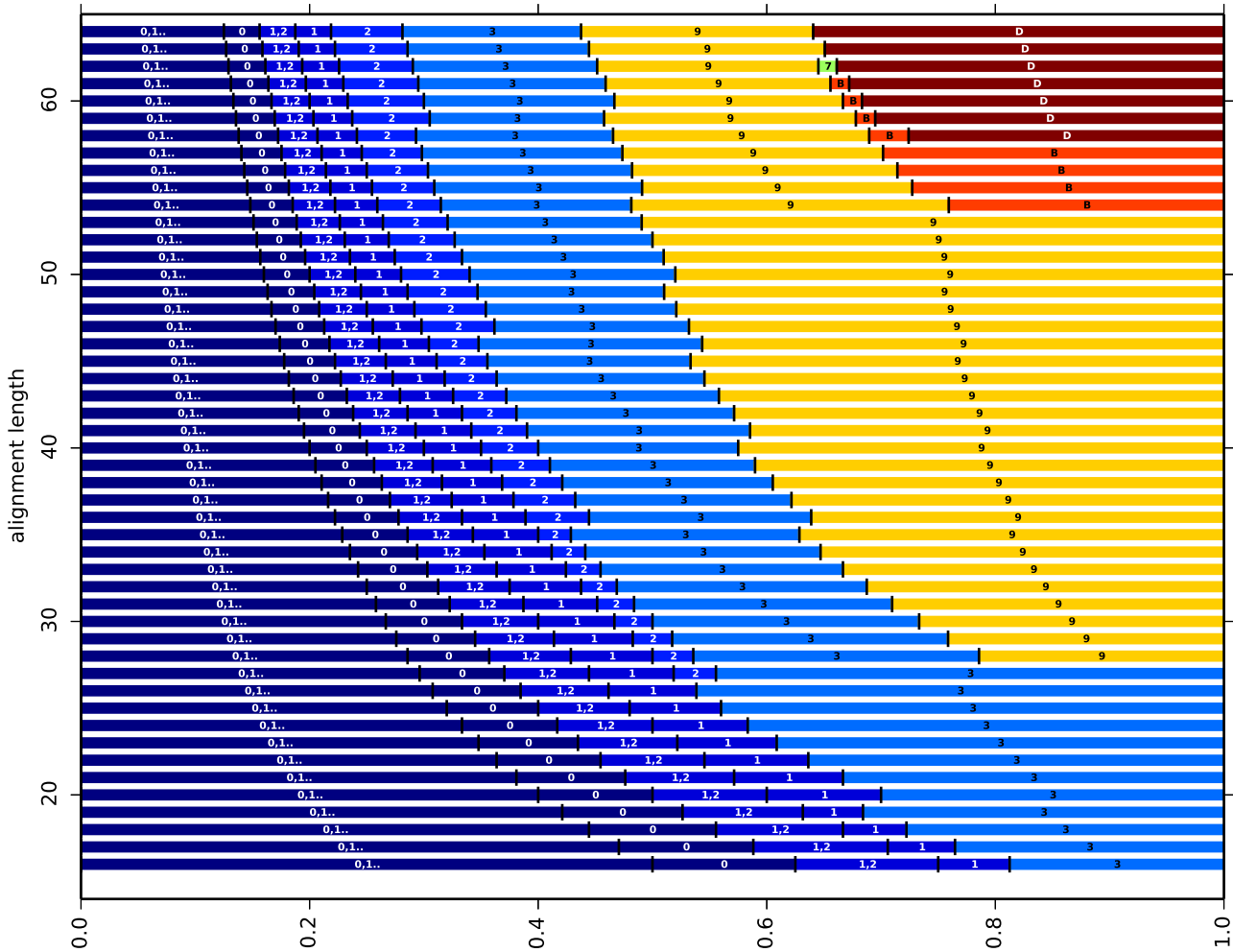
6 = 111010010111
7 = 1110010010111

8 = 11100010010111
9 = 11011010111

A = 1011101111
B = 110010101111

C = 100110101111
D = 11001001010111

$$\sum_0^x \text{Heaviside}(n:1,w:8)$$



0 = 11111111
1 = 111101111

2 = 111011111
3 = 1110110111

4 = 11101001111
5 = 101110010111

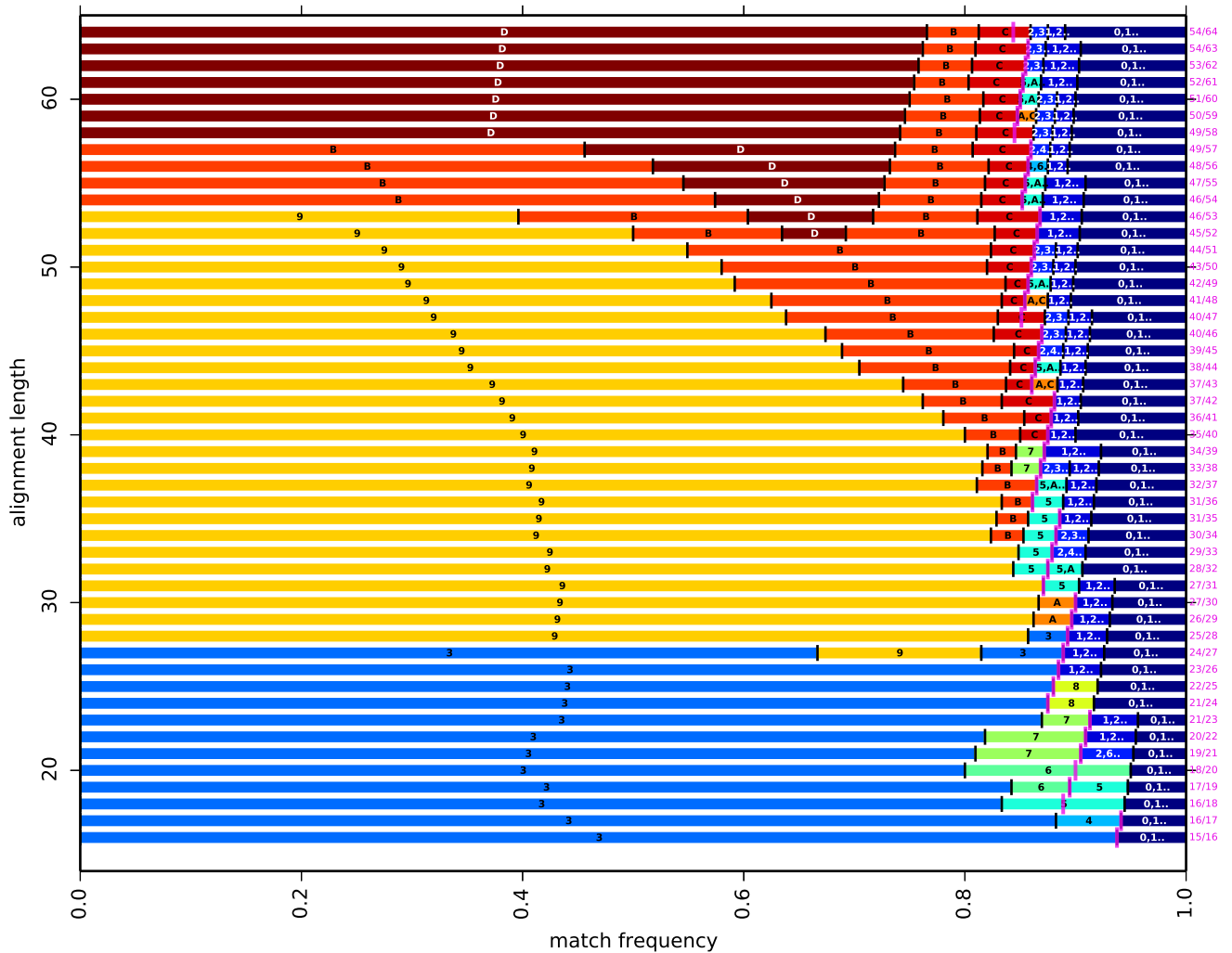
6 = 111010010111
7 = 1110010010111

8 = 11100010010111
9 = 11011010111

A = 1011101111
B = 110010101111

C = 100110101111
D = 11001001010111

$$\sum_x^1 \text{Heaviside}(n:1,w:8)$$



0 = 11111111
1 = 111101111

2 = 111011111
3 = 1110110111

4 = 11101001111
5 = 101110010111

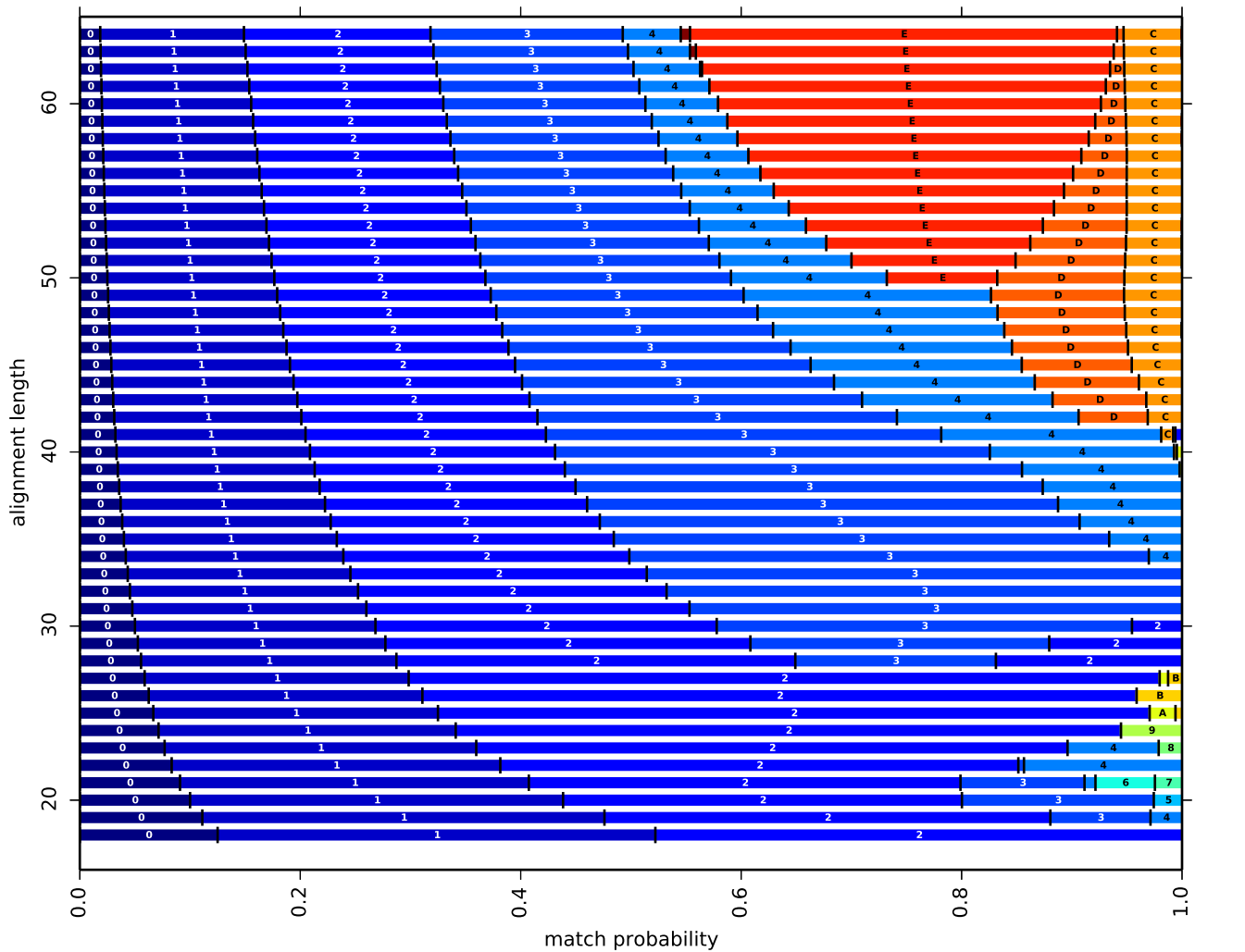
6 = 111010010111
7 = 1110010010111

8 = 11100010010111
9 = 11011010111

A = 1011101111
B = 110010101111

C = 100110101111
D = 11001001010111

Bernoulli (n:1,w:9)



0 = 111111111
 1 = 111101111
 2 = 1110110111

3 = 11101011011
 4 = 1110010110111
 5 = 1011110010111

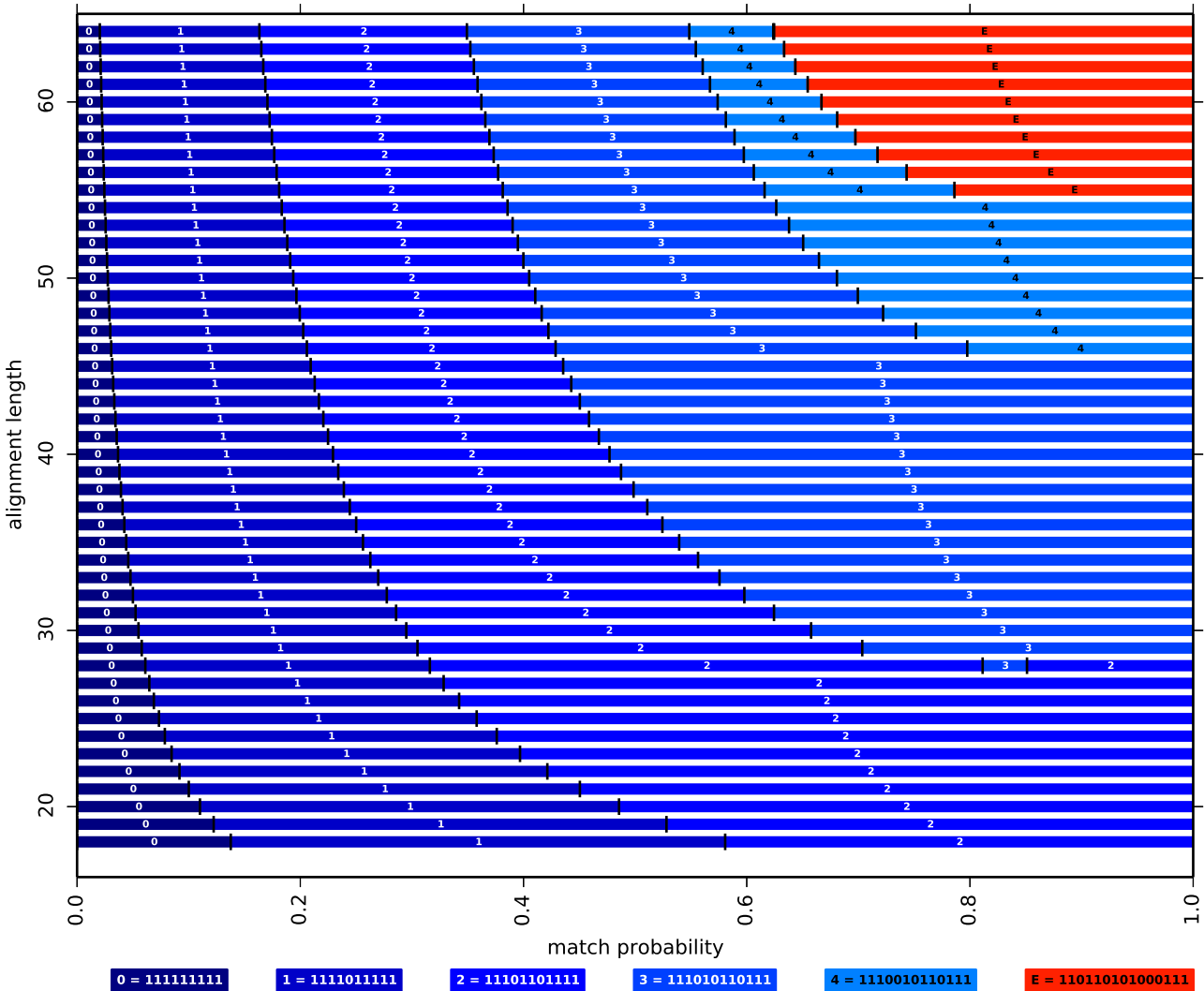
6 = 1110101001111
 7 = 1111001001111
 8 = 11101001001111

9 = 101110010010111
 A = 11011101111

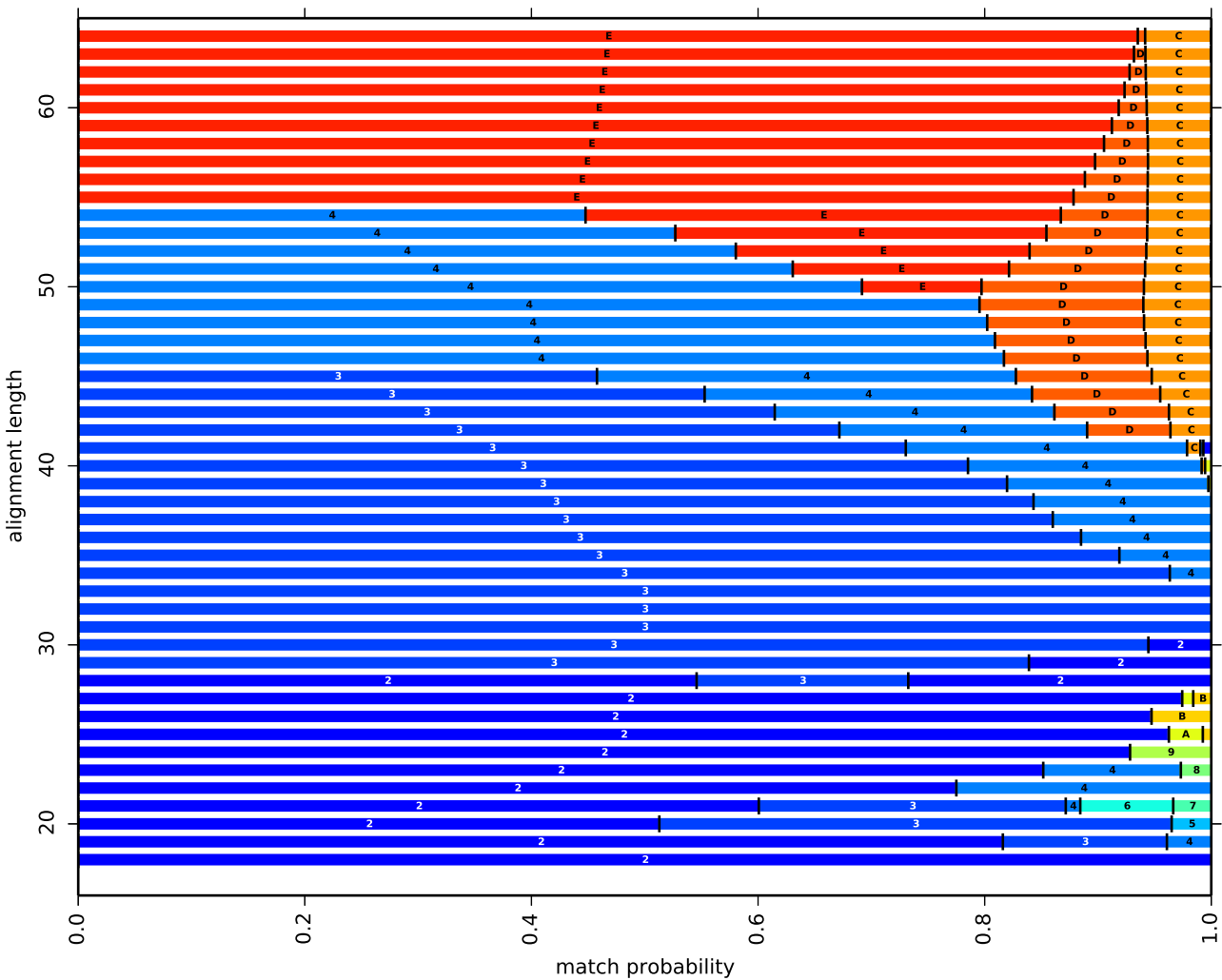
B = 1011100010010111
 C = 1101001110111

D = 1100110101111
 E = 110110101000111

\int_0^x Hit Integration (n:1,w:9)



\int_x^1 Hit Integration (n:1,w:9)



2 = 11101101111
3 = 111010110111
4 = 1110010110111

5 = 1011110010111
6 = 1110101001111

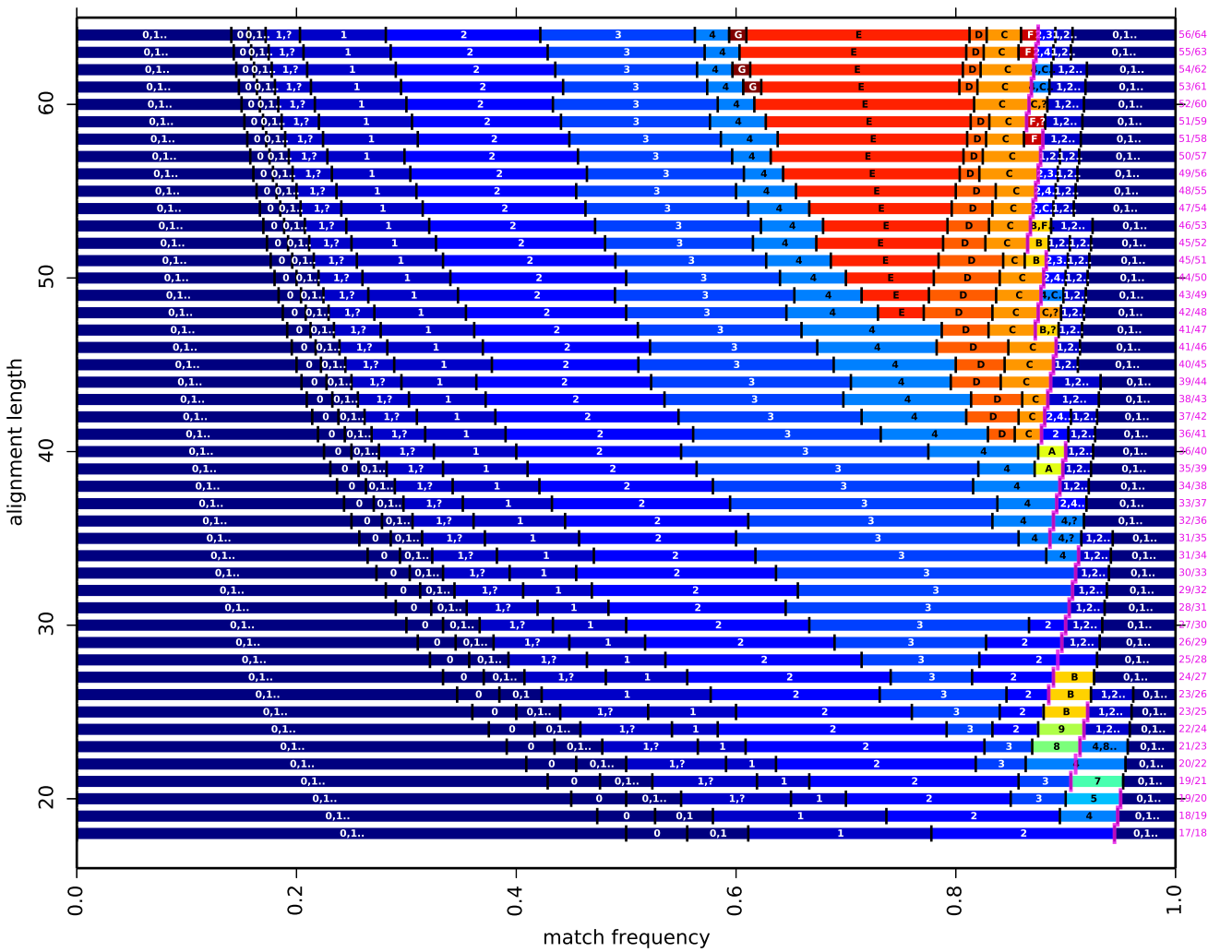
7 = 1111001001111
8 = 11101001001111

9 = 101110010010111
A = 11011101111

B = 1011100010010111
C = 1101001110111

D = 1100110101111
E = 110110101000111

Dirac (n:1,w:9)



0 = 1111111111
1 = 1111011111
2 = 11101101111

3 = 111010110111
4 = 1110010110111
5 = 1011110010111

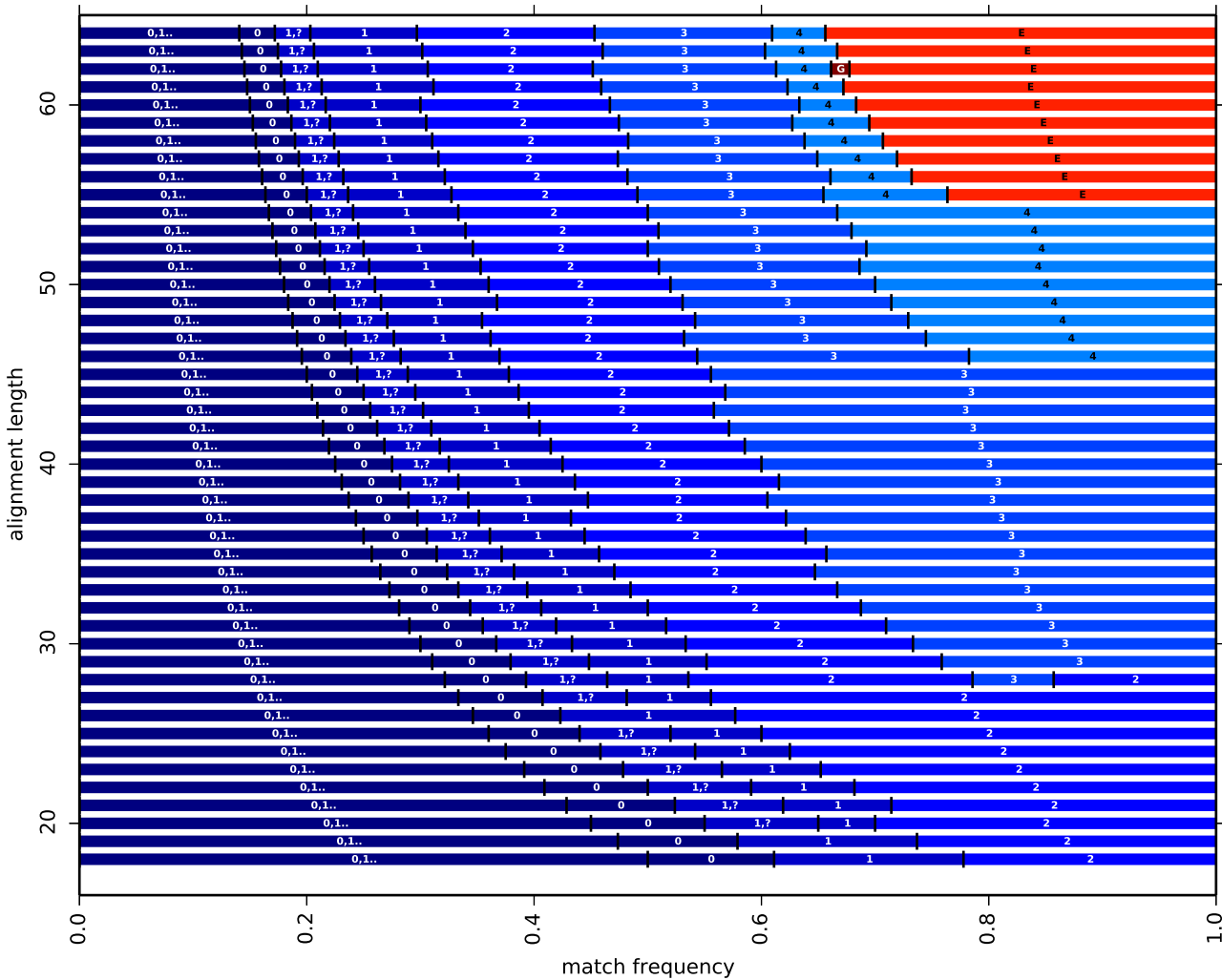
6 = 1110101001111
7 = 1111001001111
8 = 11101001001111

9 = 101110010010111
A = 110111011111
B = 1011100010010111

C = 11010011101111
D = 11001101011111
E = 110110101000111

F = 10001101011111
G = 110110101001111

$$\sum_0^x \text{Heaviside}(n:1,w:9)$$



0 = 111111111
 1 = 111101111
 2 = 1110110111

3 = 111010110111
 4 = 1110010110111
 5 = 1011110010111

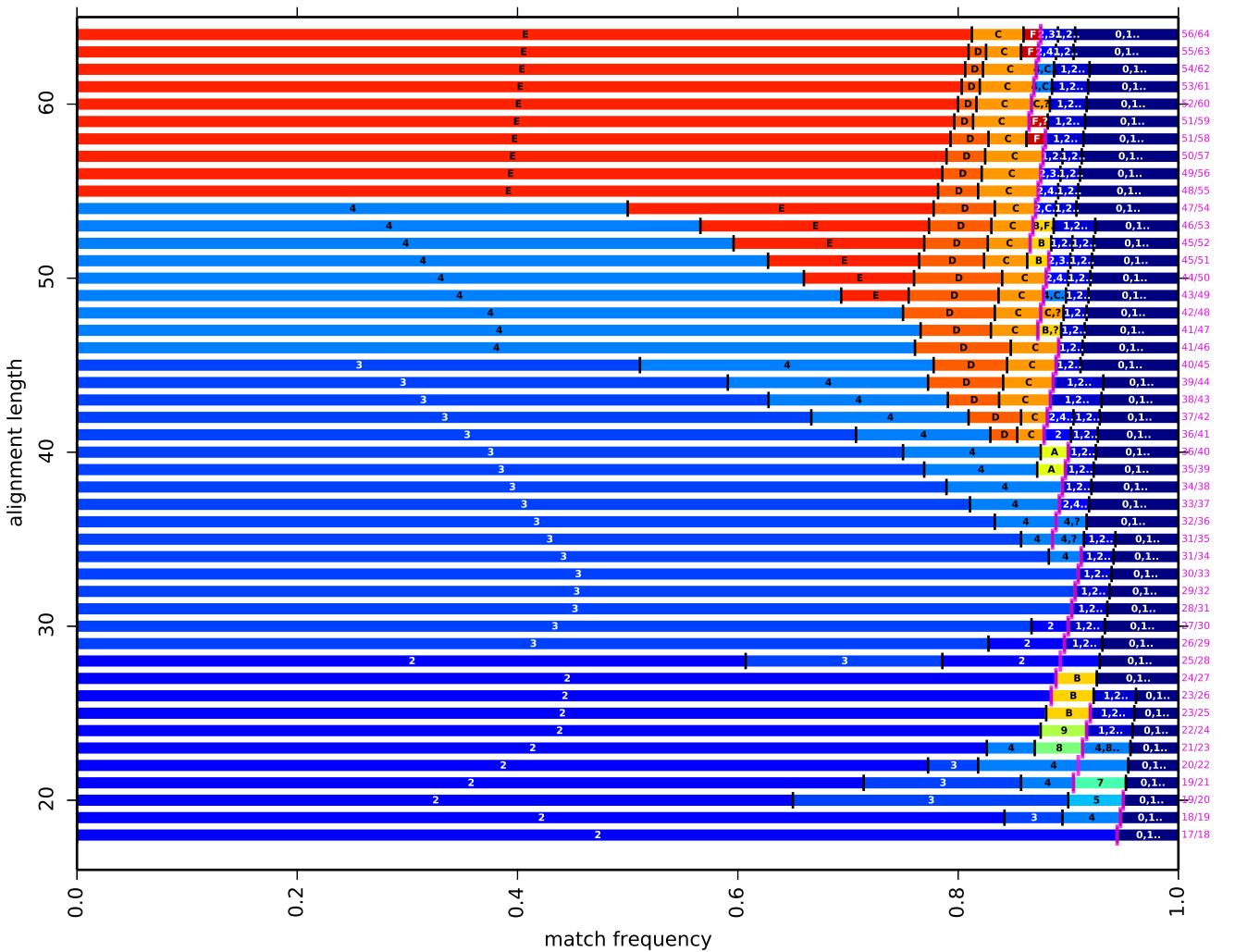
6 = 1110101001111
 7 = 1111001001111
 8 = 11101001001111

9 = 101110010010111
 A = 11011101111
 B = 1011100010010111

C = 1101001110111
 D = 1100110101111
 E = 110110101000111

F = 1000110101111
 G = 11011010100111

$$\sum_x^1 \text{Heaviside}(n:1,w:9)$$



0 = 111111111
1 = 111101111
2 = 111011011

3 = 11101010111
4 = 1110010110111
5 = 1011110010111

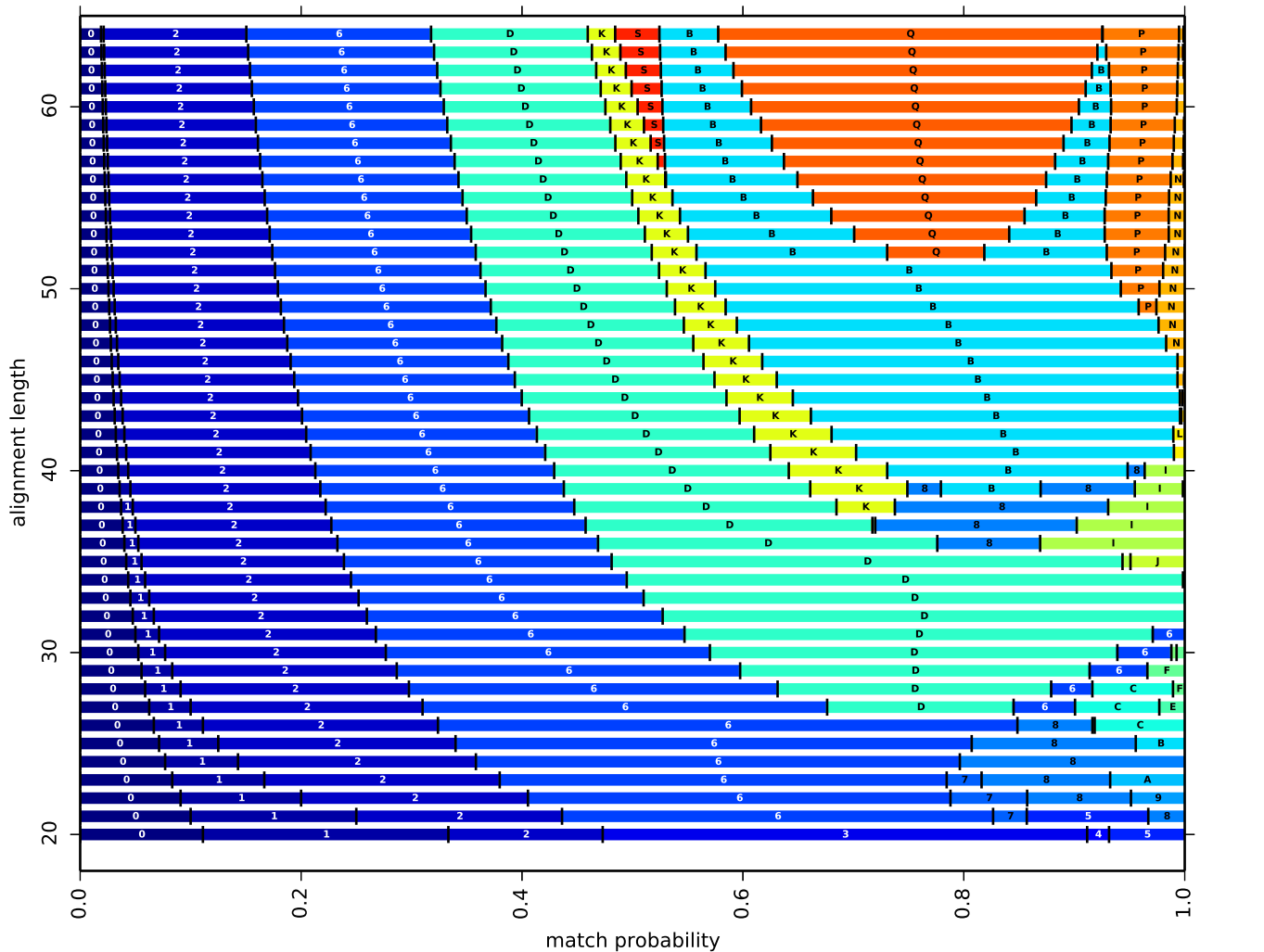
6 = 1110101001111
7 = 1111001001111
8 = 11101001001111

9 = 101110010010111
A = 11011101111
B = 1011100010010111

C = 1101001110111
D = 1100110101111
E = 110110101000111

F = 100011010111111
G = 110110101001111

Bernoulli (n:1,w:10)



0 = 1111111111
 1 = 11111011111
 2 = 11110111111
 3 = 111101101111

4 = 1110110101111
 5 = 1111001101111
 6 = 111011011111
 7 = 1110101101111

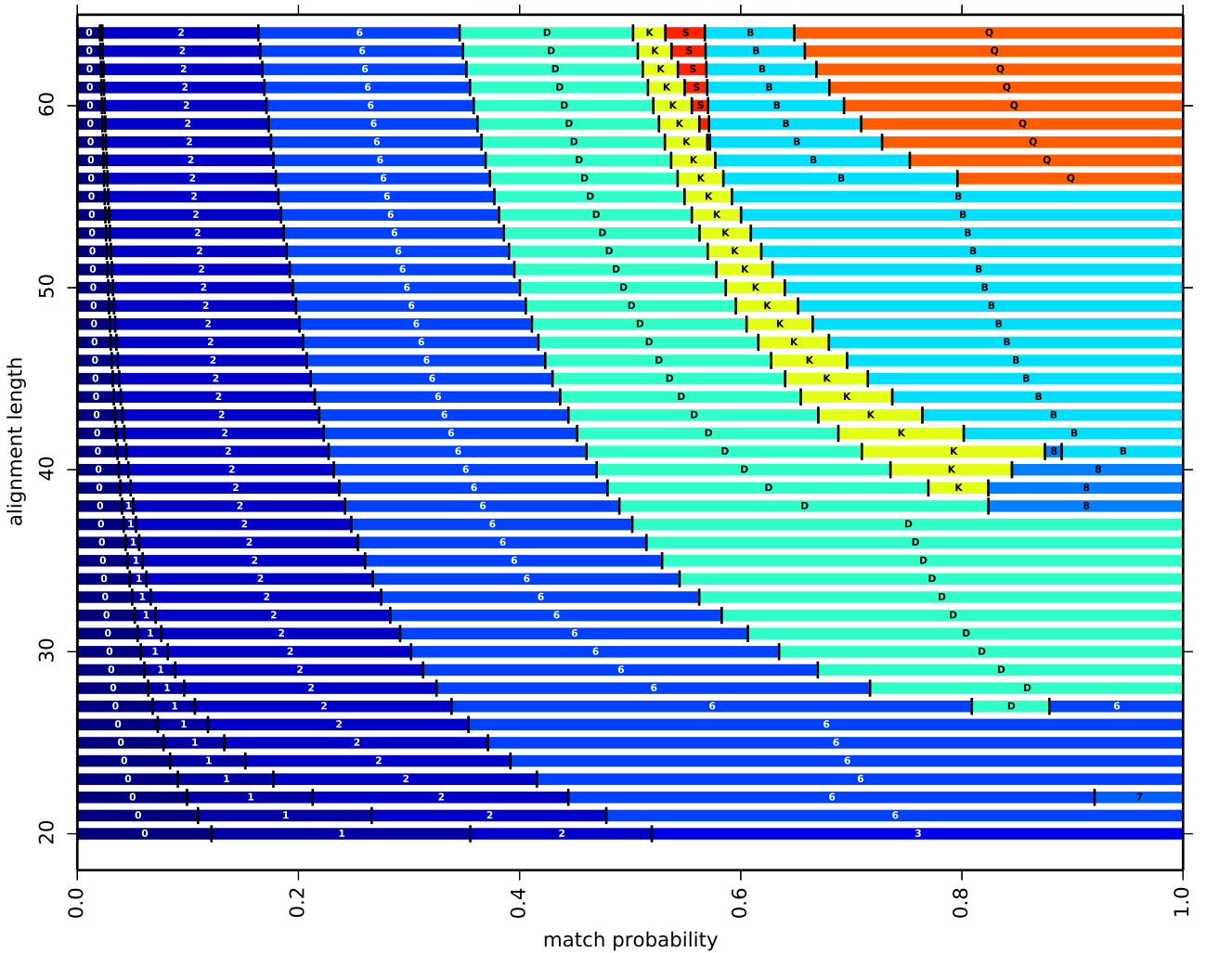
8 = 11101100101111
 9 = 11011011010111
 A = 11110010101111
 B = 11011001010111

C = 1110101001001111
 D = 1101110101111
 E = 1111001000101111
 F = 11110010001001111

I = 1110100111010111
 J = 1110010111010111
 K = 11101001101111
 L = 111010011010111

N = 11010110011111
 P = 110100101110111
 Q = 1101100011010111
 S = 110101011001111

\int_0^x Hit Integration (n:1,w:10)



0 = 1111111111
1 = 11111011111

2 = 11110111111
3 = 111101101111

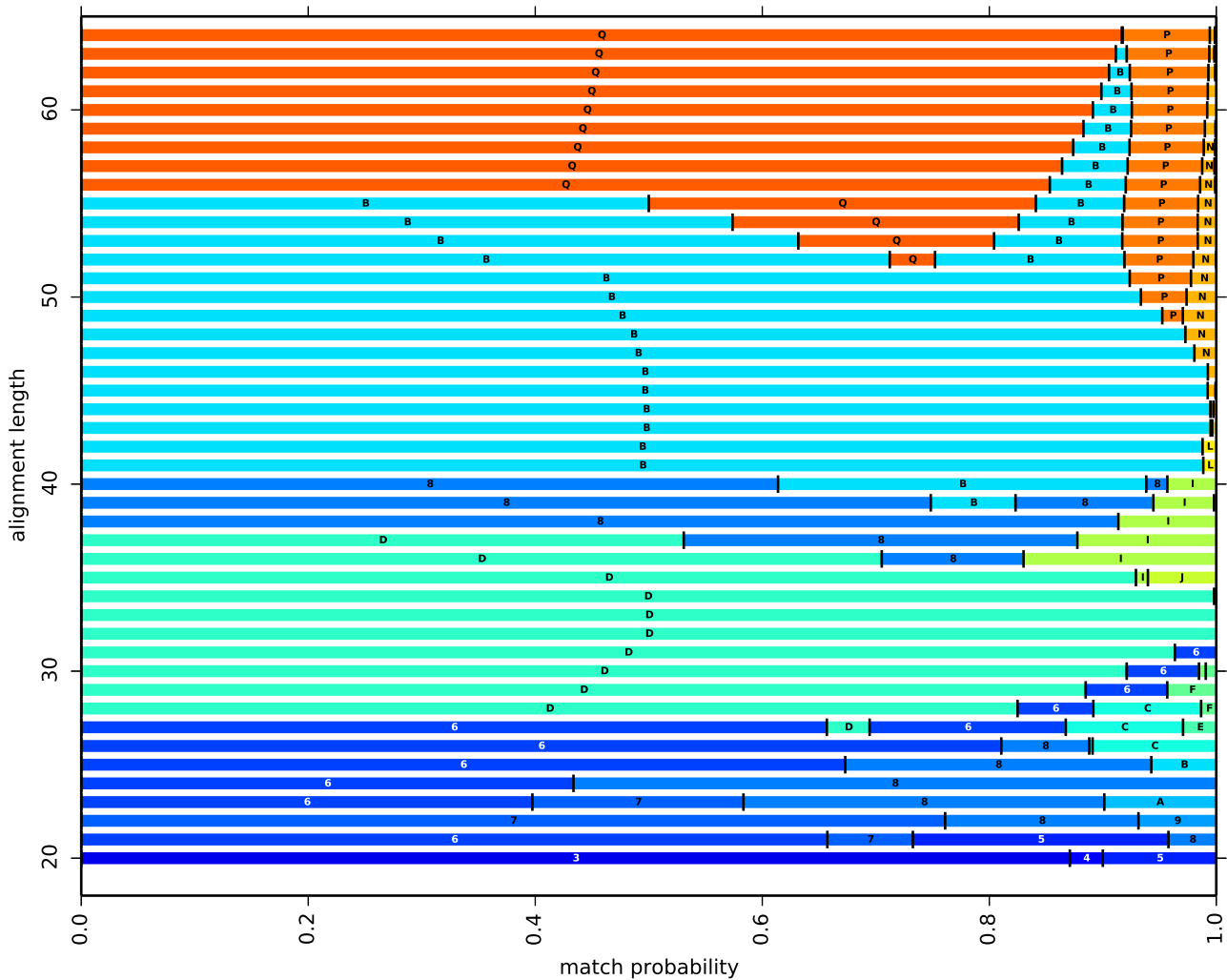
6 = 11101011111
7 = 1110101101111

8 = 11101100101111
B = 110110010101111

D = 1101110101111
K = 11101001101111

Q = 1101100011010111
S = 110101011001111

\int_x^1 Hit Integration (n:1,w:10)



3 = 111101101111
 4 = 1110110101111
 5 = 1111001101111
 6 = 1110110111111

7 = 1110101101111
 8 = 11101100101111
 9 = 1101001110100111

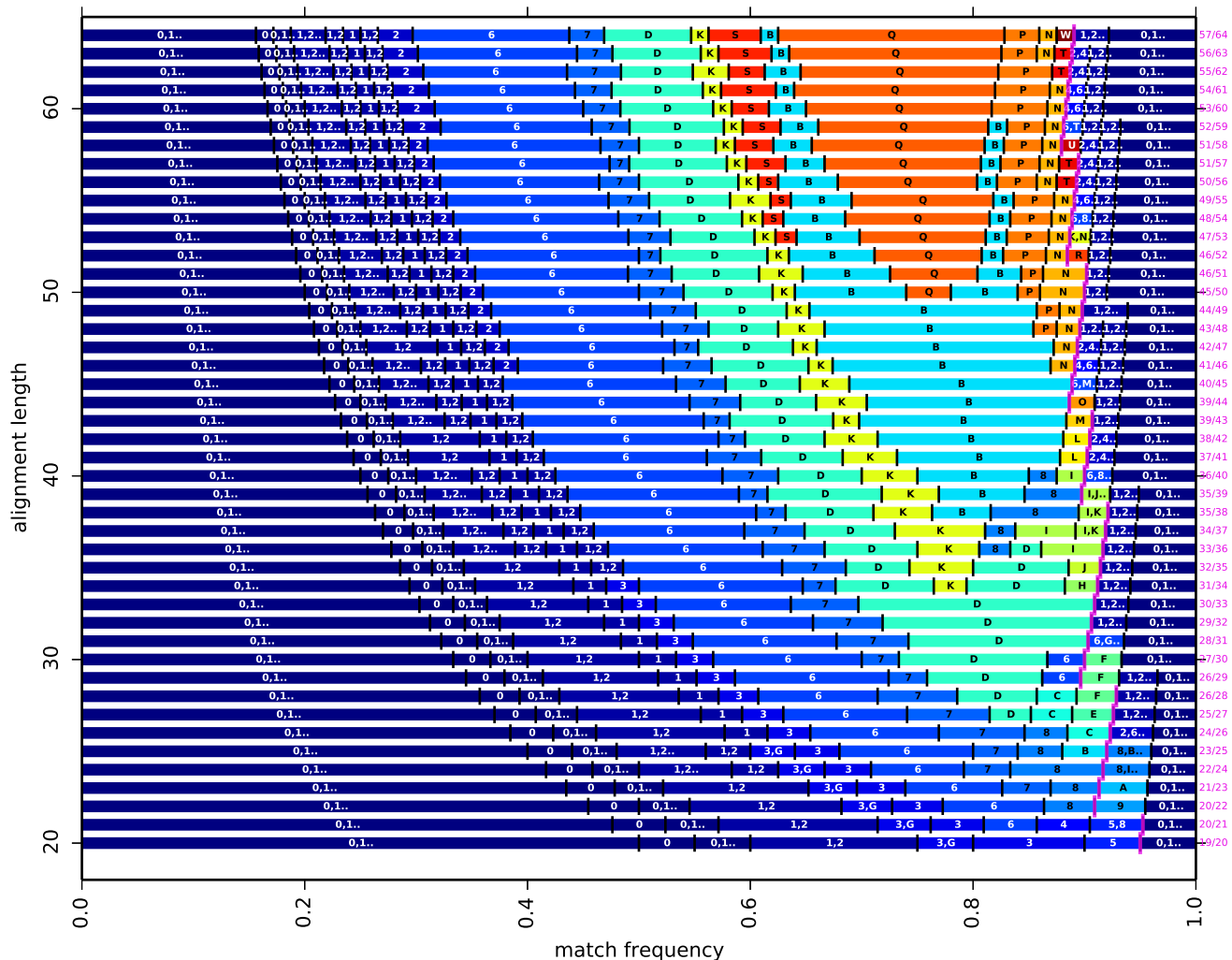
A = 11110010101111
 B = 110110010101111
 C = 1110101001001111

D = 1101110101111
 E = 1111001000101111
 F = 11110010001001111

I = 111010011101111
 J = 111001011101111
 L = 1110100110101111

N = 11010110011111
 P = 1101001011101111
 Q = 1101100011010111

Dirac (n:1,w:10)



0 = 1111111111
 1 = 11111011111
 2 = 11110111111
 3 = 11110101111
 4 = 11101101111
 5 = 1111001101111

6 = 1110110111111
 7 = 1110101101111
 8 = 111011001101111
 9 = 11101001110100111
 A = 11110010101111
 B = 110110010101111

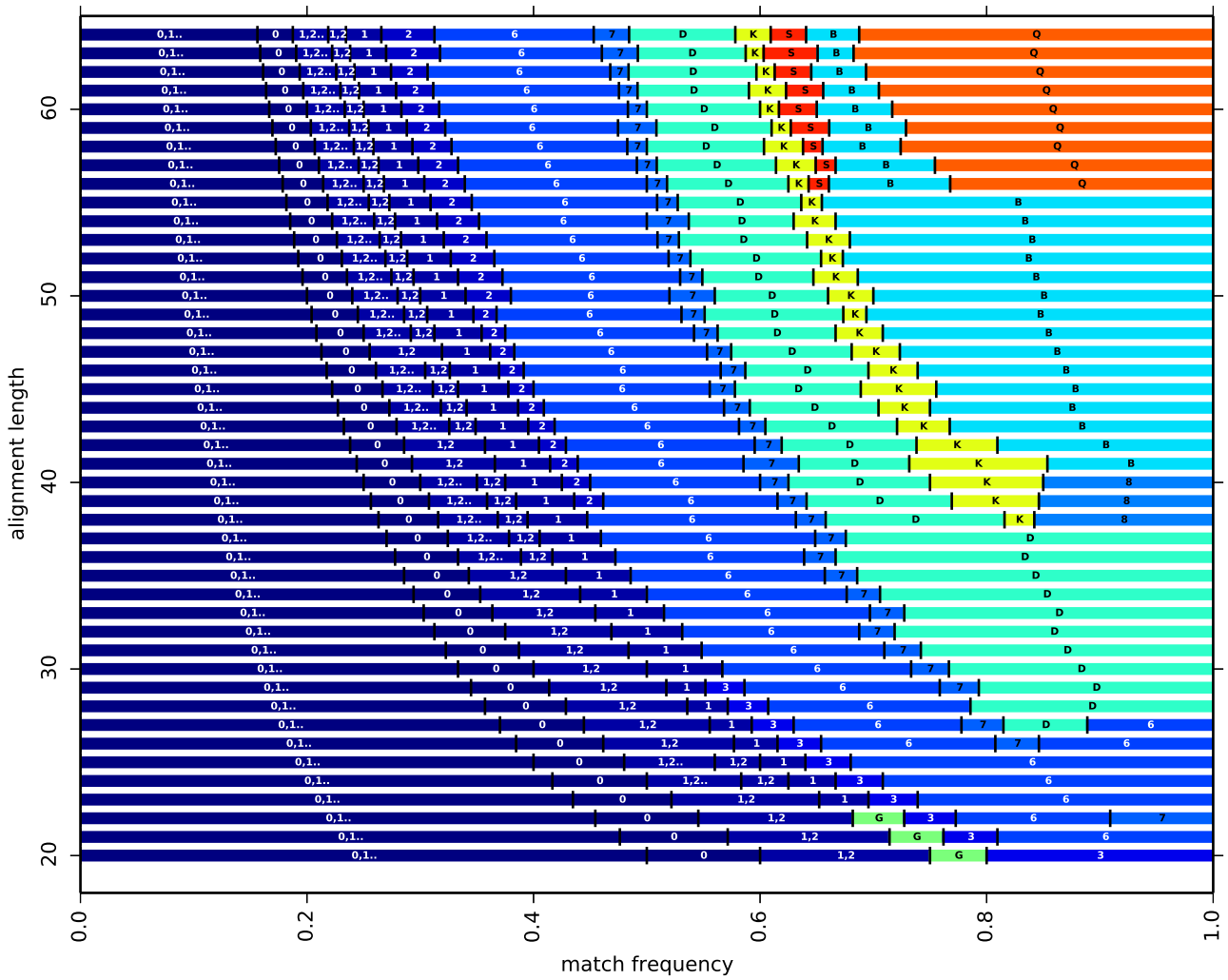
C = 1110101001001111
 D = 1101110101111
 E = 1111001000101111
 F = 11110010001001111
 G = 111011101111
 H = 1011100010001001111

I = 111010011101111
 J = 111001011101111
 K = 11101001101111
 L = 111011001101111
 M = 11100101100101111

N = 11010110011111
 O = 110111000101111
 P = 1101001011101111
 Q = 1101100011010111
 R = 11000100110101111

S = 110101011001111
 T = 110011010101111
 U = 11001000111101011
 V = 101110111001011
 W = 110001101011111

$$\sum_0^x \text{Heaviside}(n:1,w:10)$$



0 = 1111111111
 1 = 11111011111
 2 = 11110111111
 3 = 11110101111
 4 = 111011010111
 5 = 1111001101111

6 = 1110110101111
 7 = 1110101101111
 8 = 1110100101111
 9 = 1101001110100111
 A = 11110010101111
 B = 110110010101111

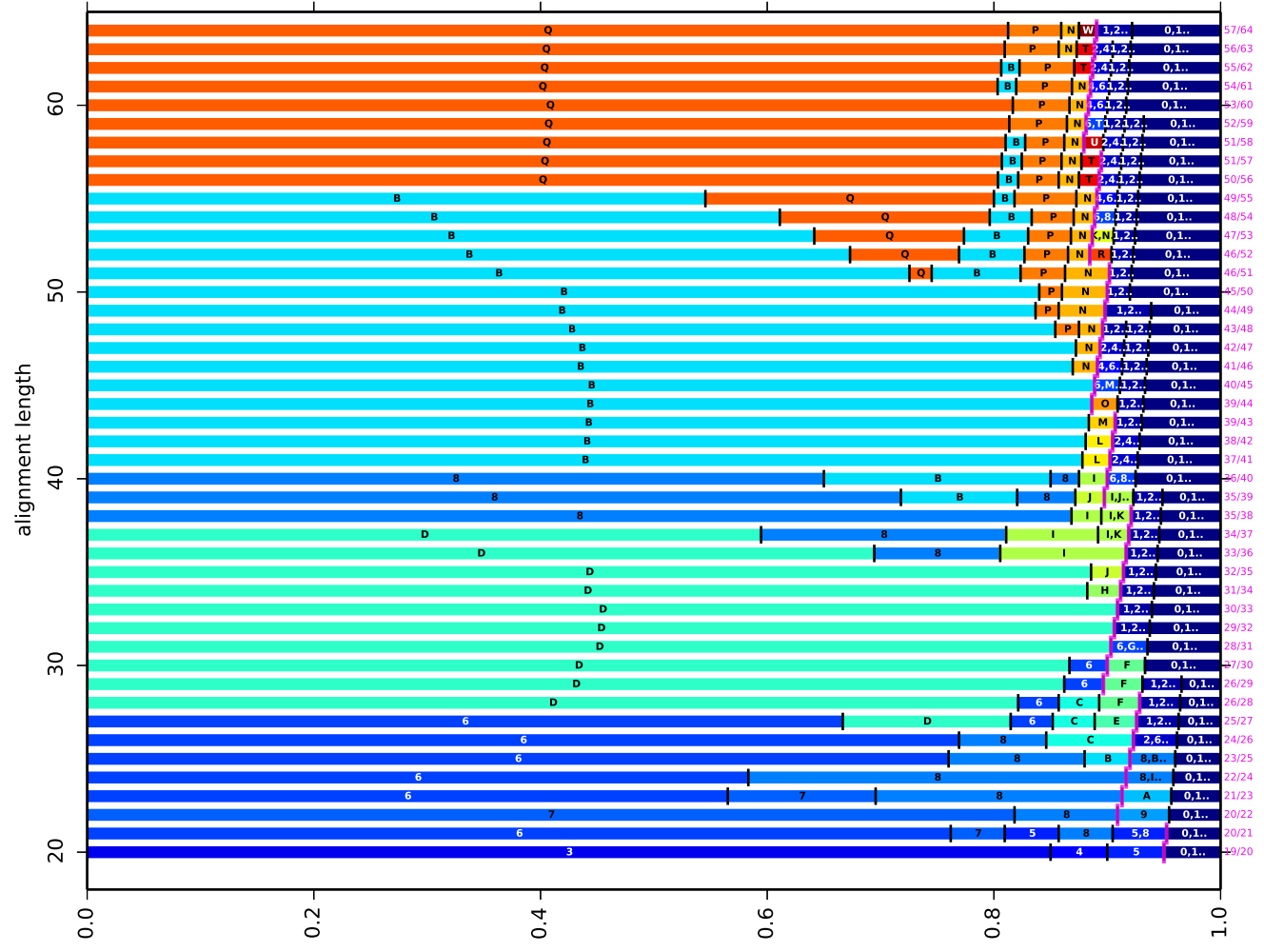
C = 1110101001001111
 D = 1101110101111
 E = 1111001000101111
 F = 11110010001001111
 G = 111011101111
 H = 1011100010001001111

I = 111010011101111
 J = 111001011101111
 K = 11101001101111
 L = 111010011010111
 M = 1110010110010111

N = 11010110011111
 O = 110111000101111
 P = 110100101110111
 Q = 1101100011010111
 R = 11000100110101111

S = 110101011001111
 T = 110011010101111
 U = 11001000111101011
 V = 101110111001011
 W = 110001101011111

$$\sum_x^1 \text{Heaviside}(n;1,w:10)$$



0 = 1111111111
 1 = 11111011111
 2 = 11110111111
 3 = 11110101111
 4 = 111011010111
 5 = 111100110111

6 = 111011011111
 7 = 111010110111
 8 = 1110100010111
 9 = 1101001110100111
 A = 1111001010111
 B = 11011001010111

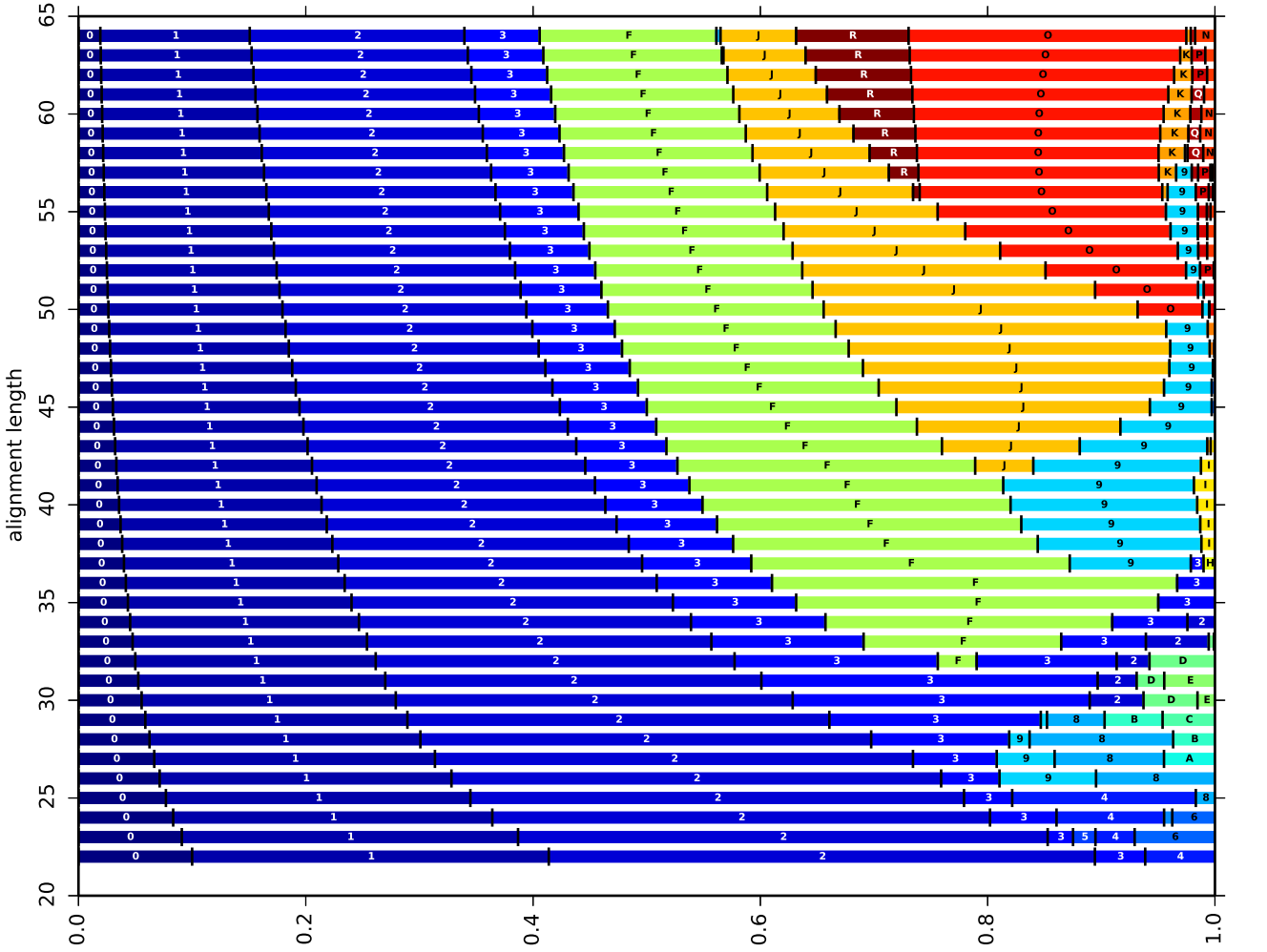
C = 1110101001001111
 D = 110111010111
 E = 1111001000101111
 F = 11110010001001111
 G = 111011101111
 H = 10111000100010010111

I = 111010011101111
 J = 11100101110111
 K = 11101001101111
 L = 111010011010111
 M = 1110010110010111

N = 11010110011111
 O = 110111000101111
 P = 110100101110111
 Q = 1101100011010111
 R = 11000100110101111

S = 110101011001111
 T = 110011010101111
 U = 11001000111101011
 V = 101110111001011
 W = 110001101011111

Bernoulli (n:1,w:11)



0 = 11111111111
 1 = 11111011111
 2 = 11110111111
 3 = 11101101111
 4 = 11101001111

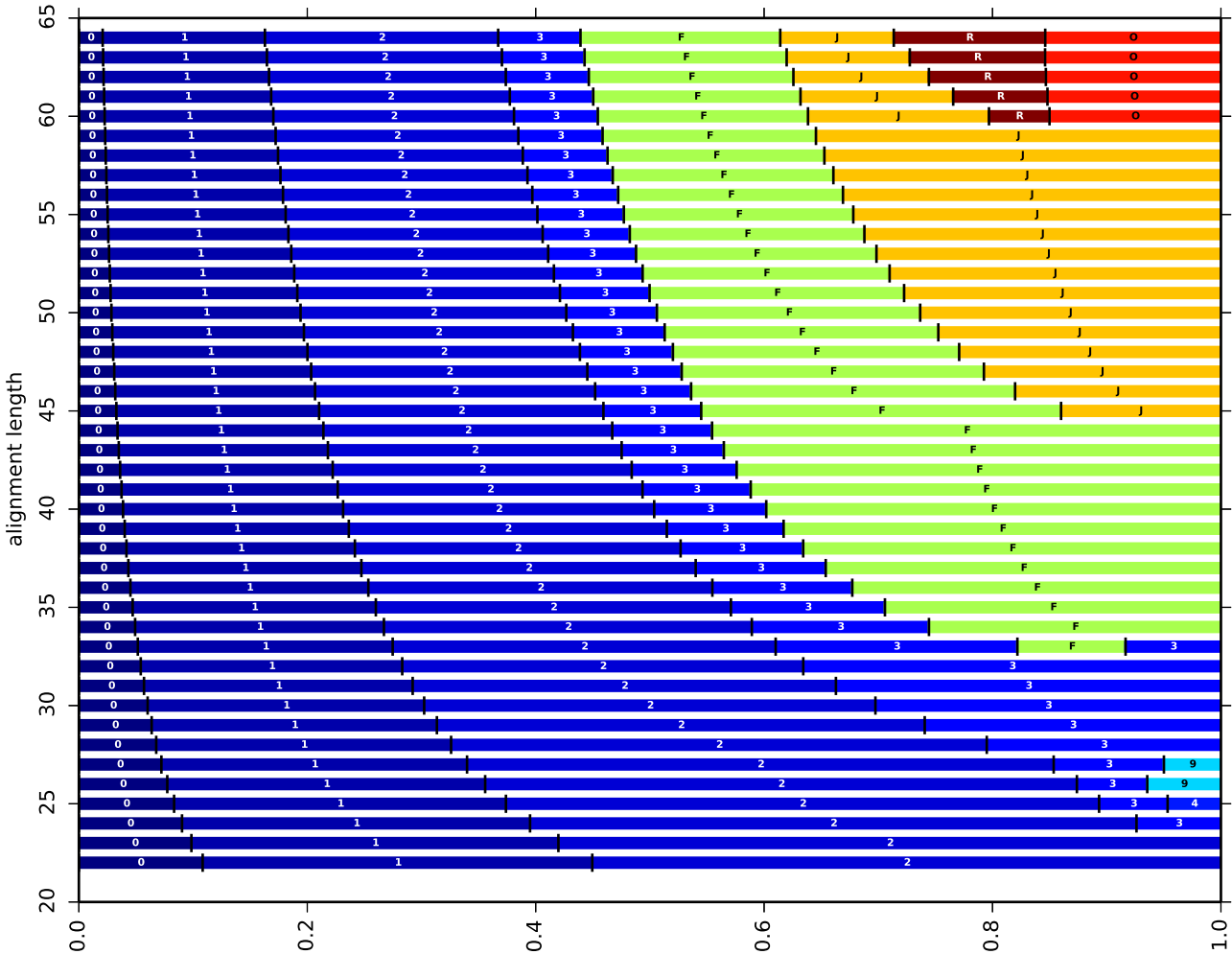
5 = 1101110101111
 6 = 1100101110010111
 7 = 1110110010101111
 8 = 1110110010001111
 9 = 111011101001111
 A = 1101110001010111

B = 1111001001010111
 C = 11011100001010111
 D = 111010110010001111
 E = 110111000001010111
 F = 11101011010111

H = 11110001000100100111
 I = 111010011110111
 J = 1110100101110111
 K = 1101110101001111
 N = 110011010101111

O = 11100101100101011
 P = 1011001011110111
 Q = 101111010010111
 R = 111010010100110111

\int_0^x Hit Integration (n:1,w:11)



0 = 1111111111
1 = 11111011111

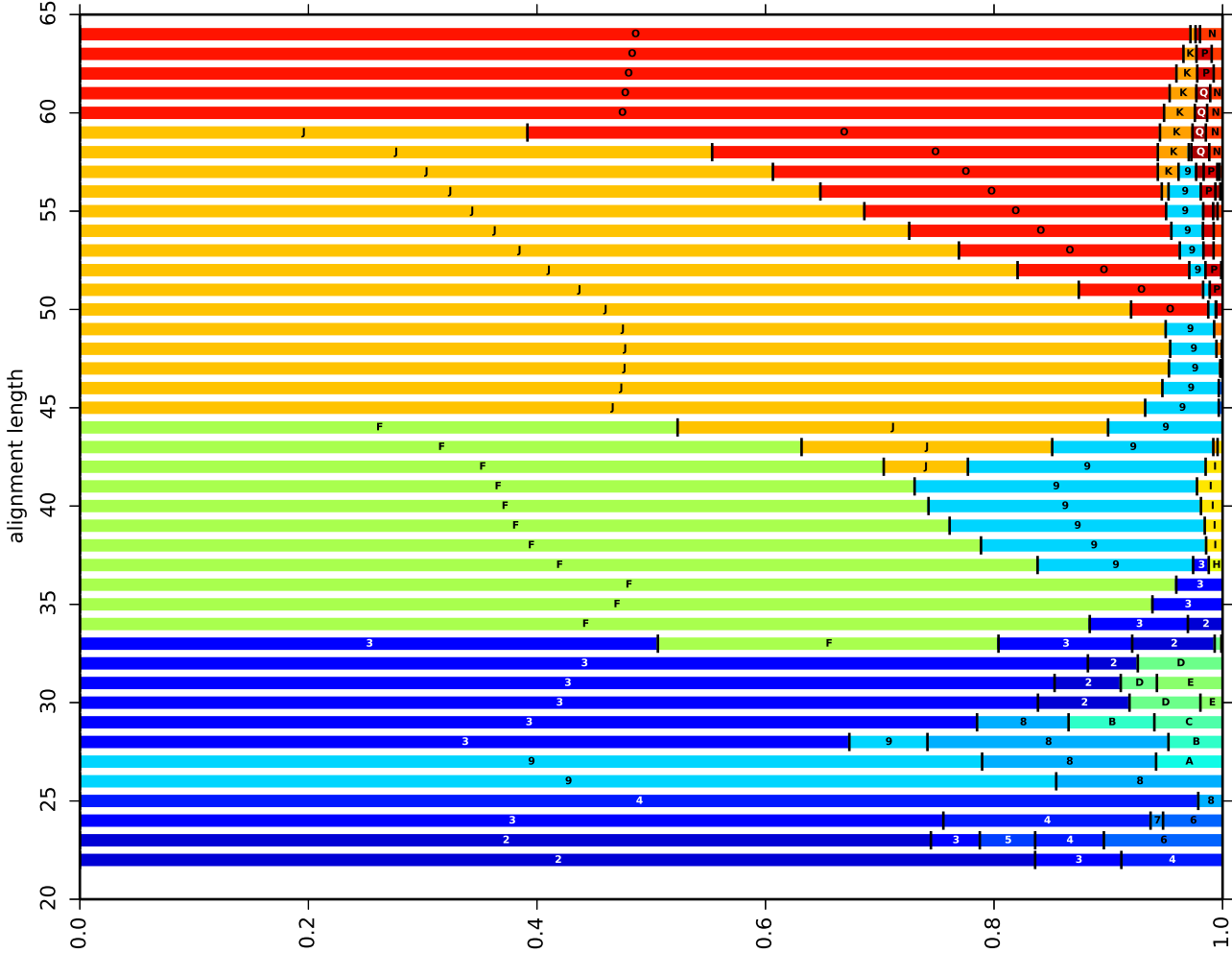
2 = 1111011101111
3 = 11101101011111

4 = 111101001101111
9 = 1110111101001111

F = 111010110110111
J = 1110100101110111

O = 111001011001010111
R = 111010010100110111

\int_x^1 Hit Integration (n:1,w:11)



2 = 1111011101111
 3 = 11101101011111
 4 = 111101001101111
 5 = 110111010110111
 6 = 11100101110010111

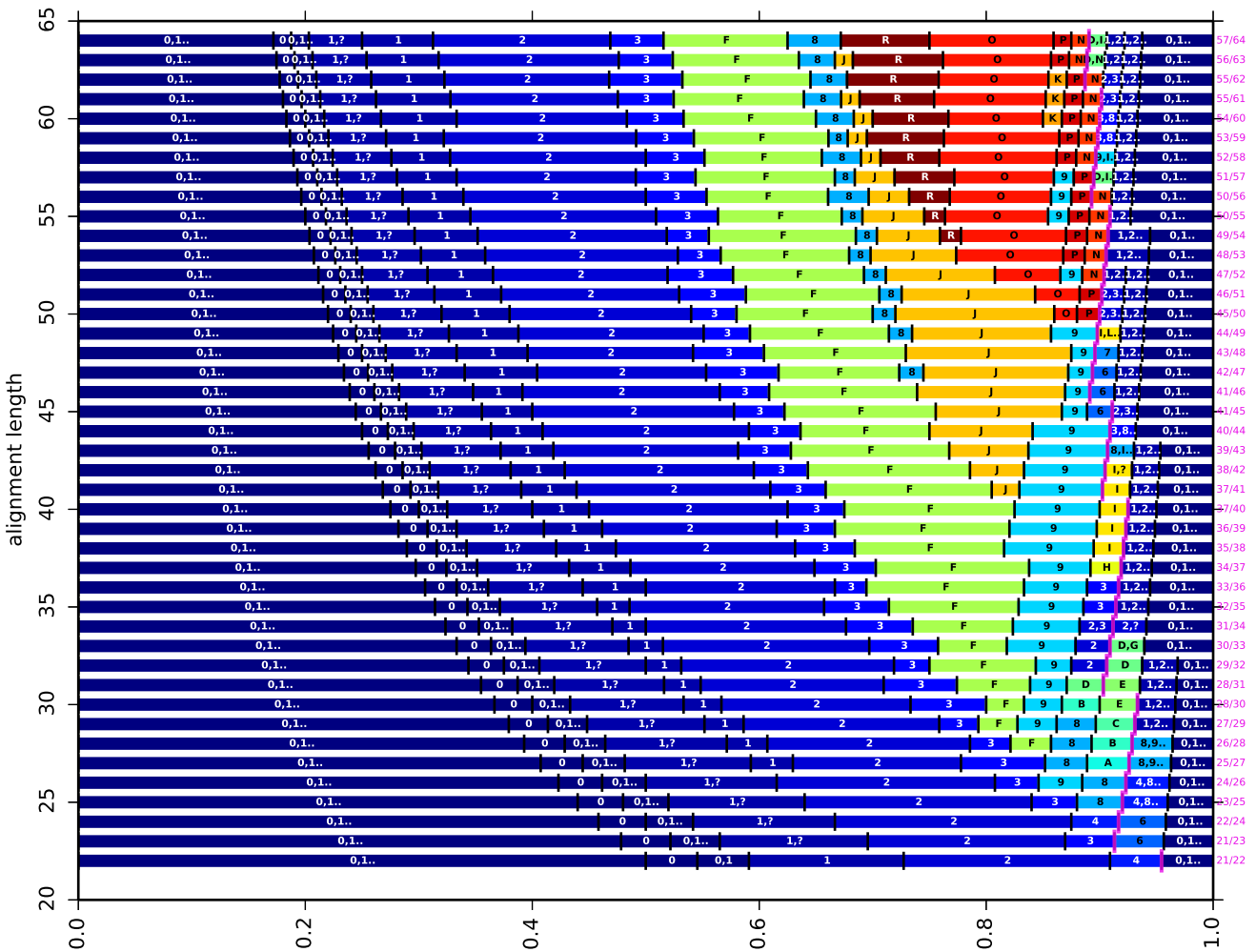
7 = 110111000101111
 8 = 1110110010101111
 9 = 111011101001111
 A = 11011100010110111
 B = 11110010010101111

C = 110111000010110111
 D = 111010110010001111
 E = 1101110000010110111
 F = 1110101101101111

H = 111100010001001001111
 I = 1110100111101111
 J = 11101001011110111
 K = 1101110101001111

N = 1100110101011111
 O = 111001011001010111
 P = 1011001011110111
 Q = 101110110010111

Dirac (n:1,w:11)



0 = 11111111111
 1 = 11111011111
 2 = 11110110111
 3 = 1110110101111
 4 = 111101001101111
 5 = 110111010110111

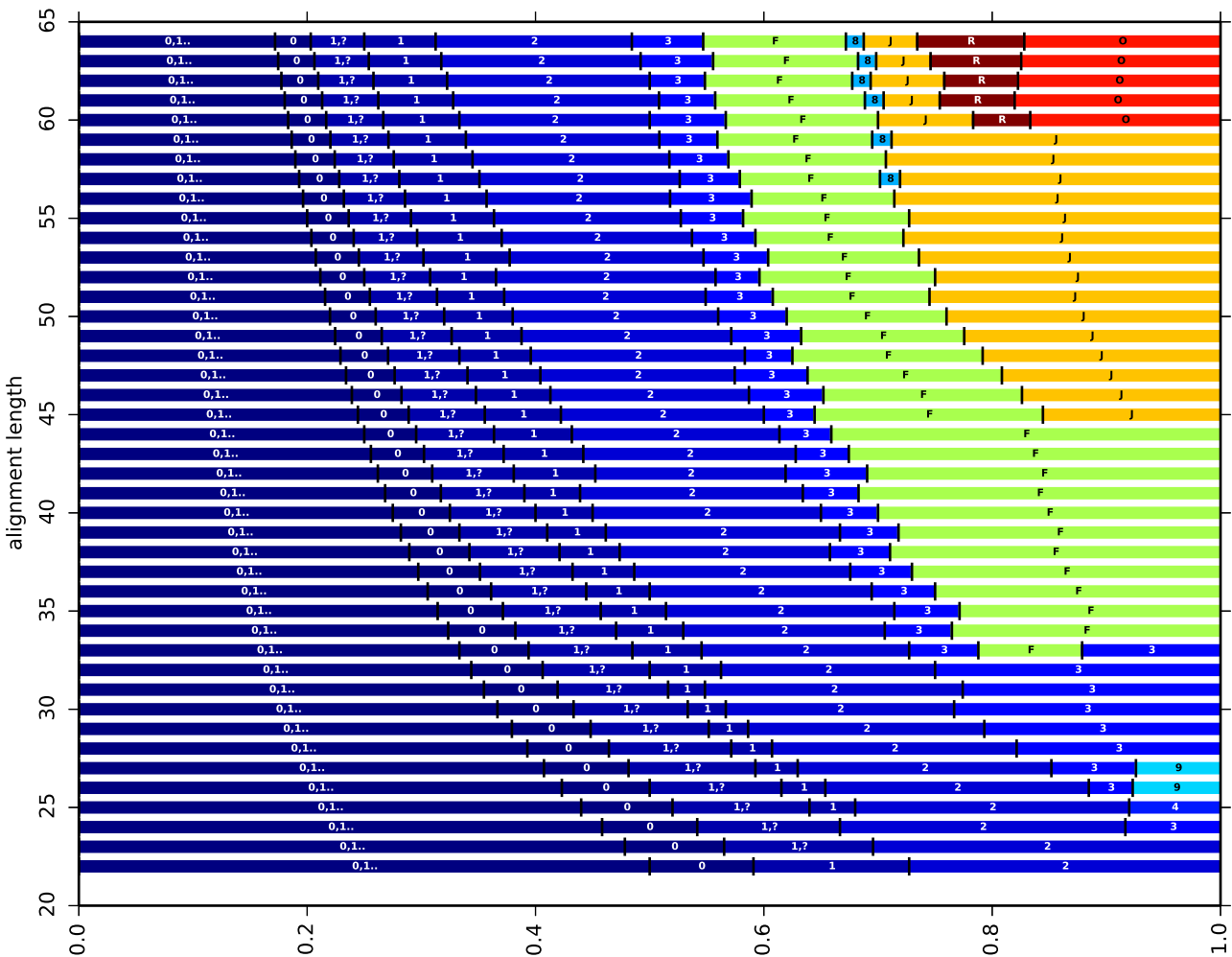
6 = 11100101110010111
 7 = 1101111000101111
 8 = 1110110010101111
 9 = 1110110101001111
 A = 11011100010101111
 B = 11110010010101111

C = 110111000010110111
 D = 111010110010001111
 E = 1101110000010110111
 F = 111010110110111
 G = 1111001000100101111
 H = 11110001000100101111

I = 111010011110111
 J = 1110100101110111
 K = 1101110101001111
 L = 111001010110010111
 M = 101110010110010111

N = 1100110101011111
 O = 111001011001010111
 P = 1011001011110111
 Q = 101111011001010111
 R = 111010010100110111

$$\sum_0^x \text{Heaviside}(n:1,w:11)$$



0 = 11111111111
 1 = 11111011111
 2 = 111101101111
 3 = 1110110101111
 4 = 11101001101111
 5 = 110111010110111

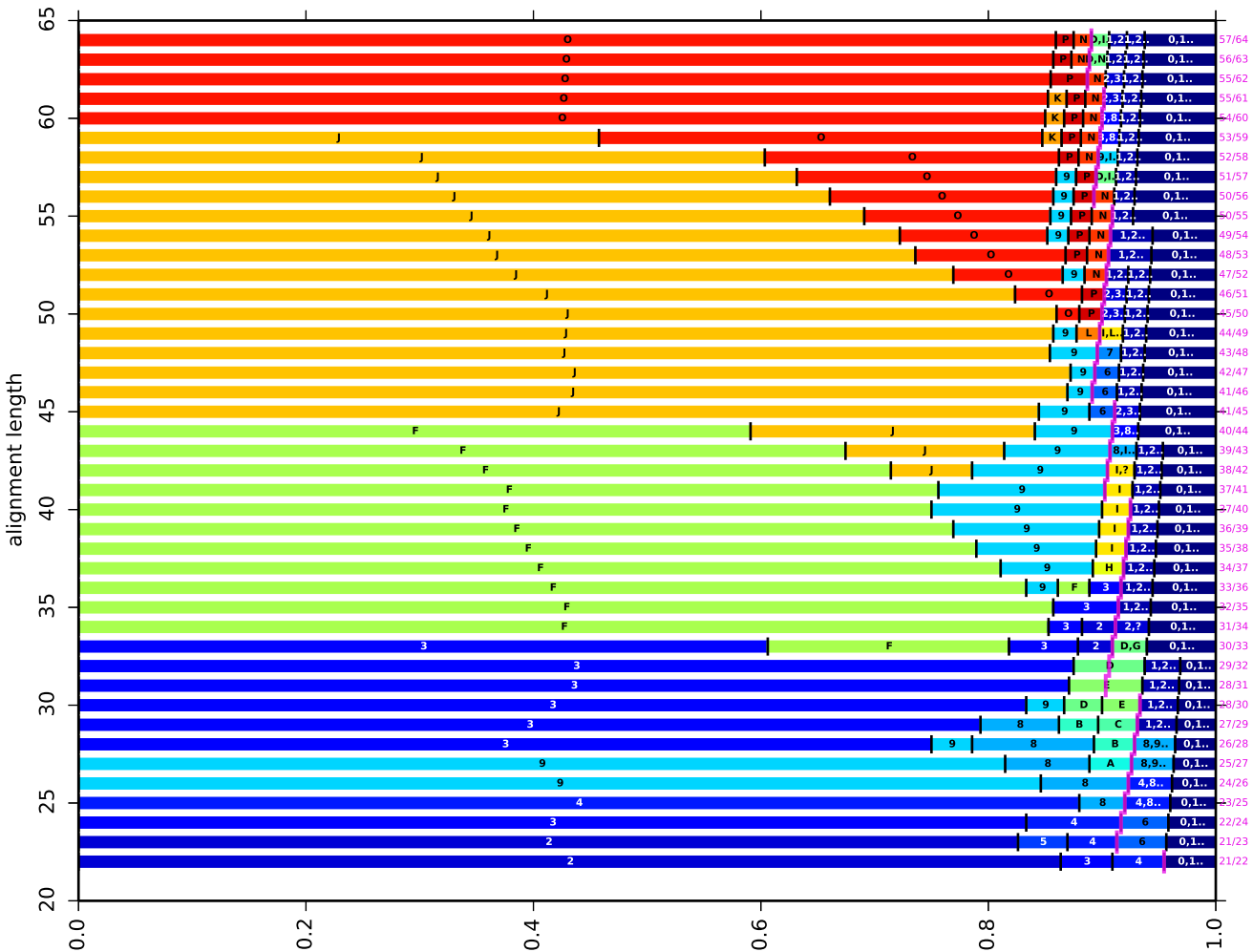
6 = 11100101110010111
 7 = 1101111000101111
 8 = 1110110010101111
 9 = 111011101001111
 A = 1101110001010111
 B = 1111001001010111

C = 110111000010110111
 D = 111010110010001111
 E = 1101110000010110111
 F = 111010110110111
 G = 111100100010010111
 H = 1111000100010010111

I = 111010011110111
 J = 1110100101110111
 K = 1101110101001111
 L = 111001010110010111
 M = 101110010110010111

N = 1100110101011111
 O = 111001011001010111
 P = 1011001011110111
 Q = 10111101001010111
 R = 111010010100110111

$$\sum_x^1 \text{Heaviside}(n;1,w:11)$$



0 = 11111111111
 1 = 11111011111
 2 = 11110110111
 3 = 11101101111
 4 = 11110011011
 5 = 11011101101

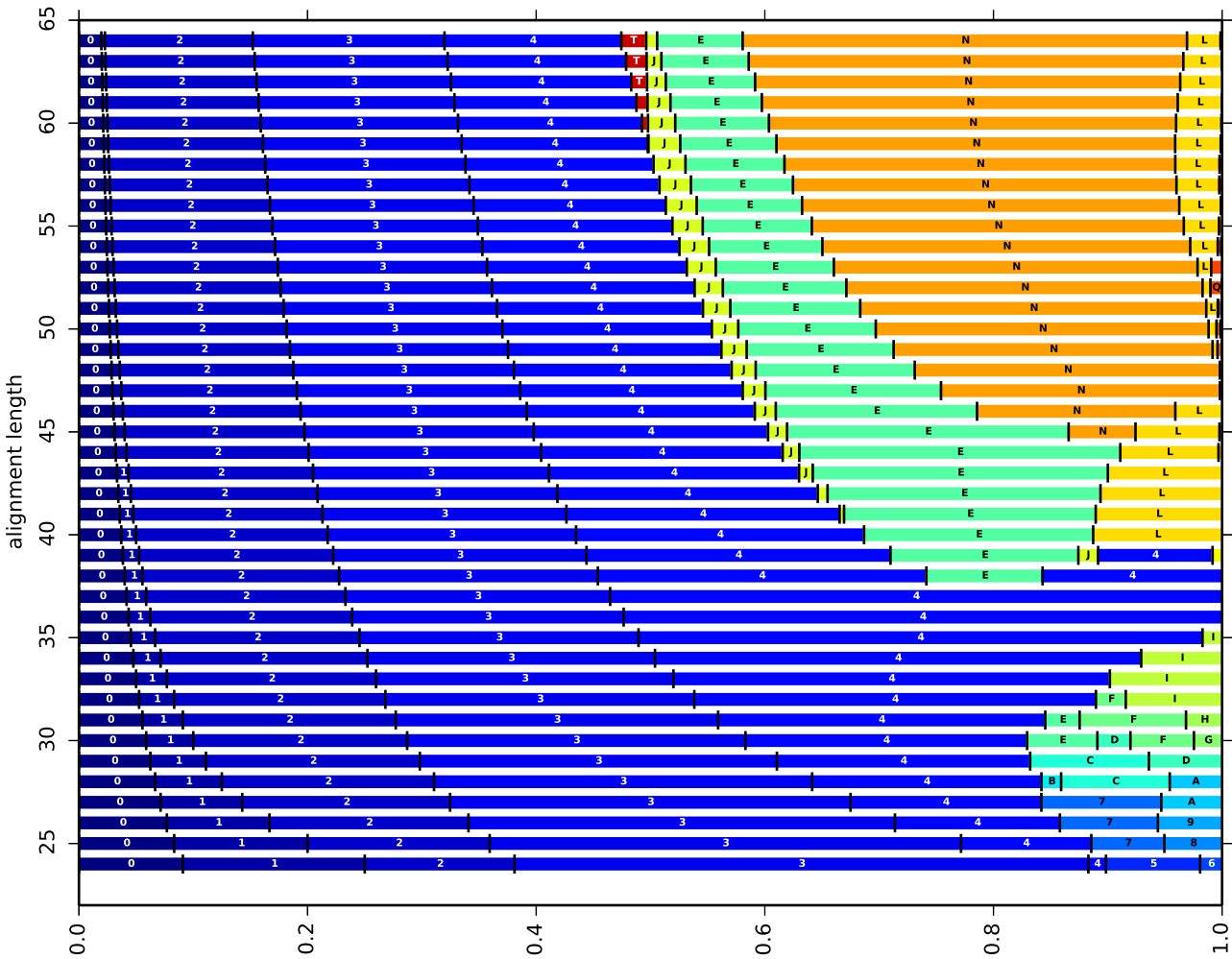
6 = 11100101110010111
 7 = 110111000101111
 8 = 1110110010101111
 9 = 111011101001111
 A = 1101110001010111
 B = 1111001001010111

C = 110111000010110111
 D = 111010110010001111
 E = 111011000001011011
 F = 111010110110111
 G = 111100100010010111
 H = 1111000100010010111

I = 111010011110111
 J = 1110100101110111
 K = 1101110101001111
 L = 111001010110010111
 M = 101110010110010111

N = 1100110101011111
 O = 11100101100101011
 P = 10110010111110111
 Q = 1011110110010111
 R = 111010010100110111

Bernoulli (n:1,w:12)



0 = 111111111111
 1 = 111110111111
 2 = 111101111111
 3 = 111101101111
 4 = 111011101111

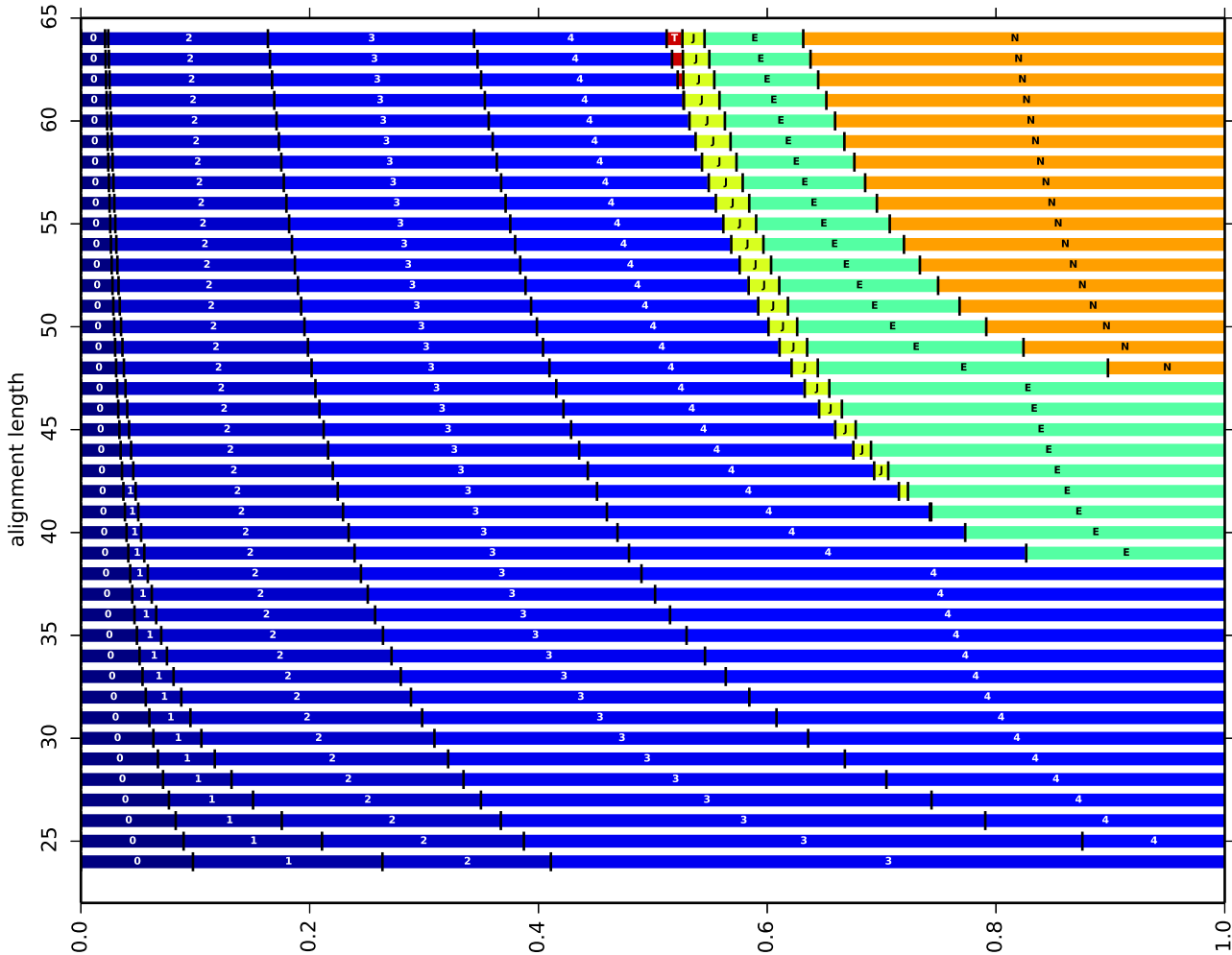
5 = 1110111001011111
 6 = 111010011101001111
 7 = 1111010110011111
 8 = 1011100101110010111
 9 = 1111100101011111

A = 11101101001110111
 B = 1111001011101111
 C = 1111010100110111
 D = 1111001101010111
 E = 1110110011010111

F = 11110011001010111
 G = 1110110100001110111
 H = 101111000100110111
 I = 111100010011010111
 J = 110111010101111

L = 11100101101110111
 N = 111010110100110111
 Q = 110111001010010111
 T = 111011011010111

\int_0^x Hit Integration (n:1,w:12)



0 = 111111111111
1 = 111111011111

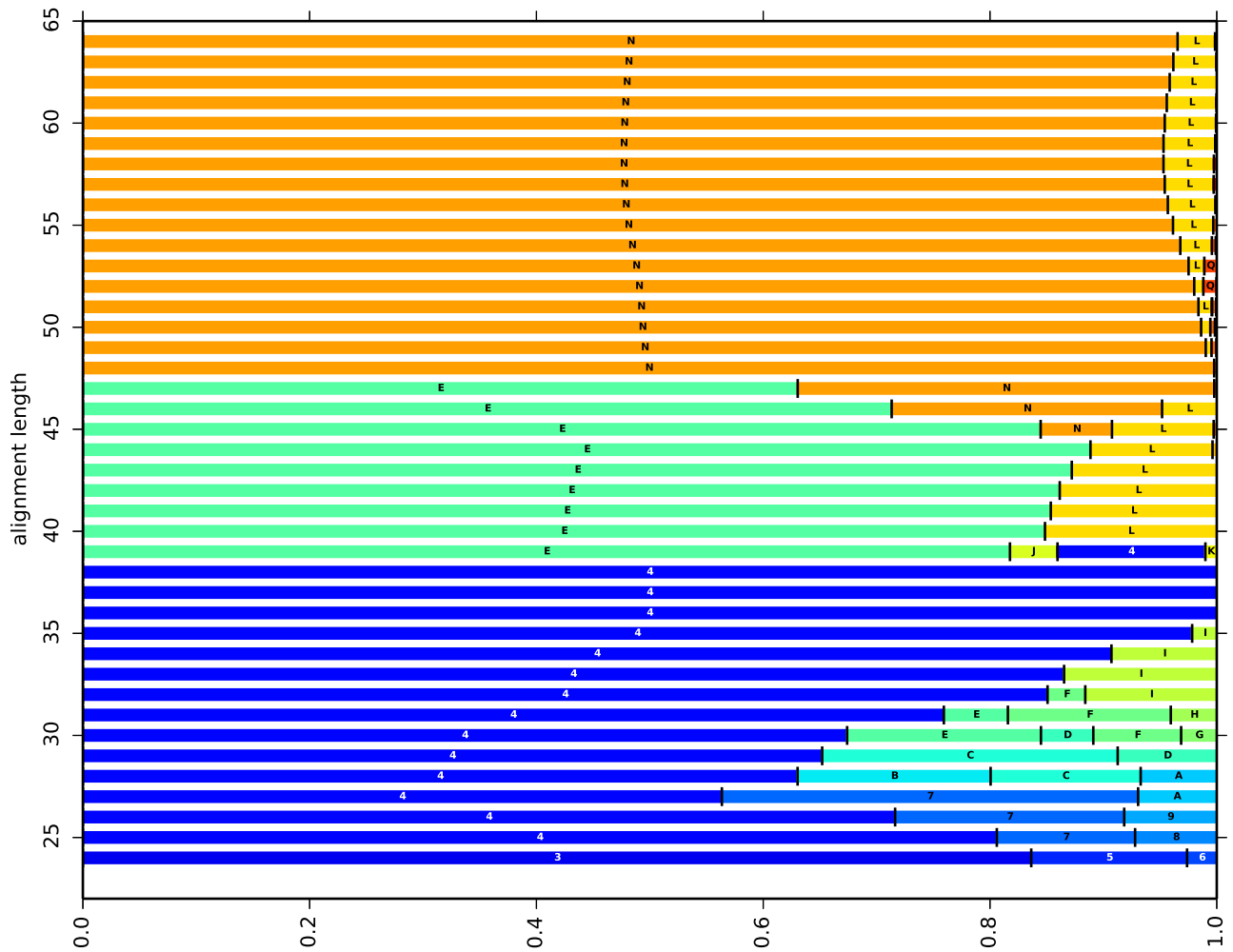
2 = 111110111111
3 = 111101101111

4 = 11101110101111
E = 111011100110101111

J = 1101110101101111
N = 1110101110100110111

T = 1110110110101111

$$\int_x^1 \text{Hit Integration (n:1,w:12)}$$



3 = 11110111011111
 4 = 111011101101111
 5 = 1110111001011111
 6 = 111010011101001111
 7 = 1111010110011111

8 = 1011100101110010111
 9 = 1111100101011111
 A = 111011101001110111
 B = 1111001011101111

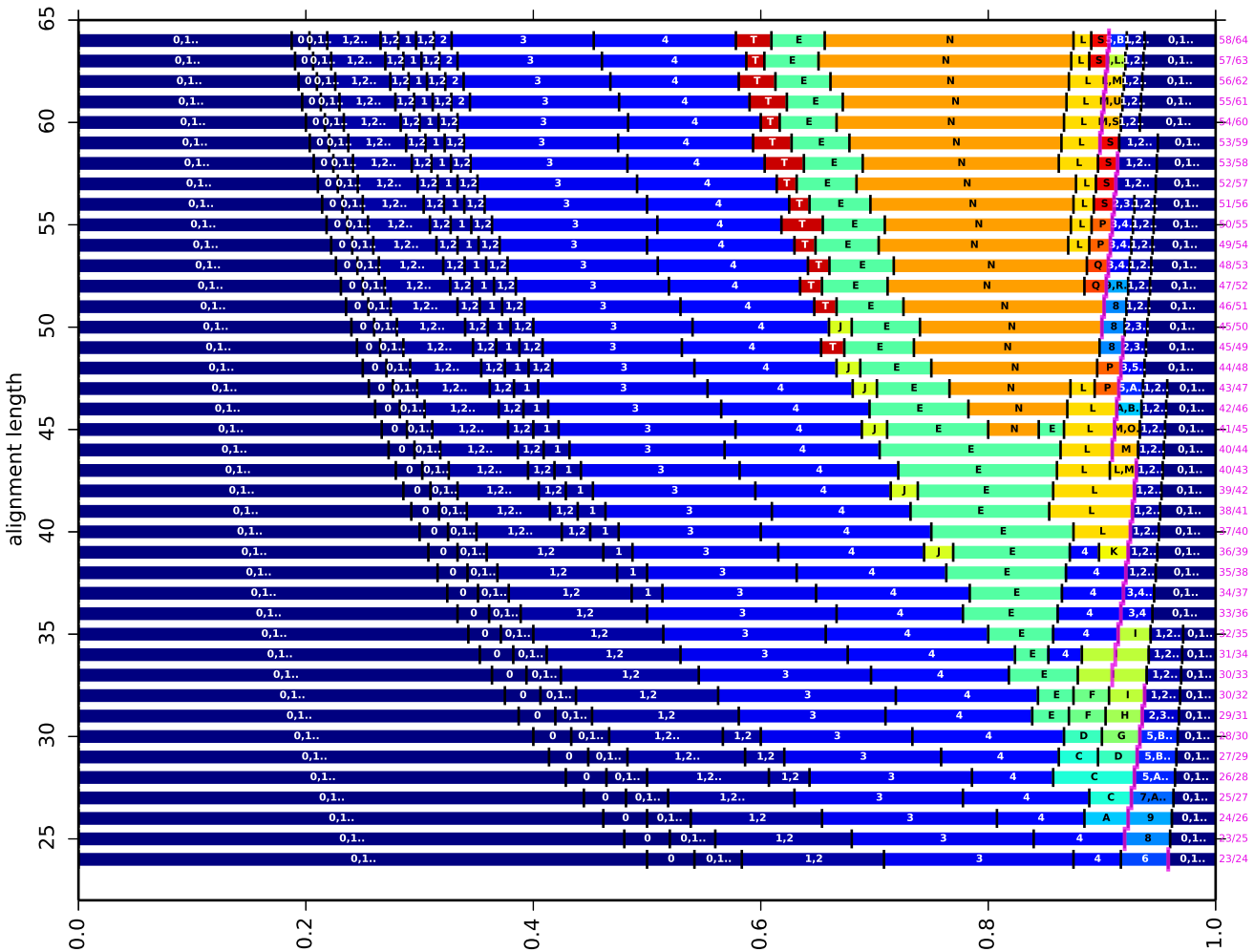
C = 11110101001101111
 D = 11110011010101111
 E = 111011100110101111
 F = 111100110010101111

G = 1110110100001110111
 H = 1011110001001101111
 I = 1111000100110101111
 J = 1101110101101111

K = 10111100010001000101111
 L = 11100101101110111
 N = 111010110100010111
 Q = 1101110010110010111

match probability

Dirac (n:1,w:12)



0 = 111111111111
 1 = 111110111111
 2 = 111110111111
 3 = 11110111011111
 4 = 111011101101111
 5 = 1110111001011111
 6 = 111010011101001111

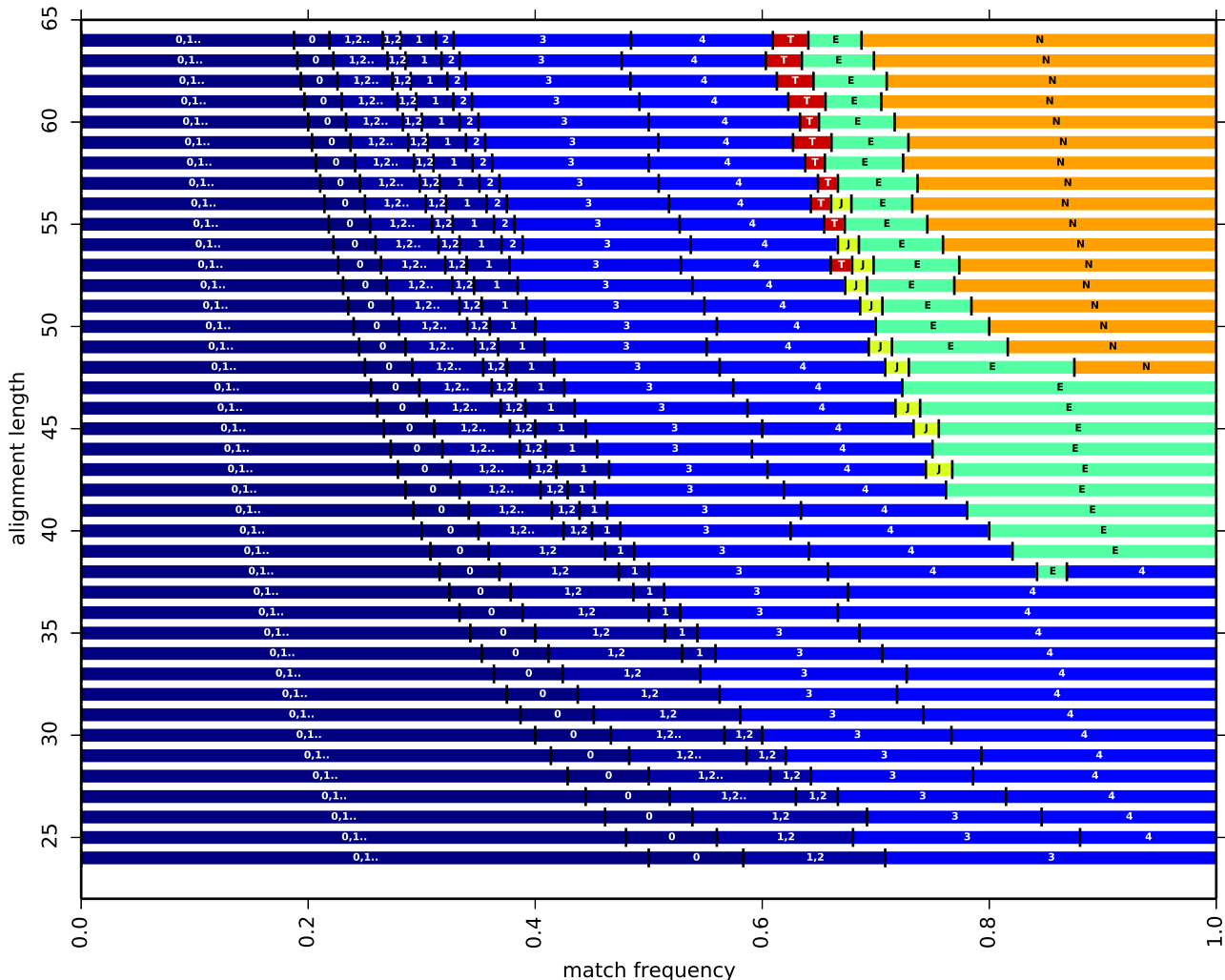
7 = 1111010110011111
 8 = 101110010110010111
 9 = 1111100101011111
 A = 111011010011101111
 B = 1110101011101111
 C = 111101010010101111
 D = 111100110101011111

E = 11101100110101111
 F = 111100110010101111
 G = 11101101000011101111
 H = 1011110001001101111
 I = 111100010010101111
 J = 1101110101101111

K = 10111100010001000101111
 L = 111001011011101111
 M = 1110010111110111
 N = 111010110100110111
 O = 110111100010101111
 P = 11011001011110111

Q = 1101110010110010111
 R = 11100101110010010111
 S = 11001101010111111
 T = 1110110110101111
 U = 11011100010011010111
 V = 10111011110010111

$$\sum_0^x \text{Heaviside}(n:1,w:12)$$



0 = 111111111111
 1 = 111110111111
 2 = 111101111111
 3 = 111101101111
 4 = 111011101111
 5 = 11011100101111
 6 = 111010011101001111

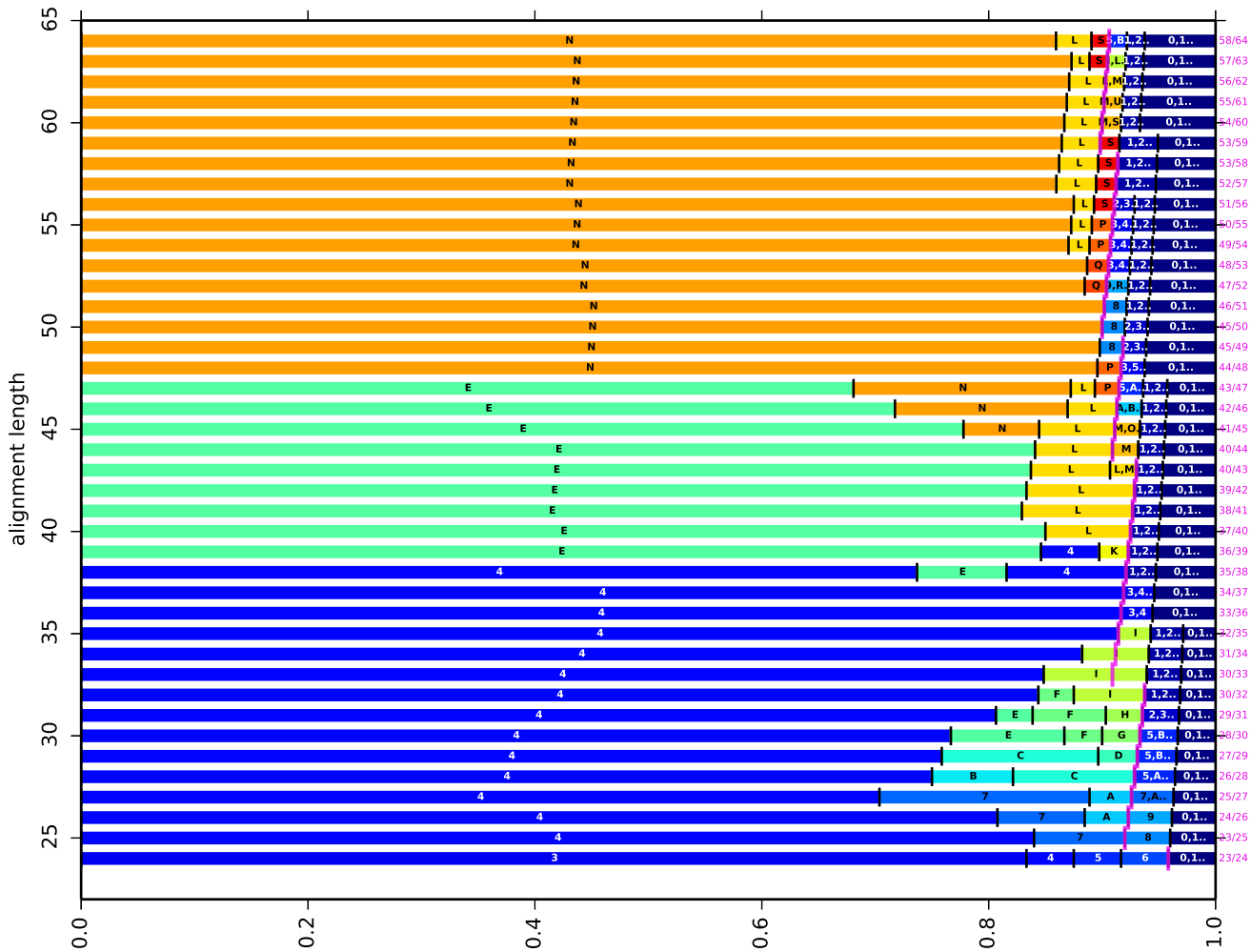
7 = 1111010110011111
 8 = 10111001011100101111
 9 = 1111100101011111
 A = 111011010011101111
 B = 1111001011101111
 C = 1111010100101111
 D = 111100110101011111

E = 11101100110101111
 F = 111100110010101111
 G = 1110110100001110111
 H = 1011110001001101111
 I = 111100010010101111
 J = 11011101010101111

K = 10111100010001000101111
 L = 11100101011101111
 M = 1110010111110111
 N = 111010110100110111
 O = 11010111001101111
 P = 11011001011110111

Q = 1101110010110010111
 R = 11100101110010010111
 S = 11001101010111111
 T = 1110110110101111
 U = 10111100010011010111
 V = 10111011110010111

$$\sum_x^1 \text{Heaviside}(n:1,w:12)$$



0 = 111111111111
 1 = 111110111111
 2 = 111101111111
 3 = 111011101111
 4 = 111011101111
 5 = 11011100101111
 6 = 1101001110100111

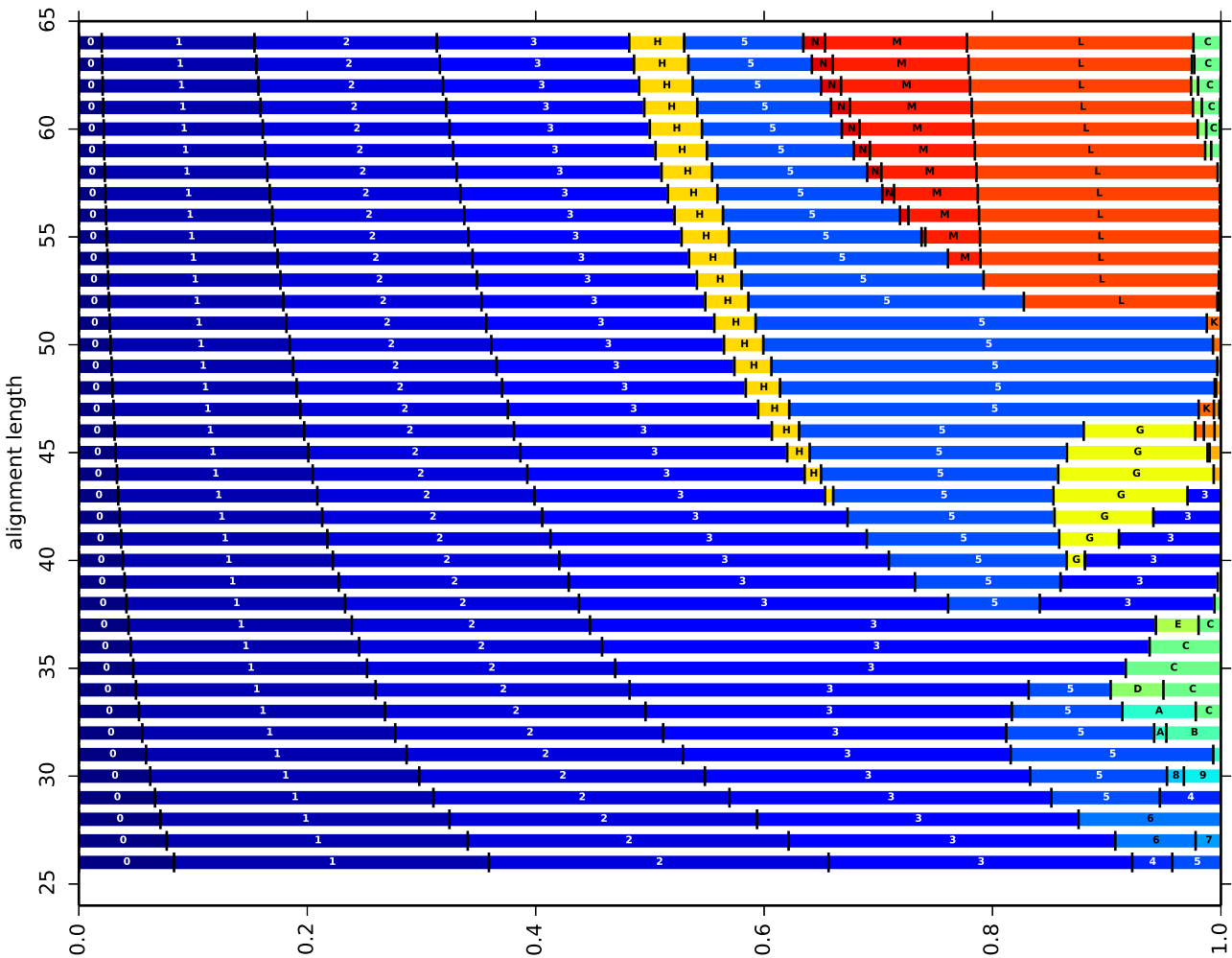
7 = 1111010110011111
 8 = 10111001011100101111
 9 = 1111100101011111
 A = 111011010011101111
 B = 1111001011101111
 C = 111101010011011111
 D = 111100110101011111

E = 111011001101011111
 F = 111100110010101111
 G = 11101101000011101111
 H = 10111100010011011111
 I = 11101001001010101111
 J = 110111010101011111

K = 101111000100010001011111
 L = 111001011011101111
 M = 1110010111110111
 N = 111010110100110111
 O = 110101110011011111
 P = 110110010111101111

Q = 11011100101100101111
 R = 11100101110010010111
 S = 110011010101111111
 T = 111011011010101111
 U = 10111100010011010111
 V = 101110111100101111

Bernoulli (n:1,w:13)



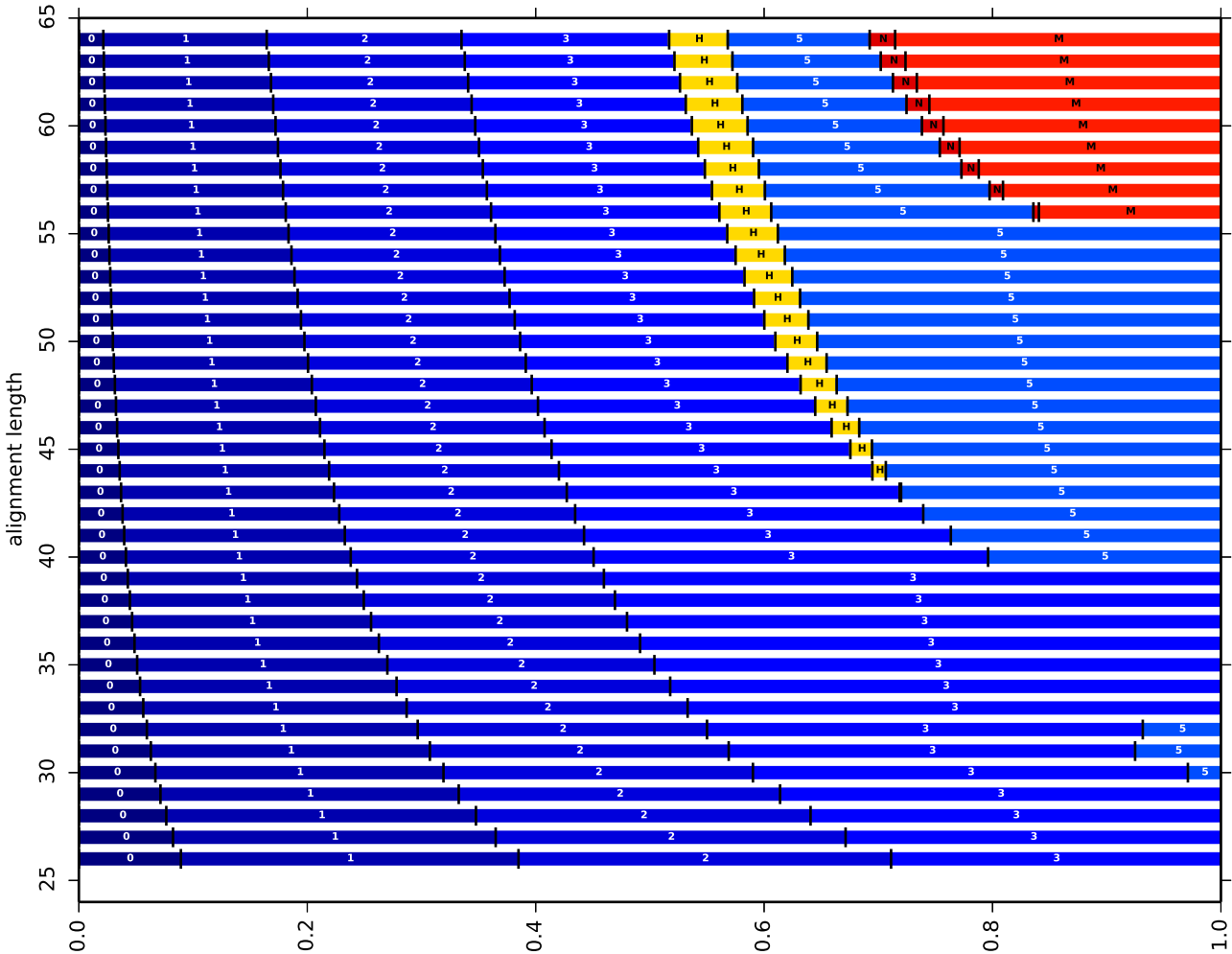
0 = 1111111111111
 1 = 1111110111111
 2 = 1111011011111
 3 = 111101101110111
 4 = 1111011100101111
 5 = 111101011001101111

6 = 11111001101011111
 7 = 11011110001011111
 8 = 11101101011001111
 9 = 1110110100101110111
 A = 1111010100110011111

B = 11011110001001101111
 C = 1011111000100110101111
 D = 11101010010110011111
 E = 111100101010011001111
 G = 111011101101001111

H = 11101110110101111
 K = 111011001011110111
 L = 11101001101001101111
 M = 11101011001100101111
 N = 1110110110010101111

\int_0^x Hit Integration (n:1,w:13)



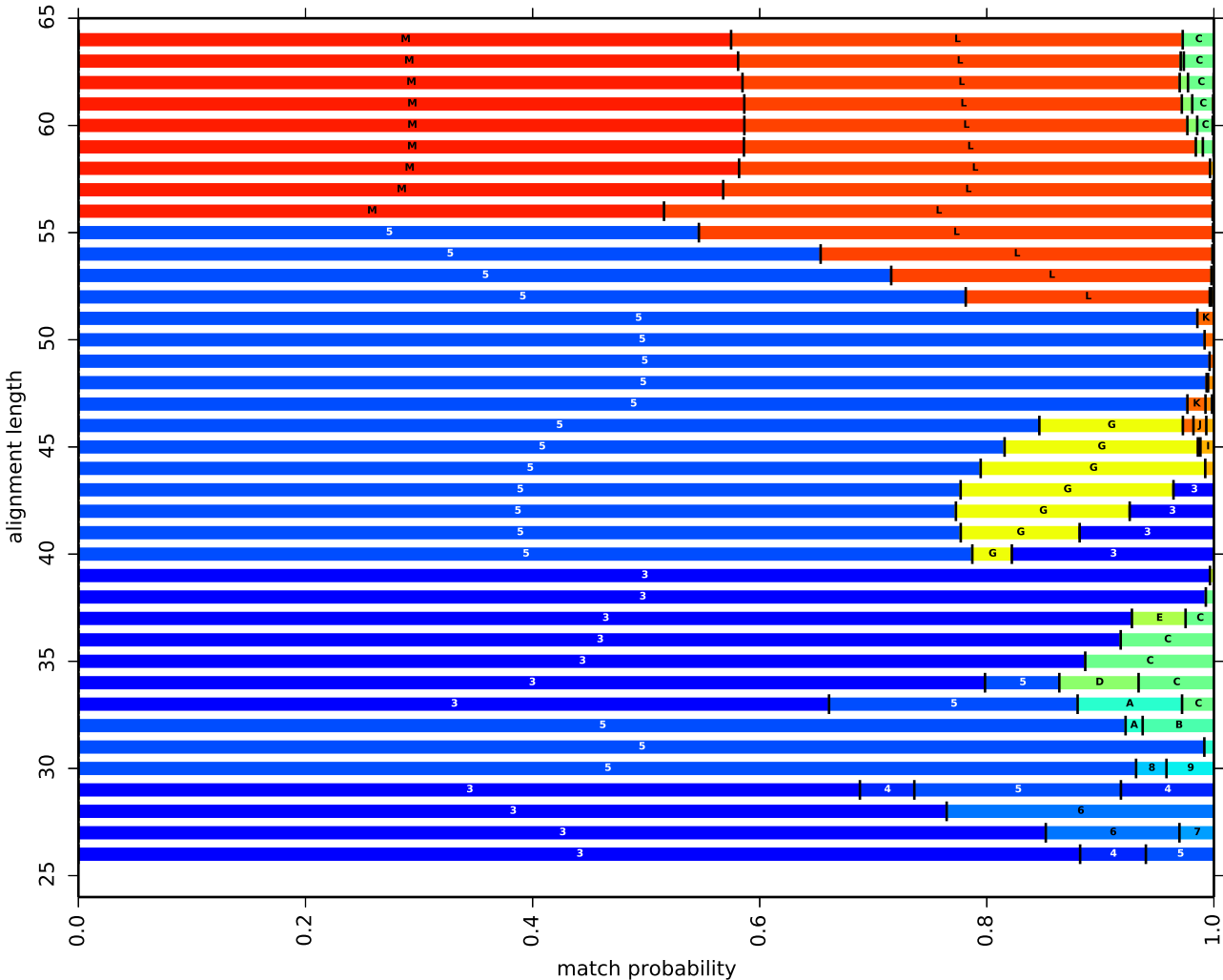
0 = 1111111111111
1 = 1111110111111

2 = 1111011101111
3 = 111101101101111

5 = 111101011001101111
H = 11101110110101111

M = 111101011001100101111
N = 1110110110010101111

\int_x^1 Hit Integration (n:1,w:13)



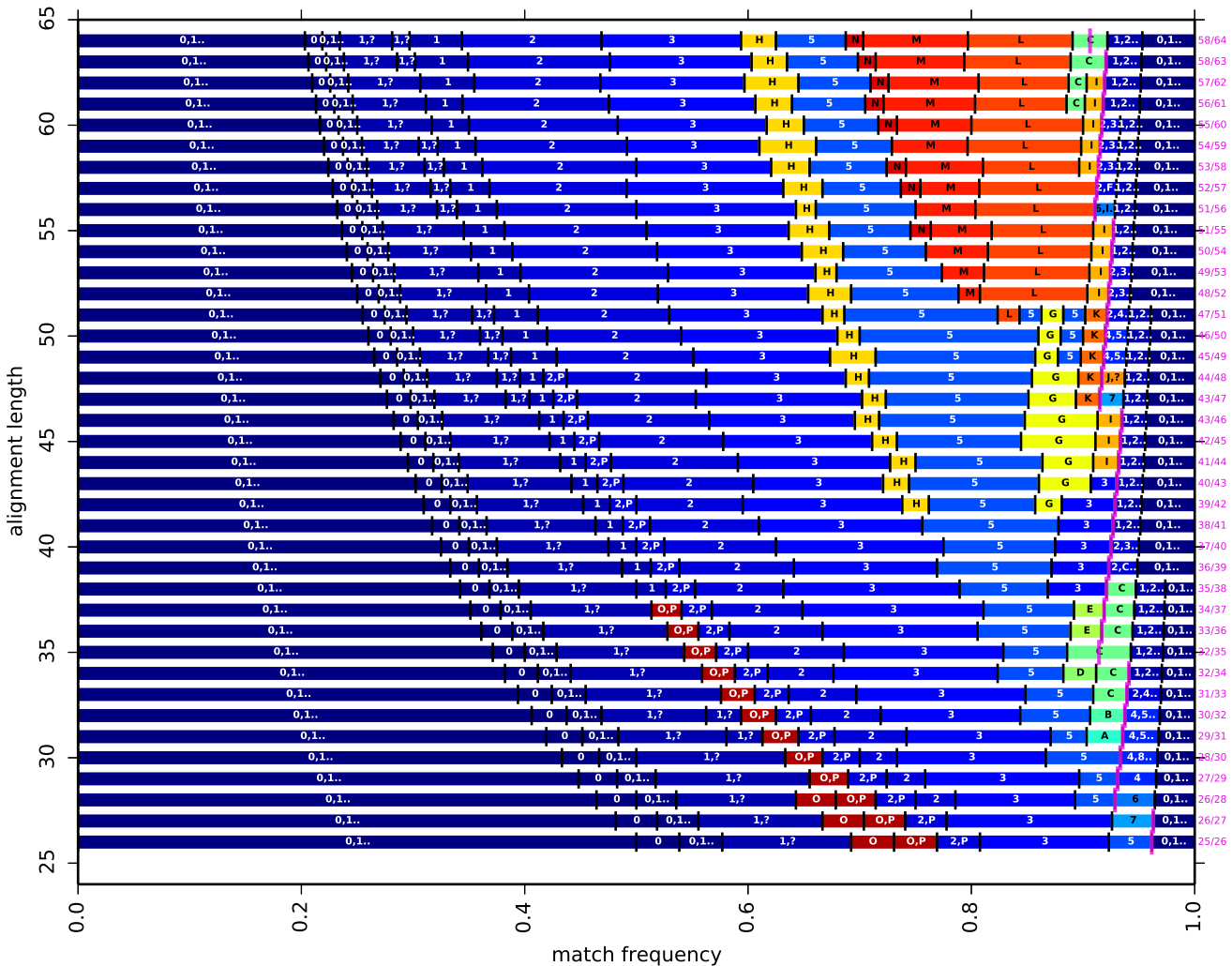
3 = 1111011011101111
 4 = 11110111001011111
 5 = 111101011001101111
 6 = 11111001101011111
 7 = 11011110001101111

8 = 111011010110011111
 9 = 1110110100101110111
 A = 111101010010111111
 B = 11011110001001101111
 C = 101111000100110101111

D = 11101010010110011111
 E = 111100101010011001111
 G = 111011101101001111
 I = 101110010111110111

J = 1011110010111101111
 K = 111011001011110111
 L = 11101001101001110111
 M = 11101011001100101111

Dirac (n:1,w:13)



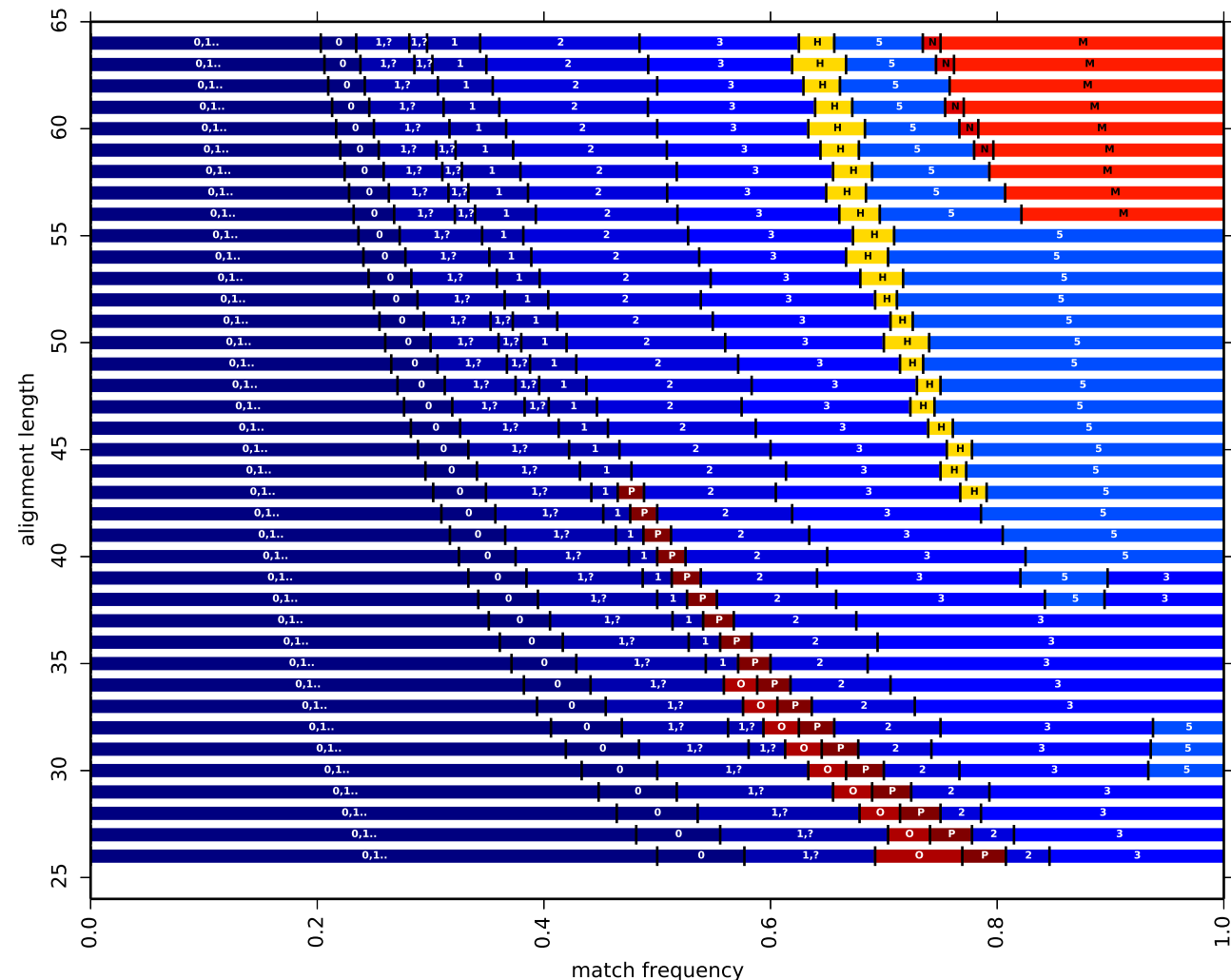
0 = 11111111111111
 1 = 11111101111111
 2 = 11110111011111
 3 = 11110101110111
 4 = 11110101100111
 5 = 11110101100101
 6 = 1111100110101111

7 = 1101110001011111
 8 = 1110110101100111
 9 = 1110110100101101
 A = 1111010100100111
 B = 1101111000100111
 C = 1011110001001101
 D = 1110101001011001

E = 1111001010100111
 F = 111010111110111
 G = 1110111011010011
 H = 1110111011010111
 I = 1011100101111011
 J = 1011100101110111

K = 1110110010111011
 L = 111010011010011011
 M = 111010110011001011
 N = 11101011001010111
 O = 11110111011111
 P = 111110111011111

$$\sum_0^x \text{Heaviside}(n:1,w:13)$$



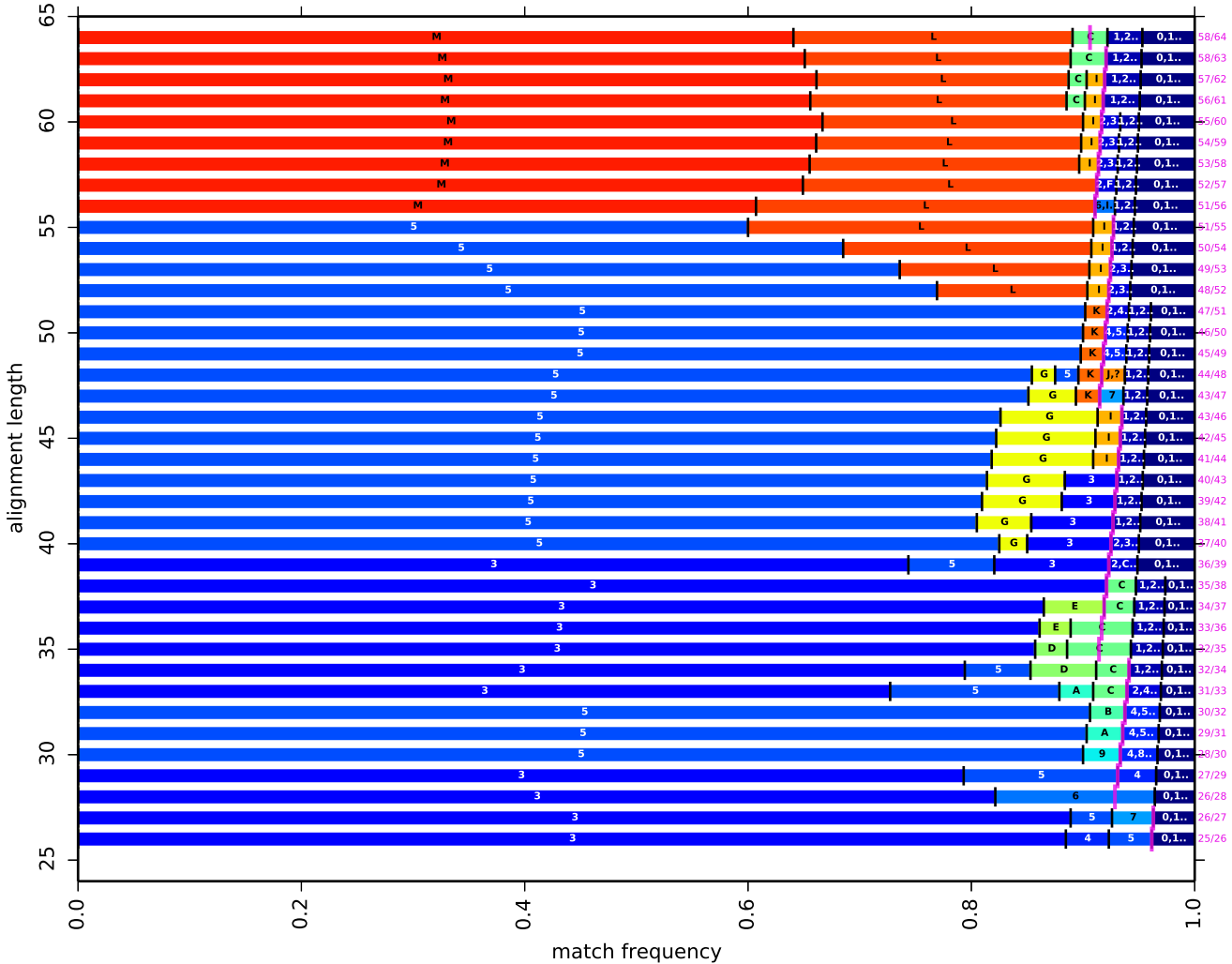
0 = 111111111111111
 1 = 111110111111111
 2 = 111101110111111
 3 = 11110110111101111
 4 = 111101110001011111
 5 = 1111010110011011111
 6 = 111110011010111111

7 = 110111100011011111
 8 = 111011010110011111
 9 = 1110110100101110111
 A = 1111010100110011111
 B = 11011110001001101111
 C = 10111100010011010111
 D = 11101010010110011111

E = 111100101010011001111
 F = 11101101111110111
 G = 111011101101001111
 H = 11101110110101111
 I = 101110010111110111
 J = 101111001011101111

K = 111011001011110111
 L = 11101001101001110111
 M = 11101011001100101111
 N = 1110110110010101111
 O = 111101111011111
 P = 111110111011111

$$\sum_x^1 \text{Heaviside}(n:1,w:13)$$



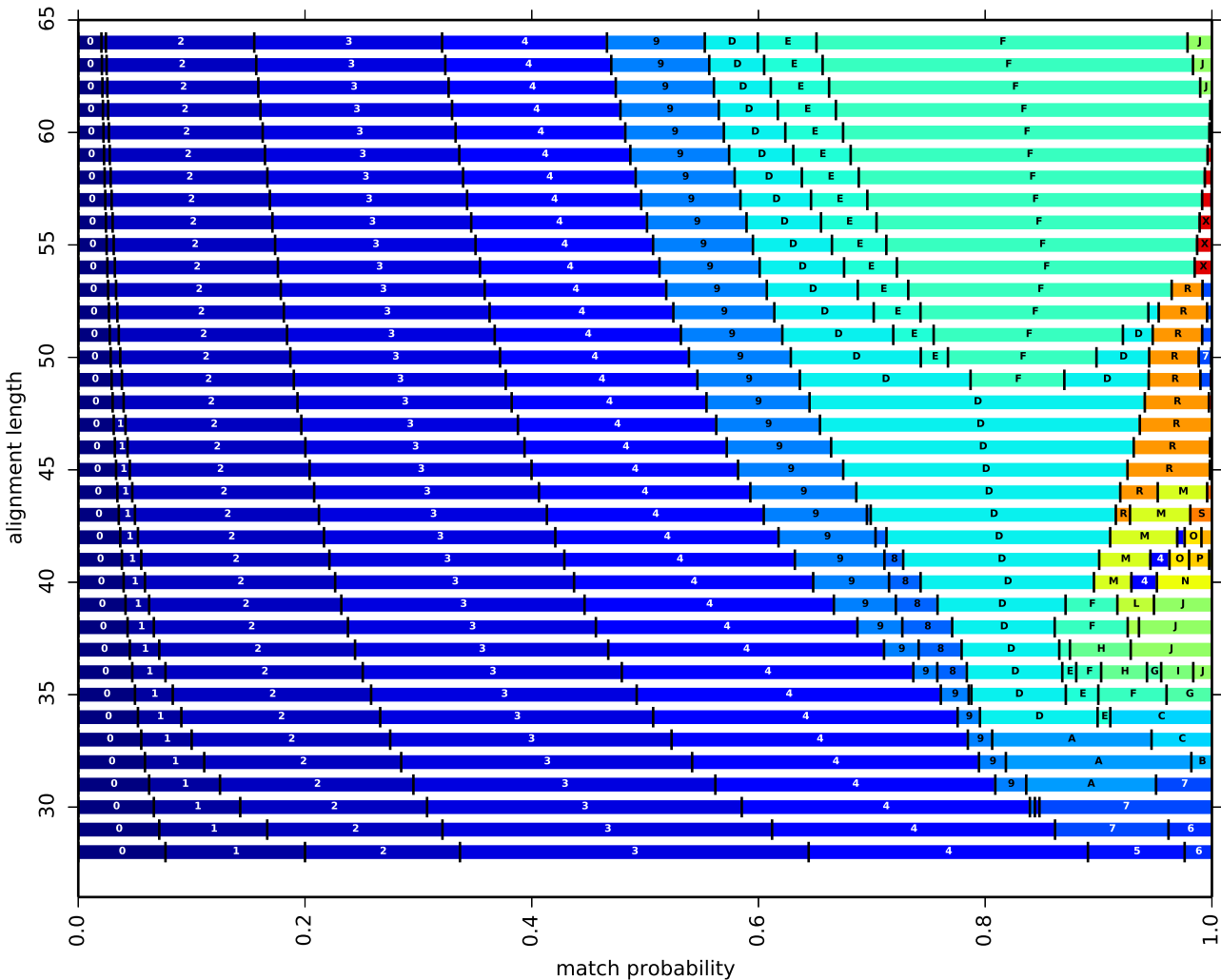
0 = 11111111111111
 1 = 11111101111111
 2 = 11110111011111
 3 = 11110110111111
 4 = 1111011100101111
 5 = 111101011001101111
 6 = 1111100110101111

7 = 110111100011011111
 8 = 111011010110011111
 9 = 1110110100101110111
 A = 11110101001100111111
 B = 11011110001001101111
 C = 101111000100110101111
 D = 11101010010110011111

E = 111100101010011001111
 F = 1110110111110111
 G = 111011101101001111
 H = 11101110110101111
 I = 101110010111110111
 J = 101111001011101111

K = 1110110010111110111
 L = 11101001101001110111
 M = 11101011001100101111
 N = 1110110110010101111
 O = 11110111011111
 P = 1111101110111111

Bernoulli (n:1,w:14)



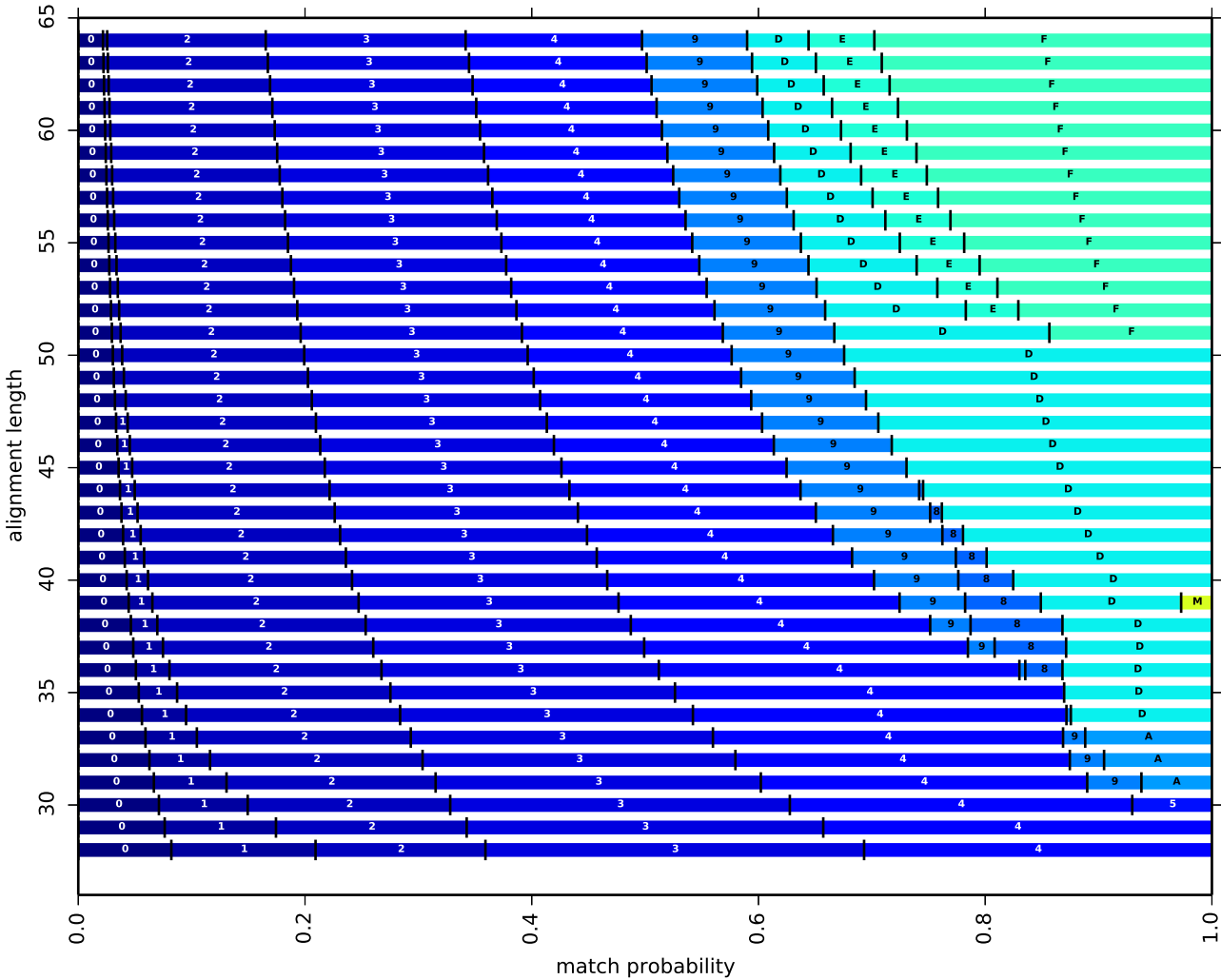
0 = 11111111111111
 1 = 11111101111111
 2 = 11111101111111
 3 = 1111101111011111
 4 = 1111010111011111
 5 = 11111010011011111
 6 = 11011110001011111

7 = 1110111101001101111
 8 = 111011101010101111
 9 = 11110101110101111
 A = 111101100110101111
 B = 11101111010010110111
 C = 1111100110010101111
 D = 111101011100101111

E = 111101010100101111
 F = 11101110001010010111
 G = 110111100010011010111
 H = 11110100110011010111
 I = 110101110001001010111
 J = 11010111100010011010111
 L = 111100110101001001111

M = 11101101011101111
 N = 1101111000100010010111
 O = 1110111101011111
 P = 1111001101100001010111
 R = 111101001101101111
 S = 101111000100010011010111
 X = 110111100101110010111

\int_0^x Hit Integration (n:1,w:14)



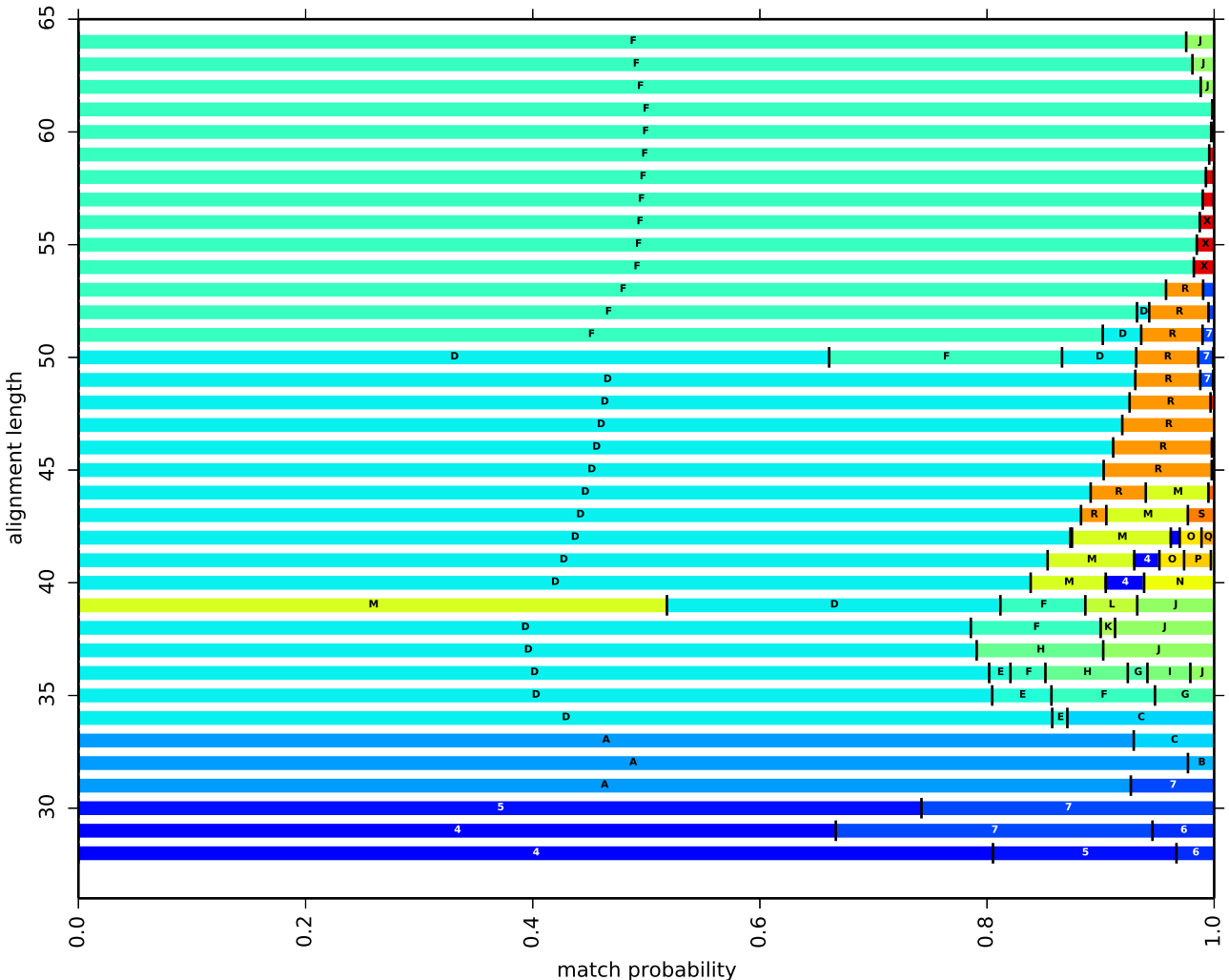
0 = 11111111111111
 1 = 11111110111111
 2 = 11111101111111
 3 = 1111101111101111

4 = 1111011011101111
 5 = 1111010011101111
 8 = 11101110110101111

9 = 11110101110110111
 A = 111101100110101111
 D = 111101011100101111

E = 1111010101100110111
 F = 11101110010110010111
 M = 111011010111011111

\int_x^1 Hit Integration (n:1,w:14)



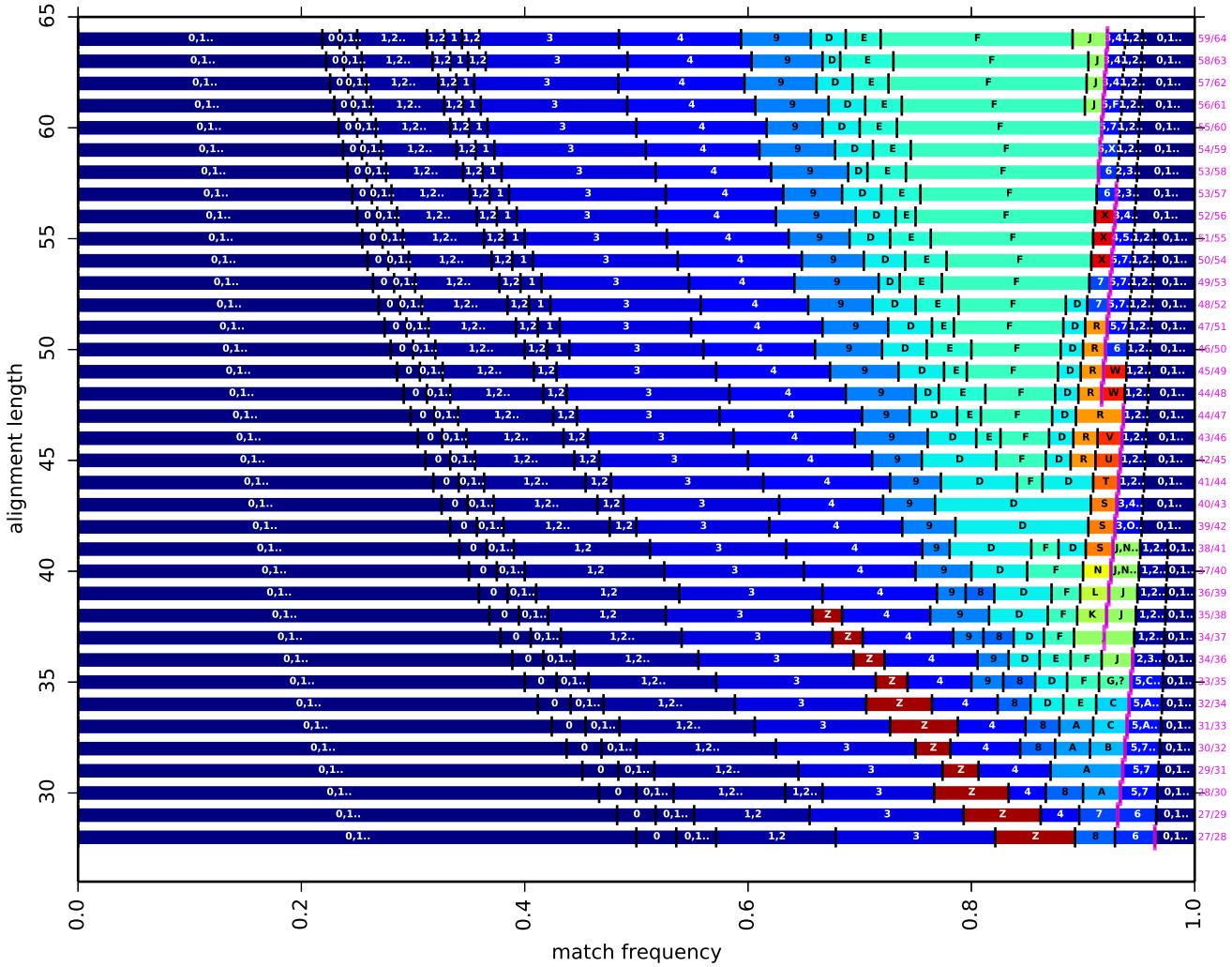
4 = 11110110111011111
 5 = 11111010011101111
 6 = 11011110001011111
 7 = 1110111101001101111
 A = 1111011001101011111
 B = 1110111010010111011

C = 1111100110010101111
 D = 1111010111001101111
 E = 1111010101100110111
 F = 111011100101100101111
 G = 110111100010011010111
 H = 111101001100110101111

I = 11010111000100110101111
 J = 11010111100010011010111
 K = 111100110010101001111
 L = 111100110101001001111
 M = 11101101011101111
 N = 110111100010001001101111

O = 11101111011011111
 P = 11110011011000010101111
 Q = 1101111000010001001101111
 R = 1111010011011101111
 S = 1011110001000100110101111
 X = 110111100101110010111

Dirac (n:1,w:14)



```

0 = 11111111111111
1 = 11111110111111
2 = 11111101111111
3 = 11111011111111
4 = 11110110111111
5 = 11110100111111
6 = 1101111000111111
7 = 1110111010011111
8 = 1110111011011111
9 = 1111011110110111

```

```

A = 111101100110101111
B = 1110111010010110111
C = 11111001100101001111
D = 11110110111001101111
E = 11110101101100110111
F = 11101110010110010111
G = 110111100010011010111
H = 11110100110011011111
I = 1110111100010011010111

```

```

J = 111010111100010011010111
K = 1111001100101010011111
L = 1111001100101001111111
M = 11101101011011111111
N = 110111100010001001101111
O = 111011110110111111
P = 11110011011000010101111
Q = 1110111000010001001101111
R = 11110100110111011111

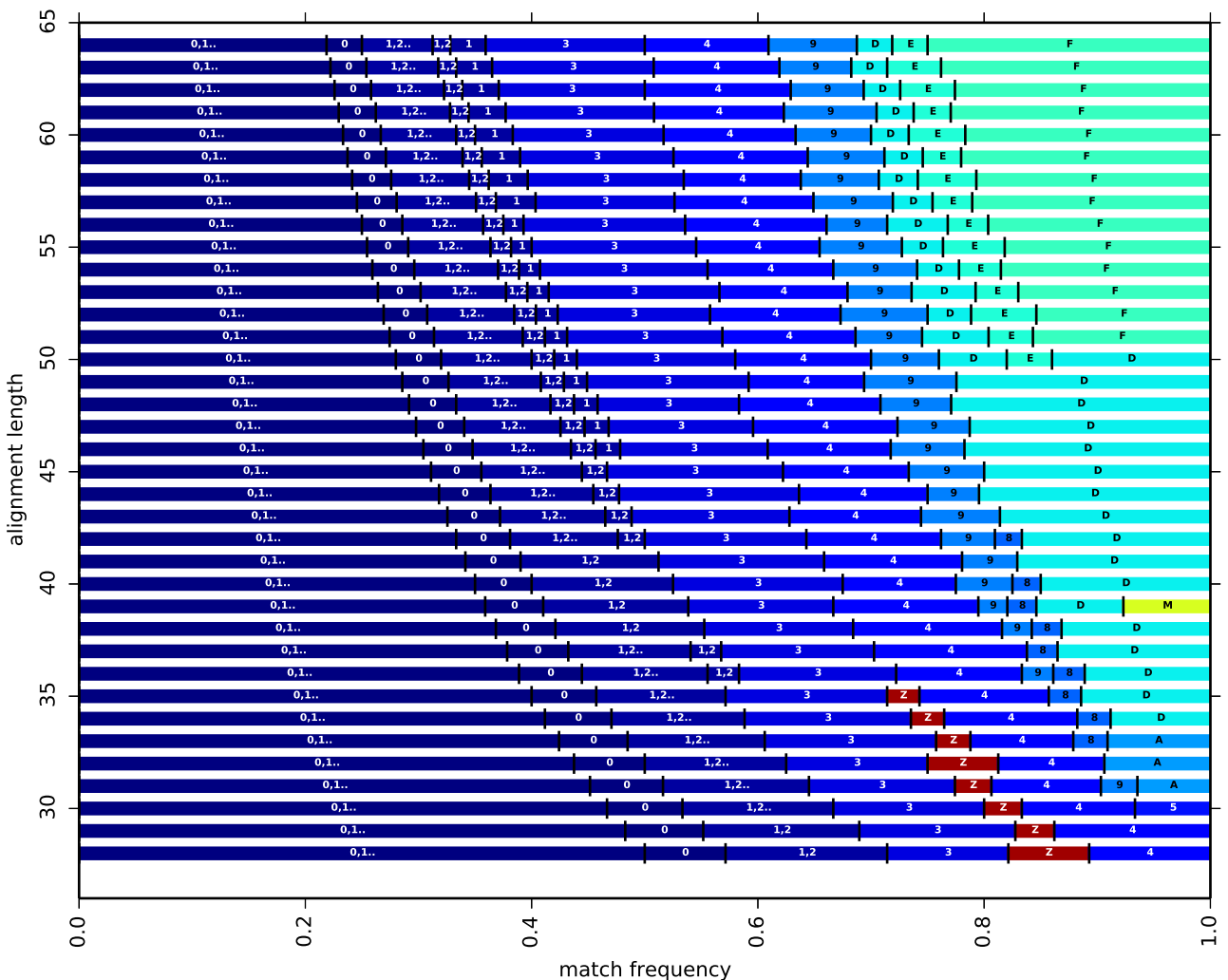
```

```

S = 10111100010001001101011111
T = 11010111000000010011011111
U = 1010111100001000100101011111
V = 1101011100000000100110101111
W = 1011111000010000100001011111
X = 110111100101110010111
Y = 1110100111010011101111
Z = 11110111011011111111
a = 111100110001010100111111

```

$$\sum_0^x \text{Heaviside}(n:1,w:14)$$



```

0 = 11111111111111
1 = 11111110111111
2 = 11111101111111
3 = 11111011111111
4 = 11110110111111
5 = 11110100111111
6 = 110111100011011111
7 = 1110111101001101111
8 = 111011101101011111
9 = 111101011101101111

```

```

A = 111101100110101111
B = 111011101001101111
C = 1111100110010101111
D = 111101011100110111
E = 1111010101100110111
F = 1110111001011001111
G = 11011110001001101111
H = 1111010011001101111
I = 11011110001001101111

```

```

J = 110101111000100110111
K = 111100110010101001111
L = 111100110101001001111
M = 111011010111011111
N = 11011110001000100110111
O = 11101111011011111
P = 1111001101100001010111
Q = 1101111000010001001111
R = 1111010011011101111

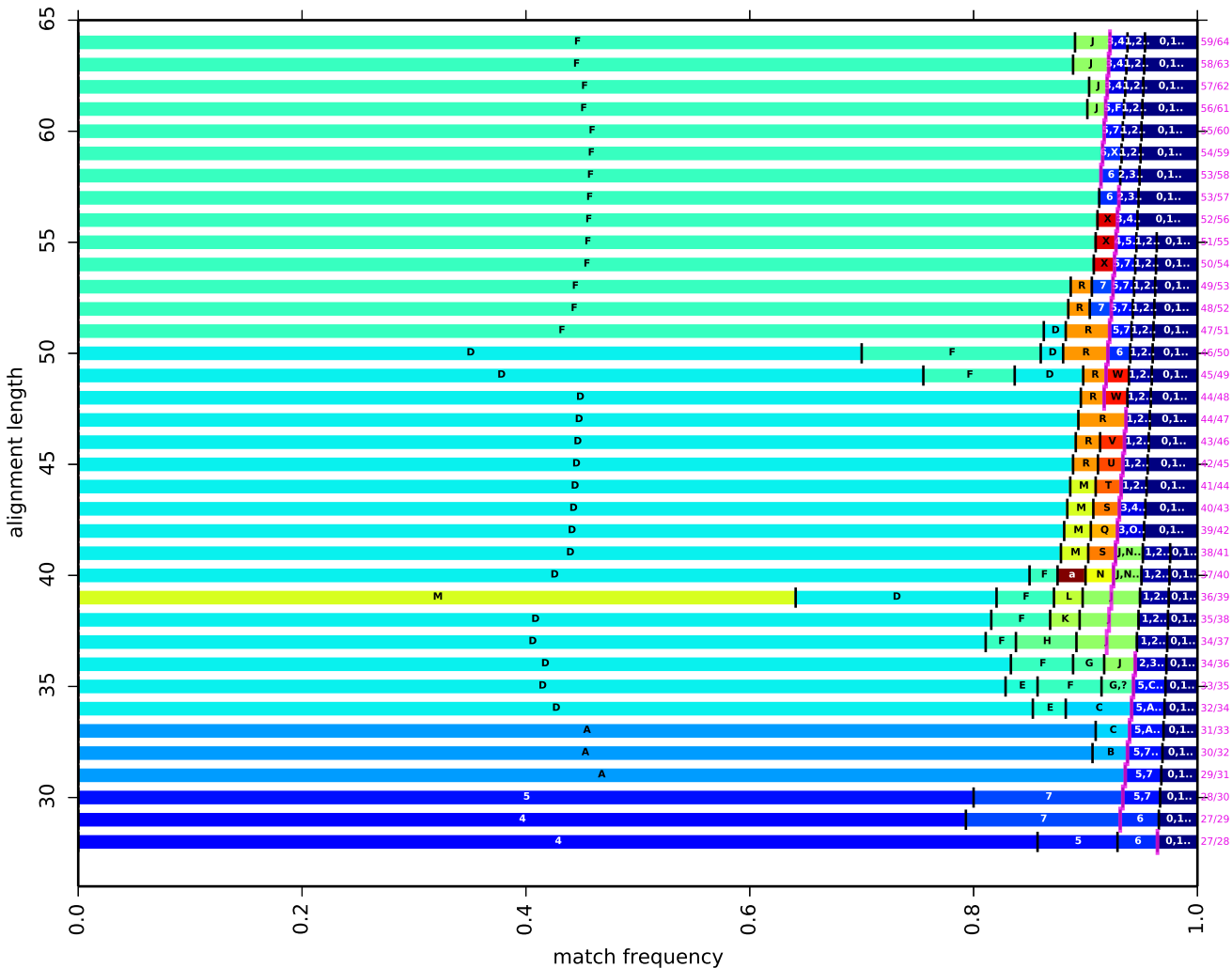
```

```

S = 101111000100010011010111
T = 1101011100000001001101111
U = 1010111100001001000101111
V = 11010111000000010011010111
W = 101111100001000010000101111
X = 110111100101110010111
Y = 111010011101001110111
Z = 11110111011011111
a = 11110011000101010011111

```


$$\sum_x^1 \text{Heaviside}(n:1,w:14)$$



```

0 = 11111111111111
1 = 11111101111111
2 = 11111011111111
3 = 11110111101111
4 = 11110101110111
5 = 1111010011101111
6 = 1101111000101111
7 = 111011101001101111
8 = 111011101101011111
9 = 11110101110101111

```

```

A = 111101100110101111
B = 1110111010010110111
C = 1111100110010101111
D = 111101011100110111
E = 1111010101100110111
F = 1110111001011001111
G = 110111100010011010111
H = 11110100110011010111
I = 1101011100010011010111

```

```

J = 1101011110001001101011
K = 111100110010101001111
L = 111100101010100101111
M = 111011010111011111
N = 11011110001000100110111
O = 1110111101101111
P = 1111001101100001010111
Q = 110111100001000100110111
R = 1111010011011101111

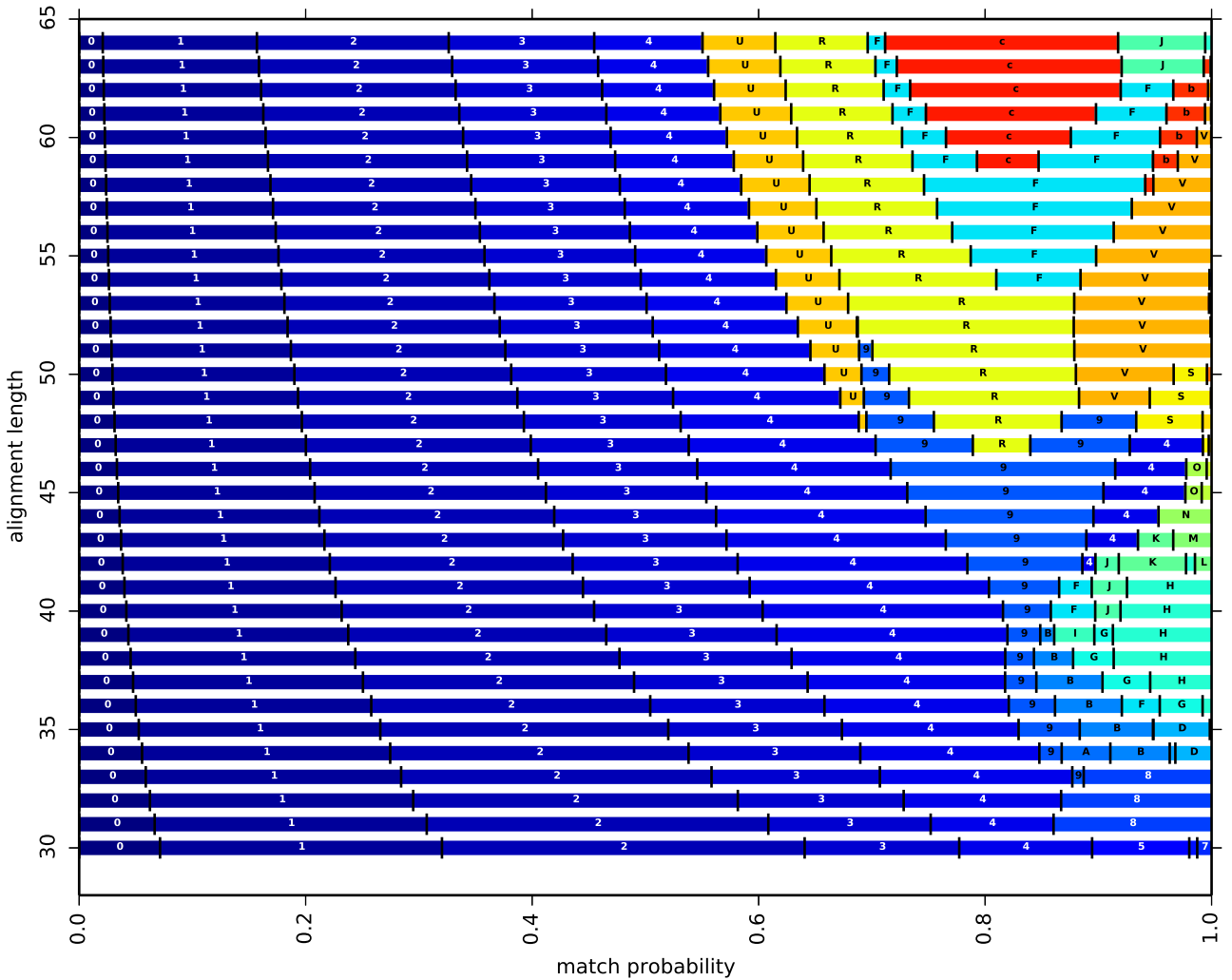
```

```

S = 101111000100010011010111
T = 110101110000000100110111
U = 1010111100000100100010111
V = 1101011100000001001010111
W = 10111110000100001000010111
X = 11011110010111001011
Y = 111010011101001110111
Z = 11110111011011111
a = 1111001100010101001111

```

Bernoulli (n:1,w:15)



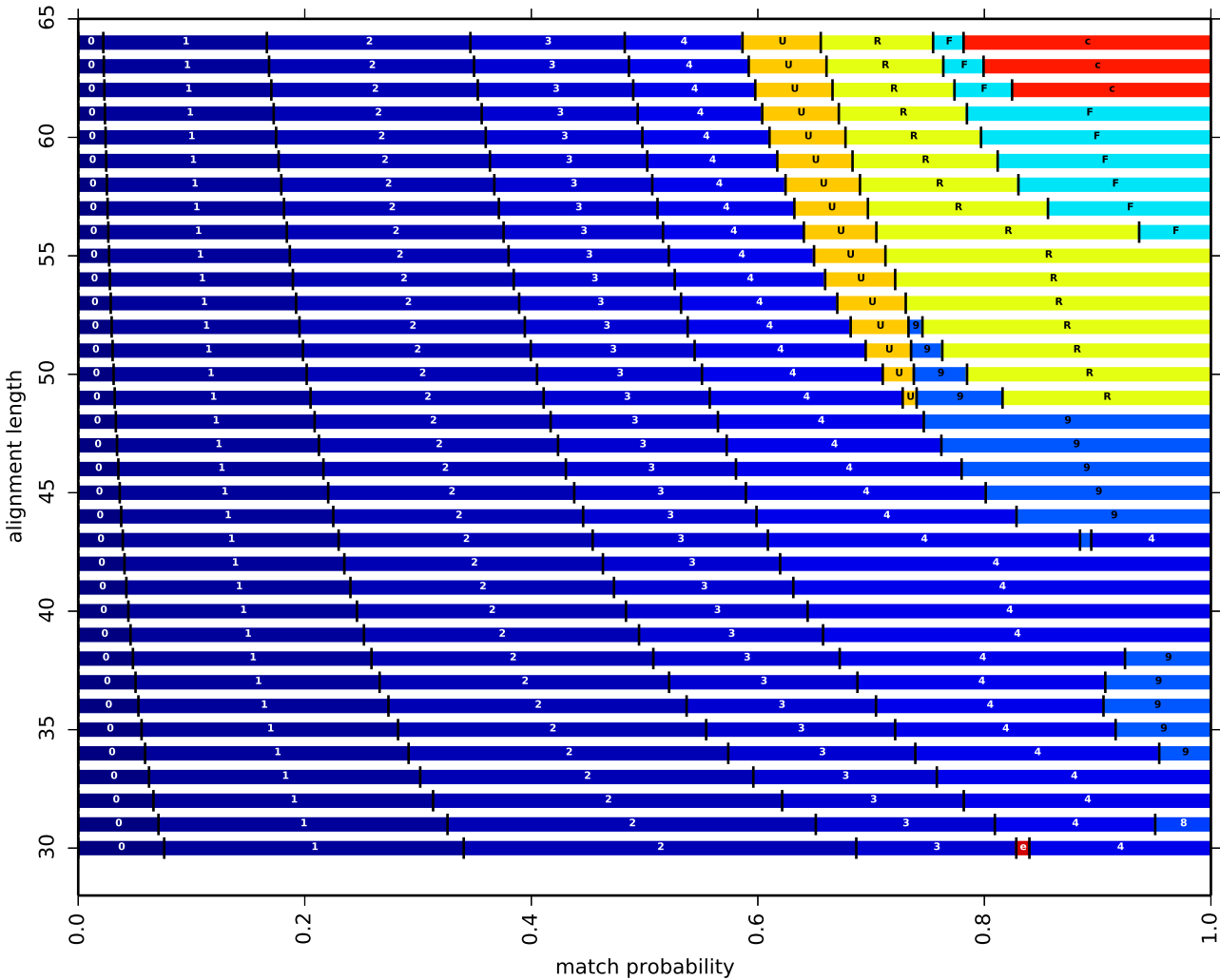
0 = 111111111111111
 1 = 111111101111111
 2 = 111110111101111
 3 = 111101110110111
 4 = 111101110110111
 5 = 111011110100111
 7 = 11110011011100011

8 = 11101111001011011
 9 = 11110101110011011
 A = 11111001101011011
 B = 11110110011010111
 D = 11110101100100111
 F = 11101110010110011
 G = 11111001101001011

H = 11010111100010011010111
 I = 1111010110001001111
 J = 110111010100101100111
 K = 111110011000101001111
 L = 11011110001100010110111
 M = 111011010001011000110111
 N = 1101111000101000100110111

O = 1111100001000110010101111
 R = 1110111010101001111
 S = 1111001011101110111
 U = 1110110111010110111
 V = 1110101111010010111
 b = 111101001110100110111
 c = 1111001010101100110111

\int_0^x Hit Integration (n:1,w:15)



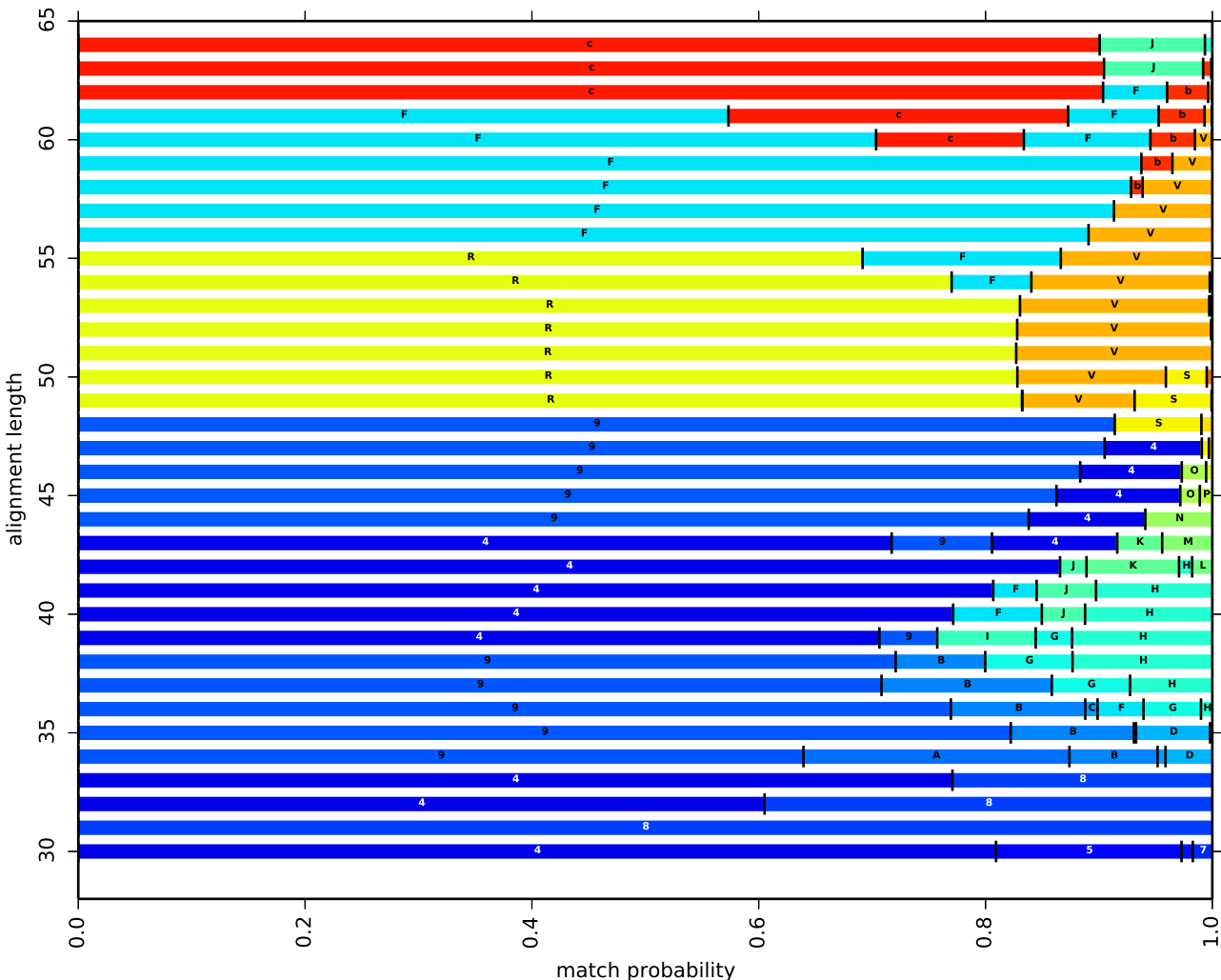
0 = 1111111111111111
 1 = 1111111011111111
 2 = 1111101111011111

3 = 111101110110111111
 4 = 1111011101101011111
 8 = 11101111001011101111

9 = 11111010111001101111
 F = 11110111001011001011111
 R = 1110111101011010011111

U = 111101101110101101111
 c = 11110010101010011011111
 e = 111110110111011111

\int_x^1 Hit Integration (n:1,w:15)



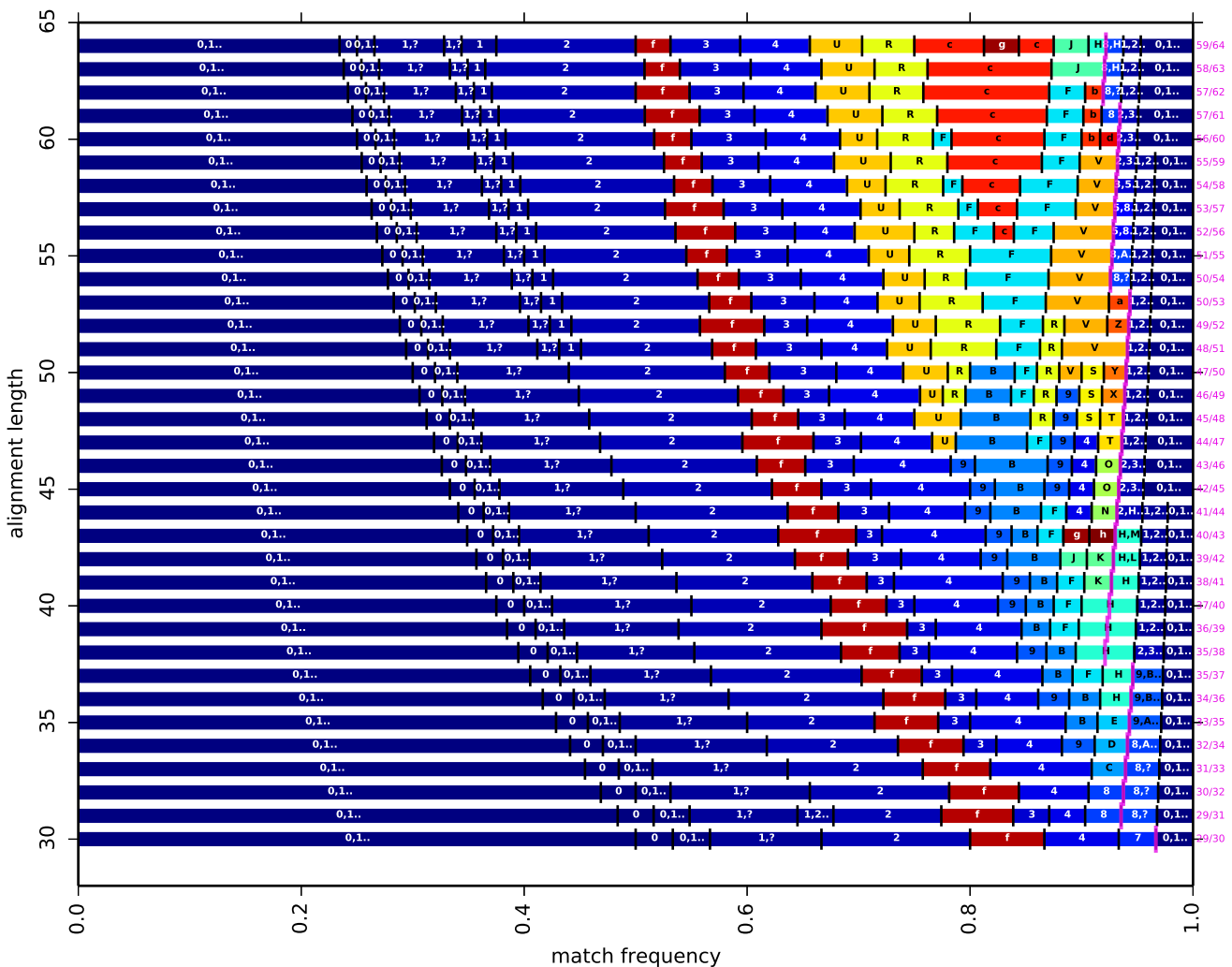
4 = 11110111011011111
 5 = 1110111101001101111
 7 = 111100110111000101111
 8 = 11101111001011101111
 9 = 1111010111001101111
 A = 1111100110101101111
 B = 11110110011010101111

C = 111110101100011011111
 D = 1111010110010011101111
 F = 111011100101100101111
 G = 111110011010010101111
 H = 110101111000100110101111
 I = 111101011001100101111

J = 1101110101001011001111
 K = 11111001100010100101111
 L = 1101111000110001001101111
 M = 111011010001011000101111
 N = 11011110001010001001101111
 O = 1111100001000110010101111

P = 1111100011001000010101111
 R = 1110111010101001111
 S = 11110010111011101111
 V = 111010111101001101111
 b = 1111010011101001101111
 c = 11110010101011001101111

Dirac (n:1,w:15)



```

0 = 111111111111111
1 = 111111101111111
2 = 111110111011111
3 = 111101110111111
4 = 111011101101111
5 = 111011101001111
6 = 111011110010111
7 = 1110011011100010111
8 = 111011100101110111
9 = 11110101100101111
A = 11110011010110111

```

```

B = 1111011001101011111
C = 1111101011000101111
D = 111101011001001101111
E = 111011110000101110111
F = 111011100101100101111
G = 11111001010010101111
H = 1101011110001001101111
I = 11110110110010101111
J = 11011101001011001111
K = 11111001100010100101111
L = 110111100011000100101111

```

```

M = 1110110100010110001101111
N = 1101111000101000100110111
O = 1111100001000110010101111
P = 1111100011001000010101111
Q = 110111100010010001001101111
R = 111101101101101001111
S = 11110010111011101111
T = 110111100000010010010110111
U = 11011011101010101111
V = 111010111101001101111
W = 1101111100001000010000101111

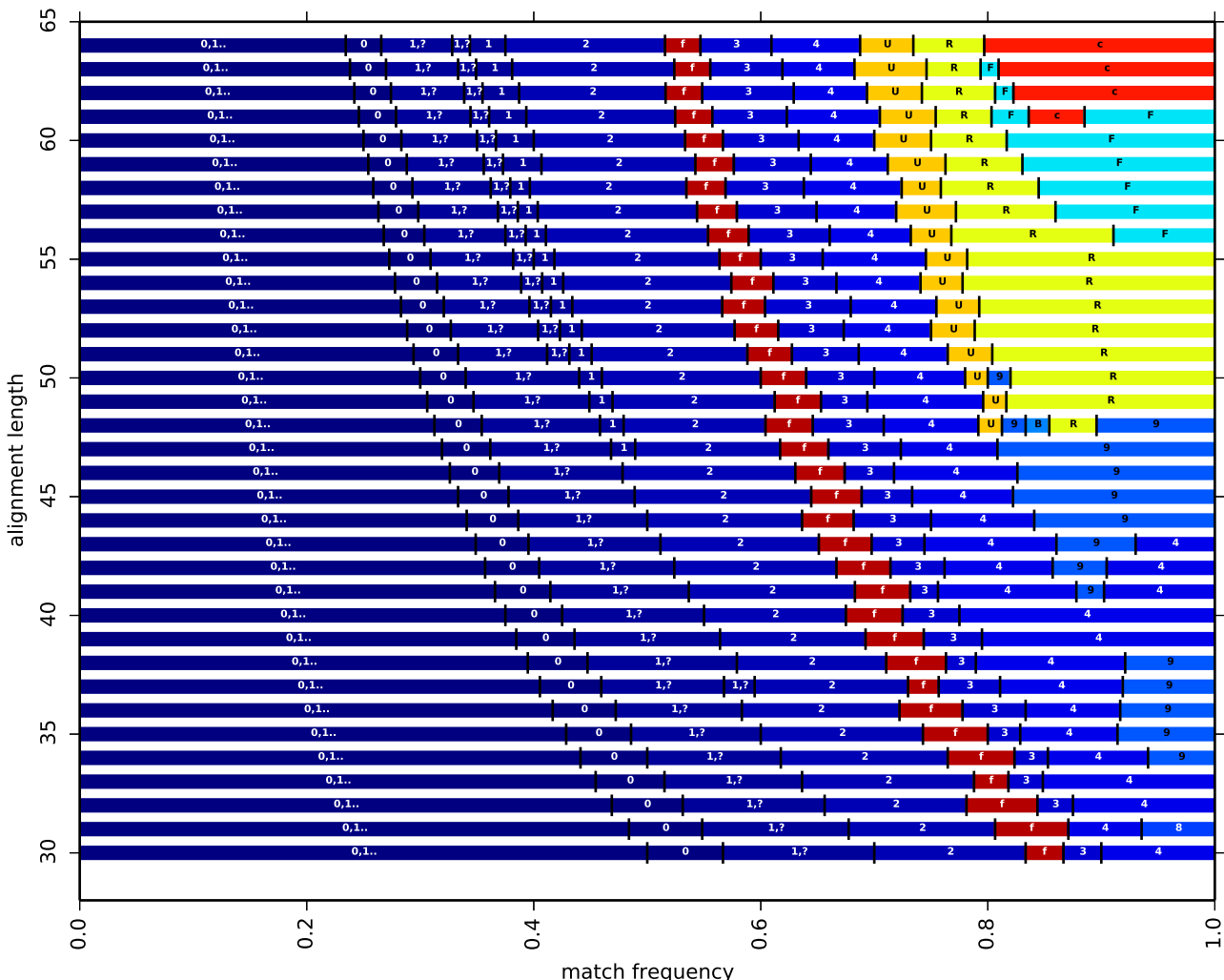
```

```

X = 110111110000000010001101111
Y = 11010111100000000100110101111
Z = 11101110010111110111
a = 11010111100001101111
b = 111101001110100101111
c = 1111001010101100101111
d = 1110100111010011101111
e = 111101101110111111
f = 111011101110111111
g = 11110010110010010101111
h = 1101111000100100110101111

```

$$\sum_0^x \text{Heaviside}(n:1,w:15)$$



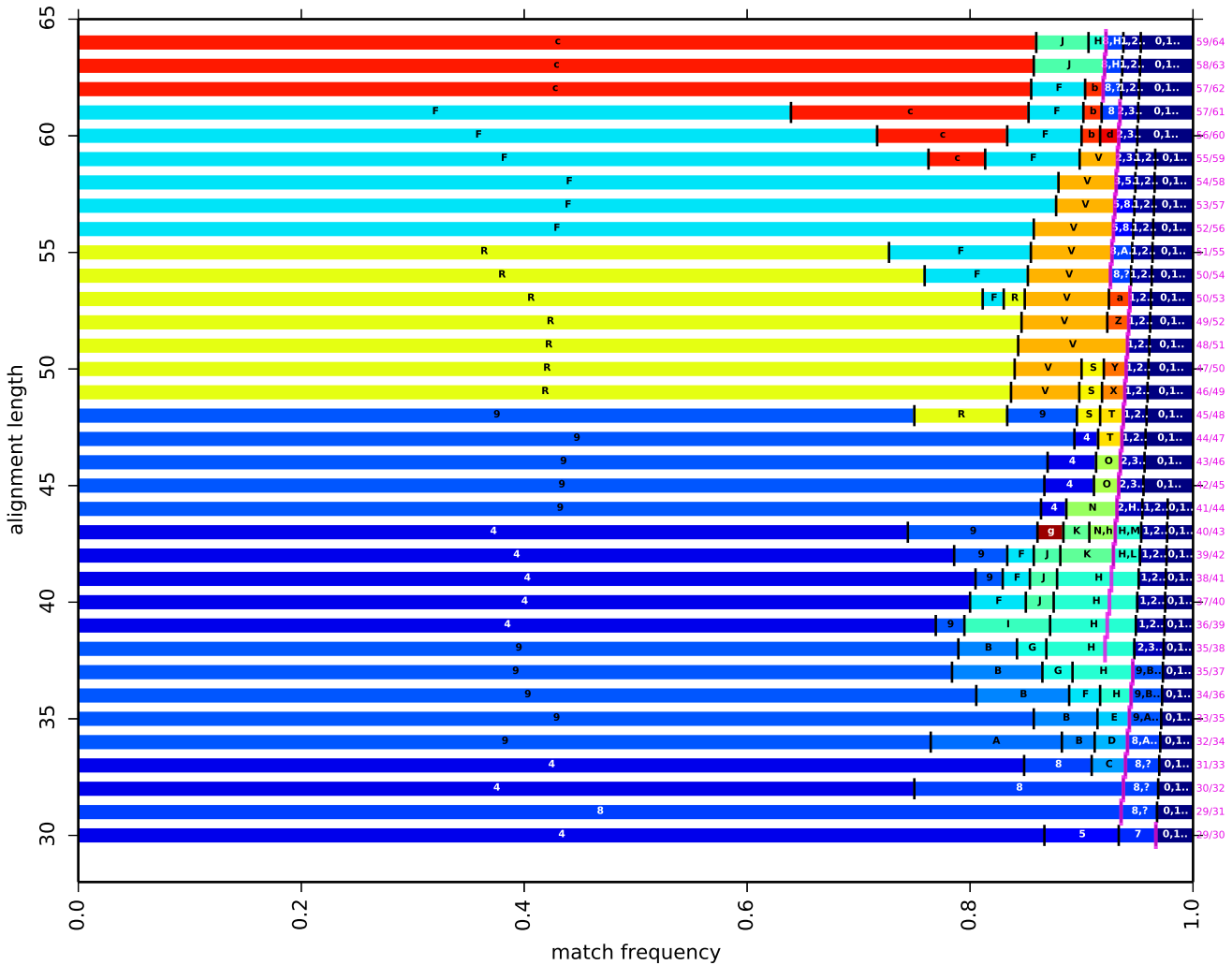
0 = 111111111111111
 1 = 111111101111111
 2 = 111110111011111
 3 = 111101110110111
 4 = 111101110110111
 5 = 111011110100111
 6 = 111011110010111
 7 = 11100110111100011
 8 = 111011110010111
 9 = 11110101100110111
 A = 11110011010110111

B = 11110110011010111
 C = 11111010110001111
 D = 11110101100100111
 E = 11101111000010111
 F = 11101110010110011
 G = 11111001101001111
 H = 11010111100010011
 I = 11110101100110011
 J = 11011101000110011
 K = 11111001100010011
 L = 11011110001100011

M = 1110110100001010001
 N = 1101111000101000101
 O = 1111100001000110010
 P = 1111100001001000010
 Q = 1101111000100100010
 R = 1110111010110011111
 S = 1111001011101101111
 T = 11101110000001001001
 U = 1110110111010110111
 V = 1110101111010011011
 W = 1101111100001000010

X = 110111110000000010001
 Y = 110101111000000001001
 Z = 11101110010111110111
 a = 110101111100011011111
 b = 111101001110100110111
 c = 111100101010110011111
 d = 111010011101001110111
 e = 1111101101110111111
 f = 1111011101101111111
 g = 111100101100110010111
 h = 110111100010001001101

$$\sum_x^1 \text{Heaviside}(n;1,w:15)$$



```

0 = 111111111111111
1 = 111111101111111
2 = 1111101111011111
3 = 1111011110111111
4 = 11101111011011111
5 = 1110111101001101111
6 = 111011110010101111
7 = 111001101111000101111
8 = 11101111001011101111
9 = 1111010111001101111
A = 111100110101101111

```

```

B = 11110110011010101111
C = 11111010110001101111
D = 11110110010011101111
E = 1111011110001011101111
F = 111011100101100101111
G = 111110011010010101111
H = 1101011110001001101111
I = 111101011001100101111
J = 1101110101001101111
K = 111110011000101001111
L = 1101111000110001001111

```

```

M = 111011010001011000101111
N = 1101111000101000101111
O = 1111100001000110010101111
P = 1111100011001000010101111
Q = 11011100010010001001101111
R = 111110101011010011111
S = 11110010111011101111
T = 11101110000010010010110111
U = 11101101110101101111
V = 111010111101001101111
W = 1101111100001000010000101111

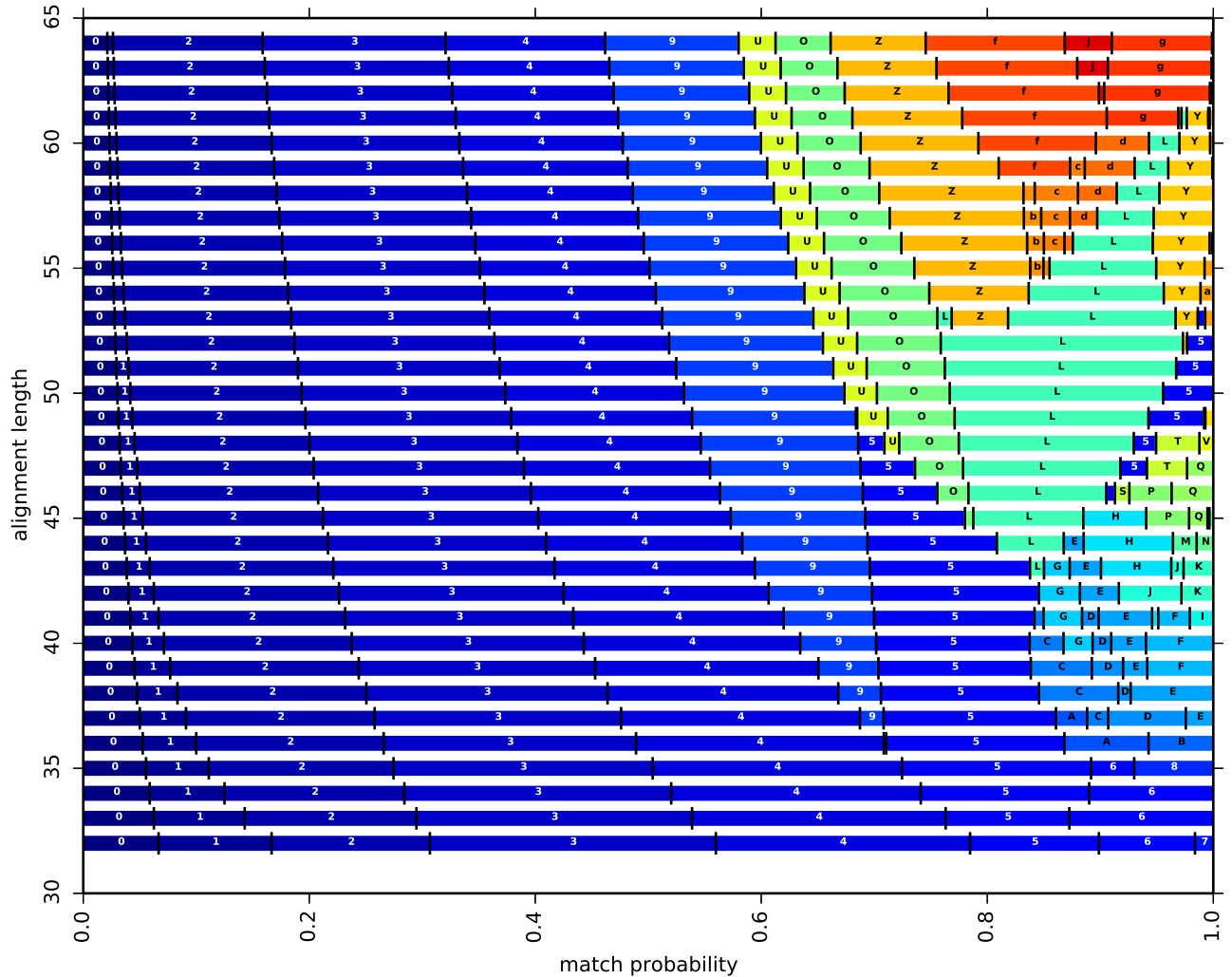
```

```

X = 110111110000000010001101111
Y = 1101011110000000010010101111
Z = 1101110010111110111
a = 11010111110001101111
b = 1111010011010010101111
c = 1111001010101100101111
d = 11101001101001101111
e = 11111011011101111
f = 11101101101101111
g = 11110010110010010101111
h = 1101111000100100110101111

```

Bernoulli (n:1,w:16)



```

0 = 1111111111111111
1 = 1111111011111111
2 = 1111110111111111
3 = 1111011110111111
4 = 1111011101101111
5 = 111101011011101111
6 = 11011111010011101111
7 = 1011000101100101110010111
8 = 11101110100101110111
9 = 11110110111011101111
    
```

```

A = 11111010111001101111
B = 1111011100100101110111
C = 11110011010110101111
D = 111011100101100101111
E = 111011101010010110011111
F = 11010111000100110101111
G = 1111010111001100101111
H = 11110011001010010101111
I = 110101111000100110101111
J = 110111100011010100110111
    
```

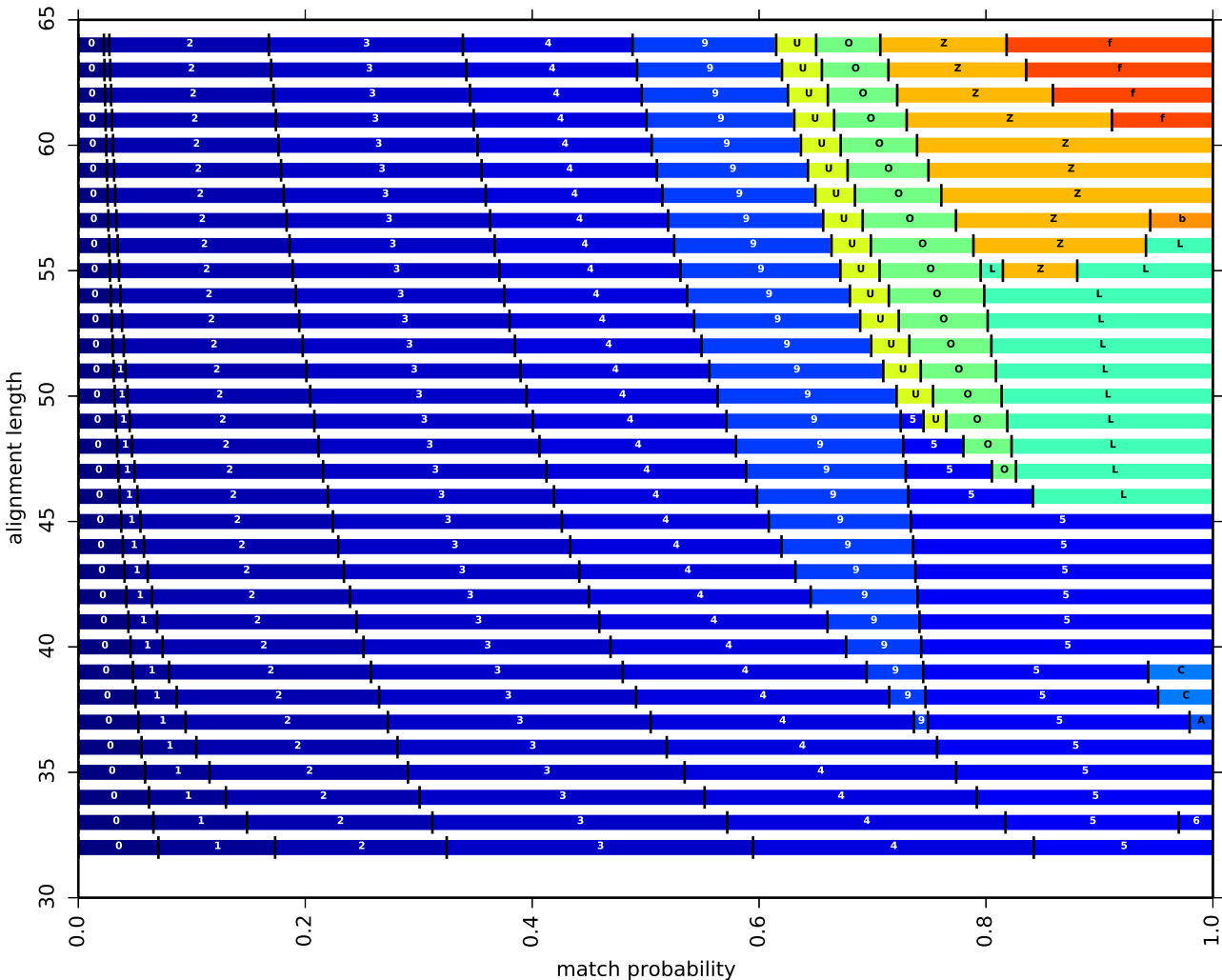
```

K = 1101101011110000011011010111
L = 1110110011101011011111
M = 1110110000101100101110111
N = 1101101011110000011011010111
O = 1110111010011101101111
P = 11111000110010100101011111
Q = 11010111100010001010101111
S = 111110011000101001011111
T = 11111000101001010011001111
U = 1110111011011011011111
    
```

```

V = 1110111000010100100101101111
Y = 11101101111010011110111
Z = 1110110010101010101101111
a = 1101111101001110111111
b = 111101010110011011011111
c = 111011101100101101011111
d = 110111010110101100111111
f = 111100110101010011011111
g = 1111001010110010111011111
j = 1111010011010100111011111
    
```


\int_0^x Hit Integration (n:1,w:16)



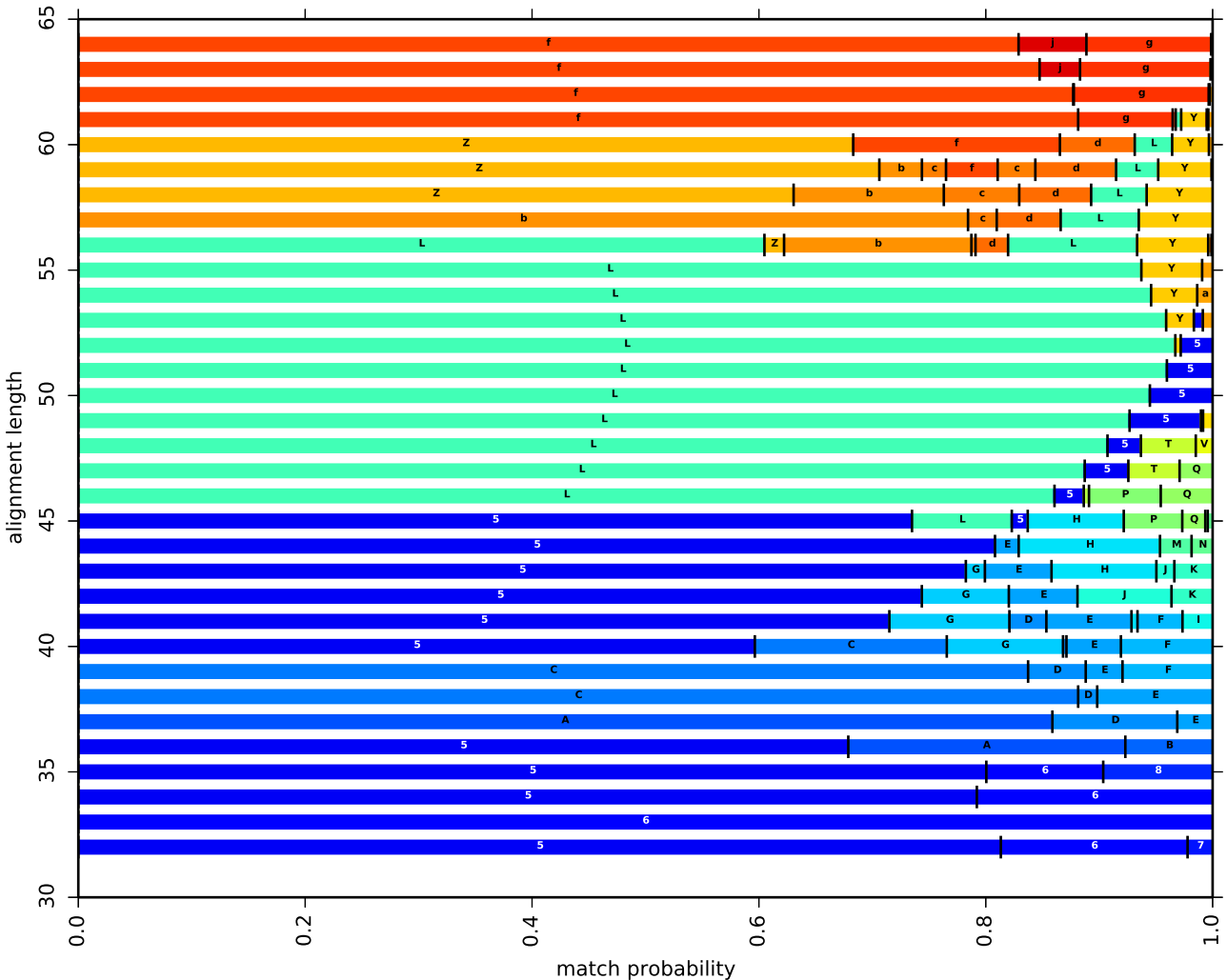
0 = 1111111111111111
 1 = 1111111011111111
 2 = 1111110111111111
 3 = 111110111110111111

4 = 111101111011011111
 5 = 11111010110110111111
 6 = 1110111110100111011111
 9 = 1111011011101101101111

A = 1111101011100110111111
 C = 111110011010110110111111
 L = 111011001110101101111111
 O = 111011101001111011011111

U = 111011110110110101111111
 Z = 11111011001101010110111111
 b = 1111101010110011011011011111
 f = 1111001101010110011011011111

\int_x^1 Hit Integration (n:1,w:16)



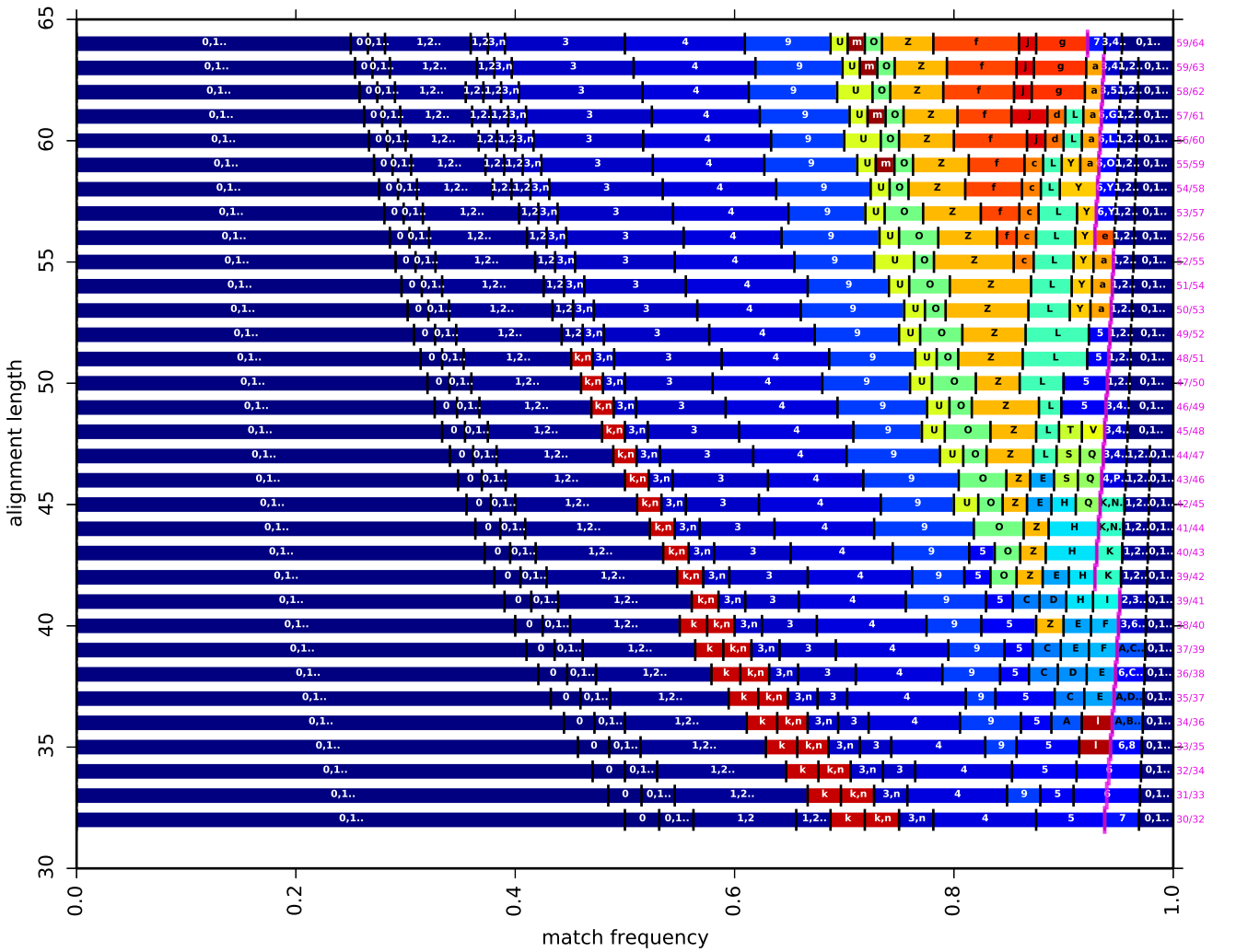
5 = 1111101011011011111
 6 = 110101111010011101111
 7 = 101110010111001011100101111
 8 = 1110111101001011101111
 A = 111110101110011011111
 B = 11110111001001011101111
 C = 1111100110101101011111
 D = 11110111001011001011111

E = 111011101010010110011111
 F = 1101011110001001101011111
 G = 11110101110011001011111
 H = 1111100110010100101011111
 I = 11010111100001001101011111
 J = 110111100010101001101111
 K = 110110101110000011011010111
 L = 1110110011101011011111

M = 11101110000101100101110111
 N = 1101101011100000011011010111
 P = 11111000110010100101011111
 Q = 1101011110001000100110101111
 T = 111110001010010100110011111
 V = 1110111000010100100101110111
 Y = 1110110111010011110111
 Z = 1111011001101010101101111

a = 110111110100111011111
 b = 11110101011001101101111
 c = 11101110110010110101111
 d = 11011101011010110011111
 f = 111100110101011000101111
 g = 11110010101001011101111
 j = 111101001101010011101111

Dirac (n:1,w:16)



```

0 = 1111111111111111
1 = 1111111101111111
2 = 1111110111111111
3 = 1111011110111111
4 = 1111011101101111
5 = 1111010110110111
6 = 110101110100110111
7 = 10110010110000110010111
8 = 110111010010110111
9 = 11101010110110111
A = 111101011001011111
B = 11101110010010110111
C = 111100101010101111

```

```

D = 1111011100101100101111
E = 111011101010001011001111
F = 110101111000100101011111
G = 1111010111001000101111
H = 111100110010100010101111
I = 11010111100001001101011111
J = 110111000101010001011111
K = 11010101110000011011010111
L = 1110100111010101011111
M = 111011000010110010110111
N = 1101010111000000101010111
O = 111011101001110101011111
P = 11111000110010100101011111

```

```

Q = 1101011110001000100110101111
R = 1101111100010010100110011111
S = 11110011000100101001011111
T = 111110001010010100110011111
U = 1110110110110101011111
V = 1110111000010100100110101111
W = 1101110101101101011111
X = 1111100100101010000110011111
Y = 111011011101001110111111
Z = 111101001101010101011111
a = 1101111010011101011111
b = 1110101010010101011111

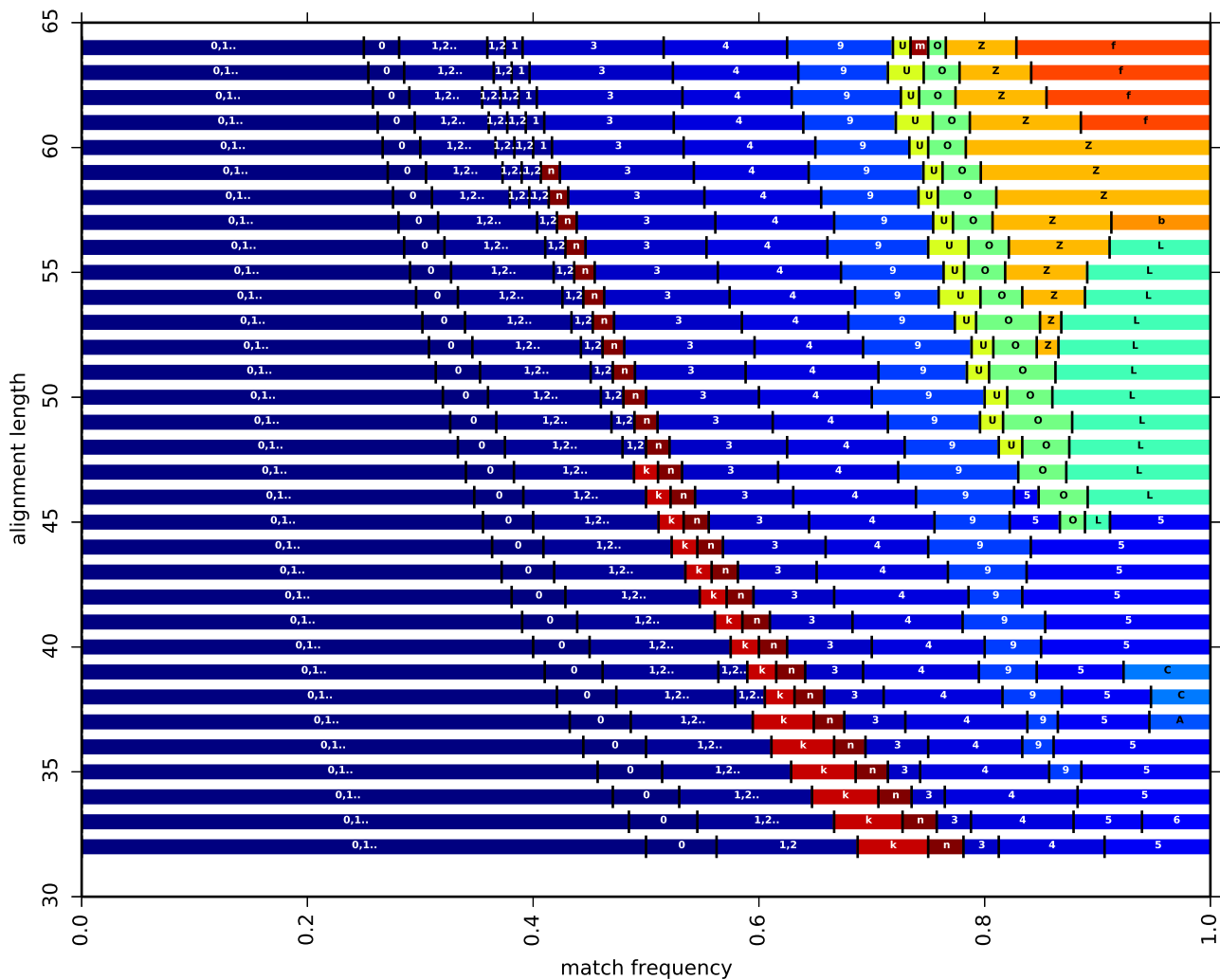
```

```

c = 111011101100101101011111
d = 110111010101010001111111
e = 101110111001011010111111
f = 111100110101010001101111
g = 111100101010001011011111
h = 111011010100010110111111
i = 11101001101010001010111111
j = 11110001010100011101011111
k = 1111011111011111111111
l = 111101100100101010111111
m = 111101011001010101111111
n = 1111101111011111111111

```

$$\sum_0^x \text{Heaviside}(n:1,w:16)$$



```

0 = 1111111111111111
1 = 1111111011111111
2 = 1111110111111111
3 = 1111011110111111
4 = 1111011101101111
5 = 11110101101101111
6 = 1101111101001101111
7 = 10111000101100010111
8 = 11011110100101101111
9 = 1111010110110110111
A = 11111010111001101111
B = 1111011100100101101111
C = 111110011010110101111

```

```

D = 1111011100101100101111
E = 111011101010001011001111
F = 1101010111000100110101111
G = 1111010111001100101111
H = 111110011001010010101111
I = 1101011110000100110101111
J = 110111000011010100110111
K = 110110101110000011011010111
L = 1110110011101010101111
M = 1110111000010110010110111
N = 1101101011100000011011010111
O = 1110111010011101010111
P = 1111100011001010010101111

```

```

Q = 1101011110001000100110101111
R = 110111110001001010011001111
S = 111110011000101010010101111
T = 11111000101001010011001111
U = 11101101101101010111
V = 11110110000101001001110111
W = 11011110101110101111
X = 111110010010101000011001111
Y = 111011011101001110111
Z = 111101100110101010101111
a = 1101111101001110101111
b = 11110101010001010101111

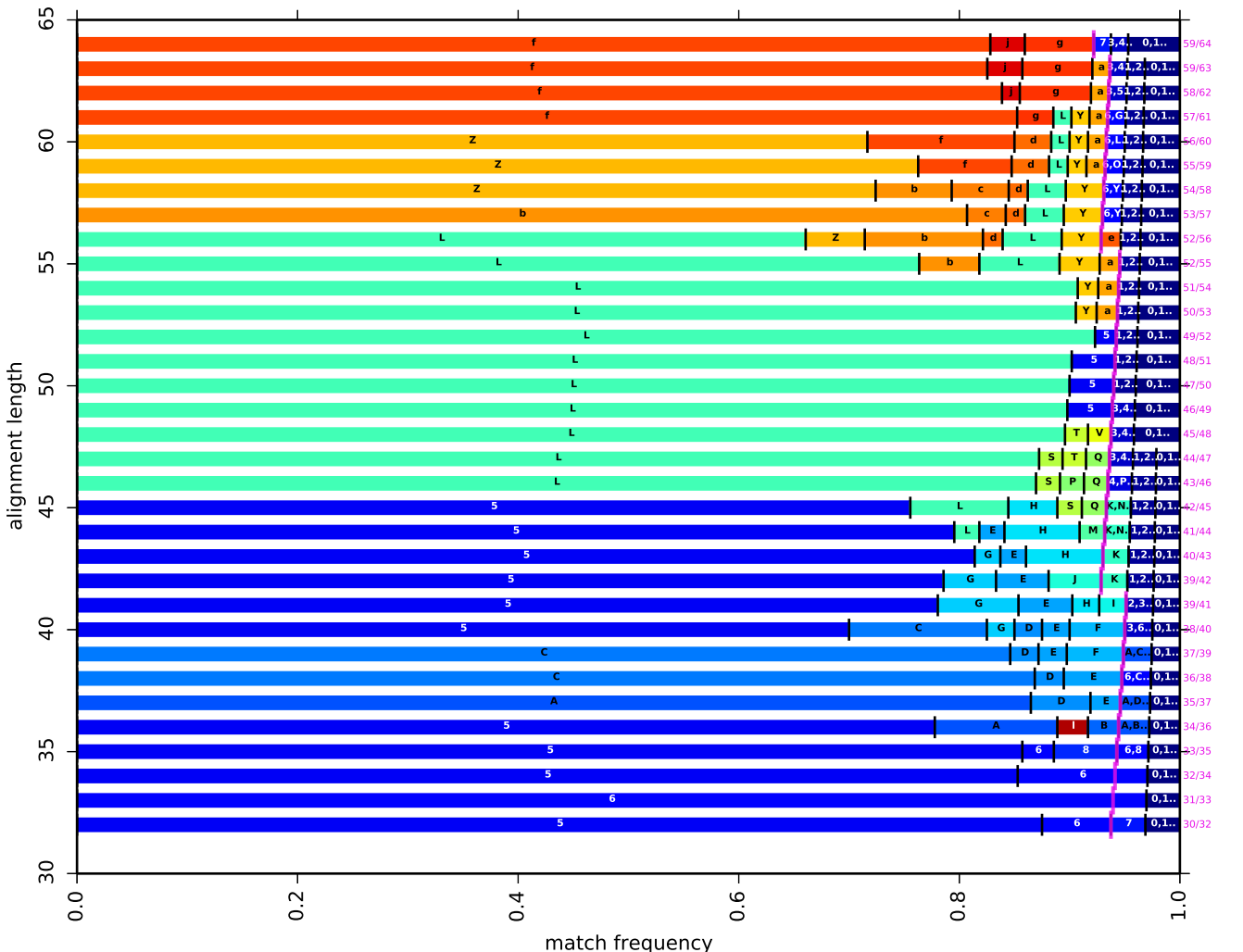
```

```

c = 11101110110010110101111
d = 11011101011010110011111
e = 1011101111001011010111
f = 111100110101010100110111
g = 111100101011001011010111
h = 1110110101100101101111
i = 111010011101101001010111
j = 111101001101010011101111
k = 111110111110111111
l = 1111011001001101011111
m = 1111010110011010101111
n = 111110111110111111

```

$$\sum_x^1 \text{Heaviside}(n;1,w:16)$$



```

0 = 1111111111111111
1 = 1111111011111111
2 = 1111110111111111
3 = 1111011110111111
4 = 1111011101101111
5 = 11110101101101111
6 = 1110111101001101111
7 = 10111000101100010111
8 = 11011110100101101111
9 = 1111011011101101111
A = 11111010111001011111
B = 11110111001001011101111
C = 111110011010110101111

```

```

D = 1111011100101100101111
E = 111011101010001011001111
F = 110101111000100110101111
G = 1111010111001100101111
H = 111110011001010010101111
I = 1101011110000100110101111
J = 110111100011010100110111
K = 110110101110000011011010111
L = 11101100111010101111
M = 1110111000010110010110111
N = 110110101110000001011010111
O = 111011101001110101111
P = 1111100011001010010101111

```

```

Q = 1101011110001000100110101111
R = 110111110001001010011001111
S = 1111100110001010100101111
T = 11111000101001010011001111
U = 1110111011010101111
V = 11101110000101001001110111
W = 1101111010111010111
X = 111110010010101000011001111
Y = 111011011101001110111
Z = 111101100110101010111
a = 11011111010011101111
b = 1111010101100110101111

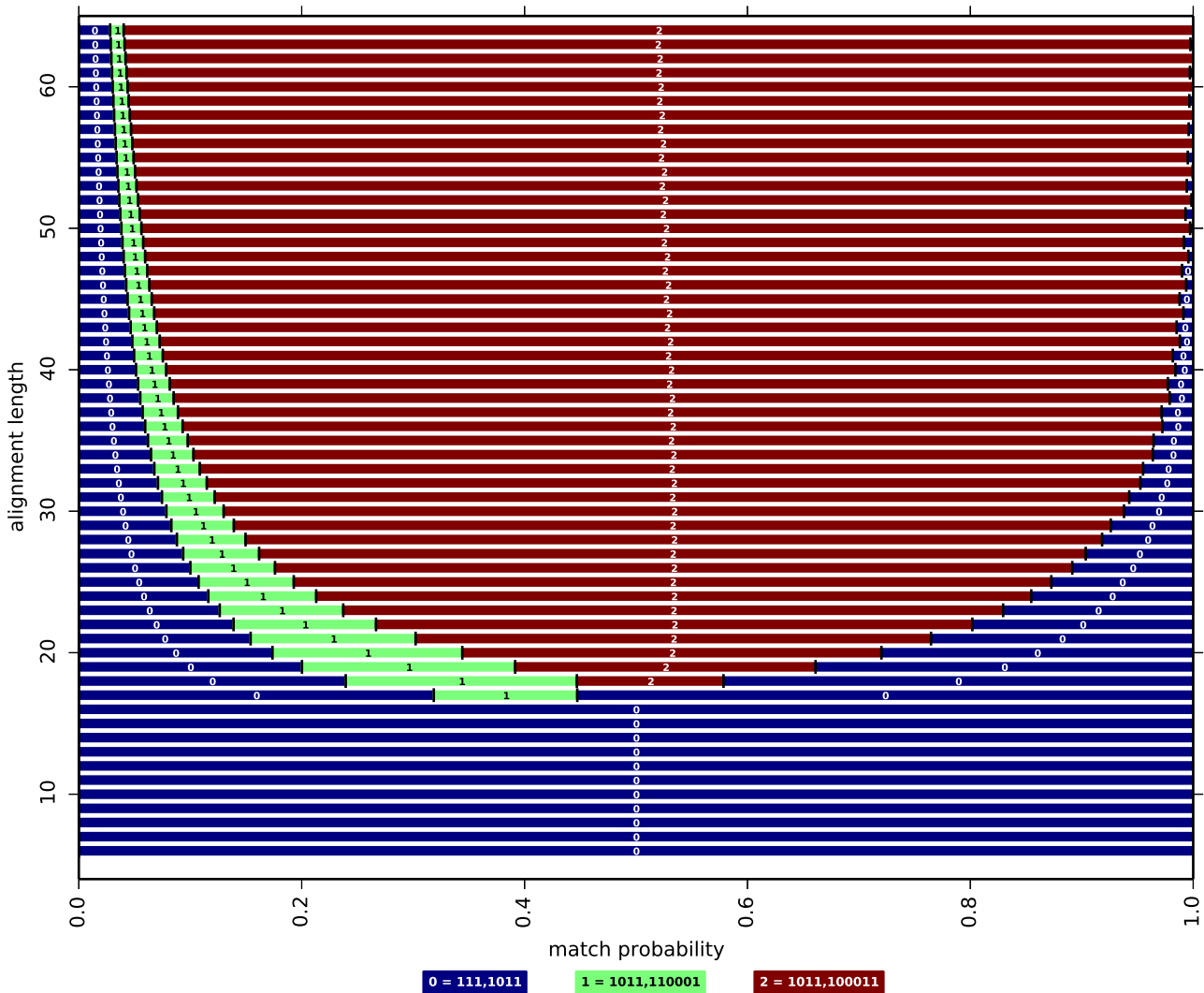
```

```

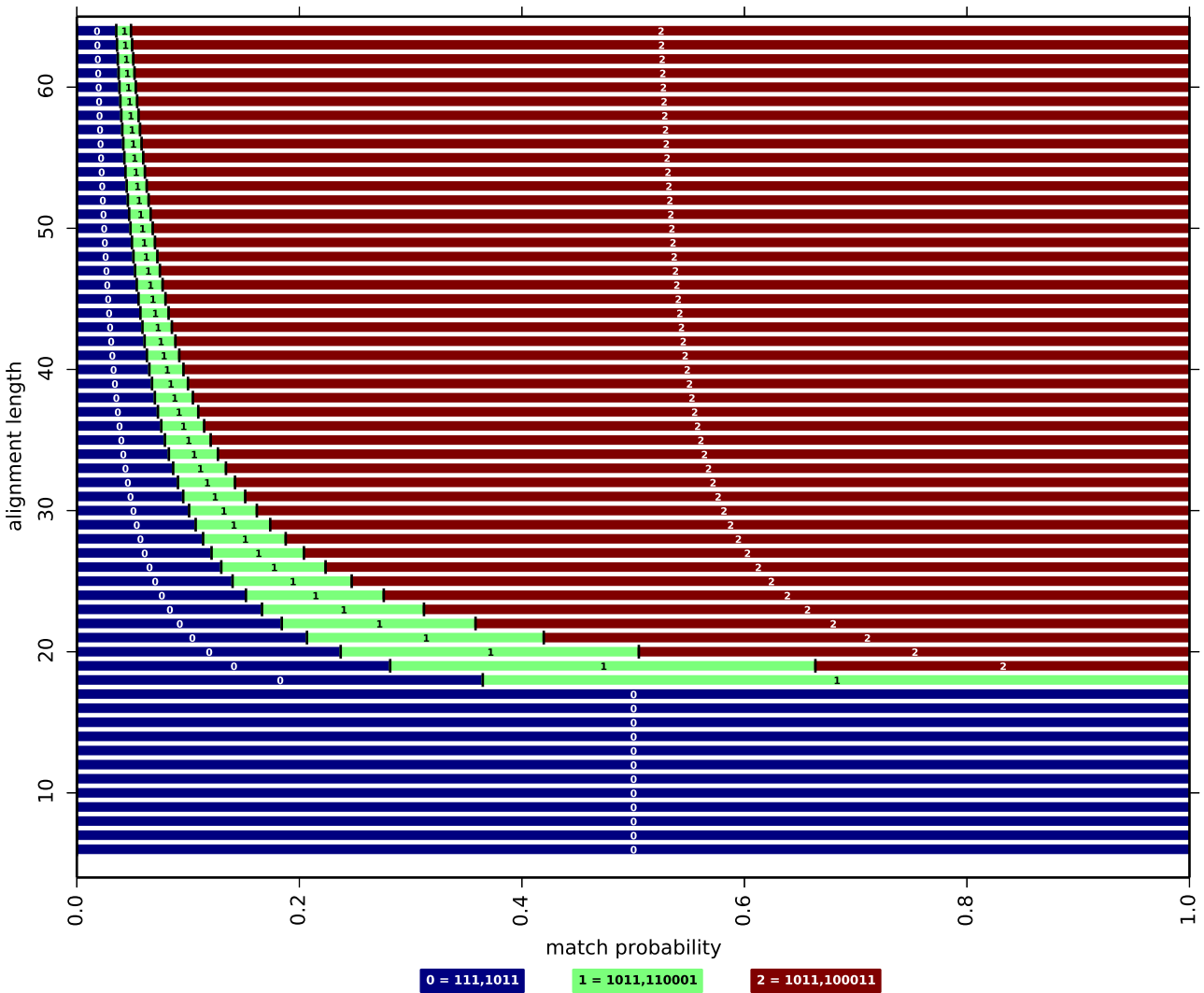
c = 11101110110010110101111
d = 11011101011010110011111
e = 101110111001011101111
f = 11110011010101001101111
g = 1111001010110001011101111
h = 111011011001011101111
i = 111010011101101000101111
j = 111101000101010011101111
k = 1111101111101111111
l = 1111011001001101011111
m = 111101011001101011111
n = 1111101111101111111

```

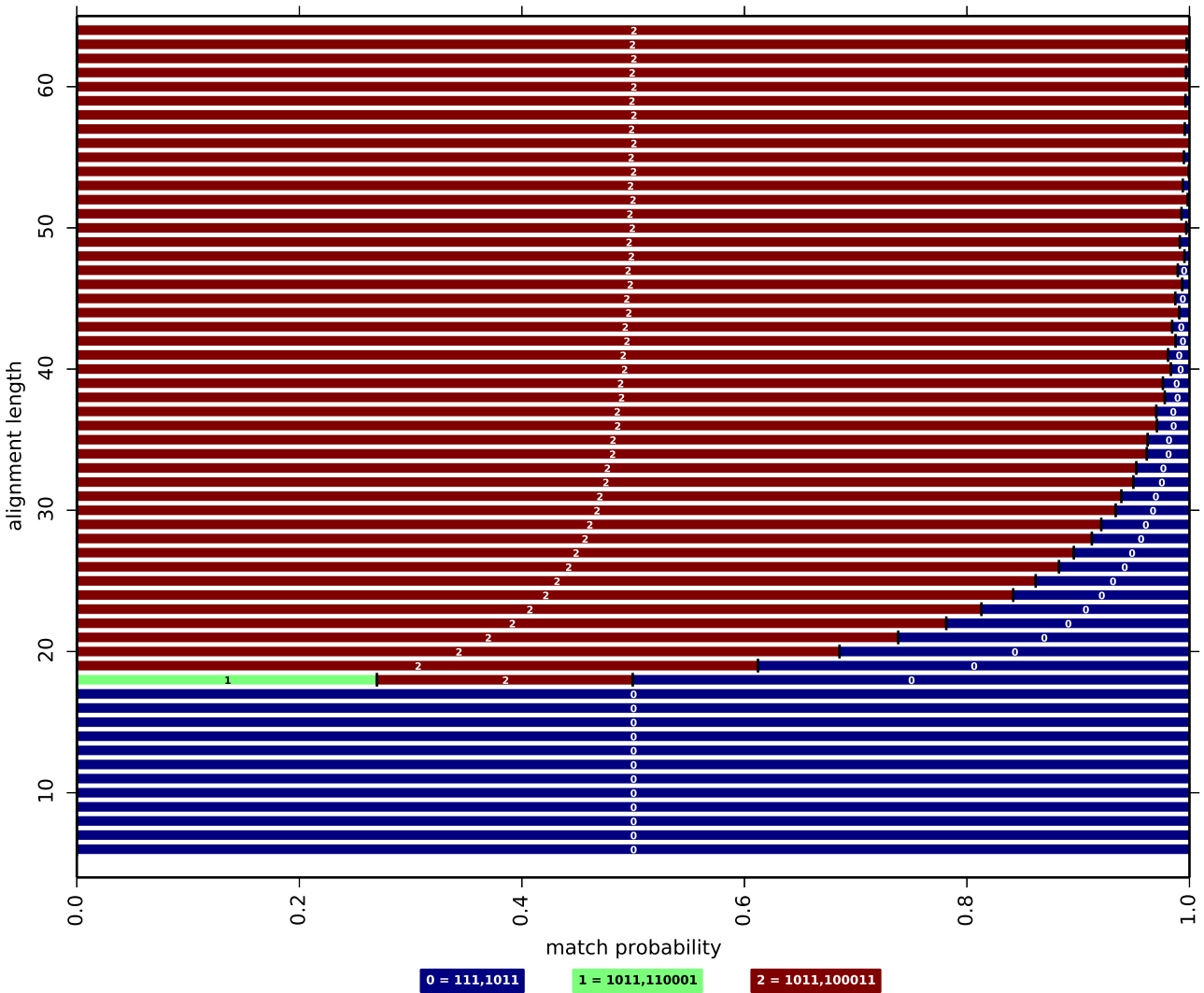
Bernoulli (n:2,w:3)



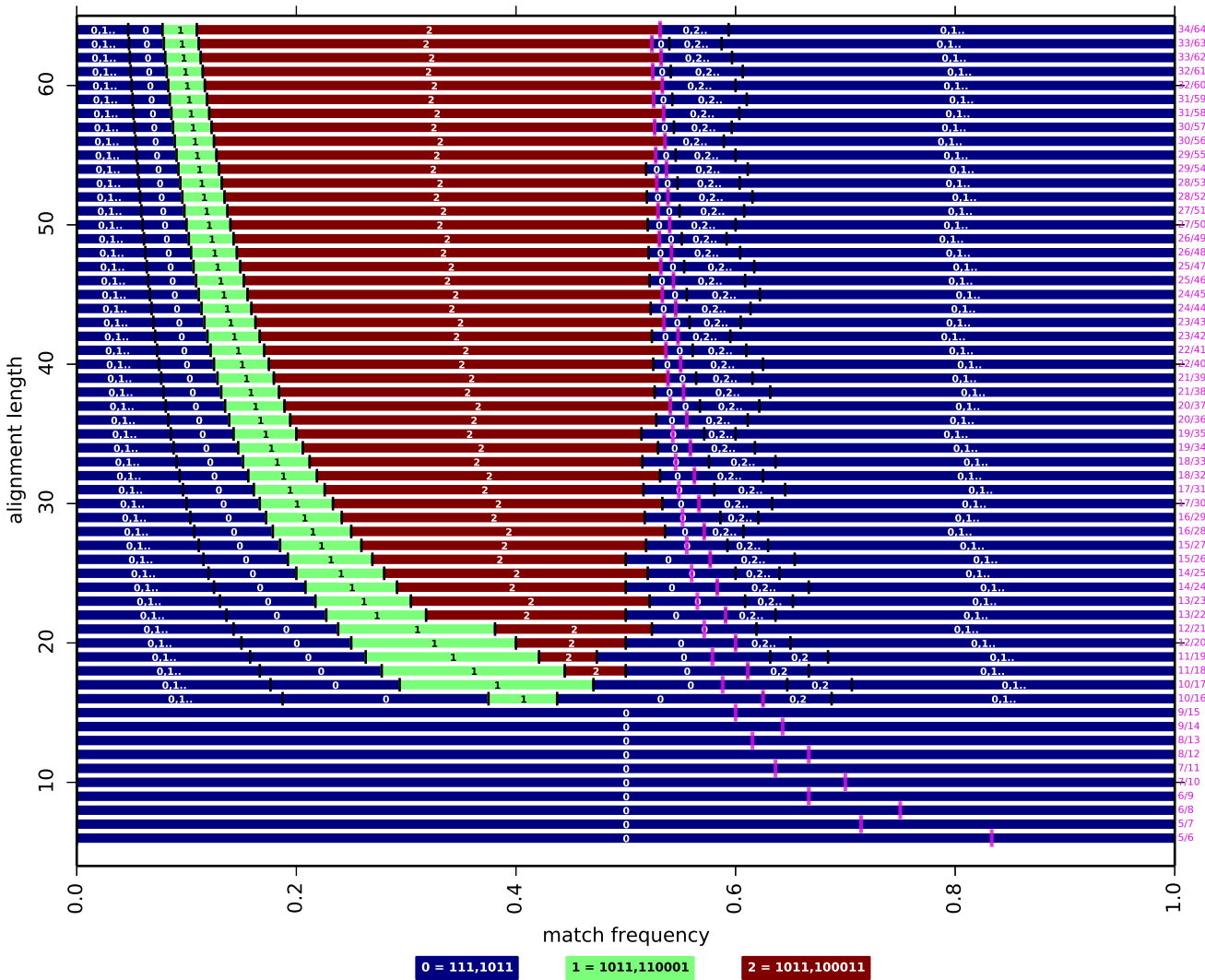
\int_0^x Hit Integration (n:2,w:3)



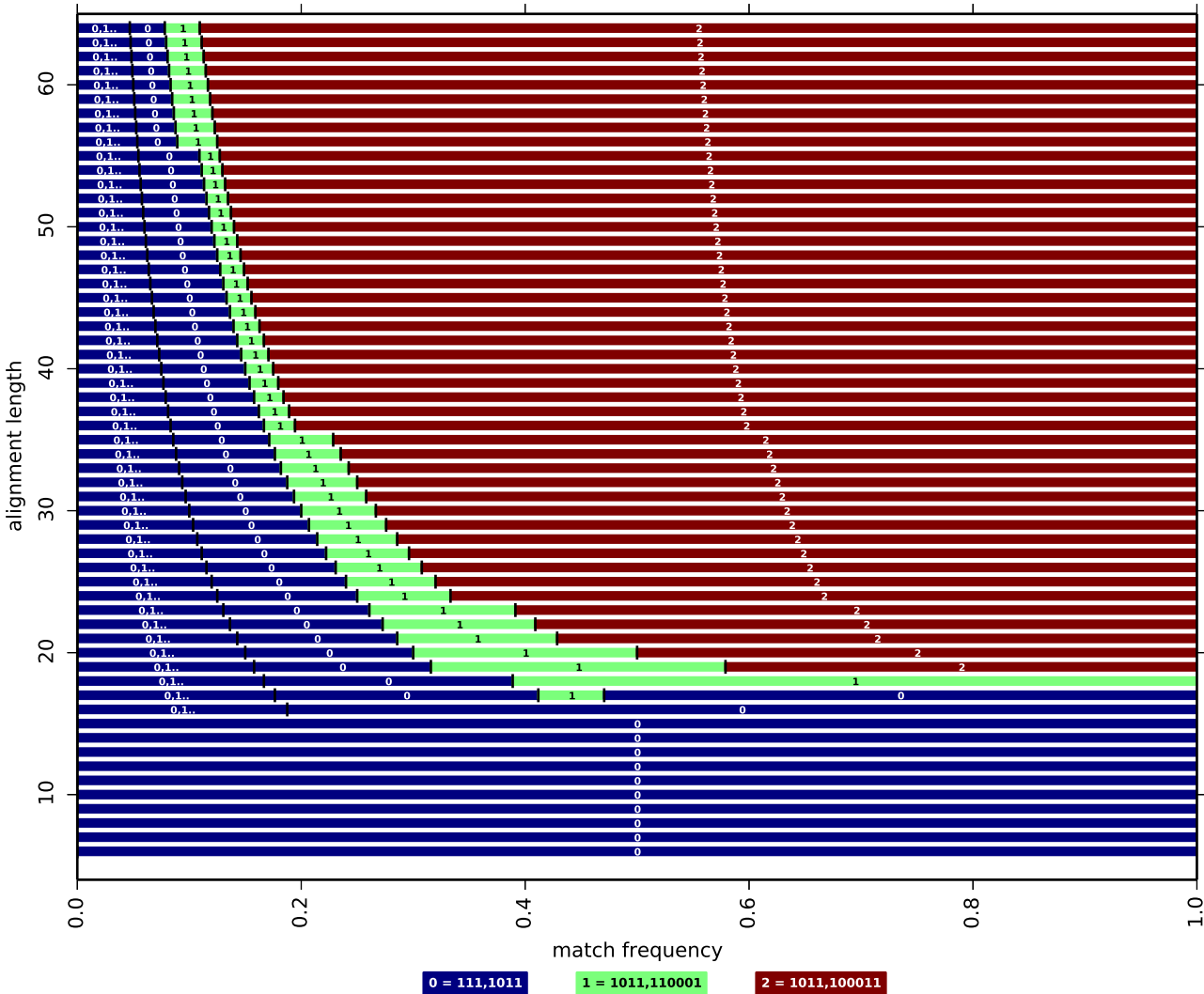
\int_x^1 Hit Integration (n:2,w:3)



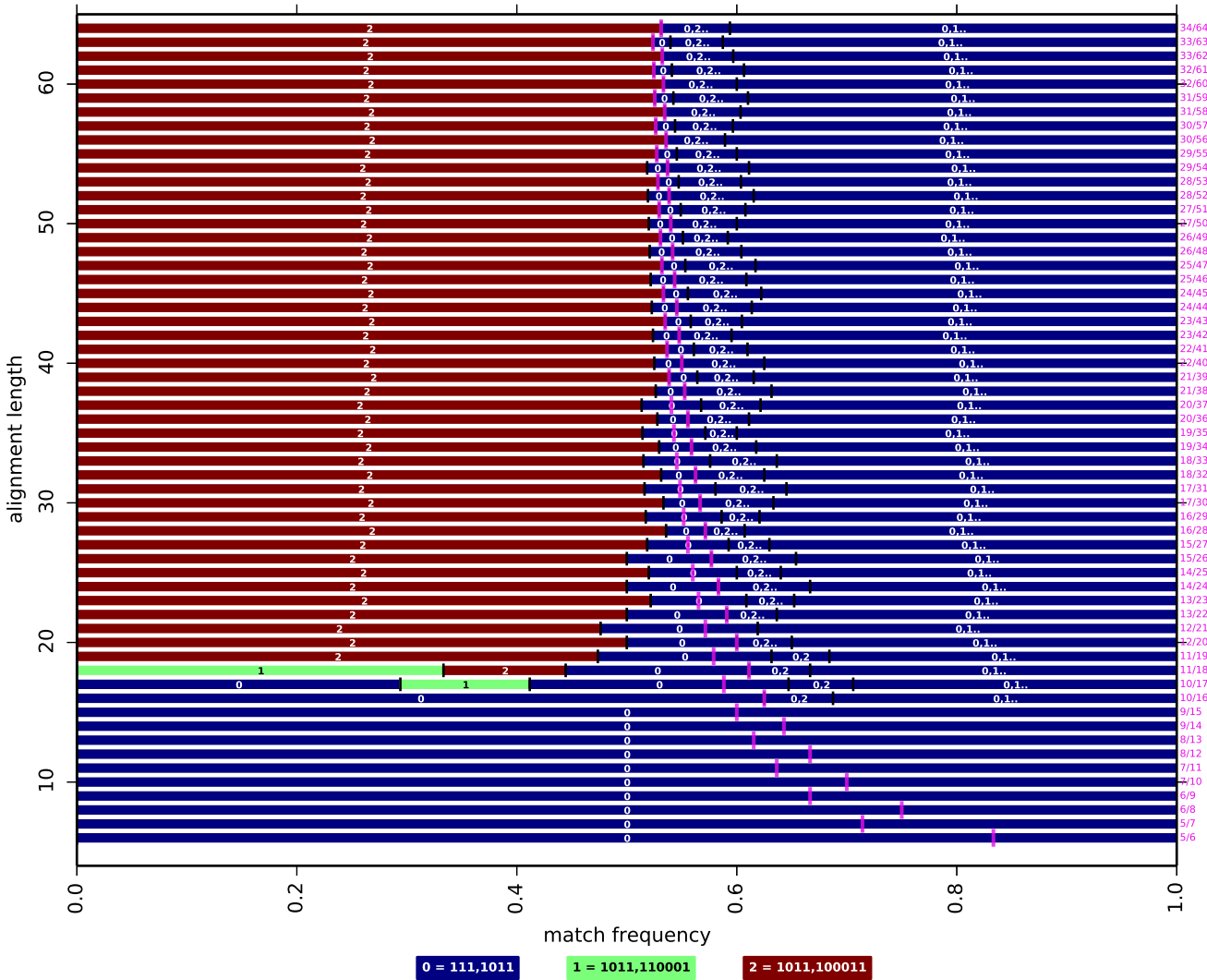
Dirac (n:2,w:3)



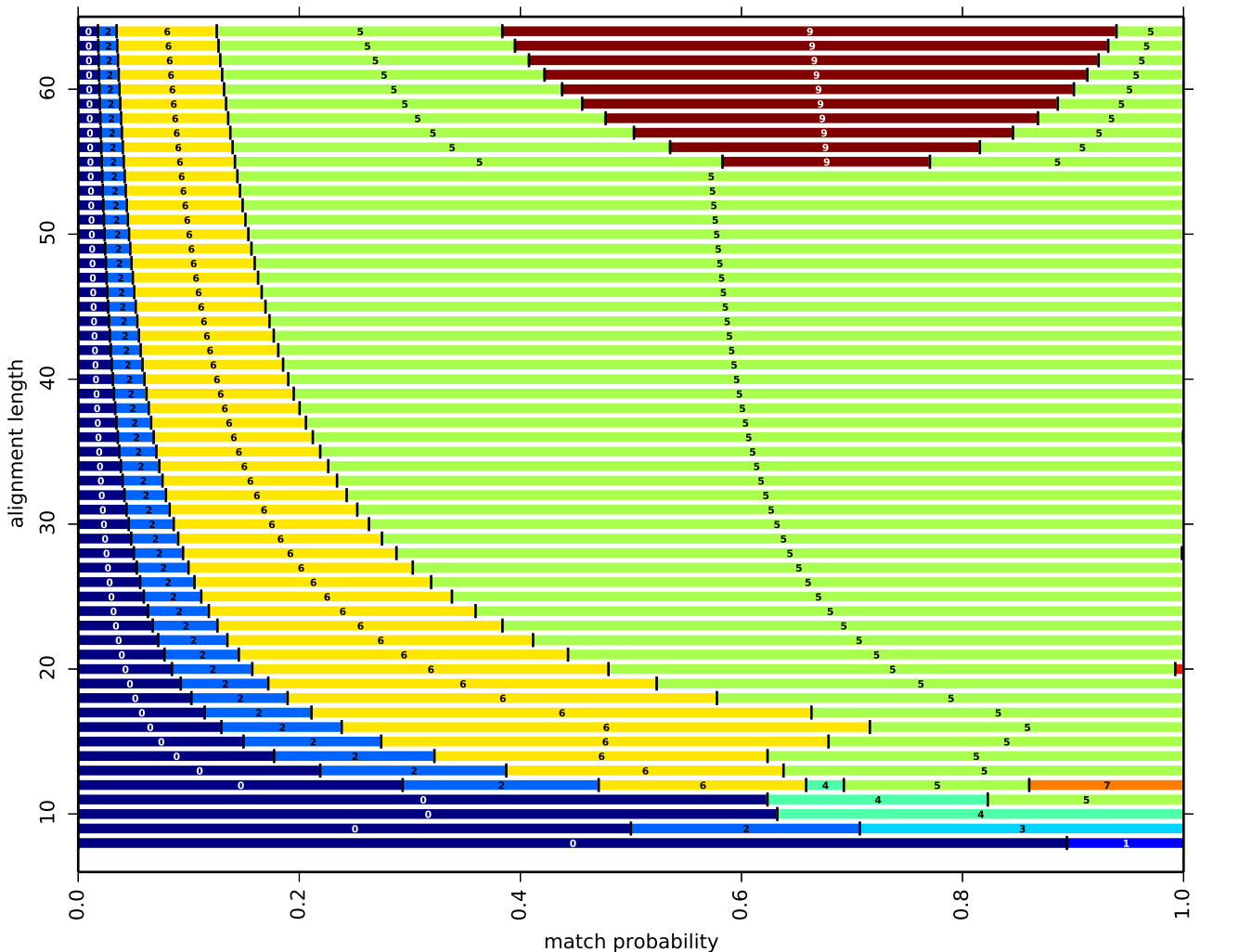
$$\sum_0^x \text{Heaviside}(n:2,w:3)$$



$$\sum_x^1 \text{Heaviside}(n:2,w:3)$$



Bernoulli (n:2,w:4)



0 = 1111,11011
1 = 100111,1101001

2 = 1111,110011
3 = 11011,1100011

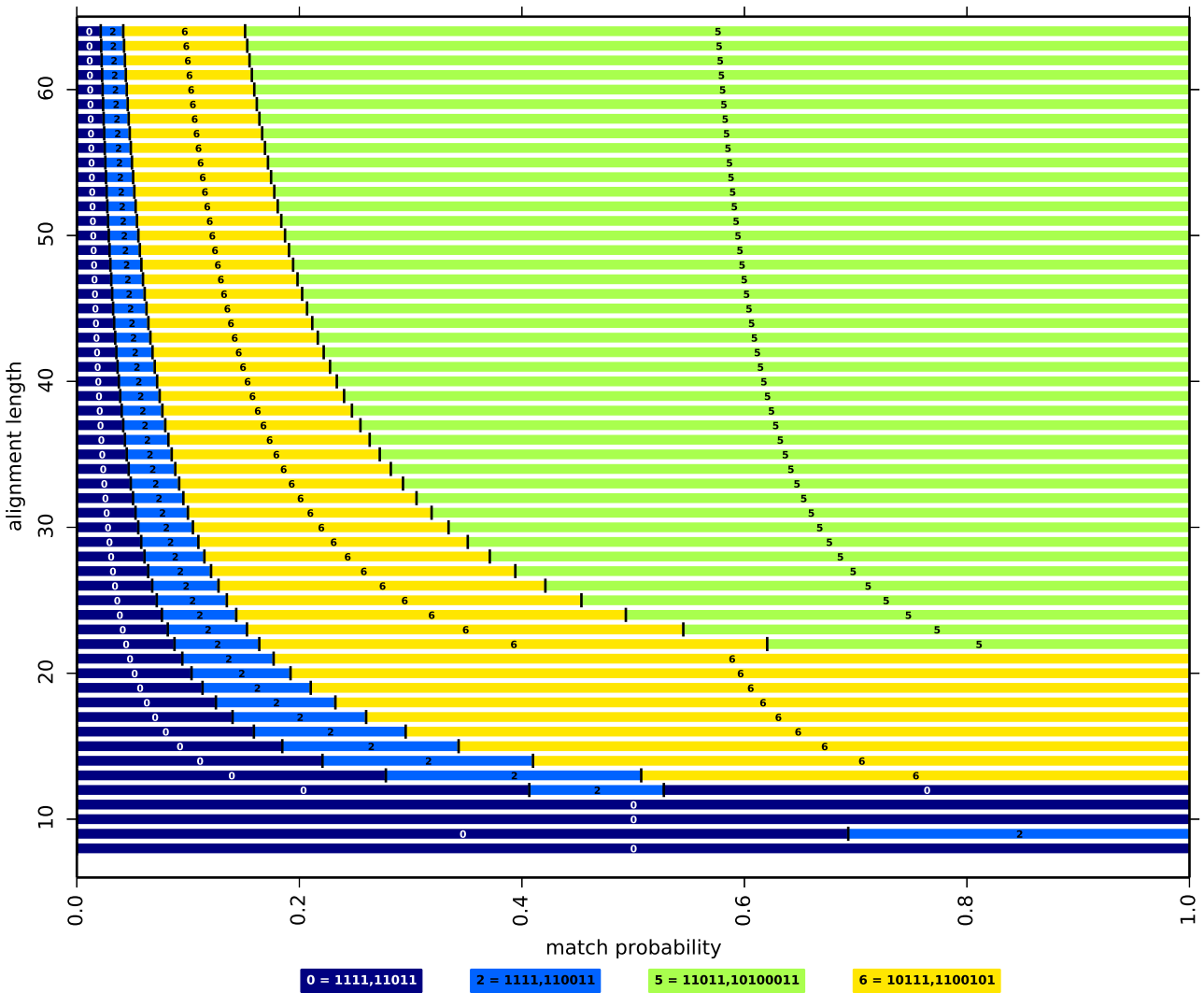
4 = 11011,11000011
5 = 11011,10100011

6 = 10111,1100101

7 = 101011,11000011

9 = 1010011,10110001

\int_0^x Hit Integration (n:2,w:4)



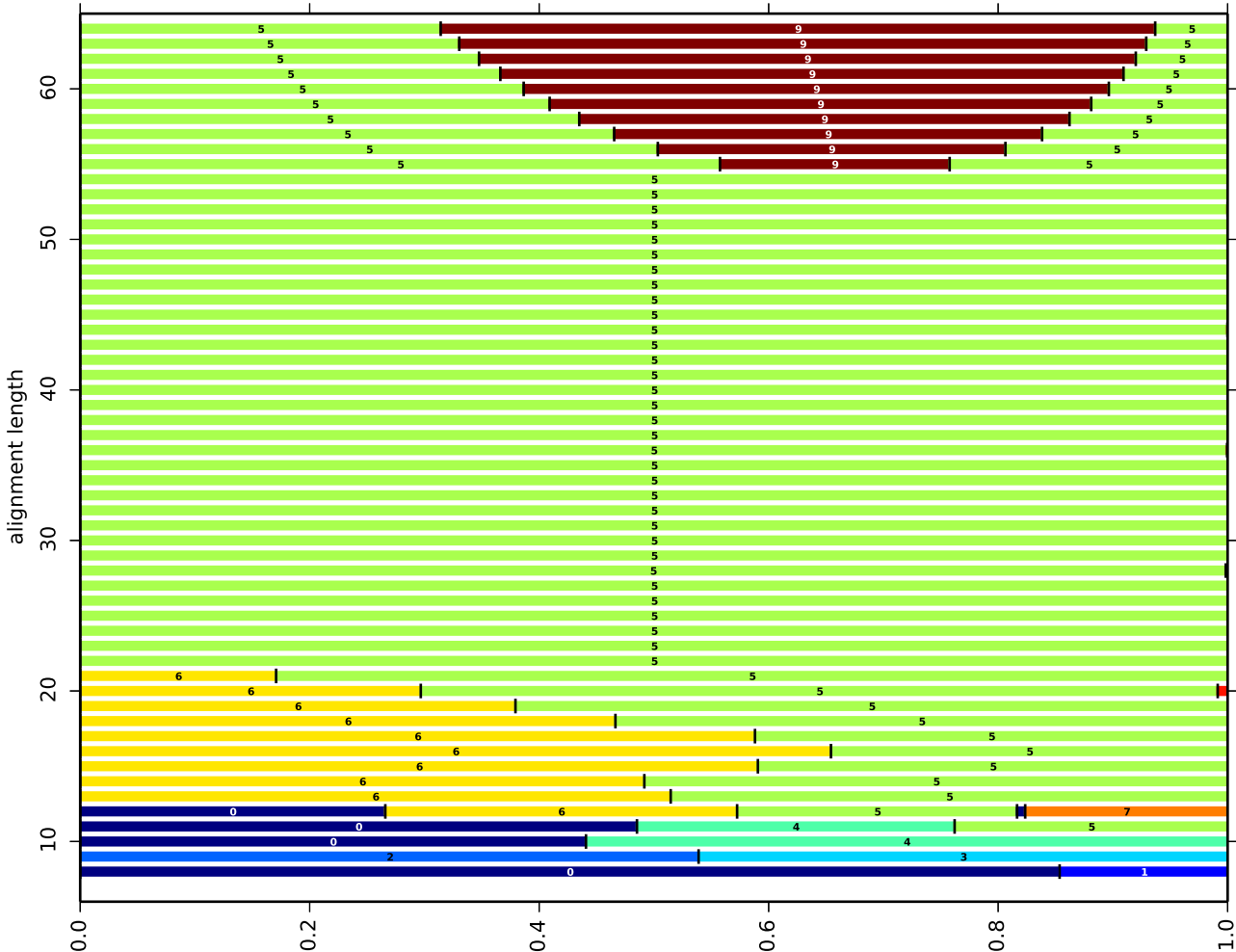
0 = 1111,11011

2 = 1111,110011

5 = 11011,10100011

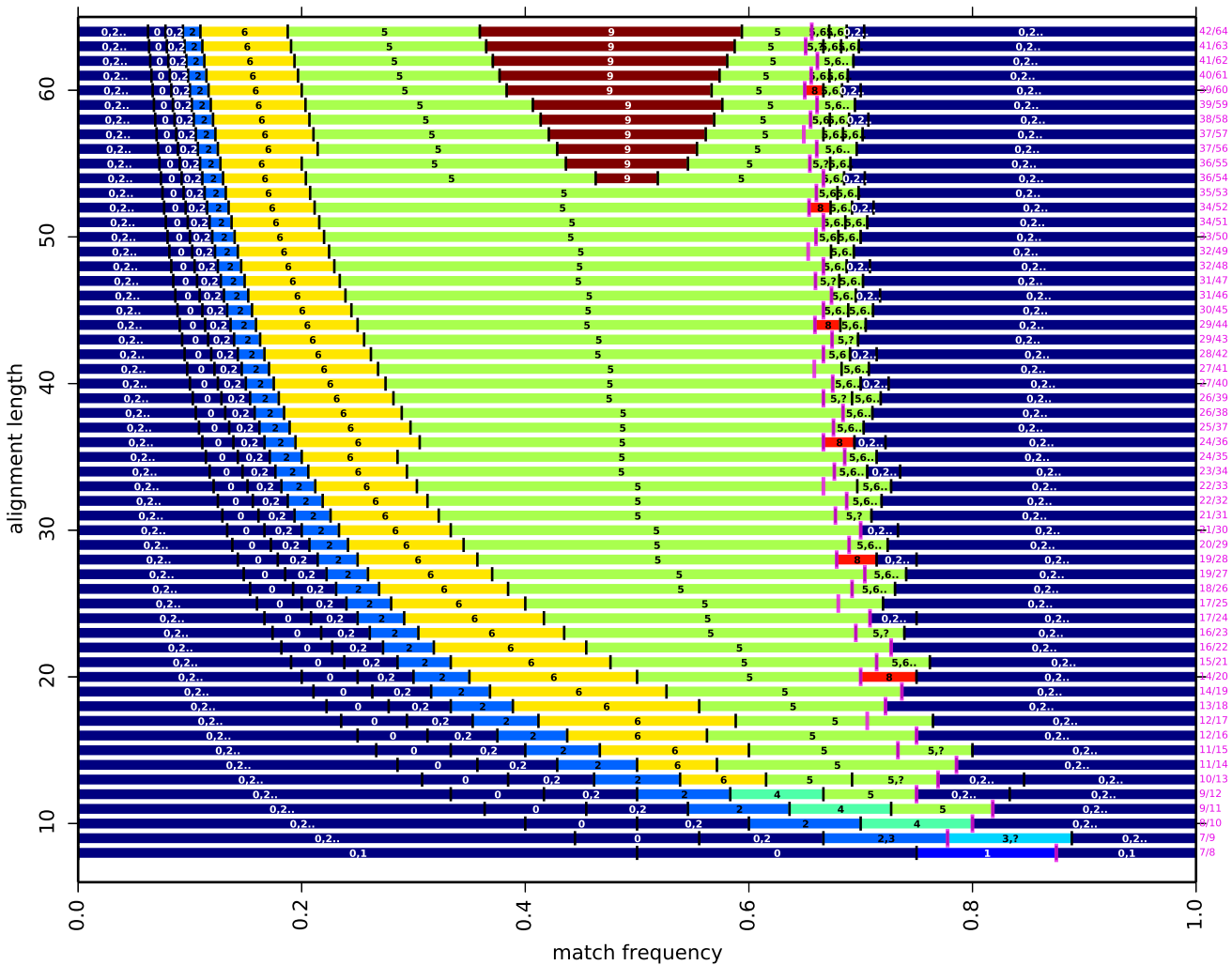
6 = 10111,1100101

\int_x^1 Hit Integration (n:2,w:4)



- 0 = 1111,11011
- 1 = 100111,1101001
- 2 = 1111,110011
- 3 = 11011,1100011
- 4 = 11011,11000011
- 5 = 11011,10100011
- 6 = 10111,1100101
- 7 = 101011,11000011
- 9 = 1010011,10110001

Dirac (n:2,w:4)



0 = 1111,11011
1 = 100111,1101001

2 = 1111,110011
3 = 11011,1100011

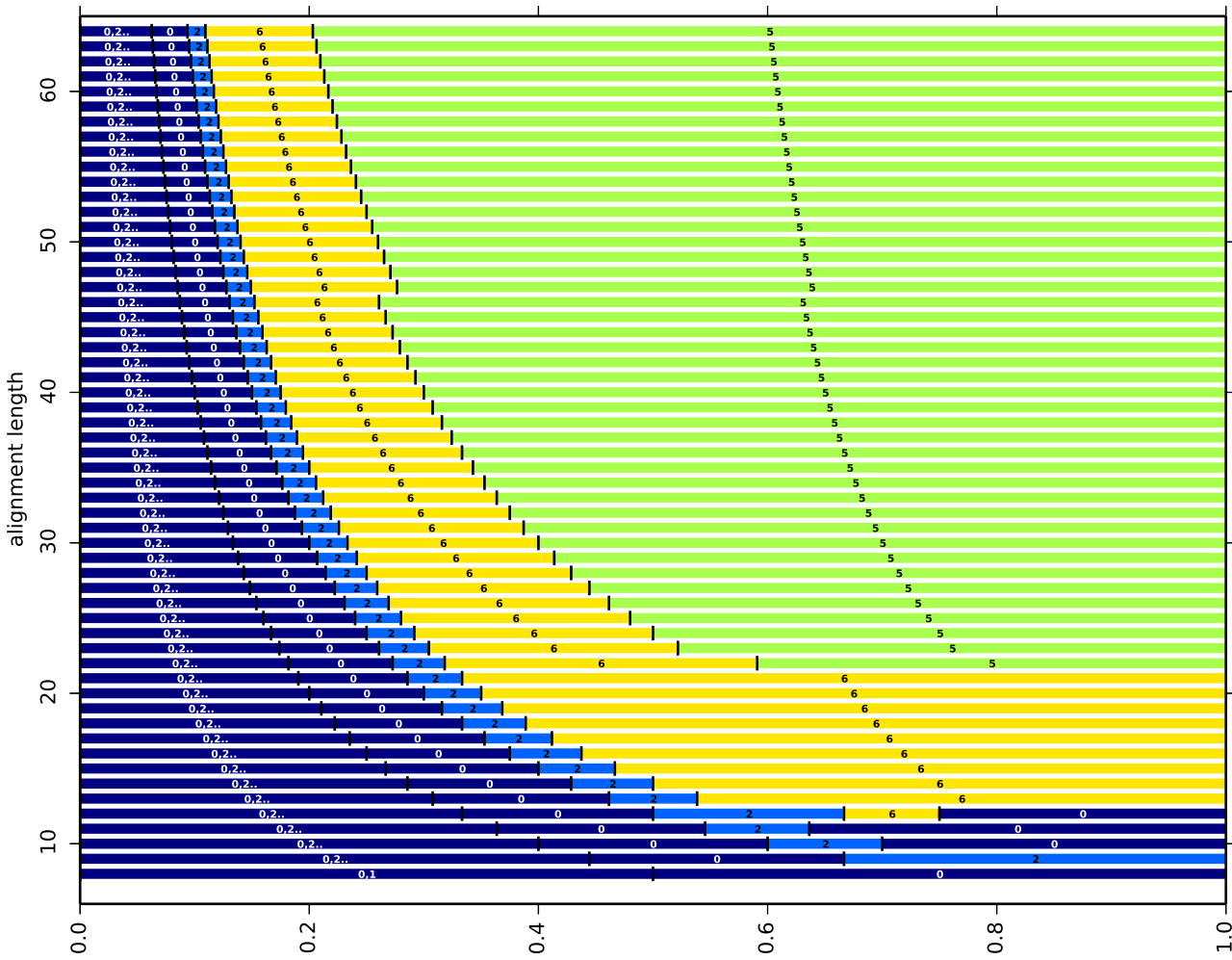
4 = 11011,11000011
5 = 11011,10100011

6 = 10111,1100101
7 = 101011,11000011

8 = 10111,11001001

9 = 1010011,10110001

$$\sum_0^x \text{Heaviside}(n:2,w:4)$$



0 = 1111,11011
1 = 100111,1101001

2 = 1111,110011
3 = 11011,1100011

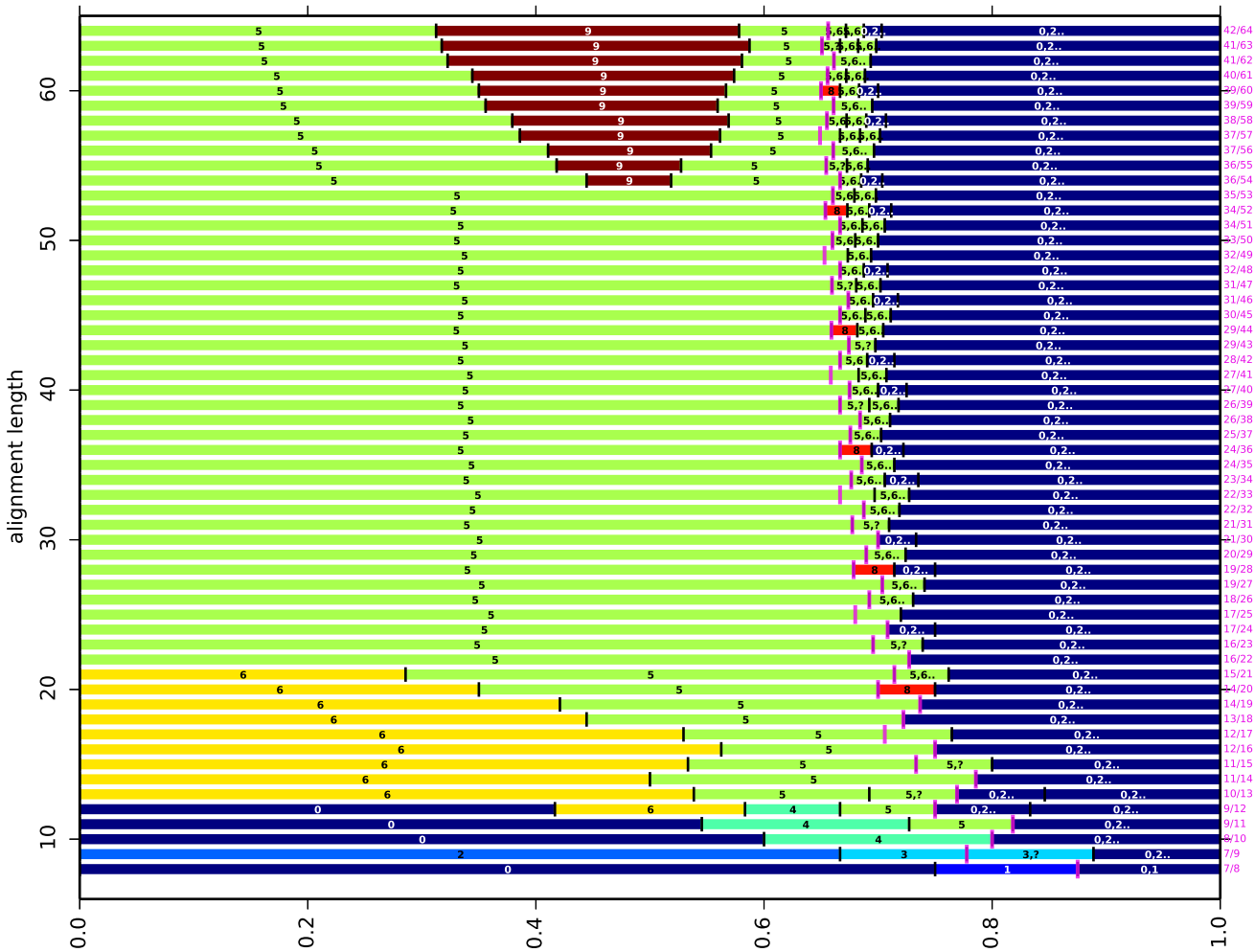
4 = 11011,11000011
5 = 11011,10100011

6 = 10111,1100101
7 = 101011,11000011

8 = 10111,11001001

9 = 1010011,10110001

$$\sum_x^1 \text{Heaviside}(n:2,w:4)$$



match frequency

0 = 1111,11011
1 = 100111,1101001

2 = 1111,110011
3 = 11011,1100011

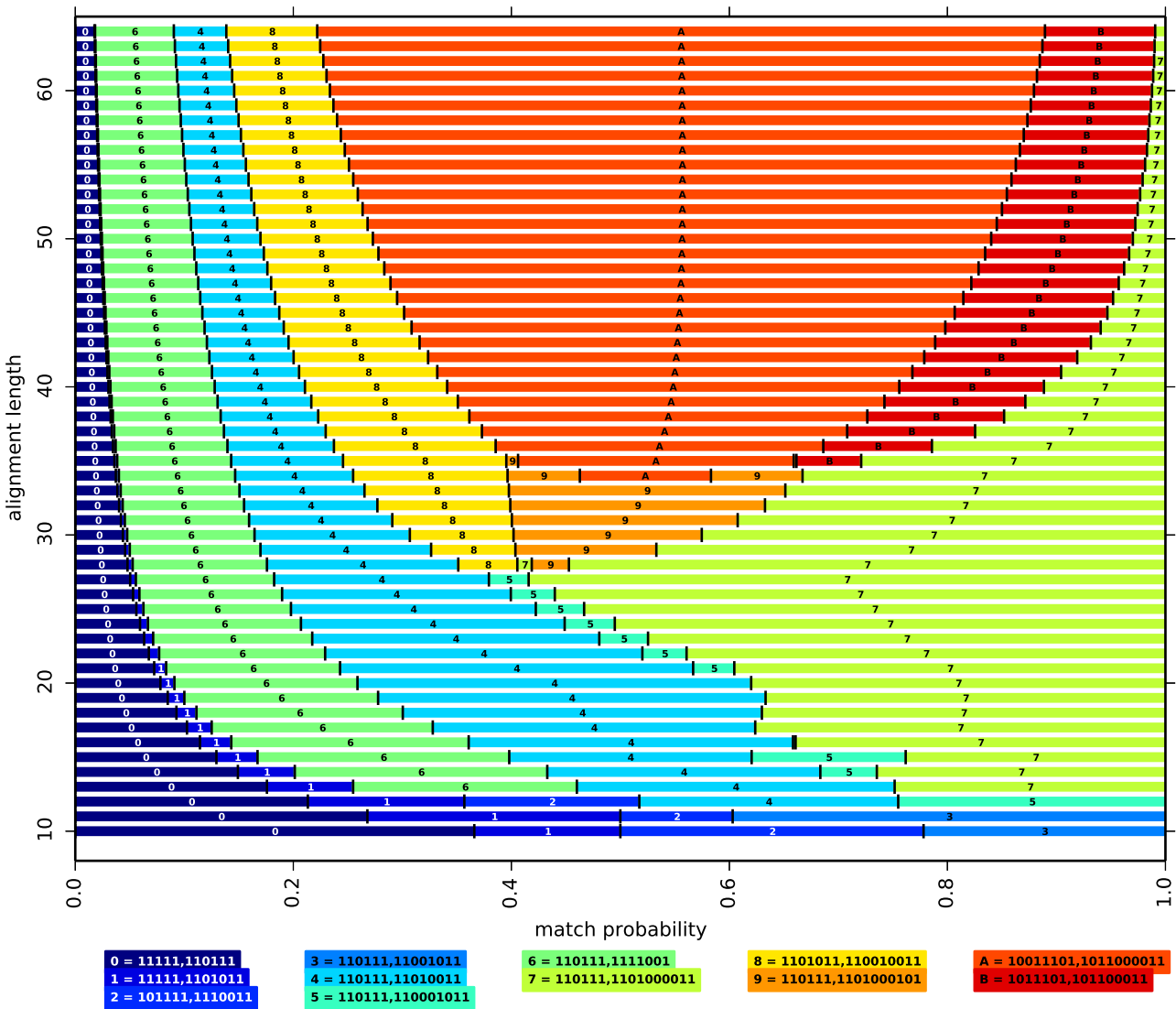
4 = 11011,11000011
5 = 11011,10100011

6 = 10111,1100101
7 = 101011,11000011

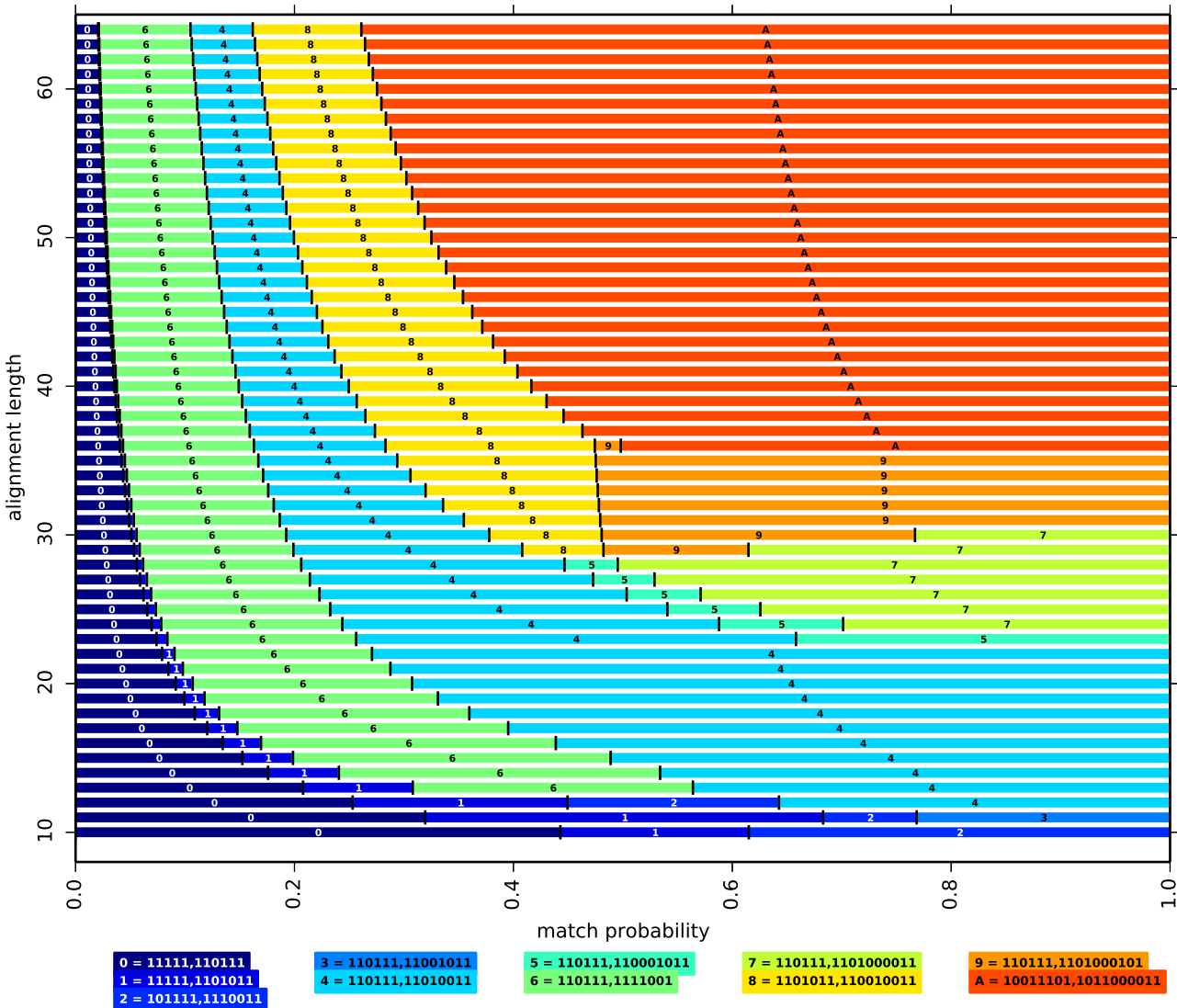
8 = 10111,11001001

9 = 1010011,10110001

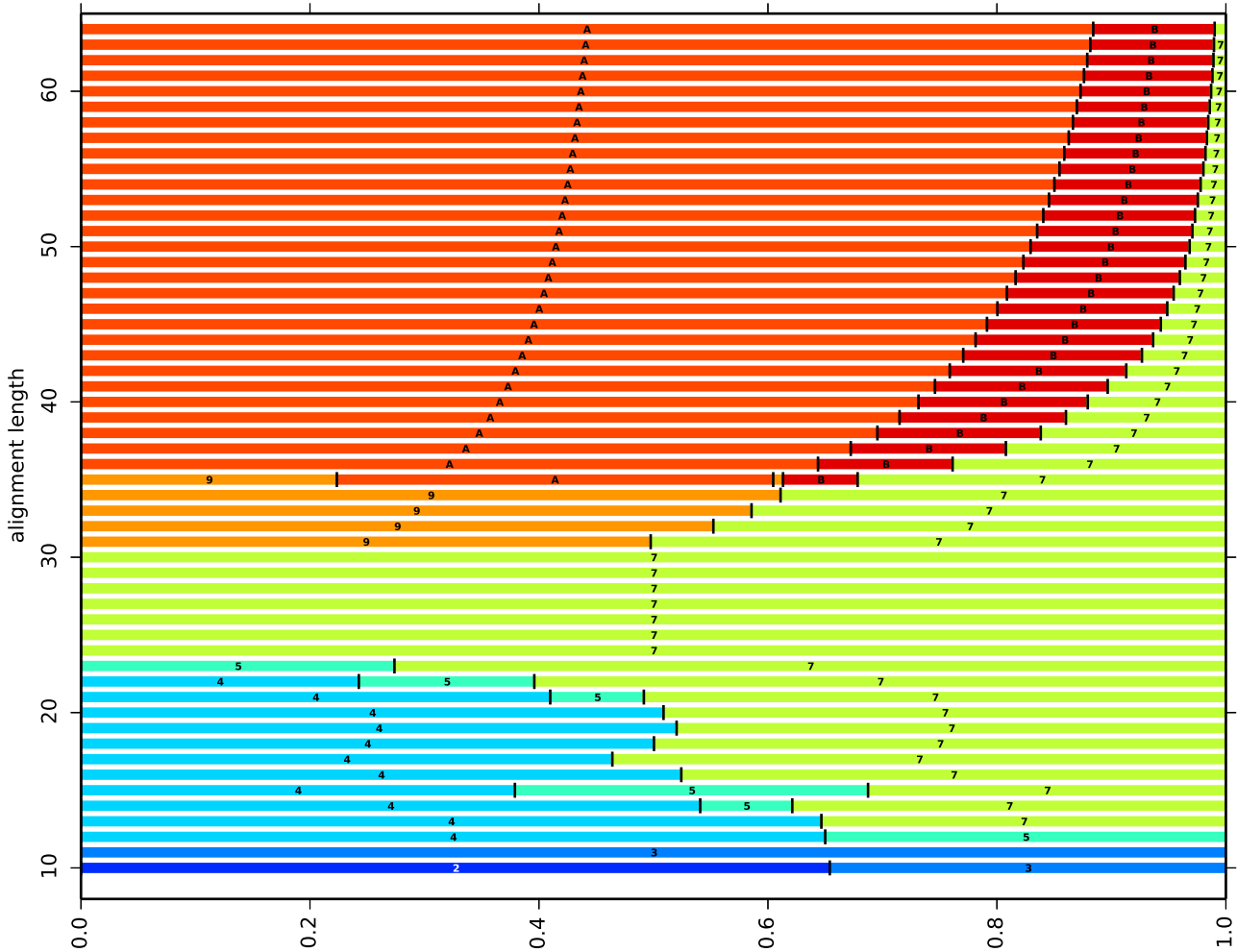
Bernoulli (n:2,w:5)



\int_0^x Hit Integration (n:2,w:5)



\int_x^1 Hit Integration (n:2,w:5)



2 = 101111,1110011
3 = 110111,11001011

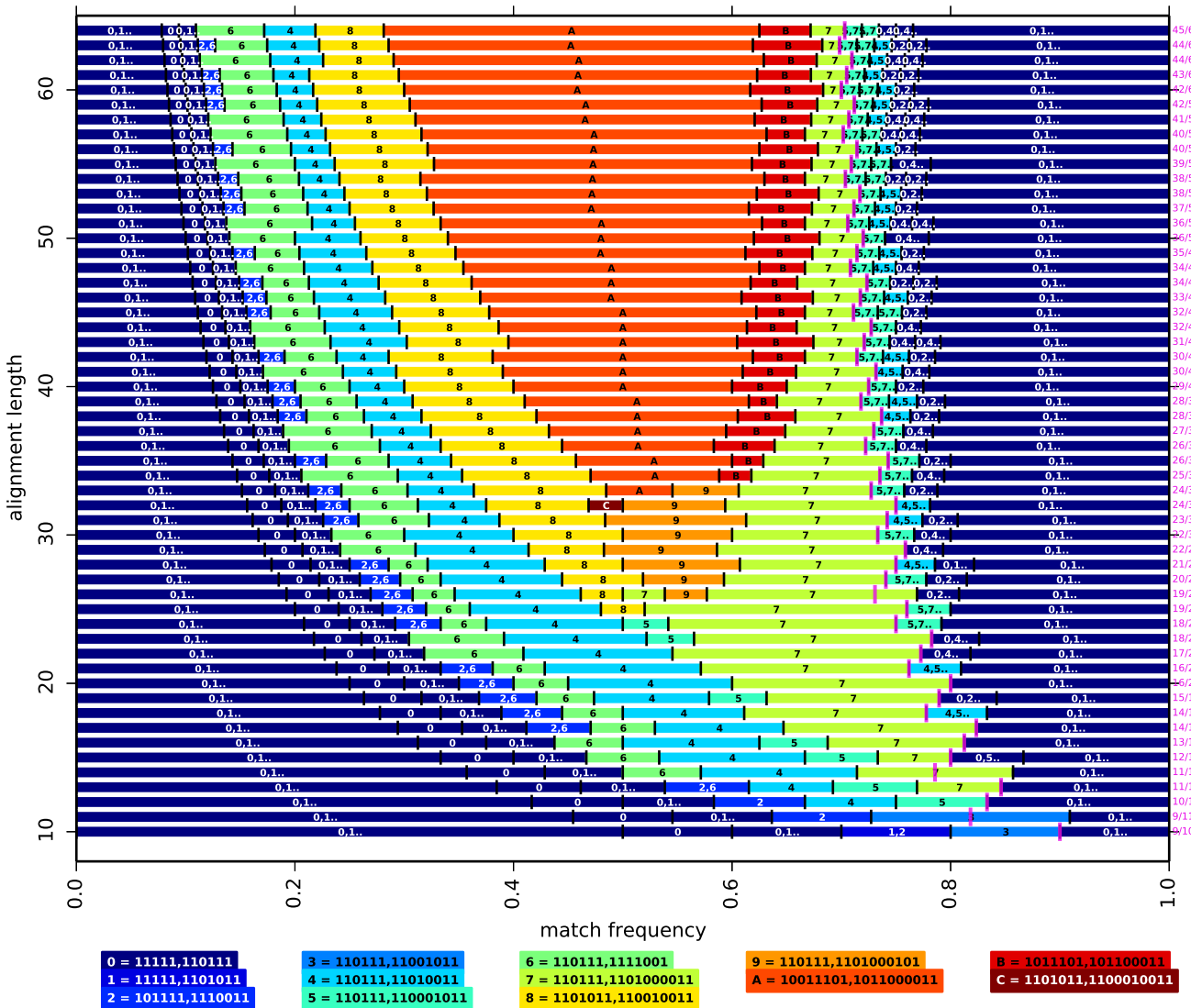
4 = 110111,11010011
5 = 110111,110001011

7 = 110111,1101000011
9 = 110111,1101000101

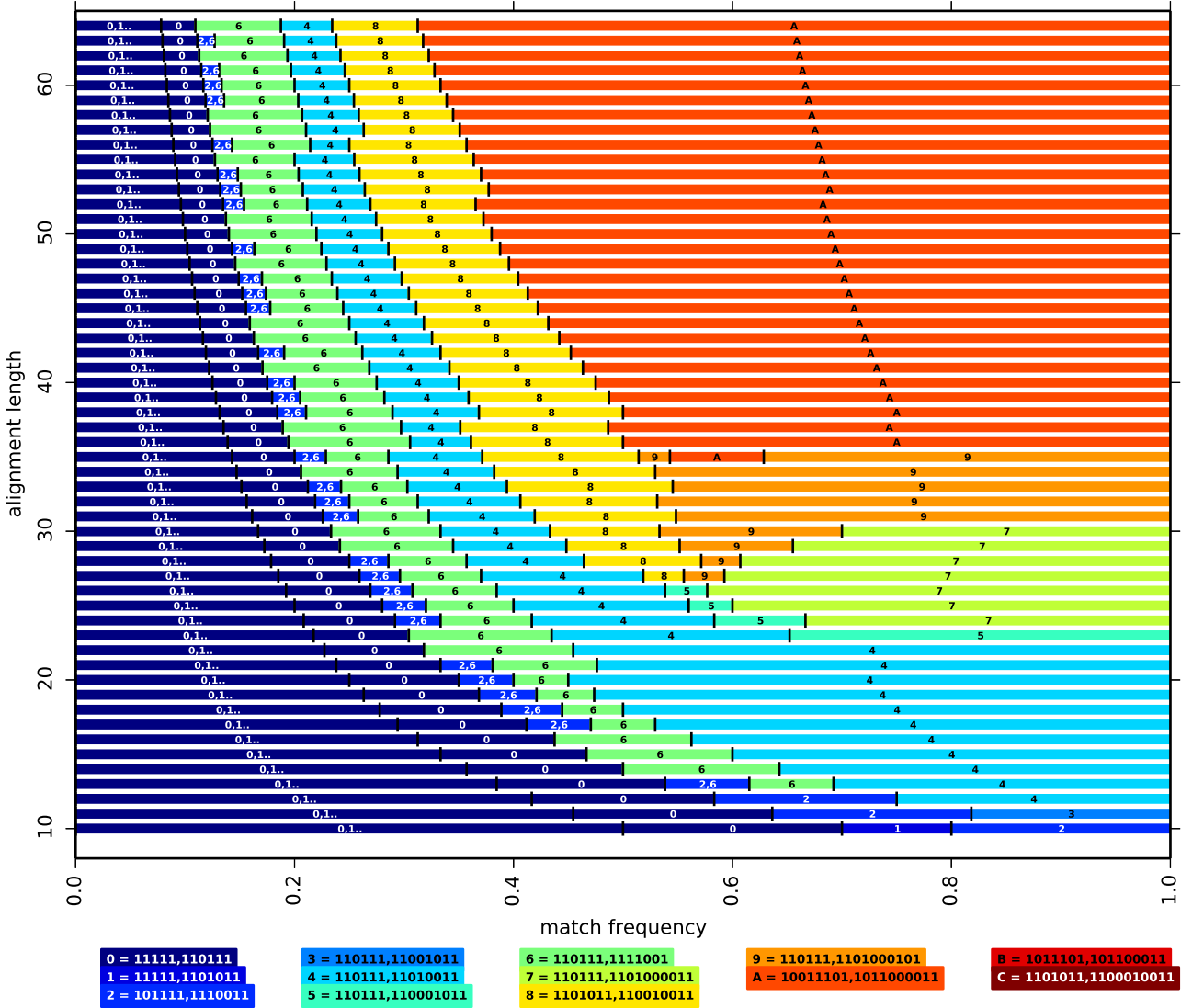
A = 10011101,1011000011

B = 10111101,1011000011

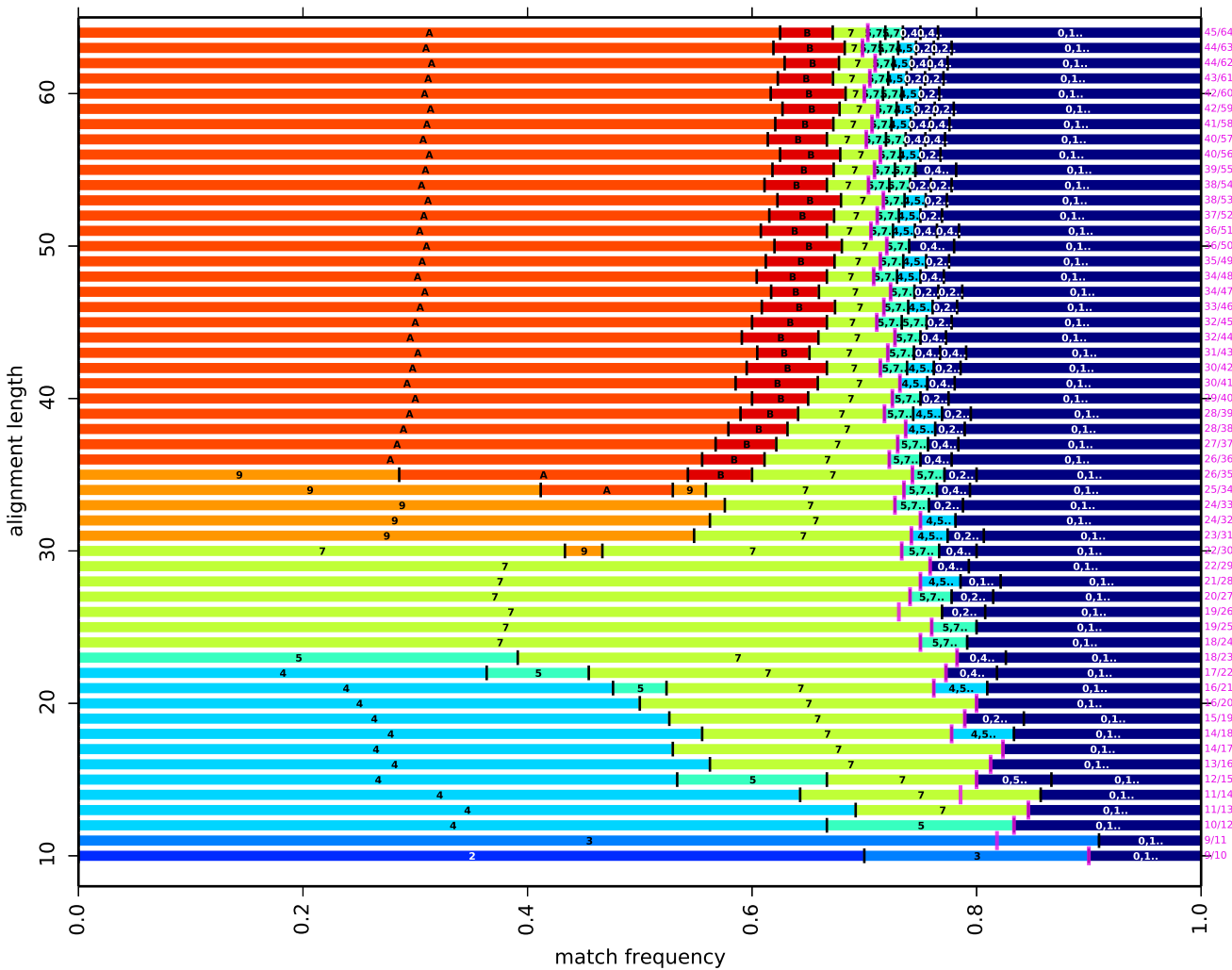
Dirac (n:2,w:5)



$$\sum_0^x \text{Heaviside}(n:2,w:5)$$



$$\sum_x^1 \text{Heaviside}(n:2,w:5)$$



0 = 11111,110111
 1 = 11111,1101011
 2 = 101111,1100011

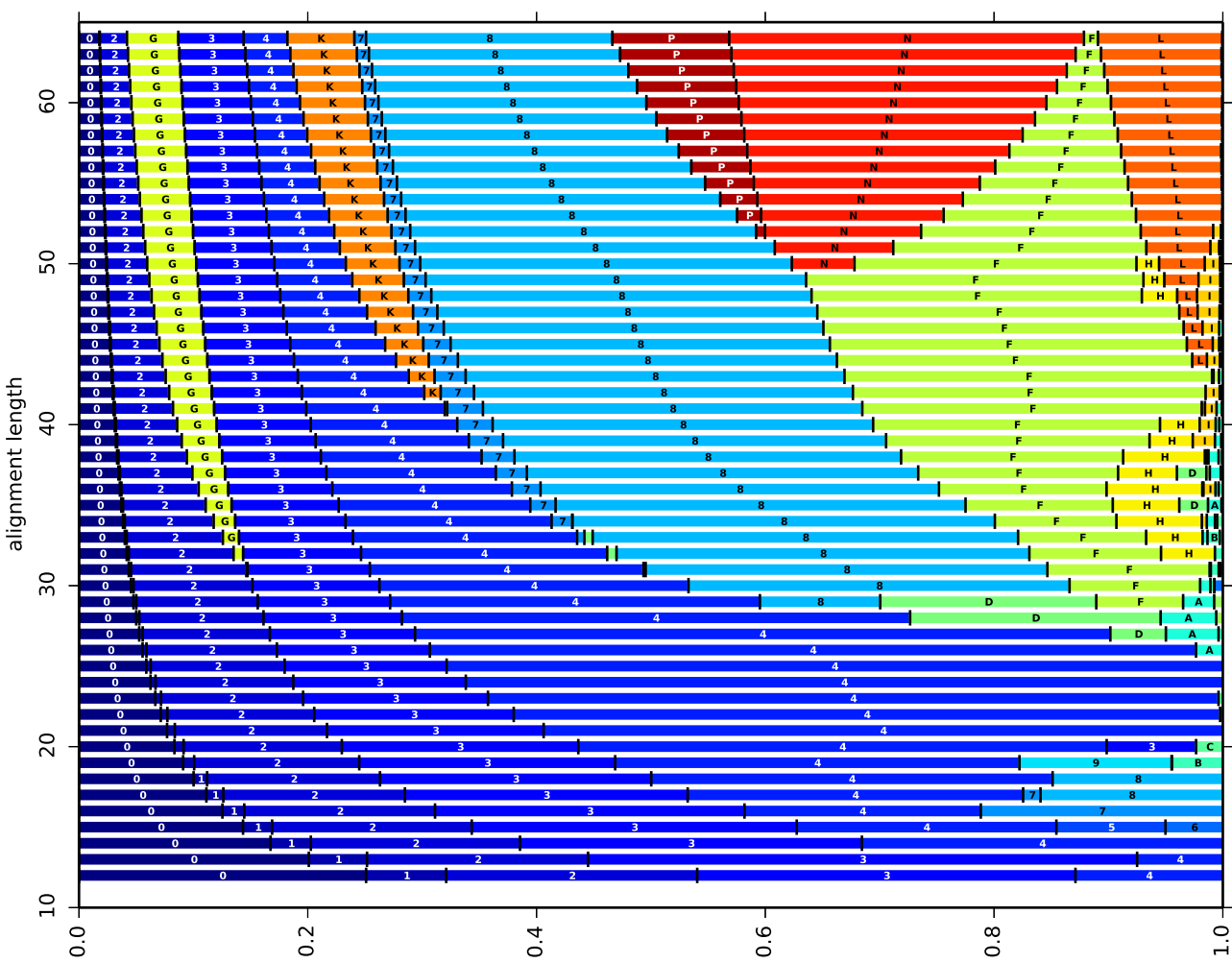
3 = 110111,11001011
 4 = 110111,110100011
 5 = 110111,110001011

6 = 110111,11110001
 7 = 110111,1101000011
 8 = 1101011,110010011

9 = 110111,1101000101
 A = 10011101,1011000011

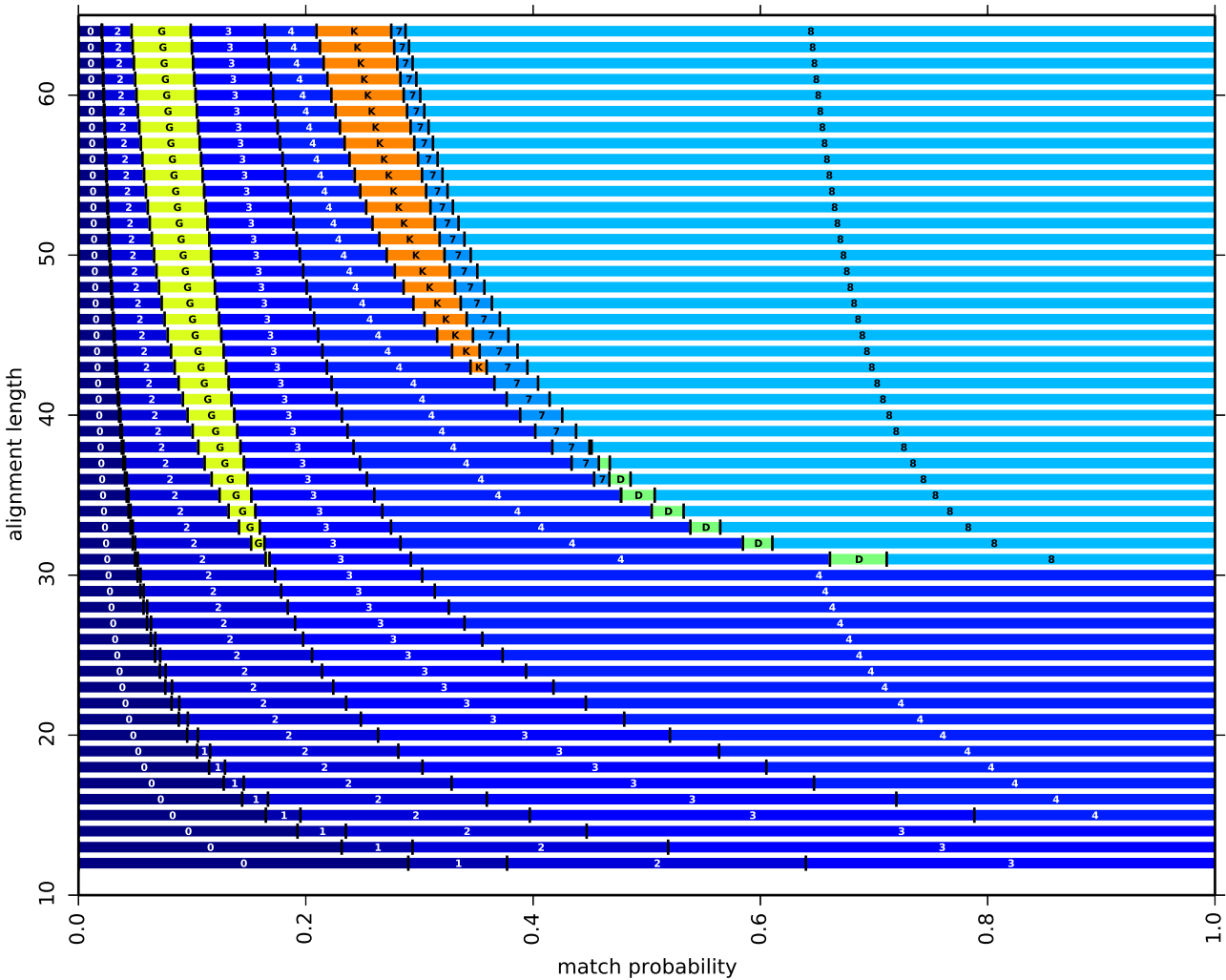
B = 1011101,101100011
 C = 1101011,1100010011

Bernoulli (n:2,w:6)



- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> 0 = 111111,11101111 1 = 111111,11010111 2 = 1101111,111100111 3 = 1101111,111010011 4 = 1110111,1101001011 5 = 1110111,11010000111 | <ul style="list-style-type: none"> 6 = 101100111,11100001011 7 = 11010111,11100010011 8 = 11010111,110100001011 9 = 1110111,11010001011 A = 1110111,11001001011 B = 1110111,10010010111 | <ul style="list-style-type: none"> C = 1101111,1100010111 D = 11010111,11100100101 F = 11010111,101100010011 G = 1011111,11100111 H = 10110111,101001000111 | <ul style="list-style-type: none"> I = 11010111,101000100111 K = 10110111,1110001011 L = 11010111,11000100101 N = 110011011,110101000011 P = 110101011,110010000111 |
|---|---|--|--|

$$\int_0^x \text{Hit Integration (n:2,w:6)}$$



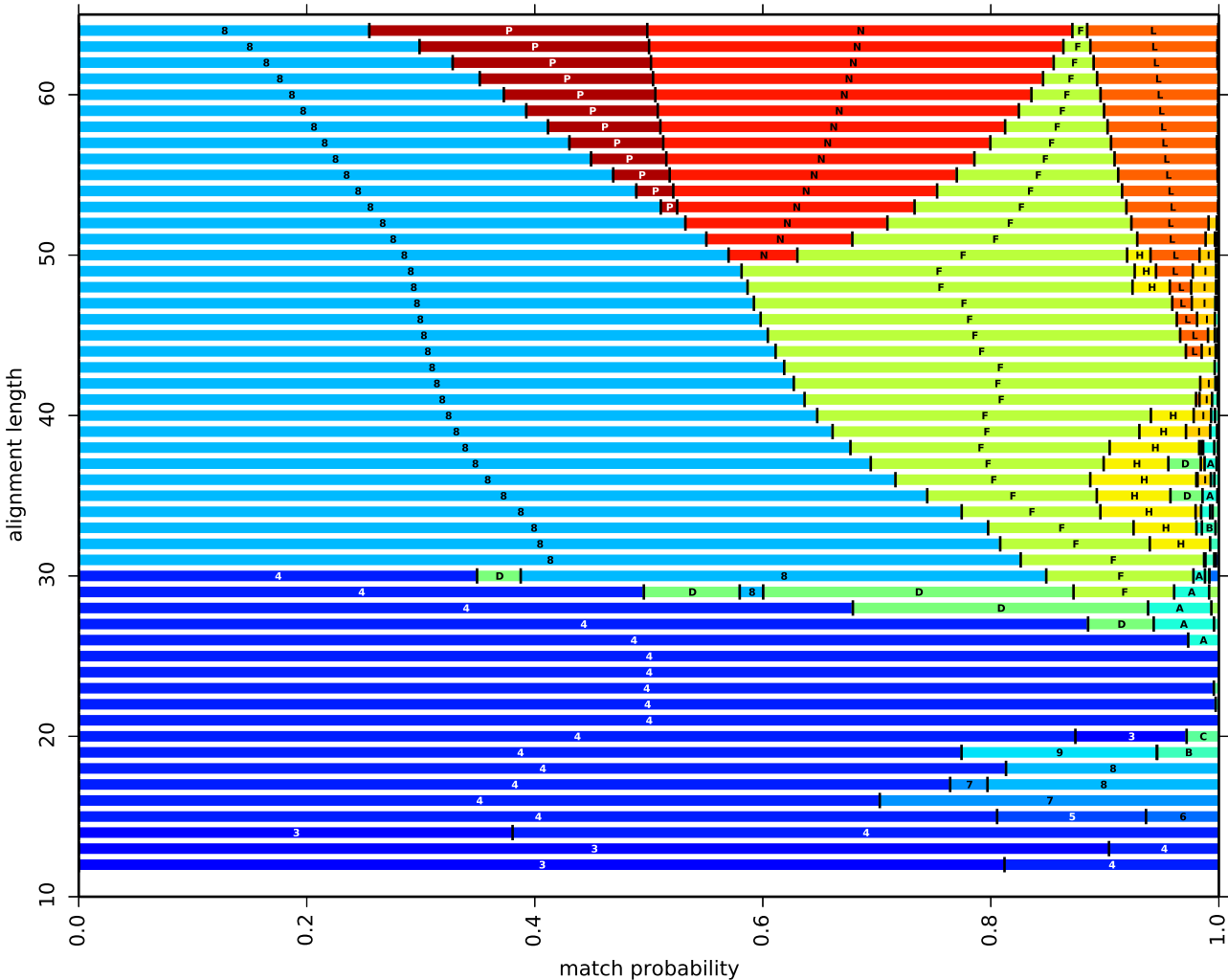
0 = 111111,1110111
 1 = 111111,1101011
 2 = 1101111,11110011

3 = 1101111,111010011
 4 = 1110111,1101001011
 7 = 11010111,11100010011

8 = 11010111,110100001011
 D = 11010111,11100100101

G = 1011111,111100111
 K = 10110111,1110001011

\int_x^1 Hit Integration (n:2,w:6)



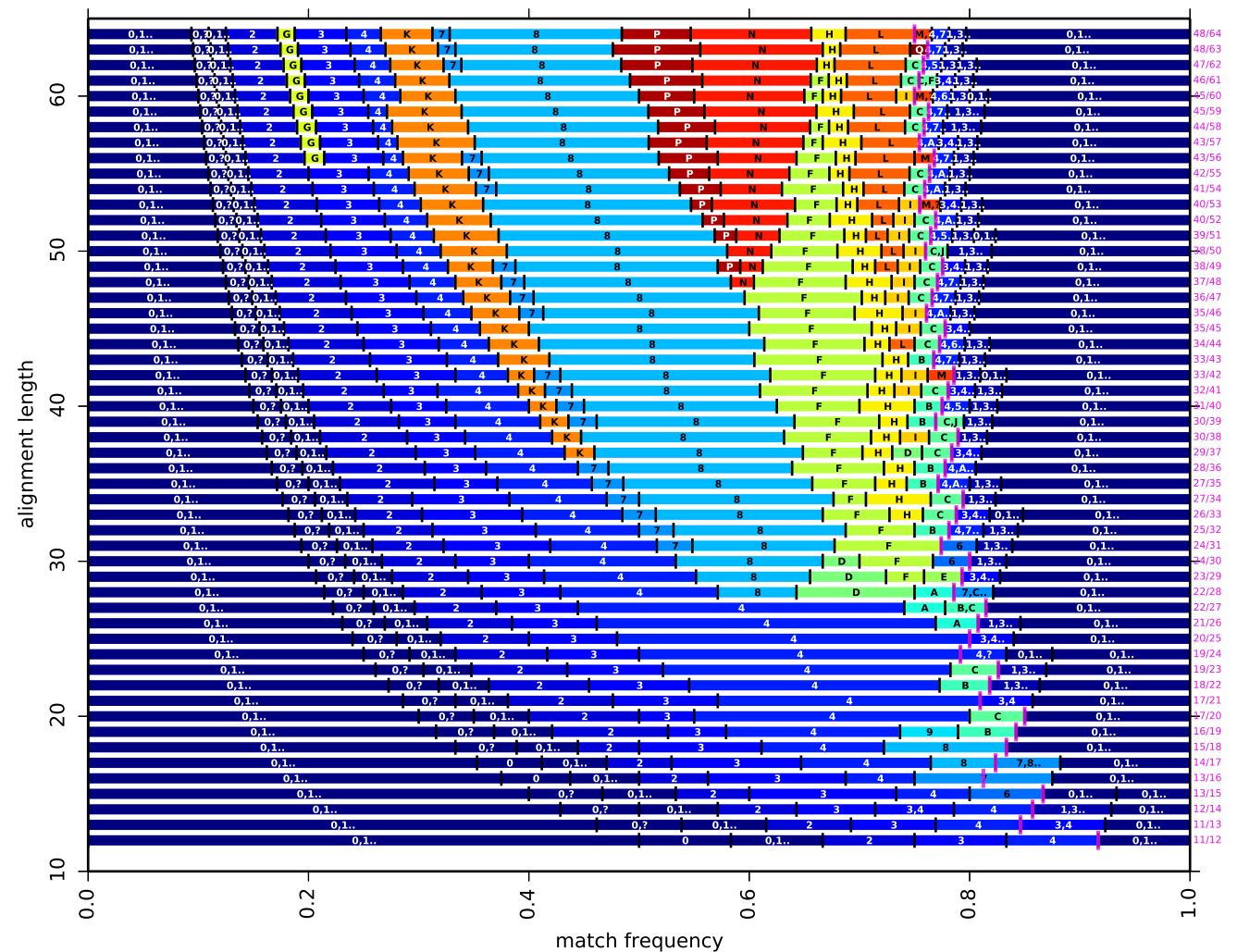
3 = 1101111,111010011
 4 = 1110111,1101001011
 5 = 1110111,11010000111
 6 = 101100111,11100001011
 7 = 11010111,11100010011

8 = 11010111,110100001011
 9 = 1110111,110100001011
 A = 1110111,11001001011
 B = 1110111,10010010111

C = 1101111,1100010111
 D = 11010111,11100100101
 F = 11010111,101100010011
 H = 10110111,101001000111

I = 11010111,101000100111
 L = 11010111,1100001001101
 N = 110011011,110101000011
 P = 110101011,110010000111

Dirac (n:2,w:6)



0 = 111111,11100111
 1 = 111111,11010111
 2 = 1101111,11110011
 3 = 1101111,1110100111
 4 = 1110111,1101001011
 5 = 1110111,11010000111
 6 = 101100111,11100001011

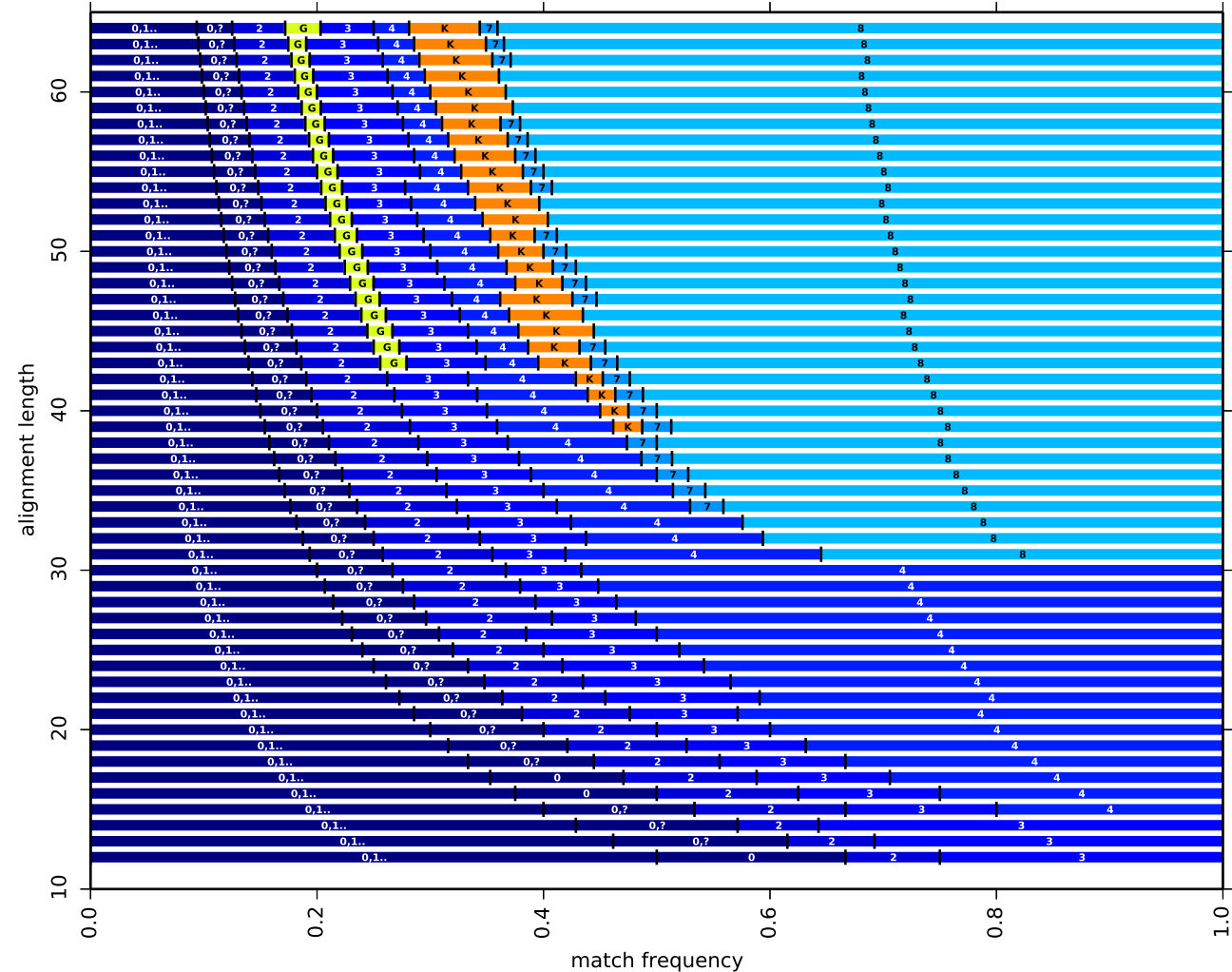
7 = 11010111,111000010011
 8 = 11010111,110100001011
 9 = 1110111,11010001011
 A = 1110111,11001001011
 B = 1110111,10010001011
 C = 1101111,1100010111
 D = 11010111,11100100101

E = 10110111,111000001011
 F = 11010111,101100001011
 G = 1011111,11100111
 H = 10110111,101001000111
 I = 11010111,10010001011
 J = 10110111,11001000111
 K = 10110111,1110001011

L = 11010111,110001001101
 M = 10110111,110100010101
 N = 110011011,110101000011
 O = 11010111,110110000011
 P = 111010111,110010000111
 Q = 10110111,100100011101

48/64
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14/17
13/16
12/14
11/13
11/12

$$\sum_0^x \text{Heaviside}(n;2,w;6)$$



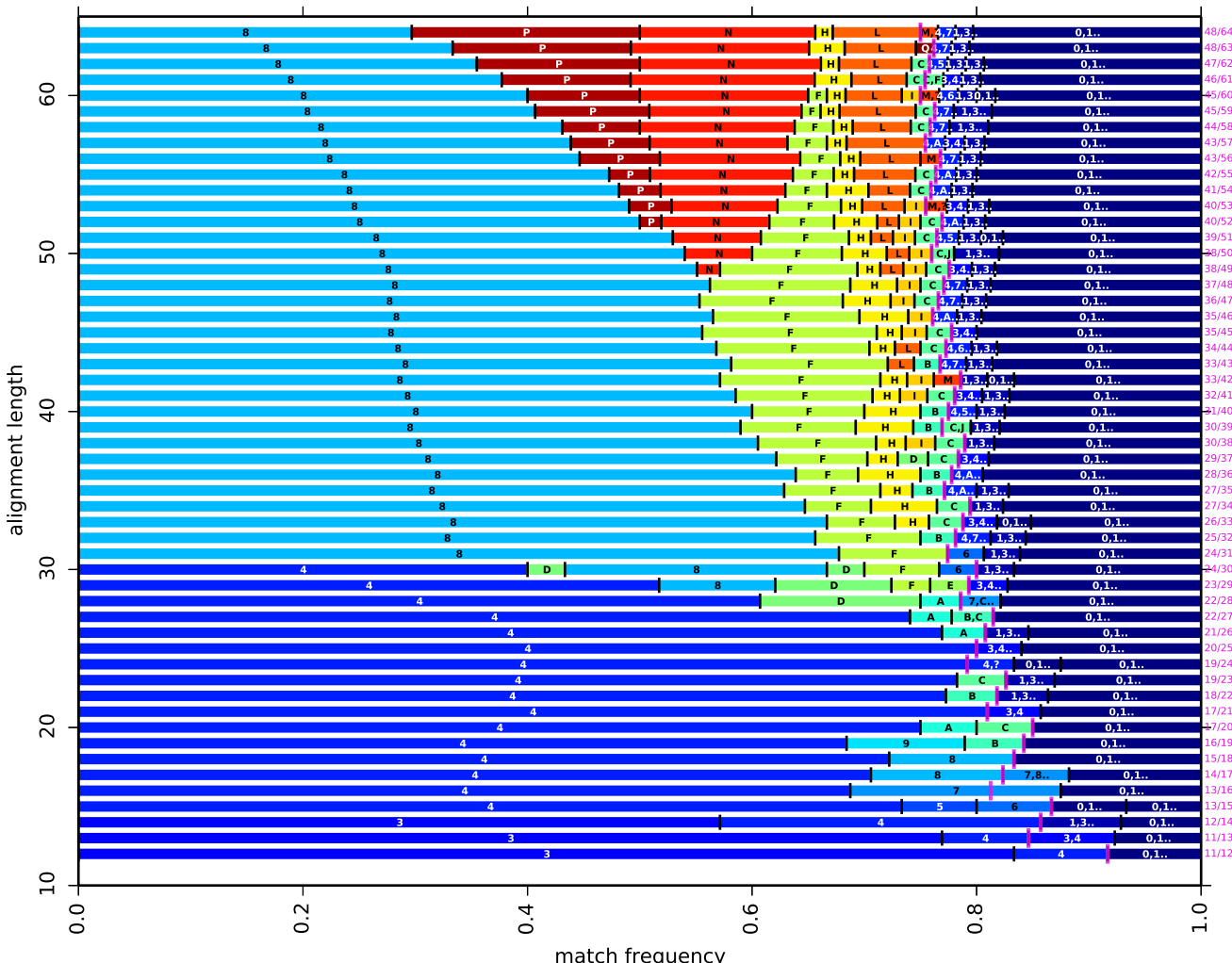
0 = 111111,1110111
 1 = 111111,11010111
 2 = 1101111,11110011
 3 = 1101111,111010011
 4 = 1110111,1101001011
 5 = 1110111,11010000111
 6 = 101100111,11100001011

7 = 11010111,11100010011
 8 = 11010111,110100010011
 9 = 1110111,11010001011
 A = 1110111,11001001011
 B = 1110111,10010010111
 C = 1101111,1100010111
 D = 11010111,11100100101

E = 10110111,111000001011
 F = 11010111,101100010011
 G = 1011111,11100111
 H = 10110111,101001000111
 I = 11010111,101000100111
 J = 10110111,11001000111
 K = 10110111,1110001011

L = 11010111,110001001101
 M = 10110111,110100010101
 N = 110011011,110101000011
 O = 11010111,110110000101
 P = 110101011,110010000111
 Q = 10110111,100100011101

$$\sum_x \text{Heaviside}(n:2,w:6)$$



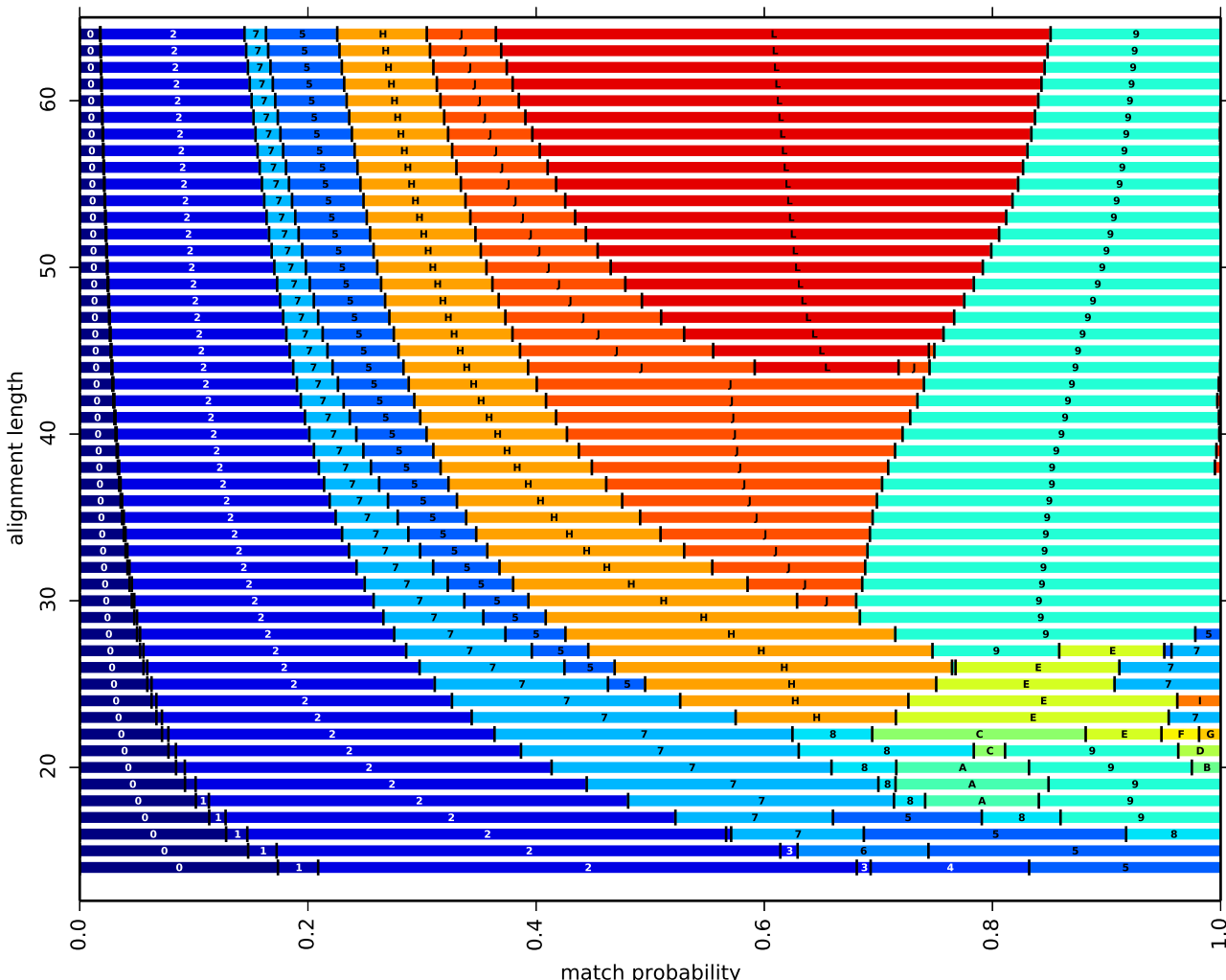
0 = 111111,1110111
 1 = 111111,11010111
 2 = 1101111,11110011
 3 = 1101111,1110100111
 4 = 1110111,1101001011
 5 = 1110111,11010000111
 6 = 101100111,11100001011

7 = 11010111,111000010011
 8 = 11010111,110100001011
 9 = 1110111,110100001011
 A = 1110111,11001001011
 B = 1110111,10010010111
 C = 1101111,1100010111
 D = 11010111,11100100101

E = 10110111,111000001011
 F = 11010111,1011000010011
 G = 1011111,11100111
 H = 10110111,101001000111
 I = 11010111,101000100111
 J = 10110111,11001000111
 K = 10110111,1110001011

L = 11010111,110001001101
 M = 10110111,1101000010101
 N = 110011011,110101000011
 O = 11010111,1101100000101
 P = 11010111,110010000111
 Q = 10110111,100100011101

Bernoulli (n:2,w:7)



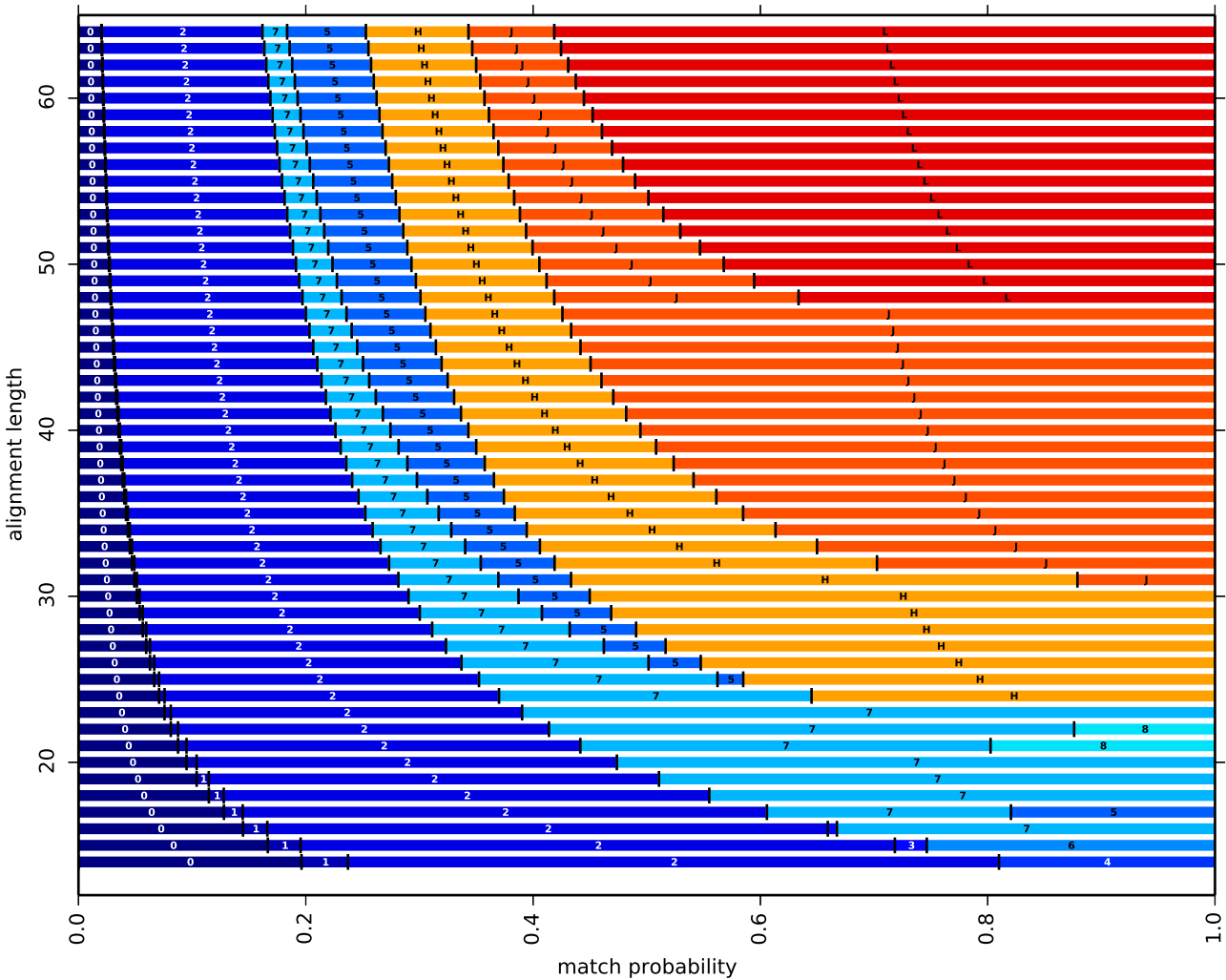
0 = 1111111,11101111
 1 = 1111111,11101011
 2 = 1101111,111101011
 3 = 11101111,1111010011
 4 = 11101111,1110100111
 5 = 11010111,11110010011

6 = 11101111,11100100111
 7 = 11101111,11010010111
 8 = 11101111,111010001011
 9 = 110101111,1110001001101
 A = 110110111,111010000111

B = 111010111,11010000100111
 C = 110110111,1110001000111
 D = 110100010111,11100100001011
 E = 110110111,1101001000111
 F = 11011111,11010100111

G = 11000101111,1111001000011
 H = 110110111,111000101011
 I = 110101111,11101100101
 J = 110101011,111001001011
 L = 110101011,11100001001011

$$\int_0^x \text{Hit Integration (n:2,w:7)}$$



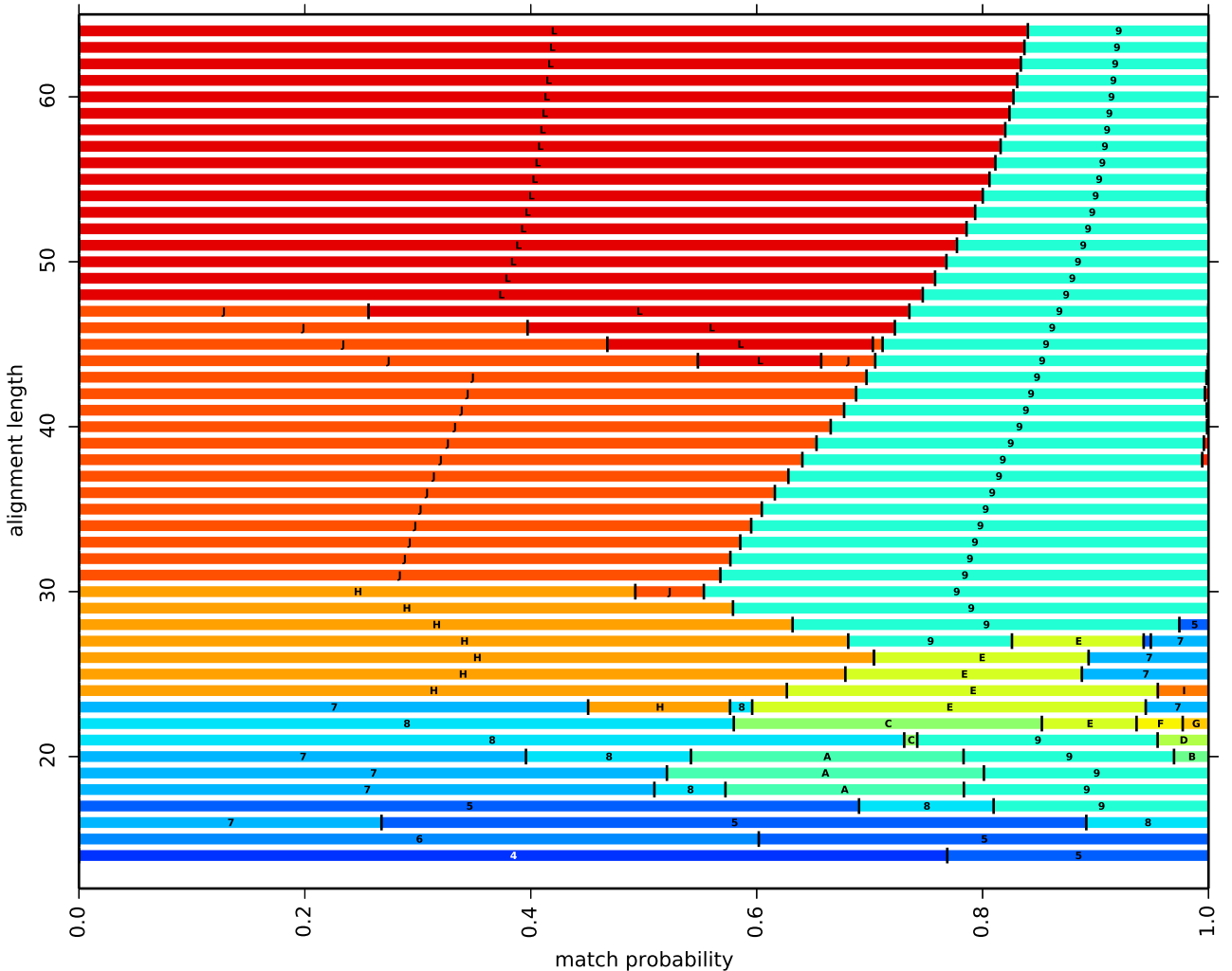
0 = 1111111,11101111
 1 = 1111111,111010111
 2 = 11011111,111101011

3 = 11101111,1111001011
 4 = 11101111,1110100111
 5 = 11010111,1111001011

6 = 11101111,11100100111
 7 = 11101111,11010010111
 8 = 11101111,111010001011

H = 110110111,111000101011
 J = 1101010111,111001001011
 L = 1101010111,11100001001011

\int_x^1 Hit Integration (n:2,w:7)



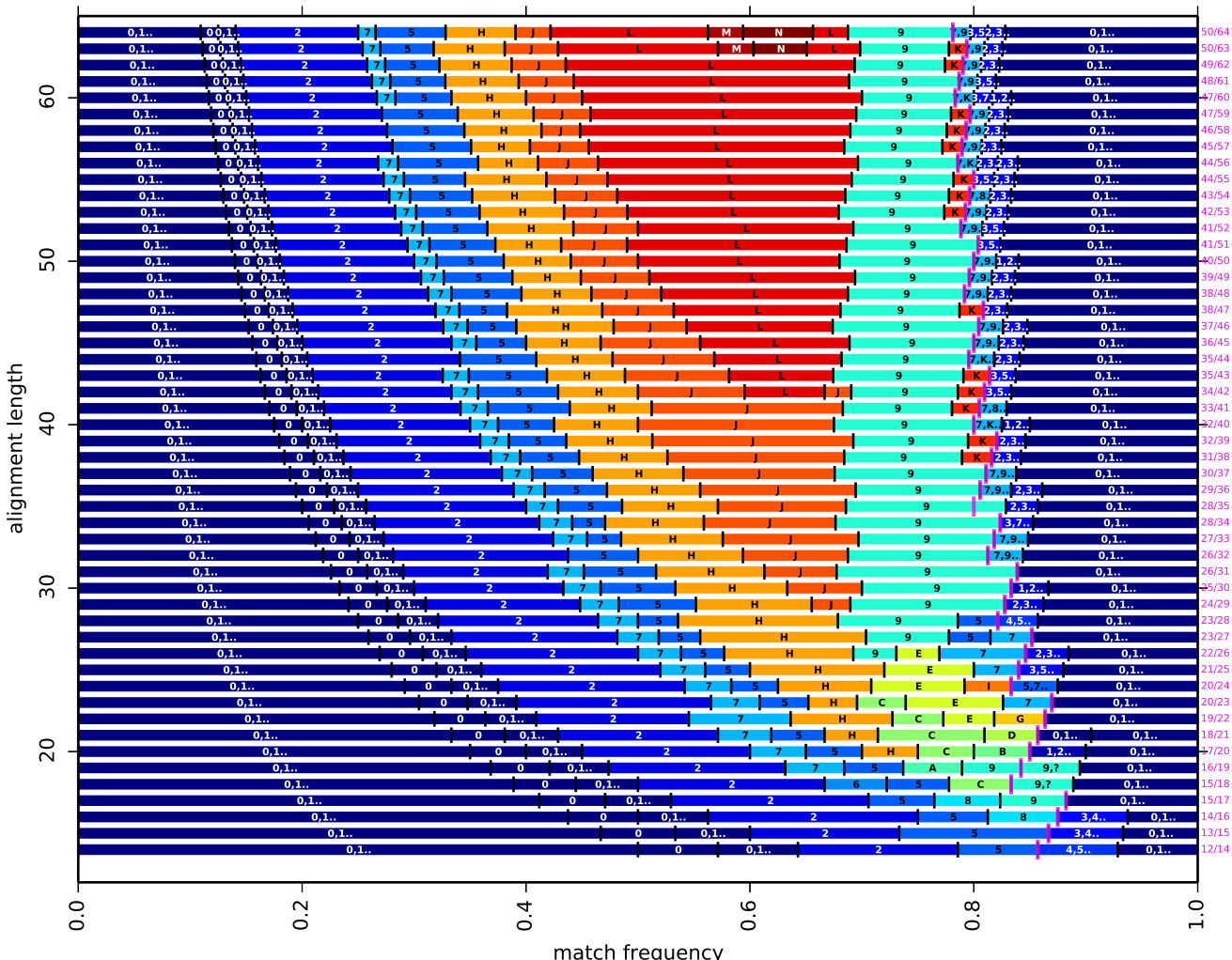
4 = 11101111,1110100111
 5 = 11010111,11110010011
 6 = 11101111,11100100111
 7 = 11101111,11010010111
 8 = 11101111,111010001011

9 = 11010111,1110001001101
 A = 110110111,111010000111
 B = 111010111,11010000100111
 C = 110110111,1110001000111

D = 110100010111,11100100001011
 E = 110110111,1101001000111
 F = 11011111,11010100111
 G = 11000101111,11110010000011

H = 110110111,111000101011
 I = 11010111,11101100101
 J = 110101011,111001001011
 L = 110101011,11100001001011

Dirac (n:2,w:7)



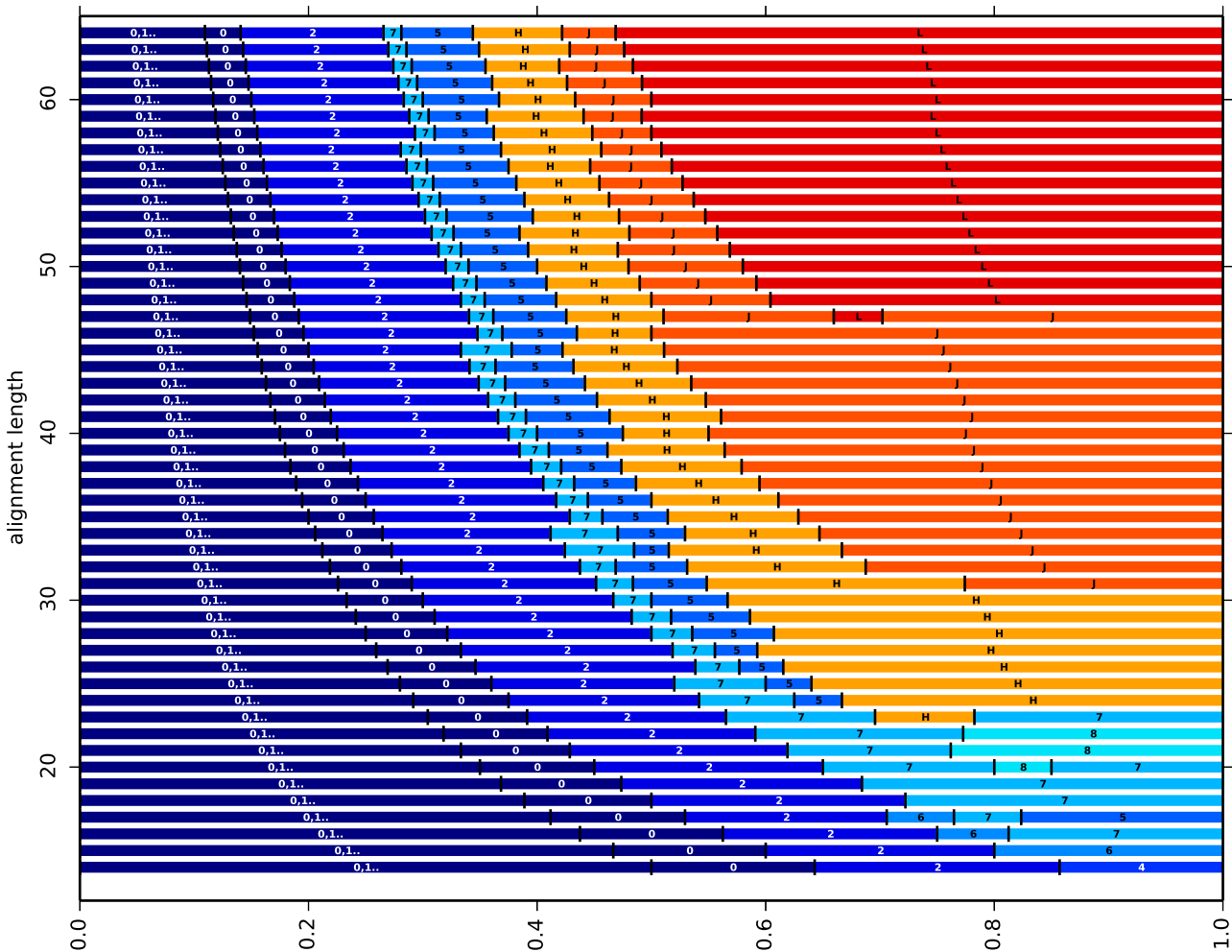
0 = 1111111,11101111
 1 = 1111111,11101011
 2 = 11011111,111101011
 3 = 11101111,1111010011
 4 = 11101111,1110100111
 5 = 11010111,11110010011

6 = 111010111,11100100111
 7 = 11101111,1101001011
 8 = 11101111,111010001011
 9 = 11101111,111000100101
 A = 110110111,111010000111
 B = 111010111,11010000100111

C = 110110111,1110001000111
 D = 110100010111,11100100001011
 E = 110110111,1101001000111
 F = 11011111,11010100111
 G = 11000101111,11110010000011
 H = 110110111,111000101011

I = 1101010111,11101100101
 J = 1101010111,111001001011
 K = 11011111,10101000011011
 L = 1101010111,11100001001011
 M = 110100100111,11000101010011
 N = 110100010111,11000101001011

$$\sum_0^x \text{Heaviside}(n;2,w;7)$$



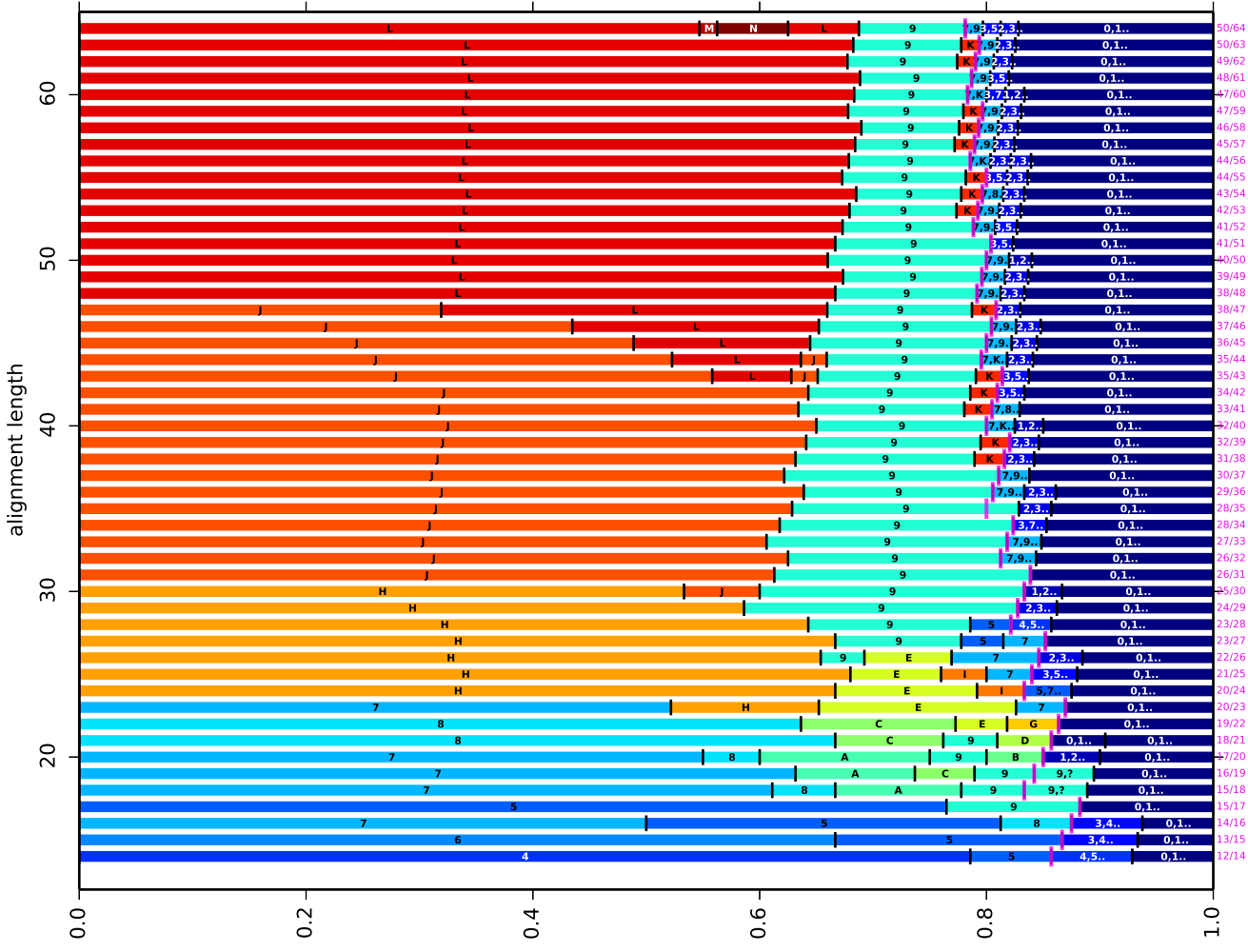
0 = 1111111,11101111
 1 = 1111111,111010111
 2 = 11011111,111101011
 3 = 11101111,1111010011
 4 = 11101111,1110100111
 5 = 110101111,11110010011

6 = 11101111,11100100111
 7 = 11101111,11010010111
 8 = 11101111,111010001011
 9 = 110101111,111000100101
 A = 11010111,111010000111
 B = 111010111,11010000100111

C = 110101011,1110001000111
 D = 110100010111,11100100001011
 E = 110110111,1101001000111
 F = 11011111,11010100111
 G = 11000101111,11110010000011
 H = 110110111,111000101011

I = 110101111,11101100101
 J = 1101010111,111001001011
 K = 11101111,10101000011011
 L = 1101010111,11100001001011
 M = 110100100111,11000101010011
 N = 110100010111,11000101001011

$$\sum_x^1 \text{Heaviside}(n;2,w:7)$$



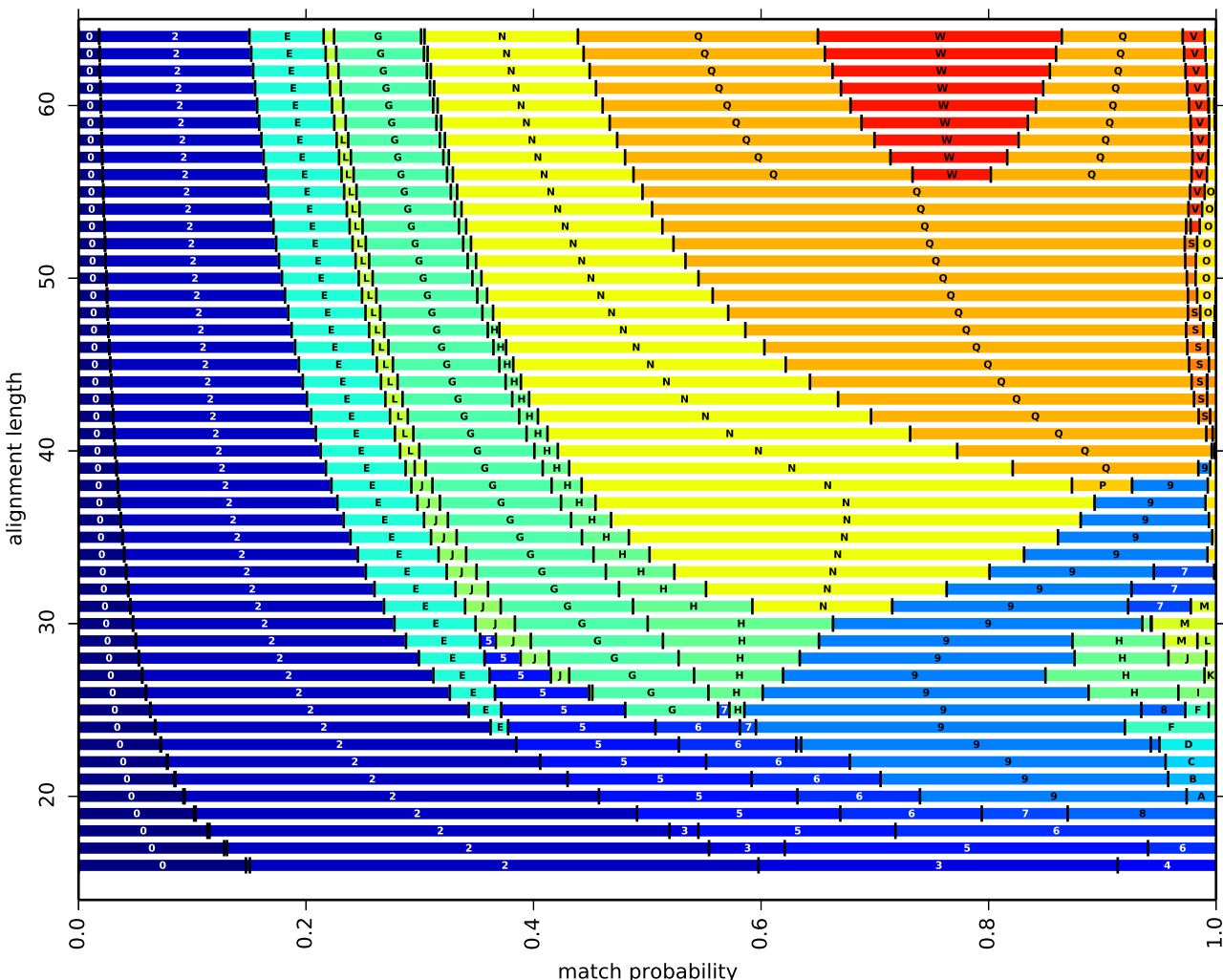
0 = 1111111,11101111
 1 = 1111111,11101011
 2 = 11011111,111101011
 3 = 11101111,1111010011
 4 = 11101111,1110100111
 5 = 110101111,11110010011

6 = 11101111,11100100111
 7 = 11101111,11010010111
 8 = 11101111,111010001011
 9 = 110101111,1110001001101
 A = 110110111,111010000111
 B = 111010111,11010000100111

C = 110110111,1110001000111
 D = 110100010111,11100100001011
 E = 110110111,1101001000111
 F = 11011111,11010100111
 G = 11000101111,11110010000011
 H = 110110111,111000101011

I = 110101111,11101100101
 J = 1101010111,111001001011
 K = 11101111,10101000011011
 L = 1101010111,11100001001011
 M = 110100100111,11000101010011
 N = 110100010111,11000101001011

Bernoulli (n:2,w:8)



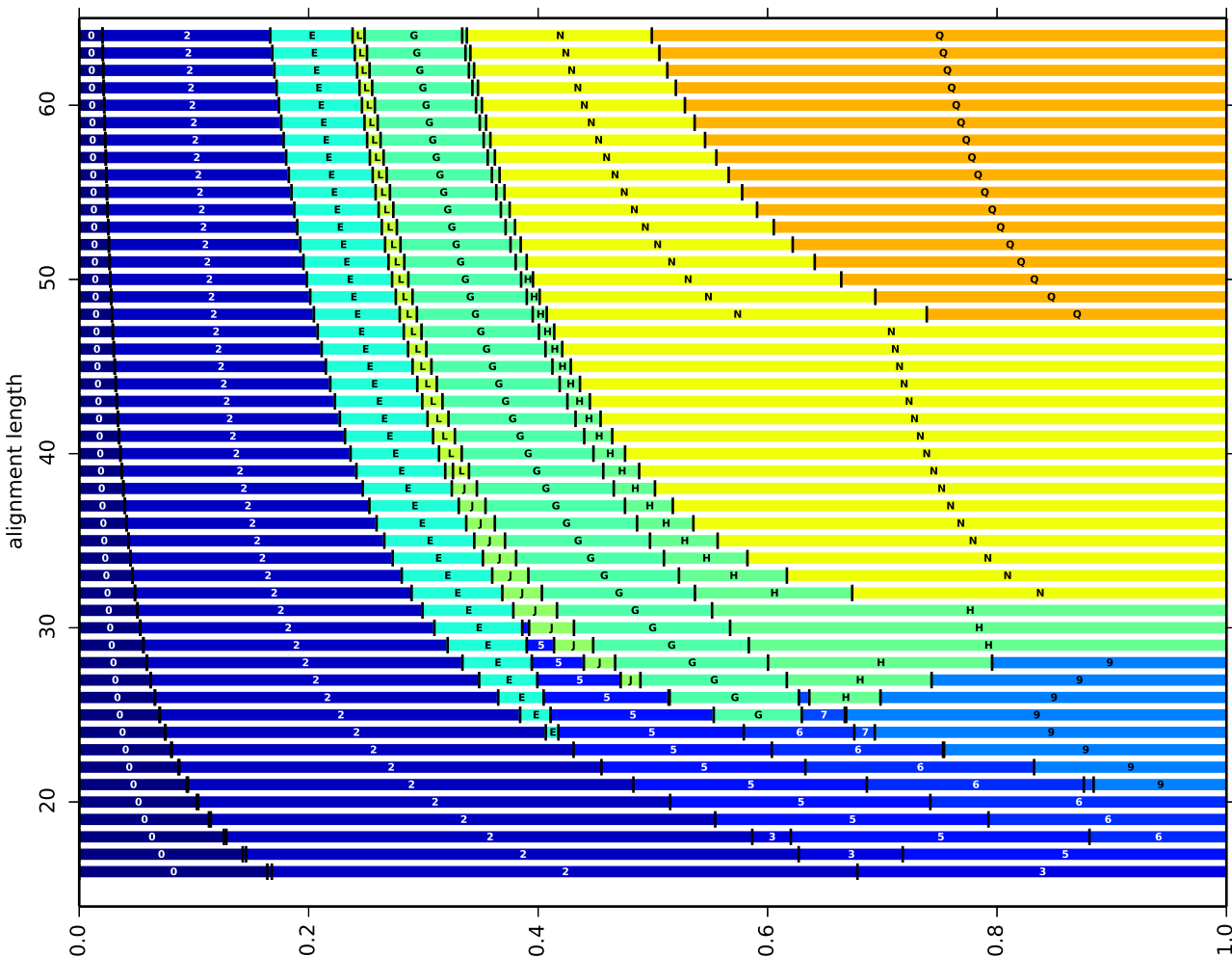
0 = 11111111,111101111
 2 = 11011111,1111101011
 3 = 11101111,1110100111
 4 = 11101111,111100101011
 5 = 11101111,111010010111
 6 = 11110111,1110100010111
 7 = 1110110111,1110010010111
 8 = 111101111,11100100010111

9 = 1110110111,11100010010111
 A = 1110110111,1011100000110111
 B = 1110110111,111000010010111
 C = 1110011011,111000010010111
 D = 1110011011,1110000010010111
 E = 1011111011,11100101111
 F = 111001010111,1110100100000111

G = 1110110111,1110001010111
 H = 1110110111,11100100001111
 I = 111011111,111001000010111
 J = 111011111,111100110011
 K = 111101111,11101100011011
 L = 1011110111,110110010111
 M = 1110110111,11010010010111

N = 1110110111,11101000100111
 O = 10011010111,10111100010011
 P = 1110110111,11100010010111
 Q = 1110110111,1110100010001011
 S = 1110111011,1101001000010111
 V = 1101101011,1011000001100111
 W = 11010110111,1101000100010111

\int_0^x Hit Integration (n:2,w:8)



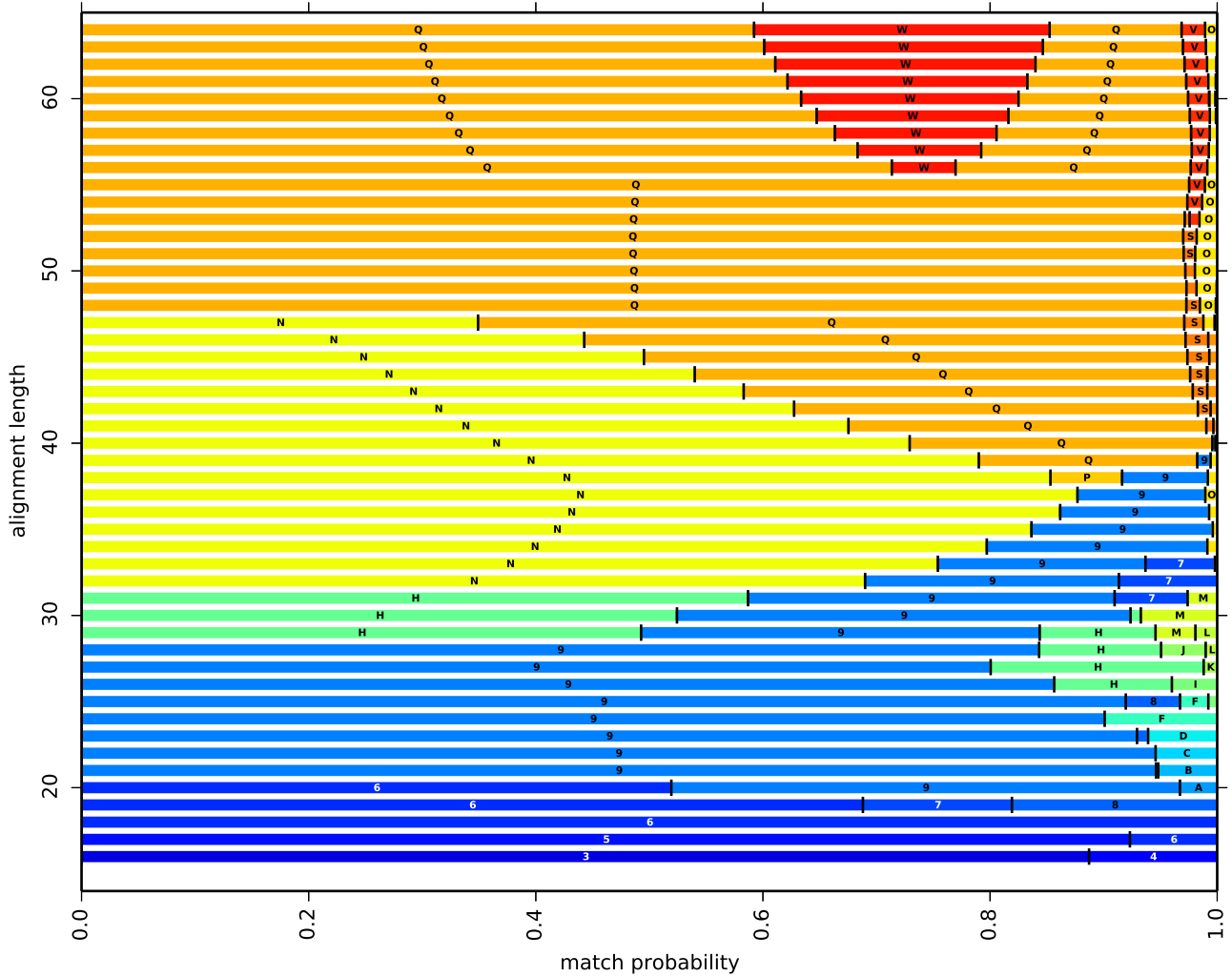
0 = 11111111,111101111
 2 = 110111111,1111101011
 3 = 111011111,11110100111
 5 = 111011111,111010010111

6 = 111101111,1110100010111
 7 = 1110110111,11100100010111
 9 = 1110110111,111000100010111
 E = 1011111011,11100101111

G = 1110110111,1110001010111
 H = 1110110111,111010010001111
 J = 1101011111,111100110011

L = 1011110111,110110010111
 N = 11011010111,11101000100111
 Q = 11010110111,1110100010001011

\int_x^1 Hit Integration (n:2,w:8)



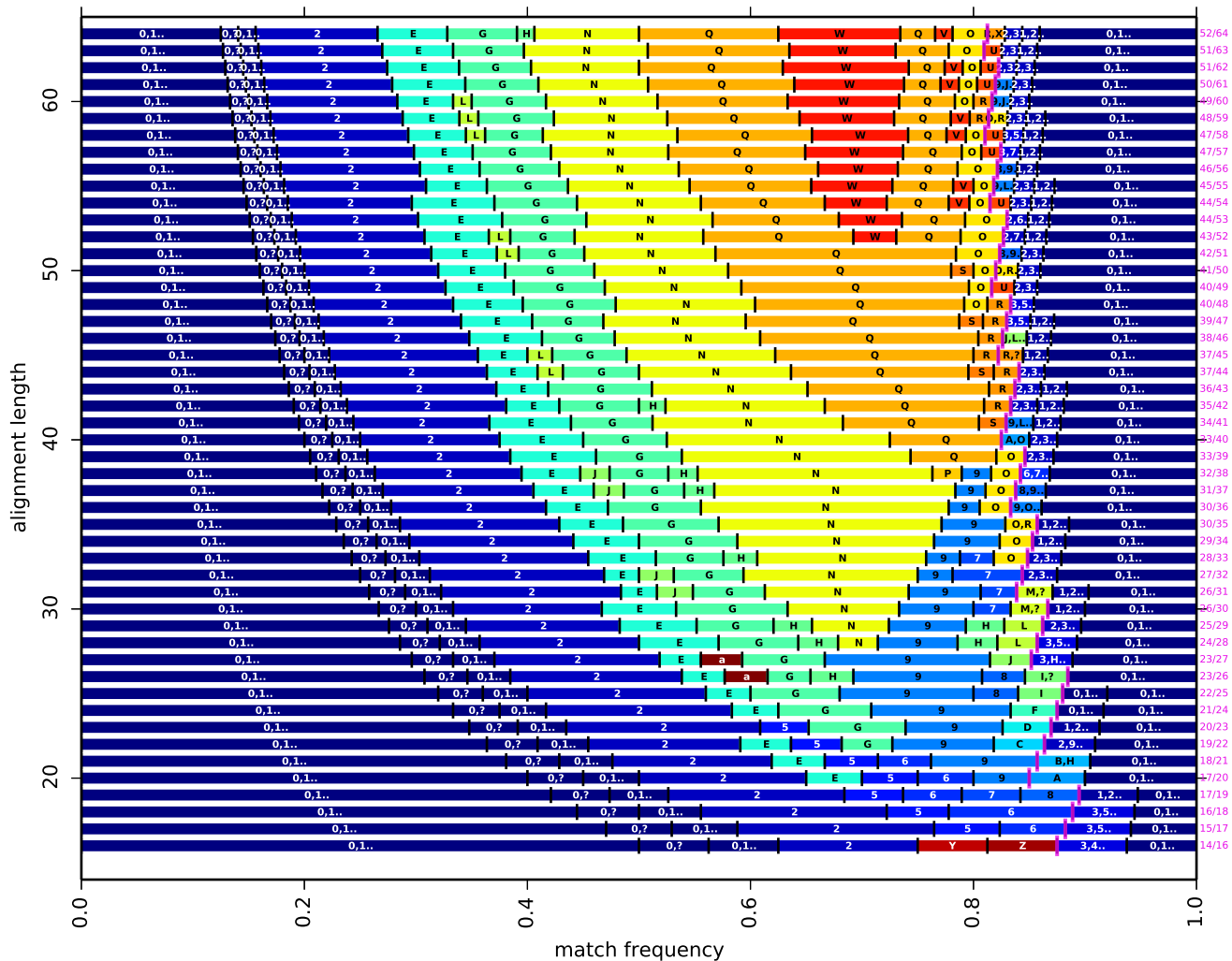
3 = 11101111,11110100111
 4 = 11101111,111100101011
 5 = 11101111,111010010111
 6 = 11110111,1110100010111
 7 = 111011011,1110010010111
 8 = 11110111,11100100010111
 9 = 111011011,11100010010111

A = 1101101011,101110000010111
 B = 111011011,111000010010111
 C = 1110011011,111000010010111
 D = 1110011011,1110000010010111
 E = 11100101011,1110100100000111
 F = 111011011,110100100010111
 H = 111011011,11010010001111

I = 11101111,111001000010111
 J = 110101111,111100110011
 K = 11110111,11010100010111
 L = 101111011,110110010111
 M = 111011011,11010010010111
 N = 1101101011,11101000100111

O = 10011010111,10111100010011
 P = 1101101011,111000100100111
 Q = 1101011011,1110100010001011
 S = 1101011011,1101001000010111
 V = 1101101011,1011000001100111
 W = 1101011011,1101000100010111

Dirac (n:2,w:8)



```

0 = 11111111,111010111
1 = 11111111,111010111
2 = 11011111,1111101011
3 = 11011111,11110100111
4 = 11011111,111100101011
5 = 11101111,111010010111
6 = 11110111,1110100010111
7 = 111011011,1110010010111
8 = 11110111,11100100010111
9 = 111011011,11100010010111
    
```

```

A = 11011010111,101110000011011
B = 111011011,111000010010111
C = 1100110111,111000010010111
D = 1110011011,1110000010010111
E = 1011111011,11100101111
F = 11100101011,1110100100000111
G = 111011011,1110001010111
H = 111011011,111010010001111
I = 111011111,111001000010111
    
```

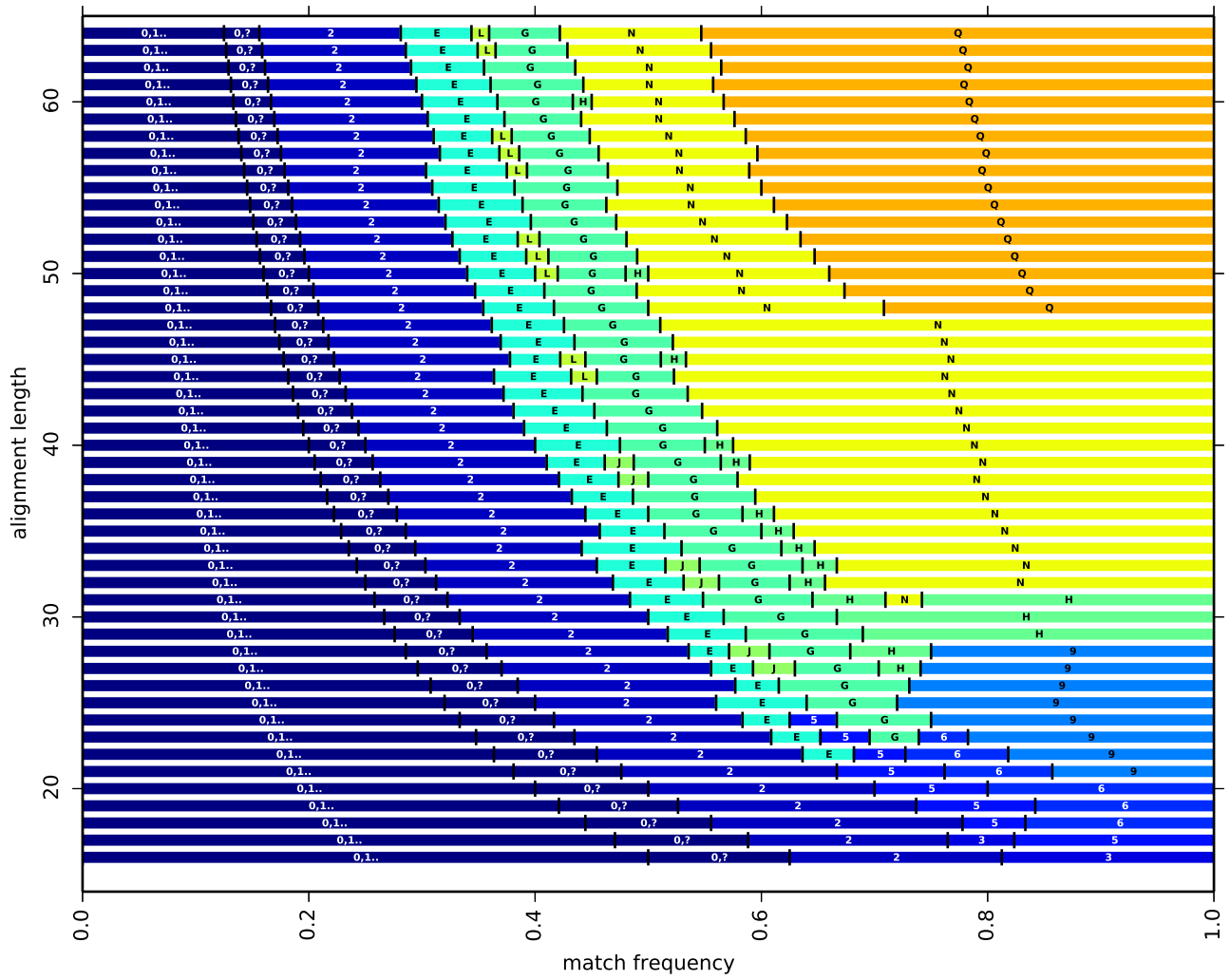
```

J = 1101011111,1111001100111
K = 11110111,1101000011011
L = 101110111,110110010111
M = 111011011,1101001001111
N = 1101101011,11101000100111
O = 1001101011,10111100010011
P = 111011011,111000100100111
Q = 1101101011,1110100010001011
R = 101110111,11000100101111
    
```

```

S = 11010111011,1101001000010111
T = 1101101011,1101000100000111
U = 1001101011,110111100010001
V = 1101101011,1011000001100111
W = 1101011011,1101000100010111
X = 1101011011,1011000001100111
Y = 11011111,11111001011
Z = 11101111,1110010001111
a = 110101111,111100101011
    
```

$$\sum_0^x \text{Heaviside}(n:2,w:8)$$



```

0 = 11111111,111101111
1 = 11111111,110101111
2 = 110111111,1111101011
3 = 110111111,11110100111
4 = 111011111,111100101011
5 = 111011111,111010010111
6 = 111101111,1110100010111
7 = 1110110111,1110010010111
8 = 111101111,11100100010111
9 = 1110110111,11100010010111

```

```

A = 11011010111,1011100000110011
B = 1110110111,111000010010111
C = 11100110111,111000010010111
D = 11100110111,1110000010010111
E = 1011111011,11100101111
F = 111001010111,1110100100000111
G = 1110110111,1110001010111
H = 1110110111,1110100010001111
I = 111011111,111001000010111

```

```

J = 1101011111,111100110011
K = 111101111,11010100011011
L = 1011110111,110110010111
M = 1110110111,11010010010111
N = 11011010111,11101000100111
O = 10011010111,10111100010011
P = 11011010111,111000100100111
Q = 11010110111,1110100010001011
R = 1011101111,11000100101111

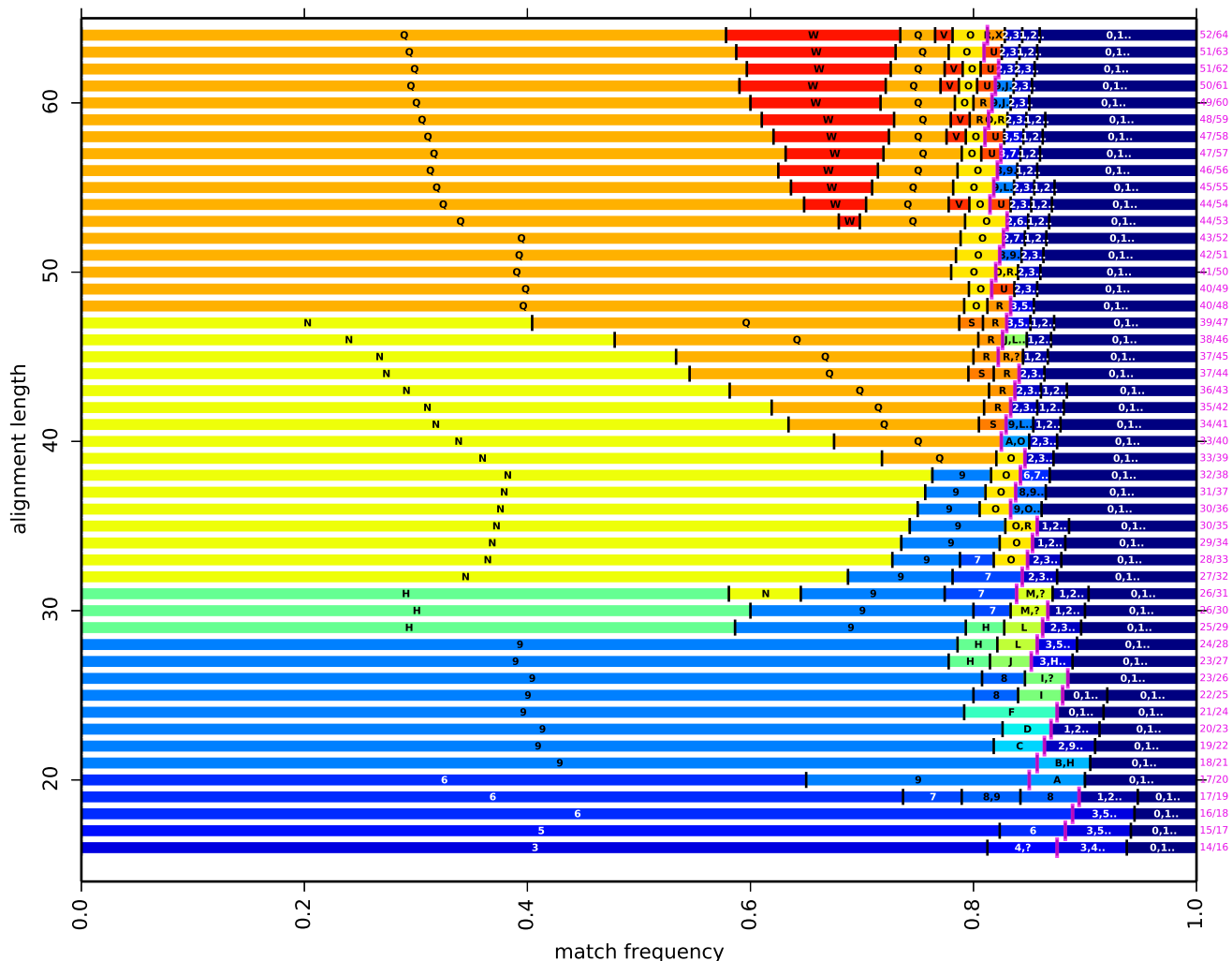
```

```

S = 11010111011,1101001000010111
T = 11011010111,110100010000111
U = 10011010111,11011110001001
V = 11011010111,1011000001100111
W = 11010110111,11010000100010111
X = 11010110111,1011000001100111
Y = 110111111,11111001011
Z = 111011111,111100100111
a = 1101011111,111100101011

```


$$\sum_x \text{Heaviside}(n:2,w:8)$$



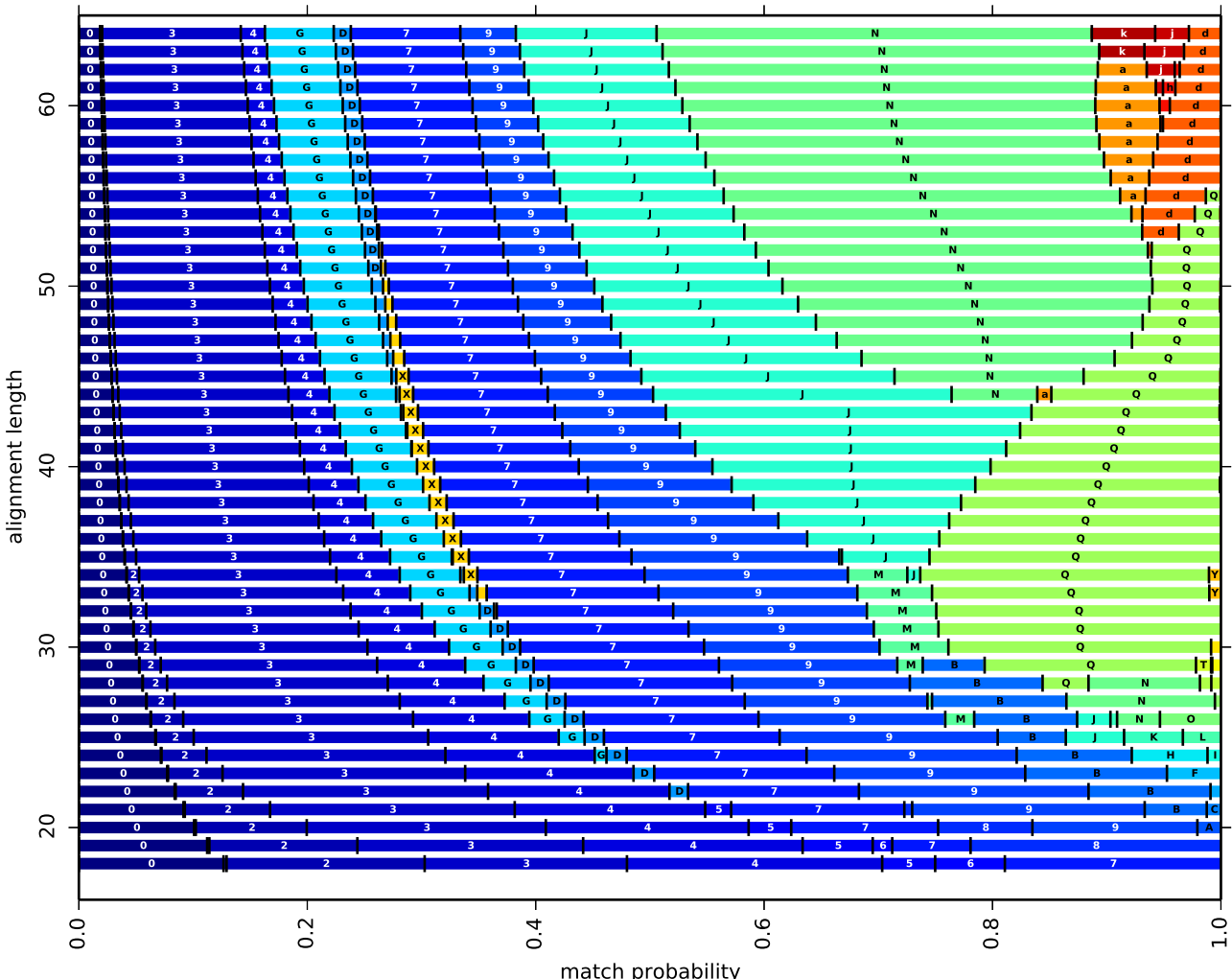
0 = 11111111,111101111
 1 = 11111111,1111010111
 2 = 11011111,1111101011
 3 = 11011111,11110100111
 4 = 11011111,11110010111
 5 = 11101111,111010010111
 6 = 11101111,1110100010111
 7 = 1110110111,1110010010111
 8 = 111101111,11100100010111
 9 = 1110110111,11100010010111

A = 11011010111,101110000010111
 B = 1110110111,111000010010111
 C = 11100110111,111000010010111
 D = 11100110111,1110000010010111
 E = 1011111011,11100101111
 F = 111001010111,1110100100000111
 G = 1110110111,1110001010111
 H = 1110110111,1110100100111
 I = 111011111,111001000010111

J = 1101011111,111100110011
 K = 111101111,11010100010111
 L = 1011110111,110110010111
 M = 1110110111,11010010010111
 N = 11011010111,11101000100111
 O = 10011010111,10111100010011
 P = 11011010111,111000100100111
 Q = 11010110111,1110100010001011
 R = 1011101111,11000100101111

S = 11010111011,1101001000010111
 T = 1101010111,1101000100000111
 U = 10011010111,110111100001001
 V = 11011010111,1011000001100111
 W = 11010110111,11010001000010111
 X = 11010110111,1011000001100111
 Y = 110111111,11111001011
 Z = 111011111,111100100111
 a = 1101011111,111100101011

Bernoulli (n:2,w:9)



```

0 = 111111111,1111011111
2 = 1110111111,1111101011
3 = 1101111111,11111010111
4 = 1101111111,111110010111
5 = 1110111111,1111001010111
6 = 11110101111,111100110111
7 = 11011101111,11110100100111
8 = 11101101111,11110100010111
9 = 11101101111,111100100010111
A = 11011101111,111100010010111
B = 11101101111,1111000100010111

```

```

C = 1100101011111,1111100001100101
D = 11010111111,11110110010111
E = 11101101111,1110100010001111
F = 11011111011,111100101111
G = 11011111011,111100101111
H = 111010110111,1111000010010111
I = 1100101011111,11111000010001101
J = 111010110111,11101000100010111
K = 111010110111,11101001000010111
L = 110010101111,111110000100011001
M = 11101101111,111010010001111
N = 1110010110111,111010001000010111

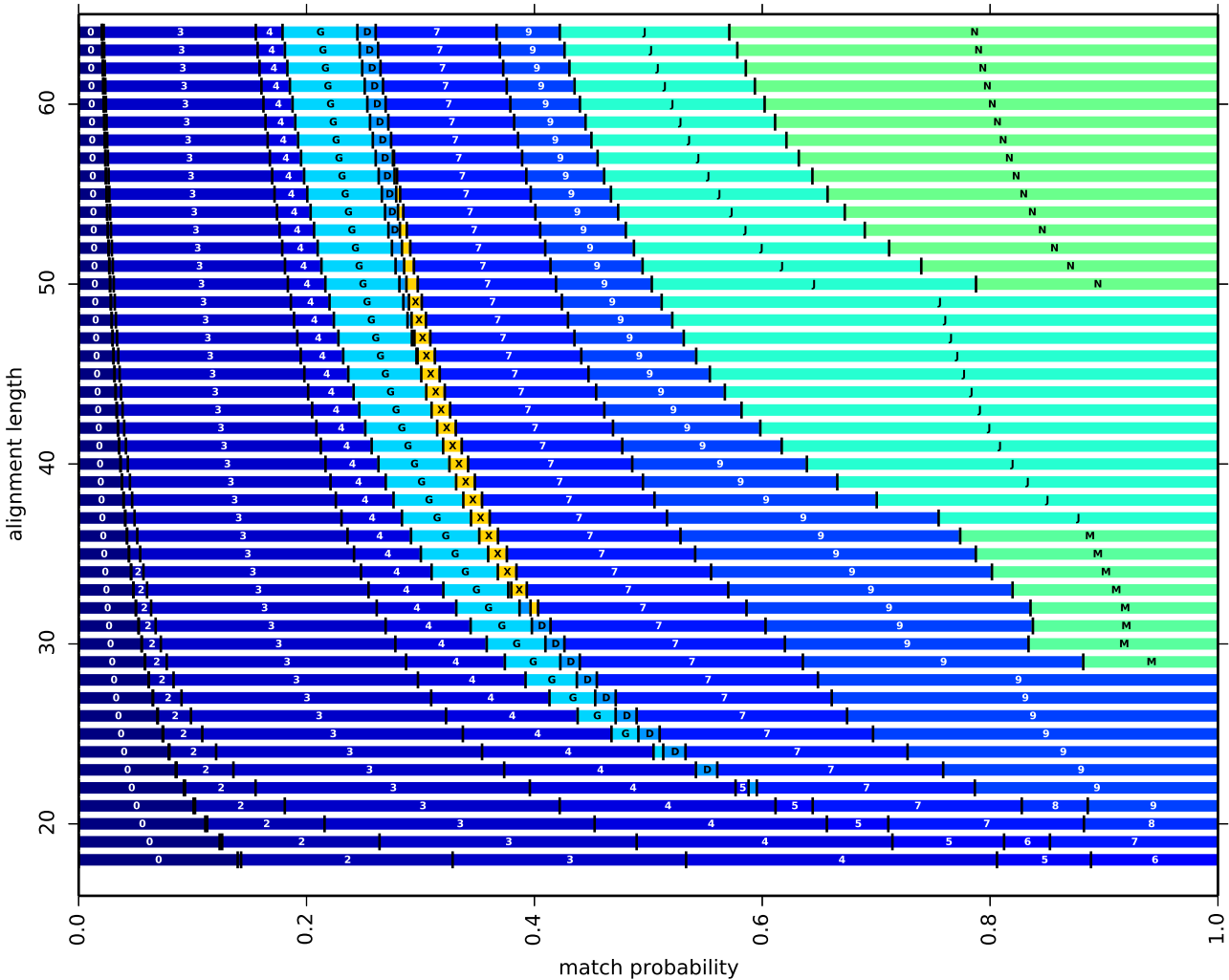
```

```

O = 1011100101111,1111001000001010111
Q = 11101101111,1110110000010101111
T = 11011101111,11101000101001111
X = 11011110111,11101001101111
Y = 11101101111,111101001001111
a = 1101101010111,111000100101111
b = 111010110111,111000100101111
c = 111010110111,11100010000101111
d = 111010110111,111010011000101111
h = 1101101010111,111000110010010111
j = 1100110101111,1101100101000001111
k = 10101101100111,1110100110000010111

```

\int_0^x Hit Integration (n:2,w:9)

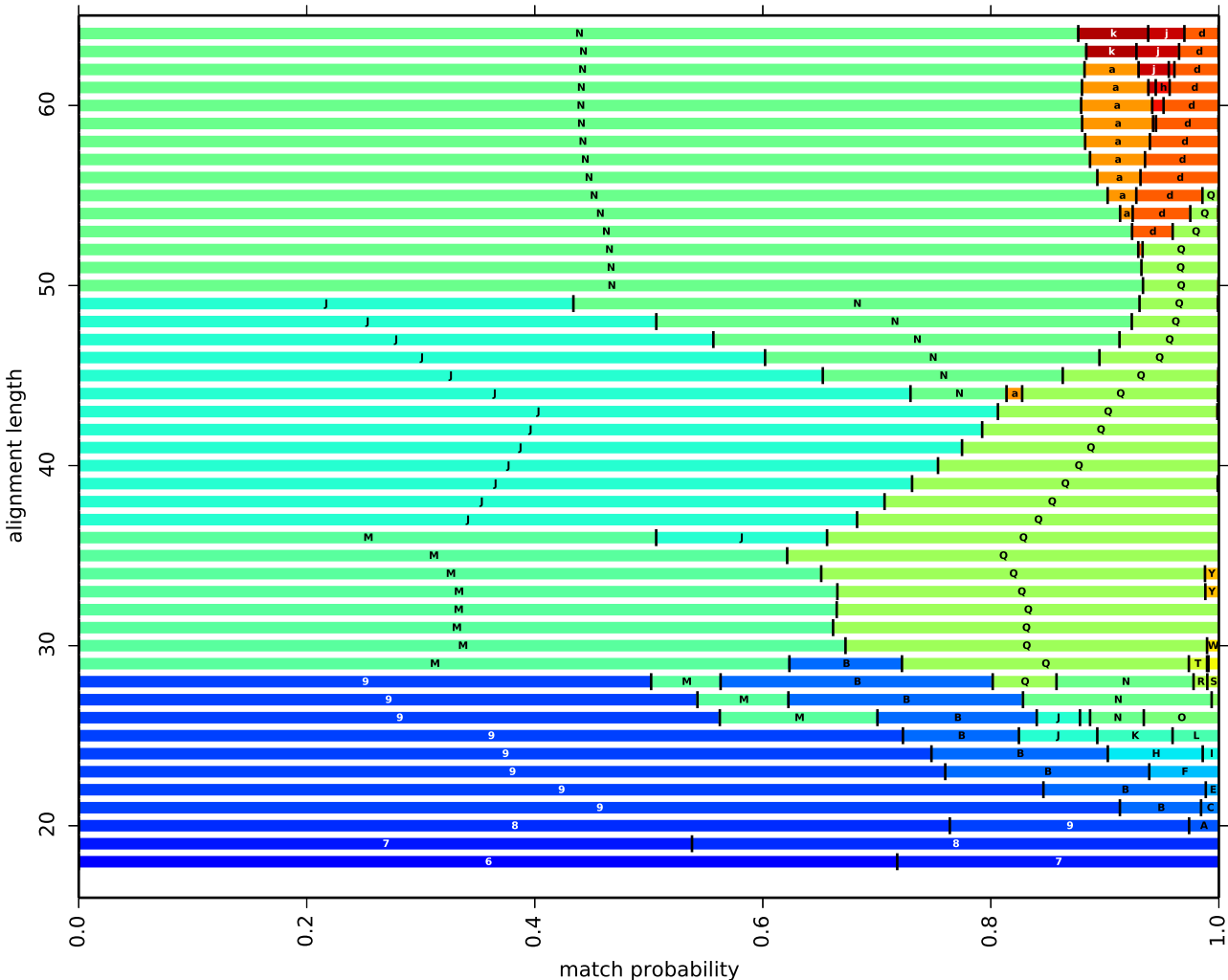


0 = 111111111,111101111
 2 = 111011111,1111101011
 3 = 110111111,11111010111
 4 = 110111111,11110010111
 5 = 111011111,111100101011

6 = 11110101111,1110100110111
 7 = 11011101111,11110100100111
 8 = 11101101111,11110100010111
 9 = 11101101111,111100100010111
 D = 11010111111,1111011001011

G = 11011111011,111100101111
 J = 11101011011,11101000100010111
 M = 11101101111,1110100010001111
 N = 1110010110111,111010001000010111
 X = 11011110111,1110100110111

\int_x^1 Hit Integration (n:2,w:9)

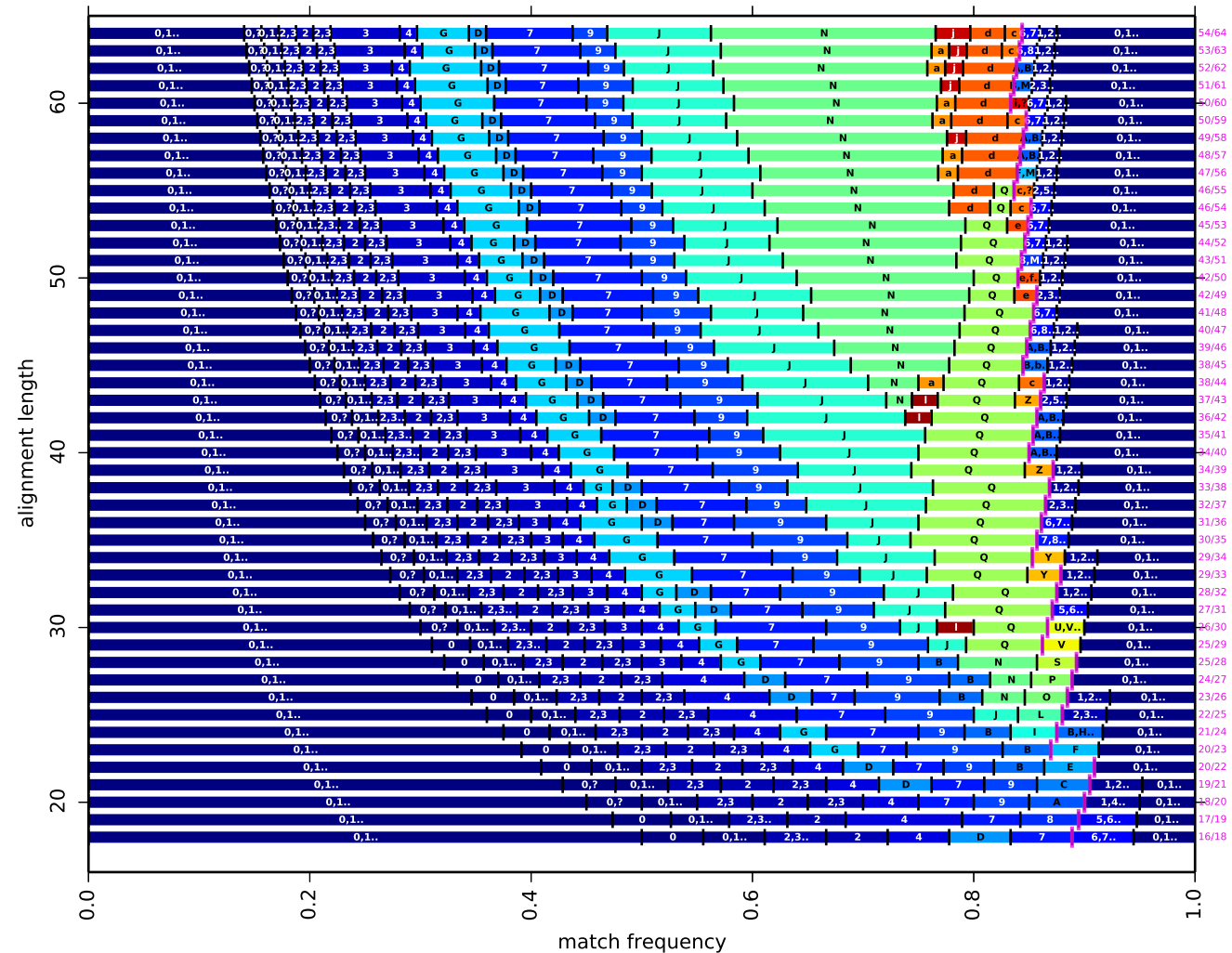


6 = 11110101111,1110100110111
 7 = 11011101111,11110100100111
 8 = 11101101111,11110100010111
 9 = 11101101111,111100100010111
 A = 11011101111,1111000010010111
 B = 11101101111,1111000100010111
 C = 110010101111,1111100001100101
 E = 11011011111,11110000100011011
 F = 11101101111,1110100010001111
 H = 111010110111,1111000010010111

I = 1100101011111,11111000010001101
 J = 111010110111,11101000100010111
 K = 111010110111,111010010000010111
 L = 110010101111,111110000100010001
 M = 11101101111,111010010001111
 N = 1110010110111,111010001000010111
 O = 101110010111,1111001000000101011
 Q = 11101101111,11011000001010111
 R = 1110010110111,111011000000010111

S = 1101001110111,111011010000000111
 T = 11011101111,1110100010100111
 W = 11011101111,111010001000001111
 Y = 11101101111,11110100100111
 a = 1101101010111,11100010010010111
 d = 111010110111,1101001100010111
 h = 1101101010111,111000110010010111
 j = 1100110101111,110110010100000111
 k = 10101101100111,110100110000010111

Dirac (n:2,w:9)



```

0 = 111111111,1111011111
1 = 111111111,1110101111
2 = 111011111,11111101011
3 = 110111111,11111010111
4 = 110111111,111110010111
5 = 111011111,1111000101111
6 = 11110101111,1110100110111
7 = 11011101111,11110100100111
8 = 11101101111,111101000010111
9 = 11101101111,1111001000010111
A = 11011101111,1111000010010111
B = 11101101111,1111000100010111
C = 110010101111,1111100001100101
D = 11010111111,1111011001011
E = 11011011111,11110000100011011
F = 11101101111,1110100010001111
G = 11011110111,111100101111

```

```

H = 111010101111,1111000010010111
I = 110010101111,11111000010001101
J = 111010110111,11101000100010111
K = 111010101111,11101001000010111
L = 110010101111,111110000100011001
M = 11101101111,111010010001111
N = 1110010110111,111010001000010111
O = 1011100101111,111100100000101011
P = 1110011010111,111100000010010111
Q = 11101101111,11111000001010111
R = 1110010110111,111011000000010111
S = 1101001110111,11101101000000111
T = 11011101111,1110100010100111
U = 11011101111,11010110010111
V = 1011110111,110110010111
W = 11011101111,11101000100001111

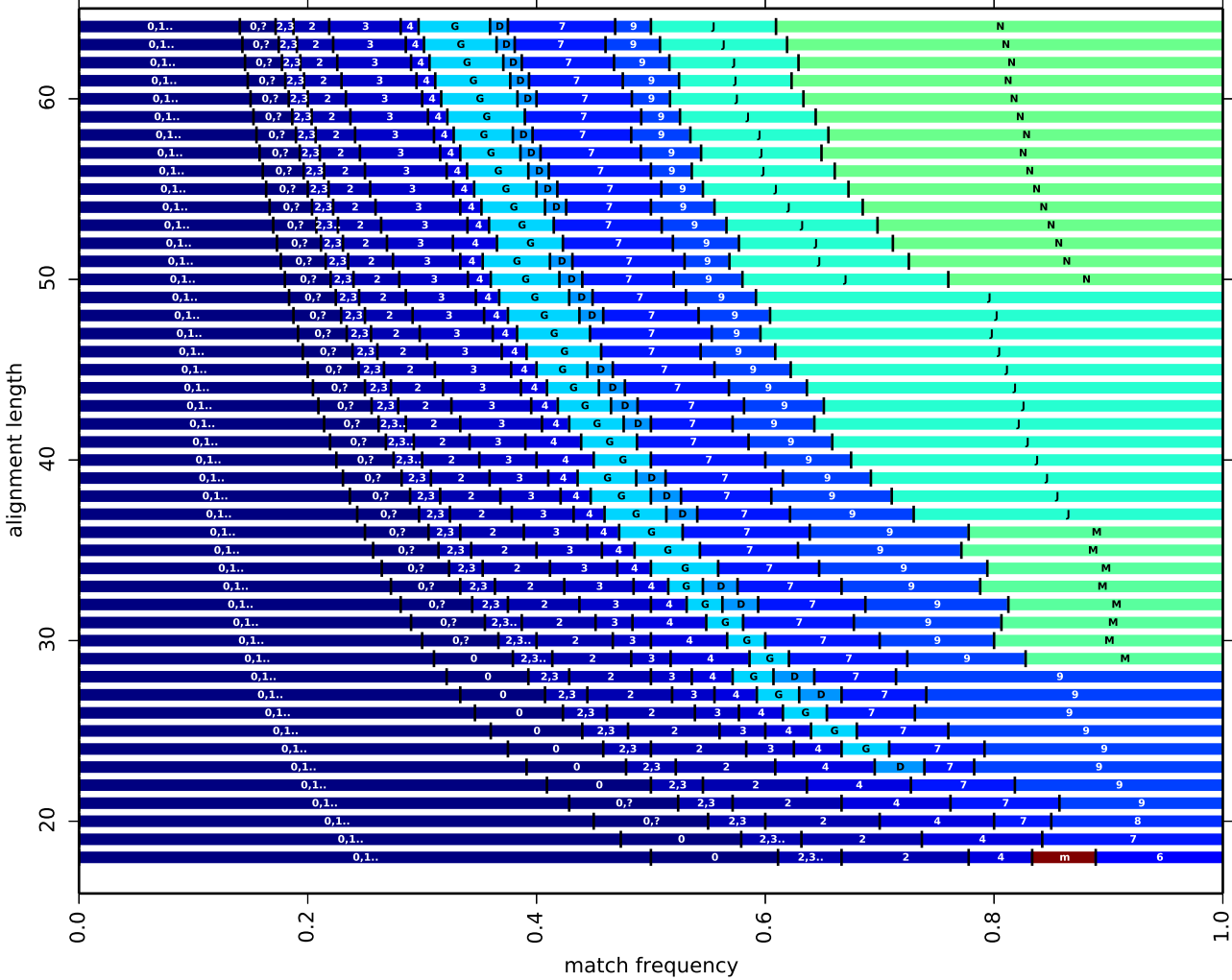
```

```

X = 11011110111,1110100110111
Y = 1110101111,11110100100111
Z = 1110101111,110011000001010111
a = 11011010111,11100010010010111
b = 1101110111,11110000100101011
c = 1101110111,1101011000000111
d = 11101010111,1101001100010111
e = 11001010111,111110100110001
f = 1110110111,10101000001001111
g = 110011010111,111101000100101
h = 11011010111,11100011001001011
i = 1011110111,111011000101101
j = 110011010111,11011001100000111
k = 101010100111,110100110000010111
l = 11101010111,11101000010010111
m = 111011111,1111010010111

```

$$\sum_0 \text{Heaviside}(n;2,w:9)$$



```

0 = 111111111,1111011111
1 = 111111111,1101010111
2 = 1110111111,11111101011
3 = 1101111111,1111010111
4 = 1101111111,11110010111
5 = 1110111111,111100010111
6 = 11110101111,11010010111
7 = 11011101111,11110100100111
8 = 11101101111,11110100010111
9 = 11101101111,111100100010111
A = 11011101111,111100010010111
B = 11101101111,1111000100010111
C = 1100101011111,1111100001100101
D = 11010111111,1111011001011
E = 11011011111,11110000100010111
F = 11101101111,1110100010001111
G = 11011111011,111100101111

```

```

H = 111010110111,1111000010010111
I = 1100101011111,1111100001000101
J = 111010110111,11101000100010111
K = 111010110111,11101001000010111
L = 1100101101111,11110000100010001
M = 11101101111,1110100100010111
N = 1110010110111,1111010001000010111
O = 1011100101111,111100100000101011
P = 1110011010111,111100000010010111
Q = 11101101111,11011000001010111
R = 1110010110111,111011000000010111
S = 1101001110111,111011010000000111
T = 11011101111,1110100010100111
U = 11011101111,11011001010111
V = 10111110111,101110010111
W = 11011101111,11101000100001111

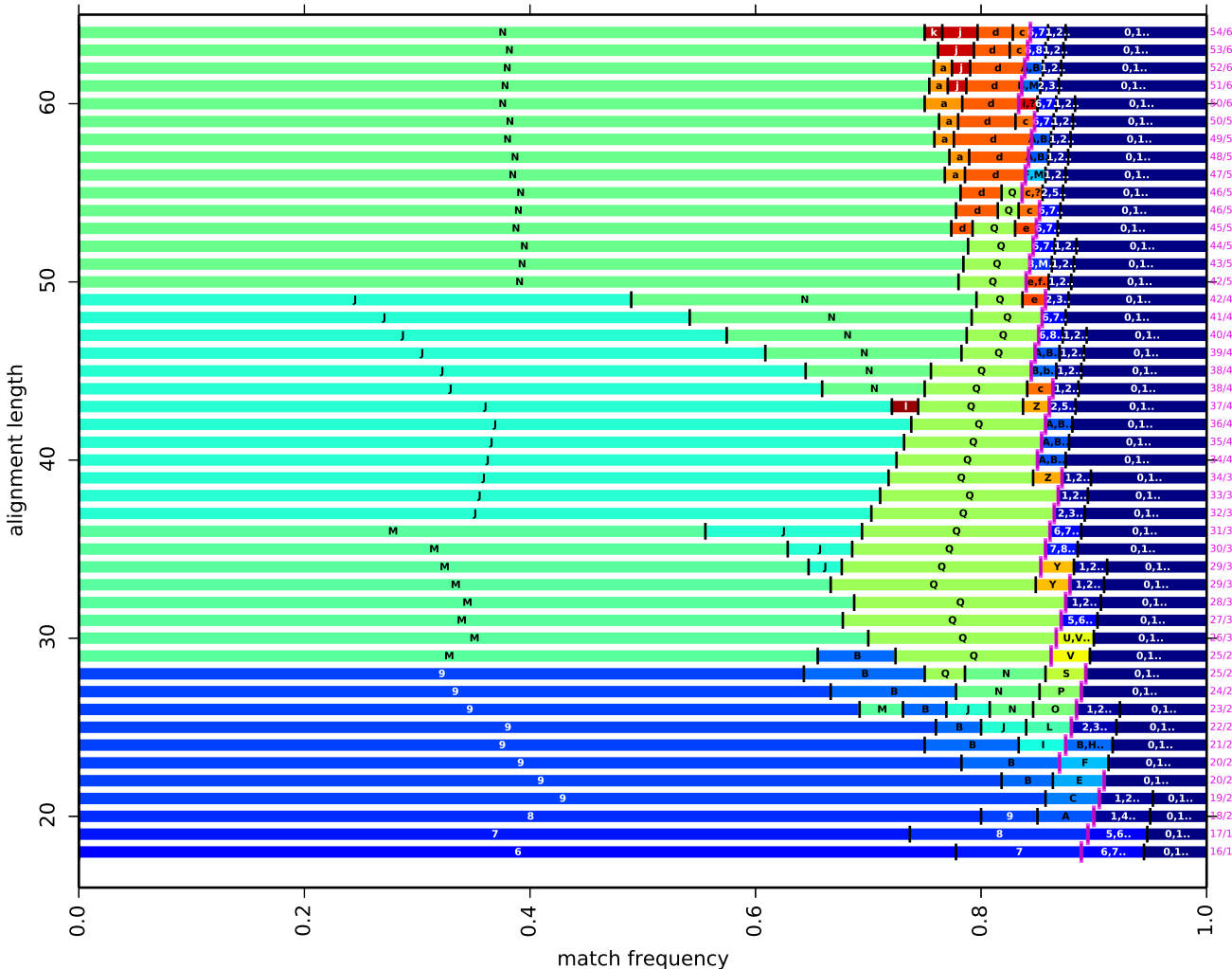
```

```

X = 11011110111,1110100110111
Y = 11101101111,11110100100111
Z = 11101101111,1100110000001010111
a = 1101101010111,11100010010010111
b = 110111010111,111110000100101011
c = 11011110111,1101101100000111
d = 11101010111,1101001100010111
e = 1100101011111,111110100110001
f = 11101101111,101011000001001111
g = 1100110101111,1111100001100101
h = 110110101111,111000110010010111
i = 10111110111,111011000101101
j = 1100110101111,110110010100000111
k = 1010110100111,110100110000010111
l = 111010110111,11101000010010111
m = 11101111111,1111010010111

```

$$\sum_x^1 \text{Heaviside}(n:2,w:9)$$



```

0 = 11111111,1111011111
1 = 11111111,1111010111
2 = 11101111,1111110101
3 = 11011111,1111101011
4 = 11011111,1111001011
5 = 11101111,1111000101
6 = 1111010111,1110100110
7 = 1101110111,1110100100
8 = 1110110111,1111010001
9 = 1110110111,1111001000
A = 1101110111,1111000010
B = 1110110111,1111000100
C = 1100101011,1111100001
D = 1101011111,1111011001
E = 1101101111,1111000010
F = 1110110111,1110100010
G = 1101111011,1111001011

```

```

H = 1110101011,1111000010
I = 1100101011,1111100001
J = 1110101011,1110100010
K = 1110101011,1110100100
L = 1100101011,1111100001
M = 1110101011,1110100100
N = 1110010101,1110100010
O = 1011100101,1111001000
P = 1110011010,1111000001
Q = 1110110111,1101100001
R = 1110010101,1110110000
S = 1101001101,1110110100
T = 1101110111,1110100010
U = 1101110111,1101011001
V = 1011110111,1011100101
W = 1101110111,1110100010

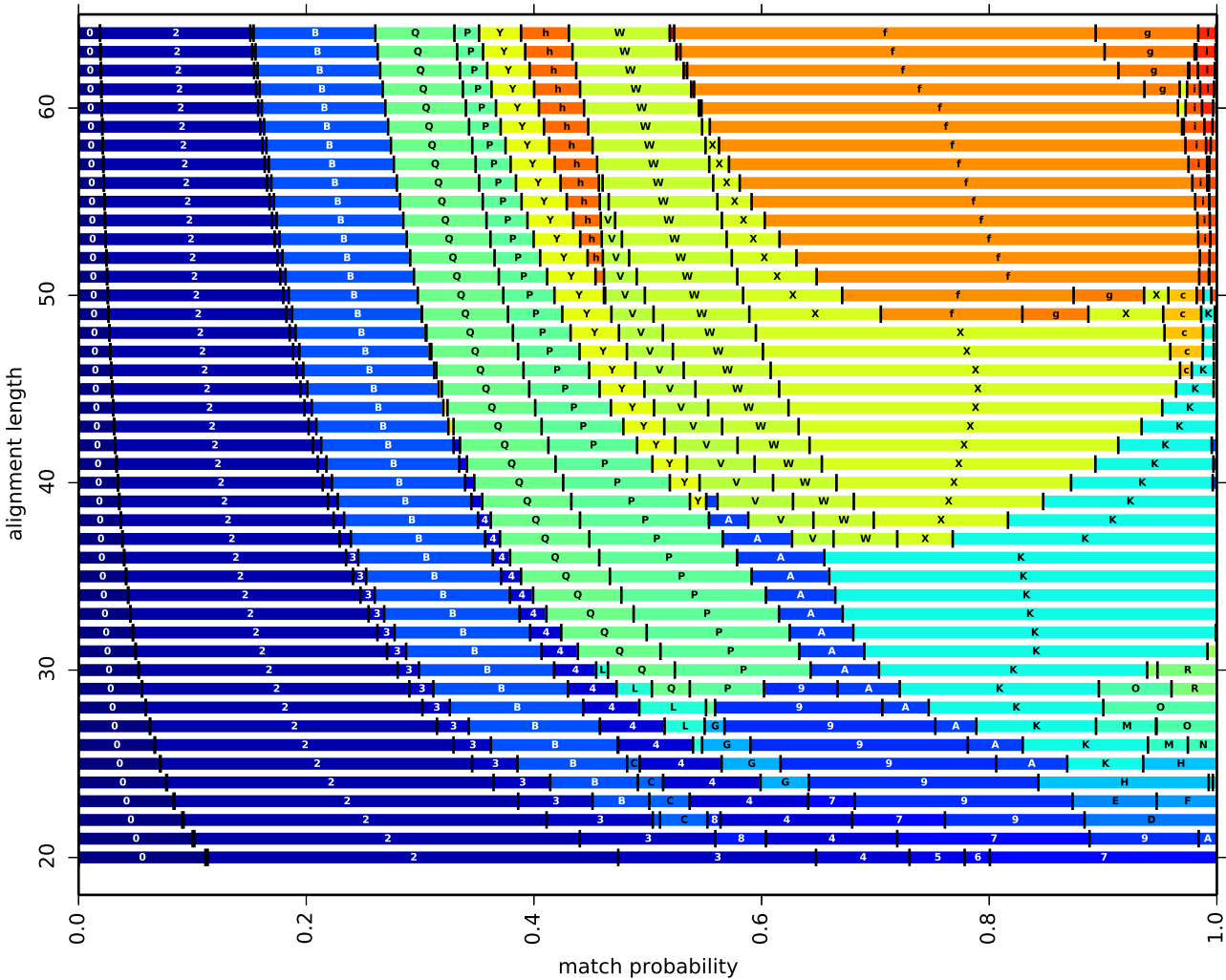
```

```

X = 1101111011,1110100110
Y = 1110110111,1111010011
Z = 1110101011,1100110000
a = 1101101011,1111000100
b = 1101101011,1111000010
c = 1101110111,1101101000
d = 1110101011,1101001001
e = 1100101011,1111101001
f = 1110110111,1011100001
g = 1100110111,1111010001
h = 1101101011,1110001001
i = 1011110111,1110100010
j = 1100110111,1101100100
k = 1010110101,1101001000
l = 1110101011,1110000100
m = 1110111111,1111010011

```

Bernoulli (n:2,w:10)



```

0 = 1111111111,1111101111
2 = 1110111111,1111101011
3 = 1110111111,111110010111
4 = 11101101111,11111010100111
5 = 11101011111,11111001101011
6 = 11101101111,11111010010111
7 = 11101011111,111110010100111
8 = 11011110111,1111010011111
9 = 11101110111,1111000100101111
A = 11101110111,11110100100010111
B = 11011101111,111110110101011
C = 10111011111,1111011010111

```

```

D = 1101110101111,1111010000110111
E = 11110101111,1111001000101111
F = 11110101111,11110001010001111
G = 11011101111,1111010010010111
H = 11110101111,11110001000101111
K = 11101110111,111101000100101111
L = 11101101111,1111010110010111
M = 111011010111,111100100100010111
N = 1110100110111,1111010000100010111
O = 1110011010111,1111010001000010111
P = 11101110111,1111001010010111
Q = 11101110111,111010010110111

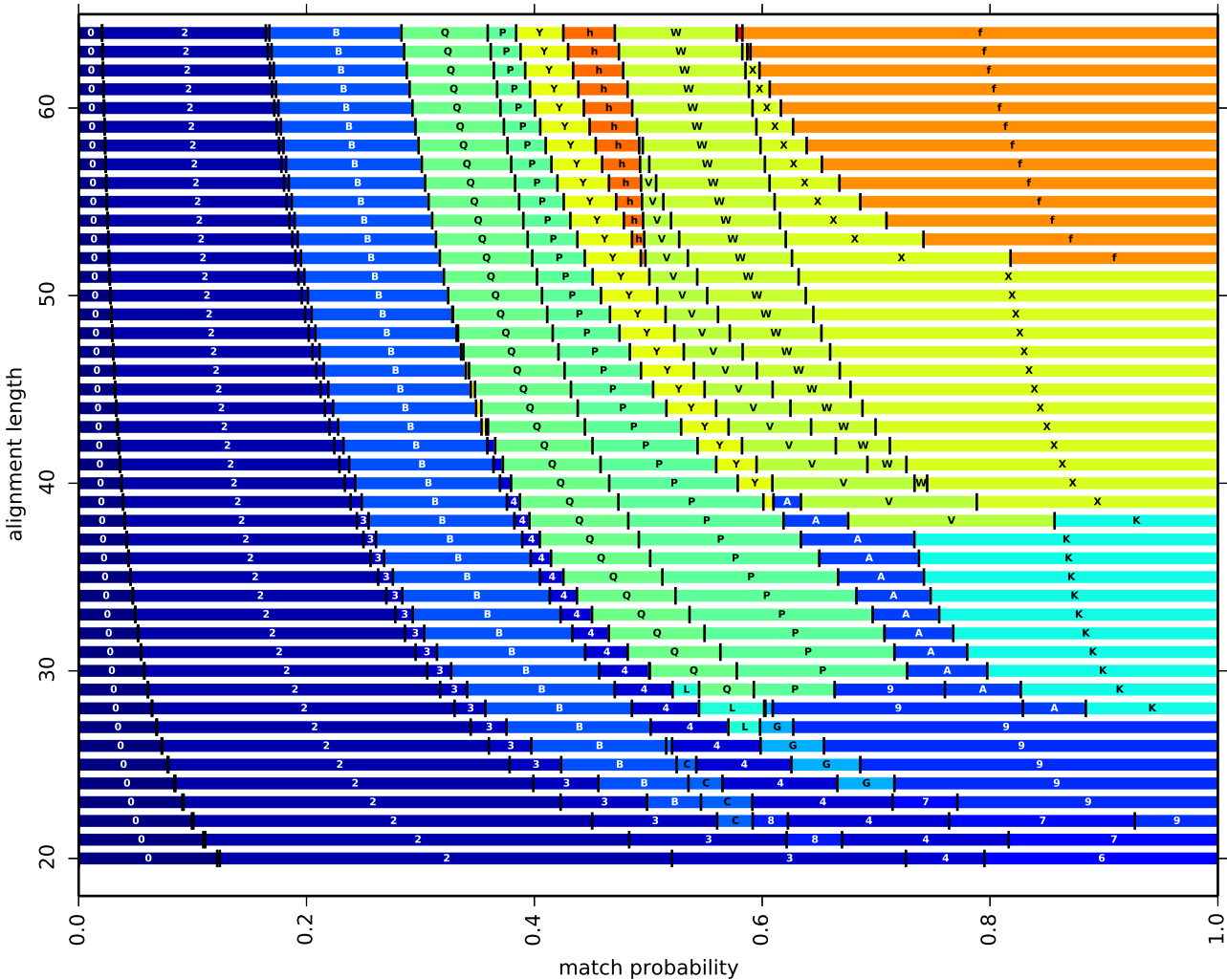
```

```

R = 1110011010111,1111010001000001111
V = 11101010111,11101001100010111
W = 11101010111,111100100100010111
X = 11101010111,111010010100010111
Y = 11101010111,111010100100111
c = 1110100110111,111100010010010111
f = 11101001010111,11101001000100010111
g = 11101001010111,1110101000110001011
h = 1101111010111,11110010010010111
i = 11101010111,11001101000001010111
j = 110111010111,1100111000000101101

```


\int_0^x Hit Integration (n:2,w:10)



```

0 = 1111111111,1111101111
2 = 1110111111,111110101111
3 = 1110111111,111110010111
4 = 11101101111,111110100111
6 = 11011101111,11111010010111
7 = 11101101111,11111001010111
8 = 11011111011,111101001111
9 = 11101110111,111100010010111

```

```

A = 11101110111,11110100100010111
B = 11011101111,111110101011
C = 10111011111,111101010111
G = 11011101111,11110100100111
K = 11101110111,1110100010010111
L = 11101101111,111101010100111
P = 11101110111,1111001010010111

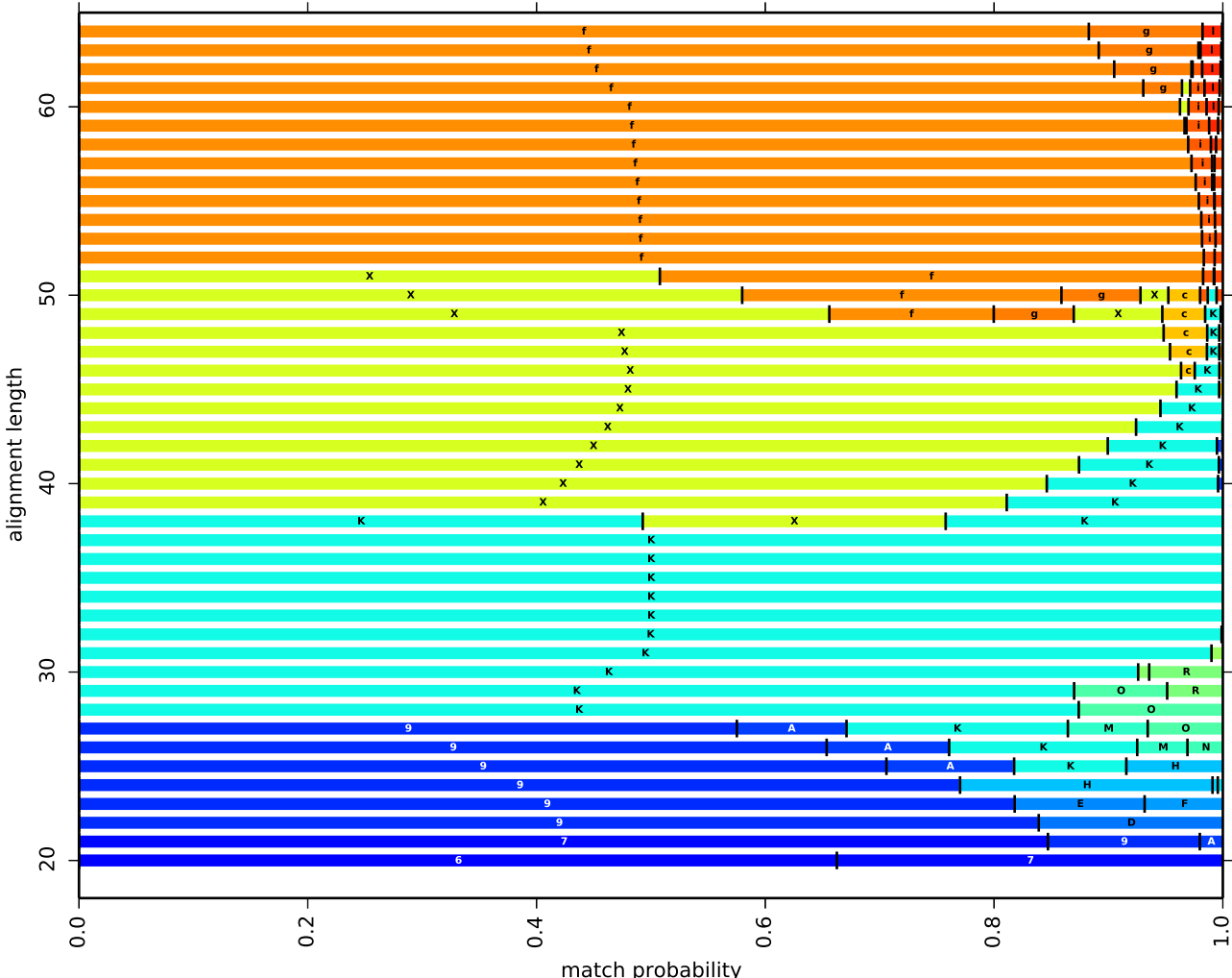
```

```

Q = 11101110111,111010010110111
V = 11101011011,11101001100010111
W = 11101011011,11100100100010111
X = 11101101111,110110010100010111
Y = 11101101111,111011100100111
f = 11101001011011,11101001000100010111
h = 110111101011,11110010010010111

```

\int_x^1 Hit Integration (n:2,w:10)

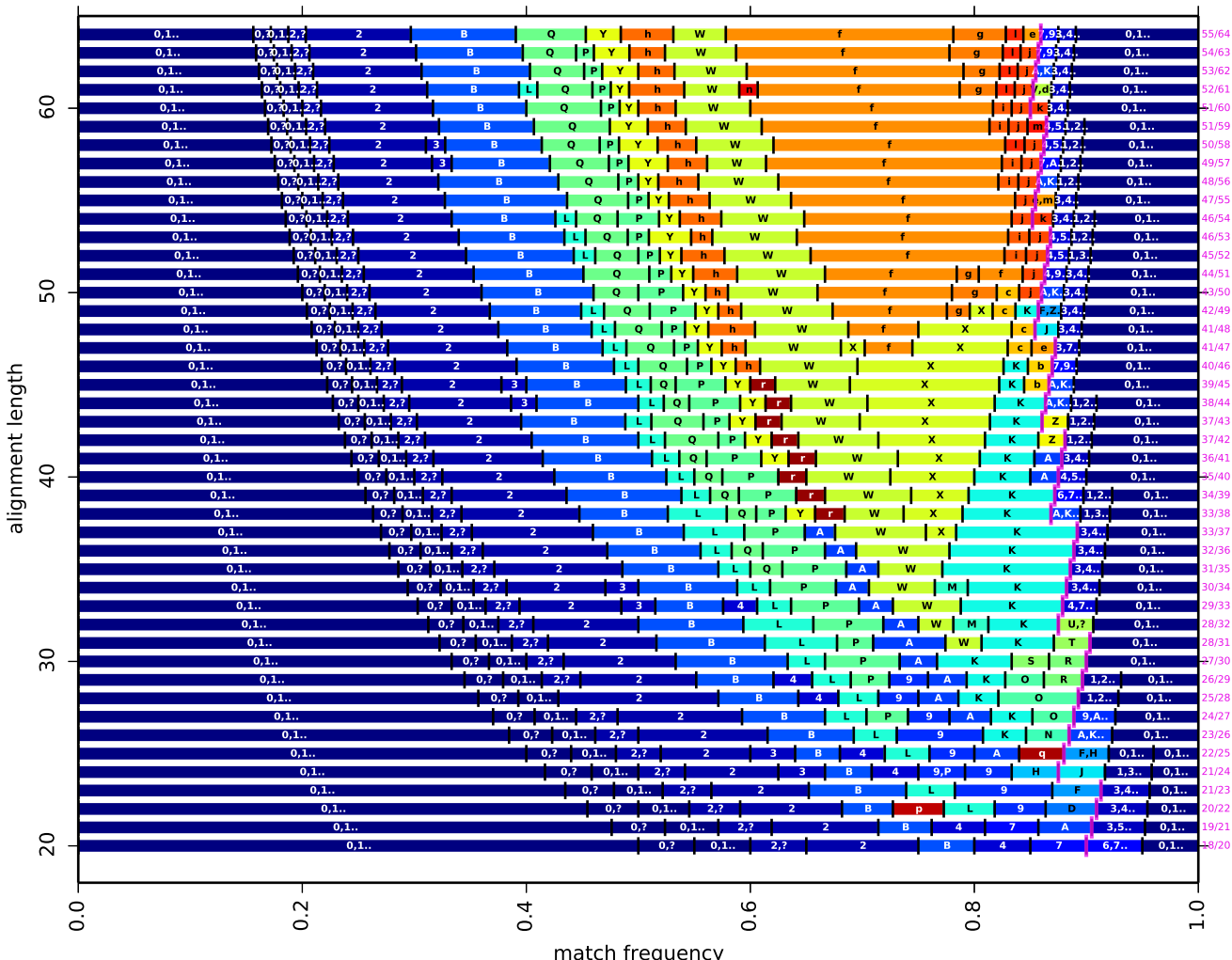


6 = 11011101111,11111010010111
 7 = 11101101111,111110010100111
 9 = 11101110111,111100010010111
 A = 11101110111,11110100100010111
 D = 110111010111,111101000010111
 E = 11110110111,111100100010111
 F = 11110110111,1111000101000111

H = 11110110111,1111000100010111
 K = 11101110111,1110100010010111
 M = 11101101111,111100100100010111
 N = 1110100110111,1111010000100011011
 O = 1110011010111,1111010001000010111
 R = 1110011010111,1111010001000000111

X = 111011010111,110110010100010111
 c = 11101001110111,111100010010010111
 f = 111010010110111,11101001000100010111
 g = 111010010110111,111010100010001011
 i = 111011010111,11001101000001010111
 l = 110111010111,11001110000001101101

Dirac (n:2,w:10)



```

0 = 1111111111,1111101111
1 = 1111111111,111101101111
2 = 1110111111,111110101011
3 = 1110111111,1111110010111
4 = 1110101111,11111010100111
5 = 1110101111,11111001101011
6 = 1101101111,11111010010111
7 = 1110110111,111110010100111
8 = 1101111011,1111010011111
9 = 1110111011,111100010010111
A = 1110111011,1111101000100111
B = 1101110111,11111010101011
C = 1111101111,11111011010111
D = 1101110101,1111010000110111
E = 1111011011,111100100010111
F = 1111011011,11110000101000111
G = 1101110111,111101001001111
H = 1111011011,1111000100010111
I = 1110110111,11111000010001101

```

```

J = 1100010011010111,1101011100010011
K = 1110110111,1110100010010111
L = 1110110111,111101010100111
M = 1110110111,111100100100010111
N = 1110100110111,111101000010001011
O = 1110011010111,1111010001000010111
P = 1110110111,1111001010010111
Q = 1110110111,111010010110111
R = 1110011010111,1111010001000001111
S = 1110011010111,11110100010000010111
T = 1110010110111,111101000000010111
U = 111000100110111,1111000100010000111
V = 111010110111,11110100100010111
W = 111011010111,111100100100010111
X = 111011010111,110110010100010111
Y = 111011010111,1110101100010111
Z = 1110110111,111100100100010111
a = 1101101111,11110010110111

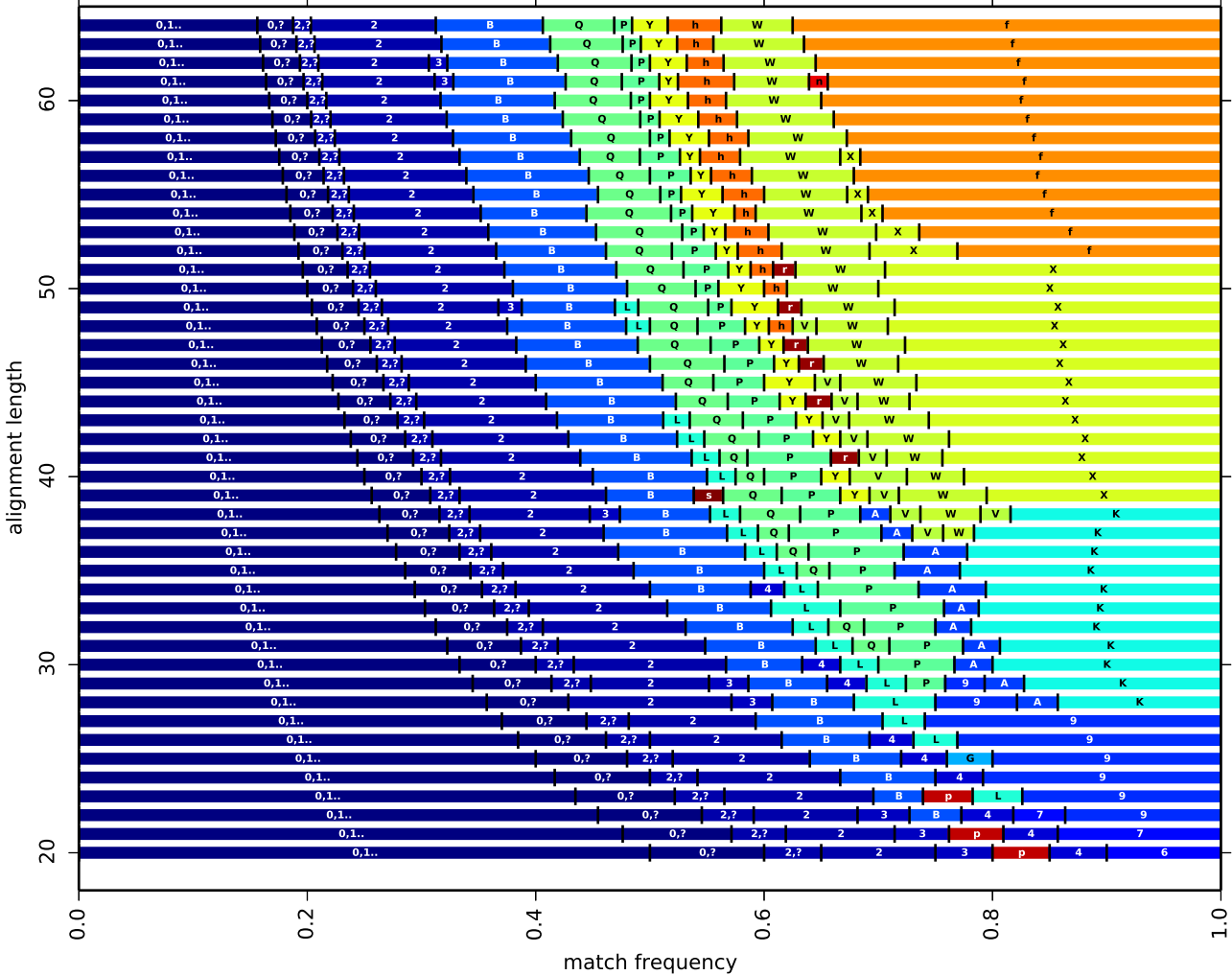
```

```

b = 1110110111,111100001000111011
c = 111010011011,111100010010010111
d = 110111010111,1101110000001010111
e = 1101110111,111110000001011011
f = 11101001011011,11101001000100010111
g = 111010010111,11101010001100010111
h = 110111010111,1111001001010111
i = 111011010111,11001101000001010111
j = 111011010111,11101110000001010011
k = 1110110111,101011000011001111
l = 111011010111,11001110000001101101
m = 11011010111,1111100110000101011
n = 111010101011,1110100100010001111
o = 1110110111,11111000110010111
p = 1101110111,1111100110111
q = 111011010111,11110010000100111
r = 111011010111,11101010001001111
s = 1110110111,11100111010111

```

$$\sum_0^x \text{Heaviside}(n:2,w:10)$$



```

0 = 1111111111,11111011111
1 = 1111111111,111101101111
2 = 11101111111,111111010111
3 = 1110111111,1111110010111
4 = 111011011111,11111010100111
5 = 111010111111,11111001101011
6 = 110111011111,11111010010111
7 = 11101101111,111110010100111
8 = 110111110111,1111010011111
9 = 111011101111,111100010010111
A = 11101101111,1111010001001111
B = 11011101111,1111101101011
C = 10111011111,1111011010111
D = 110111010111,1111010000110111
E = 111101101111,111100100010111
F = 111101101111,11110001010001111
G = 11011101111,111101001001111
H = 111101101111,1111000100010111
I = 11101101111,11110000100011101

```

```

J = 11000100110101111,1101011100010011
K = 111011101111,11101000100101111
L = 11101101111,111101010100111
M = 111011010111,111100100100010111
N = 11101001101111,1111010000100011011
O = 1110011010111,111110100001000010111
P = 11101110111,11110011001010111
Q = 11101110111,111010011010111
R = 1110011010111,11110100010000001111
S = 1110011010111,11110100010000010111
T = 11100110110111,11110100000000110111
U = 11100010010111,1111000100010000111
V = 111010110111,11101001100010111
W = 111010110111,111100100100010111
X = 111011010111,110110010100010111
Y = 111011010111,1110101100100111
Z = 11101101111,111010010010001111
a = 11011101111,11110010110111

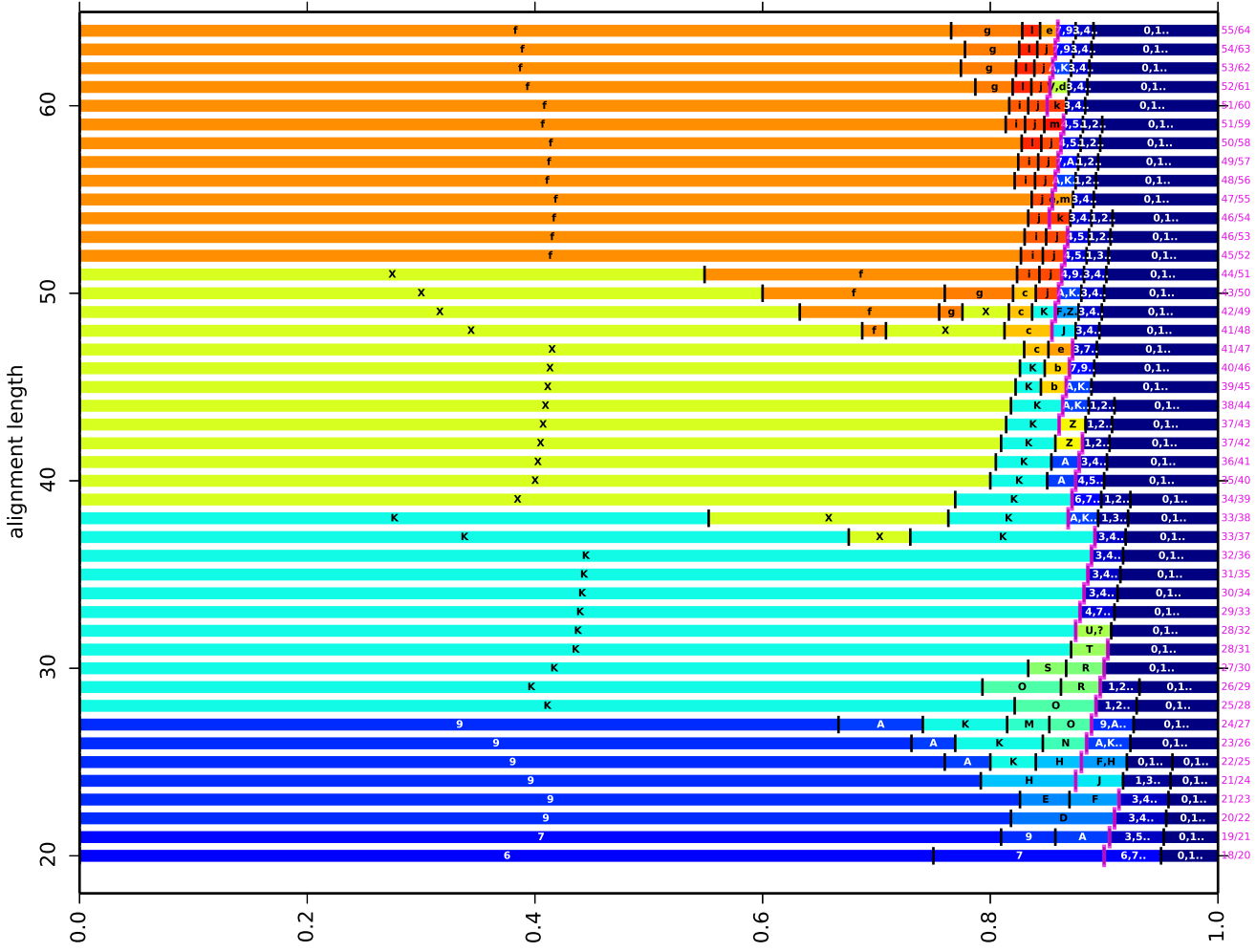
```

```

b = 11101101111,1111000010001110111
c = 11101001110111,111100010010010111
d = 110111010111,1101110000001101011
e = 110111010111,1101110000001101101
f = 111010010110111,11101001000100010111
g = 111010010110111,1110110000110001011
h = 110111010111,11110010010010111
i = 111011010111,11001101000001010111
j = 110111010111,1101110000001101001
k = 11101101111,101011000011001111
l = 110111010111,1100111000000110101
m = 11101101111,111100110000101011
n = 1110101010111,111010010010001111
o = 11101101111,11111000100010101
p = 11011110111,1111100110111
q = 111010110111,11110010001001111
r = 111011010111,11101010001001111
s = 11110110111,11100111010111

```

$$\sum_x^1 \text{Heaviside}(n;2,w:10)$$



```

0 = 1111111111,1111101111
1 = 1111111111,1110110111
2 = 1110111111,111111010111
3 = 1110111111,111110010111
4 = 11101101111,11111010100111
5 = 11101011111,11111001101011
6 = 11011101111,11111010010111
7 = 11101101111,111110011000111
8 = 11011110111,111101001111
9 = 11101110111,111100010010111
A = 11101110111,11110100100010111
B = 11011101111,11111011010111
C = 10111011111,1111011010111
D = 110111010111,1111010000110111
E = 11110110111,111100100010111
F = 11110110111,1111000101000111
G = 11011101111,11110100100111
H = 11110110111,1111000100010111
I = 11101101111,11111000010001101

```

```

J = 1100010011010111,1101011100010011
K = 11101110111,1110100010010111
L = 11101101111,111101010100111
M = 111011010111,111100100100010111
N = 1110100110111,11110100001000110111
O = 1110011010111,1111010001000010111
P = 11101101111,1111001010010111
Q = 11101110111,111010010110111
R = 1110011010111,1111010001000001111
S = 1110011010111,11110100010000010111
T = 1110010110111,1111010000000110111
U = 111000100110111,111110001000100001111
V = 111010110111,111101001100010111
W = 1110110110111,11110100100010111
X = 11101101111,110110010100010111
Y = 111011010111,1110101100100111
Z = 11101110111,1111001001000111
a = 11011011111,11110010110111

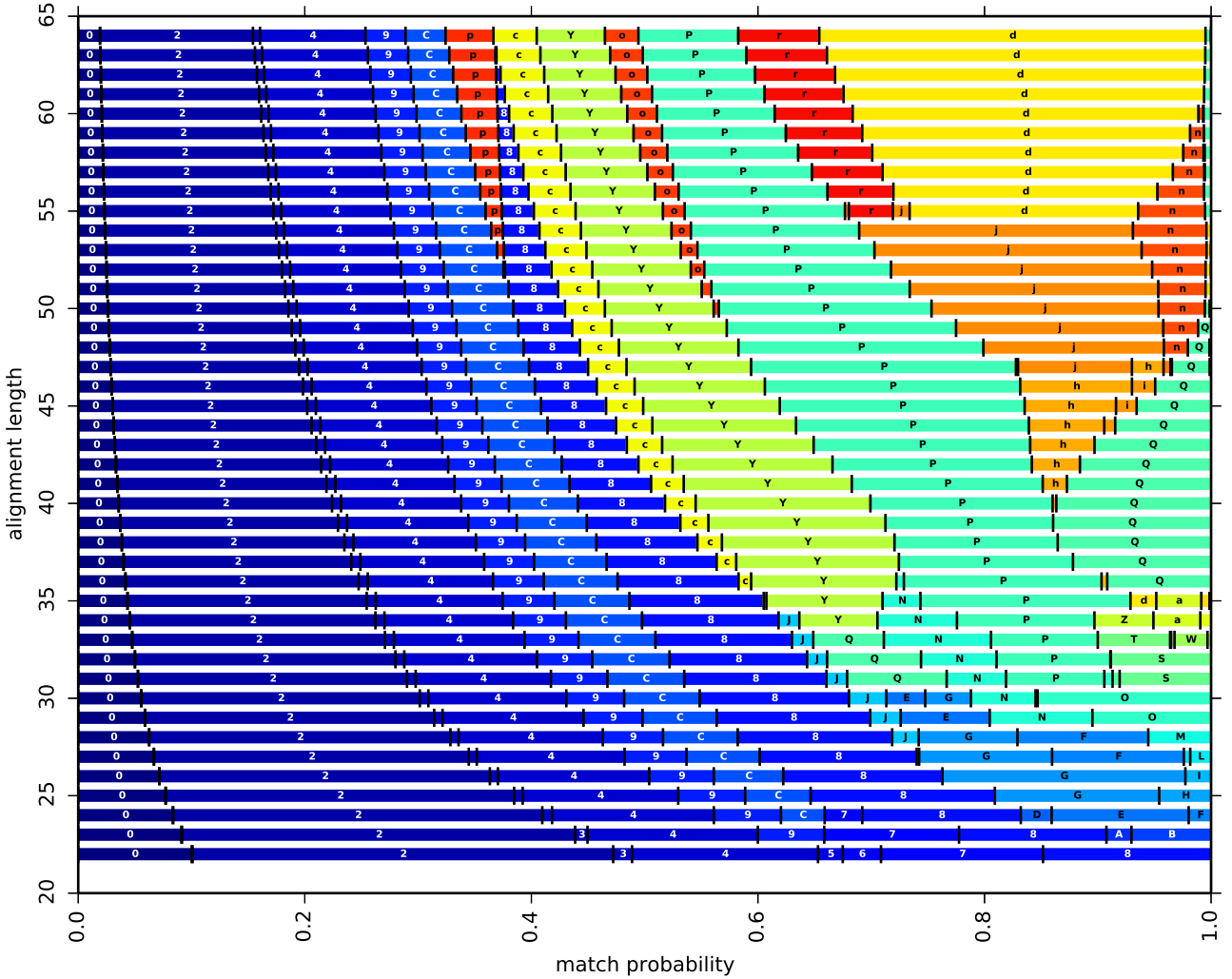
```

```

b = 11101101111,111100001000111011
c = 1110100110111,111100010010010111
d = 110111010111,11011100000011010111
e = 110111010111,11101100000011011011
f = 111010010110111,11101001000100010111
g = 111010010110111,11101010001100010111
h = 110111010111,11110010010010111
i = 111011010111,11001101000001010111
j = 110111010111,11101110000001101001
k = 11101101111,101011000011001111
l = 110111010111,11001110000001101101
m = 11011010111,111110011000010101
n = 1110101010111,111010010000001111
o = 11101101111,1111100011001011
p = 11011110111,1111100110111
q = 111011010111,1111001000100111
r = 111011010111,11101010001001111
s = 11101101111,11100111010111

```

Bernoulli (n:2,w:11)



```

0 = 1111111111,11111011111
2 = 11101111111,111110110111
3 = 11101111111,1111110010111
4 = 110111110111,1111100011111
5 = 110111101111,11111000110111
6 = 111011011111,1111101100111
7 = 111011011111,11111000110111
8 = 111101101111,111100101001111
9 = 110111110111,11110010110111
A = 111011011111,1111100010100111
B = 111101101111,111110100010001111
C = 111011101111,11110010110111
D = 111011101111,1111001010010111
E = 111011101111,1111010001001111

```

```

F = 1111011101111,11111010001000101111
G = 1111011101111,111100100100011111
H = 111011011111,11111000010001110111
I = 111011011111,11111000001000111011
J = 1111011101111,111110001001011111
L = 1101110101111,1111100001000110111
M = 1111010101111,111110100010001001111
N = 1110111010111,11111010010001001111
O = 11110011010111,11110100010001001111
P = 11101011010111,11110100100010001111
Q = 111101101111,111010001100101111
S = 11110011010111,111100010001000101111
T = 111010110010111,111110100010001001111

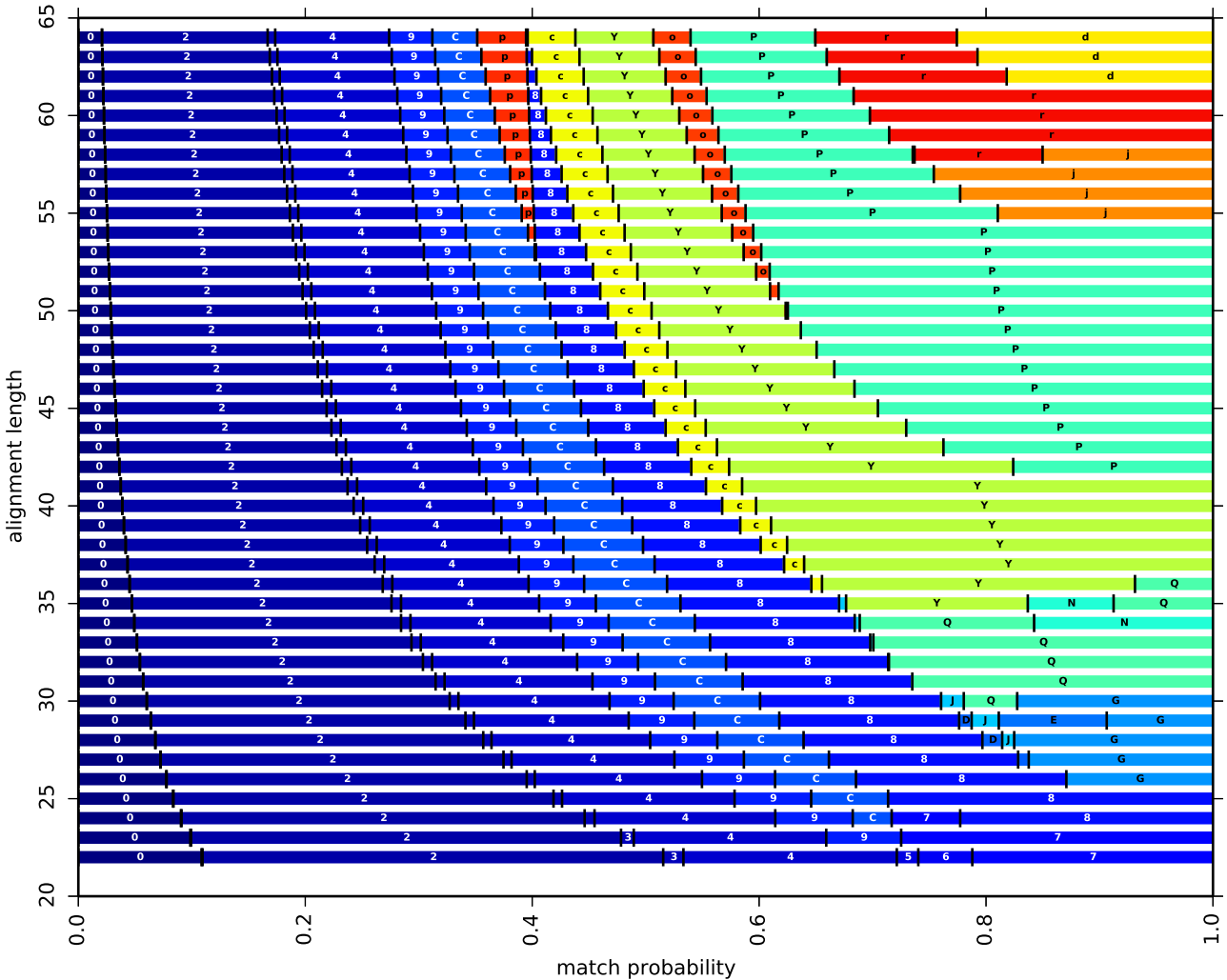
```

```

W = 111010011010111,1111010001000010001111
Y = 1110101101111,111010011000101111
Z = 111010110010111,1111010000100000110111
a = 111000110110111,1111010000100100010111
c = 1110110110111,111101011000110111
d = 11100110110111,1110100010010000101111
h = 1110101101111,11101001000100011111
i = 1110101101111,1110100100110001111
j = 1110101100110111,11100101100001010111
n = 1110101101111,1110101001000001110111
o = 1110101101111,1111000110001010111
p = 1101011110111,1111011000101111
r = 1110110010110111,111010010001100010111

```

\int_0^x Hit Integration (n:2,w:11)

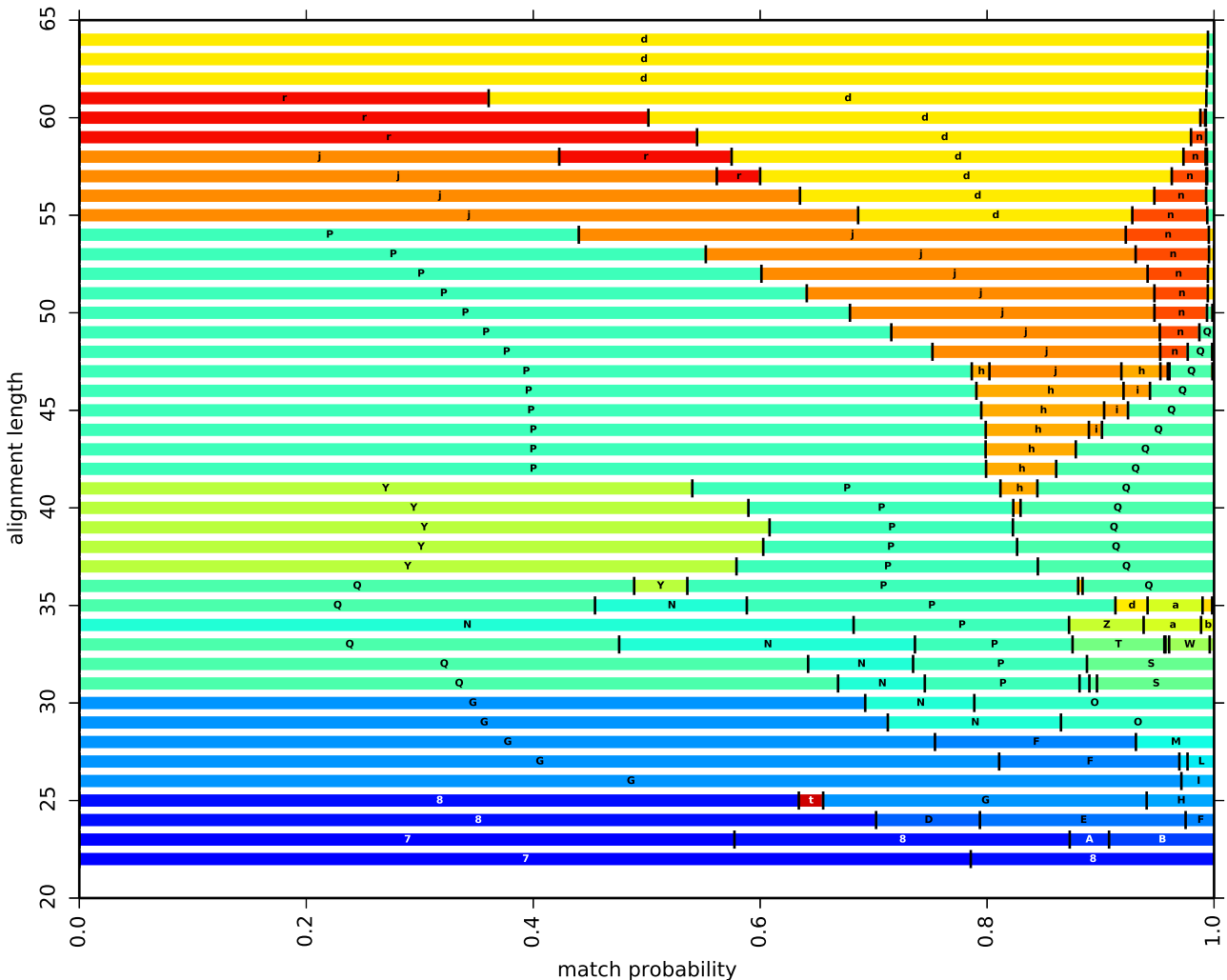


0 = 1111111111,11111011111
 2 = 11101111111,111110110111
 3 = 11101111111,1111110010111
 4 = 110111110111,1111101001111
 5 = 110111011111,111110011010111
 6 = 111011011111,1111101100111
 7 = 111011011111,1111100011010111
 8 = 111101110111,111100101001111

9 = 110111110111,111101001110111
 C = 111011101111,1111001011010111
 D = 110111011111,1111001010011111
 E = 111011101111,11110100010010111
 G = 111101110111,111100100100011111
 J = 111101110111,11101100010010111
 N = 111011101111,111101001000100111
 P = 111010110111,11110100100010001111

Q = 111101110111,111010001100101111
 Y = 1110101101111,111010011000101111
 c = 1110110110111,1111011000101111
 d = 1110011011010111,1110100010010000101111
 j = 1110101100110111,11100101100001010111
 o = 1110101101111,1111000110001010111
 p = 1101011110111,1111011000101111
 r = 11101100110111,111010010001100010111

\int_x^1 Hit Integration (n:2,w:11)

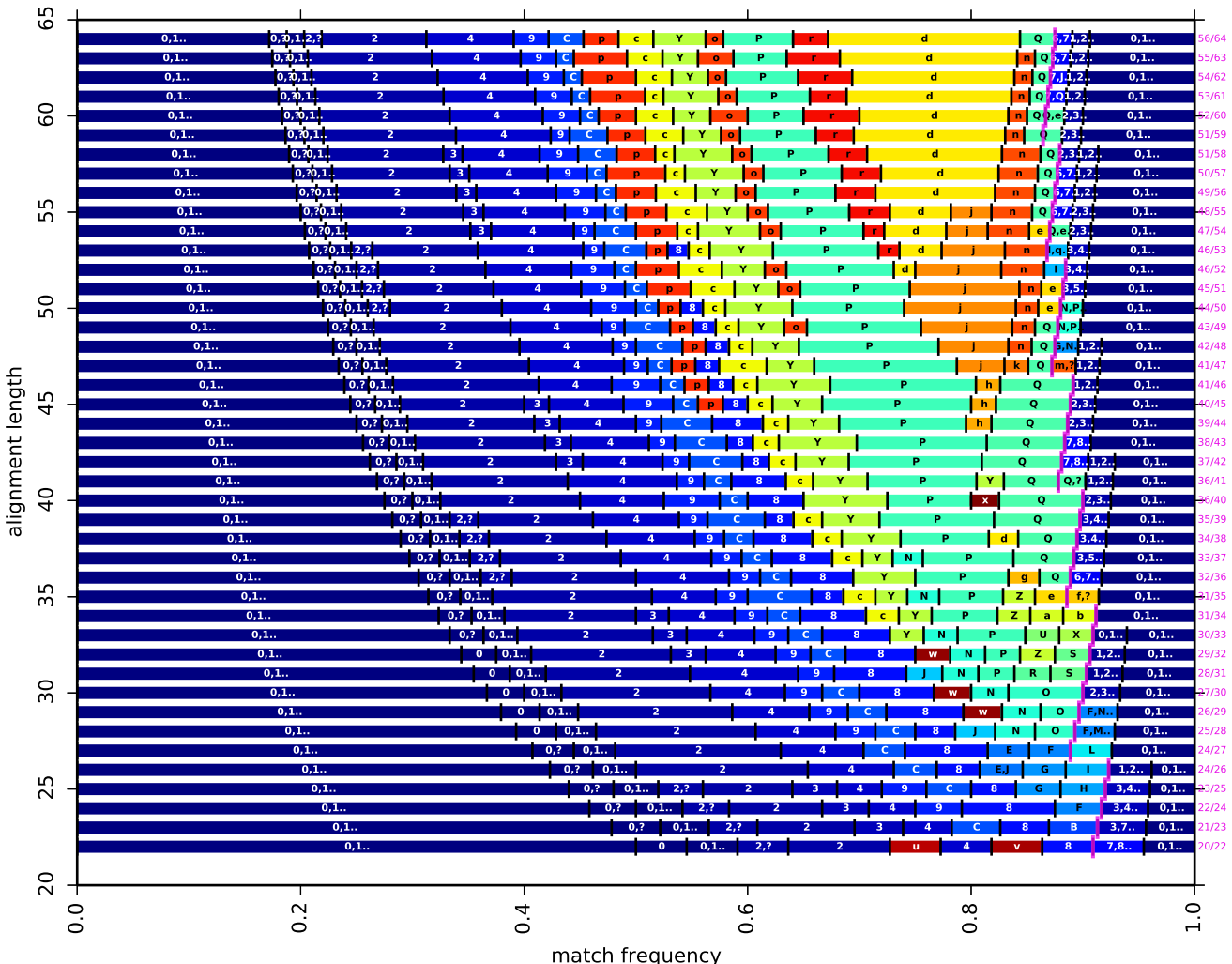


7 = 111011011111,1111100011010111
 8 = 111011101111,1111001010010111
 A = 111011011111,11111000101001111
 B = 111011101111,11110100100001111
 D = 111011101111,1111001010010111
 E = 111011101111,11110100010010111
 F = 111011101111,111101000100010111
 G = 111011101111,11110010010001111
 H = 111011011111,1111100001000111011
 I = 111011011111,1111100001000111011

L = 11011101101111,1111100001000110111
 M = 11110101101111,1111010001001001111
 N = 11101110101111,1111010010001001111
 O = 11110011010111,11110100010001001111
 P = 11101011011011,11110100100010001111
 Q = 111101110111,111010001100101111
 S = 11110011010111,11110001000100010111
 T = 111010110010111,1111010000100010010111
 W = 111010011010111,1111010001000010001111
 Y = 11101011011111,111010011000101111

Z = 1110101100101111,1111010000100000110111
 a = 1110001101101111,1111010000100100010111
 b = 11101010011001111,1111010001000100001111
 d = 1110011011010111,1110100010010000010111
 h = 111010110110111,11101001000100011111
 i = 111010110110111,1110100100110001111
 j = 1110101100110111,11100101100001010111
 n = 1110101101111,1110101001000000111011
 r = 1110110010110111,111010010001100010111
 t = 1111011101111,11110010010101111

Dirac (n:2,w:11)



```

0 = 1111111111,111110111111
1 = 1111111111,111101101111
2 = 111011111111,111111011011
3 = 111011111111,11111110010111
4 = 110111111011,11111010011111
5 = 110111011111,11111001101011
6 = 111011011111,11111011100111
7 = 111011011111,1111100011010111
8 = 111101110111,1111001010010111
9 = 110111110111,11110100110111
A = 111011011111,1111100011001111
B = 111101110111,111110100100001111
C = 111011011111,1111100110101111
D = 111111011111,1111001010010111
E = 111011011111,1111100010010111
F = 111101110111,11111000100010111
G = 111101110111,111110010010001111
H = 111011011111,111110000100011011
I = 111011011111,111110000100011011
J = 111011101111,11101100010010111

```

```

K = 1110101101111,111110001000100111
L = 1101110101111,111110000100011011
M = 1111010110111,111101000100100111
N = 111011010111,111101001000100111
O = 11110011010111,111101000100010111
P = 11101011011011,111101001000100111
Q = 111101110111,111010001100101111
R = 11110011010111,11111001000100010111
S = 11110011010111,111100010001000111
T = 111010110010111,11110100010001001011
U = 1110101100111,111100100001000010111
V = 1110101100111,111100100010000010111
W = 111010011010111,11110100010000100111
X = 111100110010111,11110000100010010111
Y = 111010110111,111010011000101111
Z = 1110101100111,111101000010000010111
a = 11100011010111,111101000100100010111
b = 11101010010111,11110100010001000111
c = 1110110110111,1111010100010111
d = 111001101101011,111010001001000010111

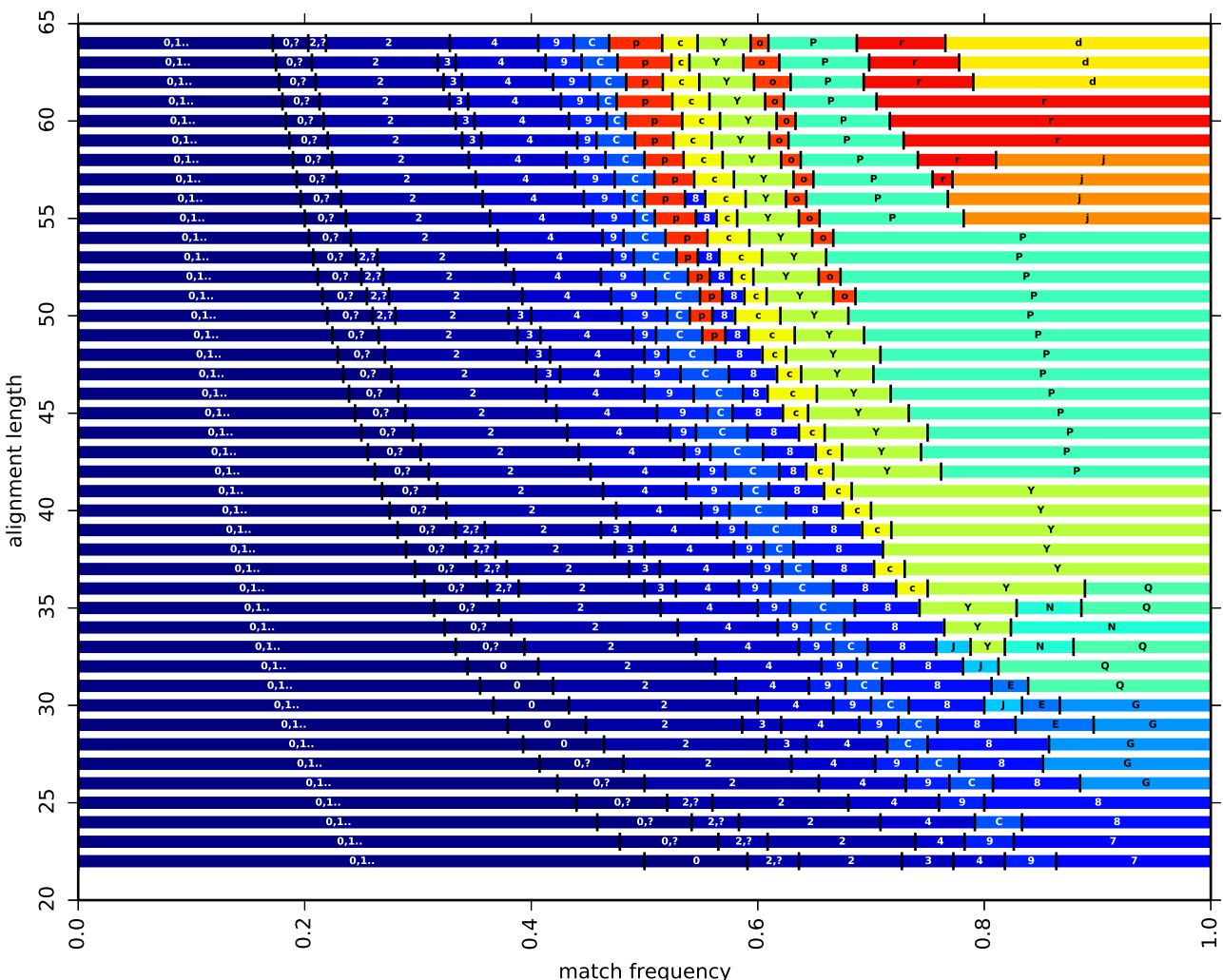
```

```

e = 111101101111,110110010100101111
f = 111011011111,111101110001101
g = 1110111010111,11101100000100101111
h = 11101011010111,11101001000100011111
i = 11101011010111,111010010010001111
j = 111010110010111,11100101100001010111
k = 11101011010111,11100110001001010111
l = 1110110110111,1111000100001010111
m = 111011011111,1111000010010110111
n = 11101011010111,11101001001000011111
o = 11101011010111,1111000110001010111
p = 1110111110111,1111011000101111
q = 11111011111,110011000010101111
r = 11110011010111,11101001000100010111
s = 11101101111,111100100010010111
t = 11110110111,1111001001010111
u = 111011011111,11110111010111
v = 111010111111,1111100110010111
w = 111011011111,111010100010011111
x = 11101011010111,111010100010001001111

```

$$\sum_0^x \text{Heaviside}(n:2,w:11)$$



```

0 = 1111111111,11111011111
1 = 1111111111,111101101111
2 = 11101111111,111111011011
3 = 11101111111,1111110010111
4 = 110111110111,1111101001111
5 = 11011101111,11111001100111
6 = 11011011111,111110101100111
7 = 11011011111,111110001101011
8 = 11101110111,1111001010010111
9 = 110111110111,111101001110111
A = 11101101111,1111100010100111
B = 11110110111,11110100100001111
C = 11101110111,111100101101011
D = 11101101111,1111001010010111
E = 11101110111,11110100010010111
F = 11110111011,111101000100010111
G = 11110111011,111100100100011111
H = 11101101111,111110000100011011
I = 11101101111,111110000100011011
J = 11101110111,11101100010010111

```

```

K = 111010110111,111110001000100111
L = 11011101111,111110000100010111
M = 11110110111,111101000100100111
N = 111011101011,11110100100010111
O = 111100110111,111101000100010111
P = 111010110111,111101001000100111
Q = 11110110111,11101000110010111
R = 111100110111,1111001000100010111
S = 111100110111,11110001000100010111
T = 1110101100111,111101000100010111
U = 1110101100111,1111001000100010111
V = 1110101100111,11110010001000010111
W = 1110100110111,111100010000100010111
X = 1110011001011,11110000100010010111
Y = 111010110111,11101001100010111
Z = 1110101100111,11110100001000010111
a = 11100011010111,111101000010010010111
b = 11101010010111,11110100010001000111
c = 111011011011,1111010100010111
d = 11100110110111,111010001001000010111

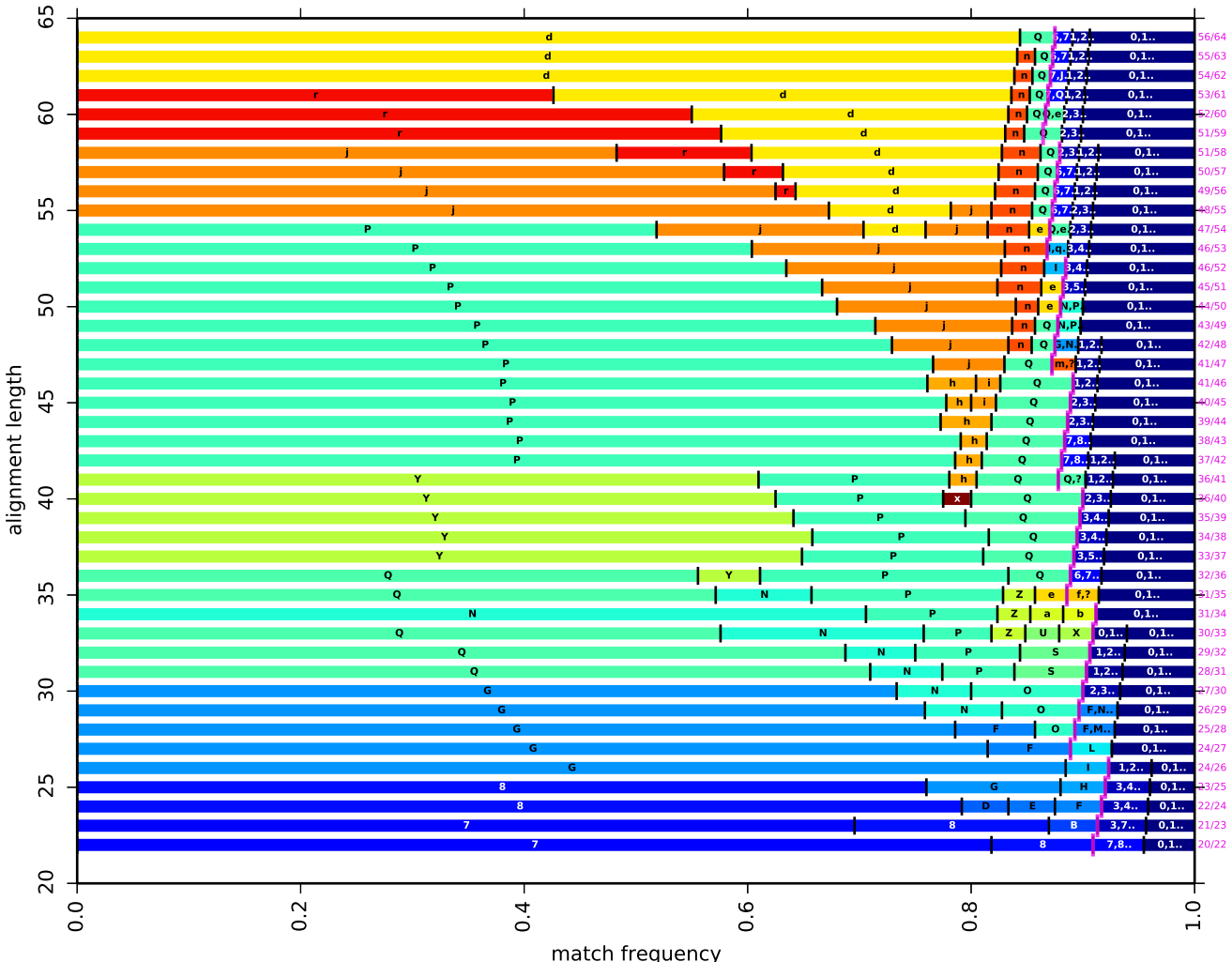
```

```

e = 11110110111,110110010101001111
f = 11101101111,111101110001101
g = 11101110111,11101100000100101111
h = 111010110111,11101001000100011111
i = 111010110111,11101001100001111
j = 1110101100111,11100101100001010111
k = 111010110111,1111001100010010111
l = 111010110111,111100010000101111
m = 11101110111,111100001001010111
n = 111010110111,111010100100000111011
o = 111010110111,1111000110001010111
p = 11101111011,111101100010111
q = 111101111,11001100001011111
r = 1110110011011,111010010001100010111
t = 11110111011,111100100101111
u = 11101011111,1111011101011
v = 11101011111,111100110010111
w = 111010110111,111010100010011111
x = 111010110111,111010100010001001111

```

$$\sum_x^1 \text{Heaviside}(n;2,w:11)$$



```

0 = 1111111111,11111011111
1 = 1111111111,111101101111
2 = 1110111111,111111011011
3 = 1110111111,1111110010111
4 = 110111110111,1111101001111
5 = 110111101111,111110011010111
6 = 111010111111,1111101100111
7 = 111011011111,1111100011010111
8 = 111101110111,11110010100101111
9 = 110111110111,111101001110111
A = 111011011111,11111000101001111
B = 111101110111,111101001000011111
C = 111011011111,1111001011010111
D = 111011101111,11110010100101111
E = 111011101111,111101000100101111
F = 111101110111,1111010001000101111
G = 111101110111,111100100100011111
H = 111011011111,1111100001000111011
I = 111011011111,1111100001000111011
J = 111011101111,111011000100101111

```

```

K = 1110101101111,1111100010001001111
L = 1101110101111,1111100001000101111
M = 1111010110111,1111010001001001111
N = 1110111010111,1111010010001001111
O = 11110011010111,11110100010001001111
P = 111010110110111,11110100100010001111
Q = 111101110111,111010001100101111
R = 11110011010111,111100100010001001111
S = 11110011010111,111100010001000101111
T = 111010110010111,111101000100010010111
U = 111010101100111,1111001000010000101111
V = 111010101100111,1111001000100000101111
W = 111010011010111,11110100010000100011111
X = 111100110010111,1111000010001000101111
Y = 1110101101111,111010011000101111
Z = 111010110010111,1111010000100000110111
a = 11100011010111,11110100001001000101111
b = 1110101001100111,11110100010001000011111
c = 1110110110111,111101010001101111
d = 1110011011010111,1110100010010000101111

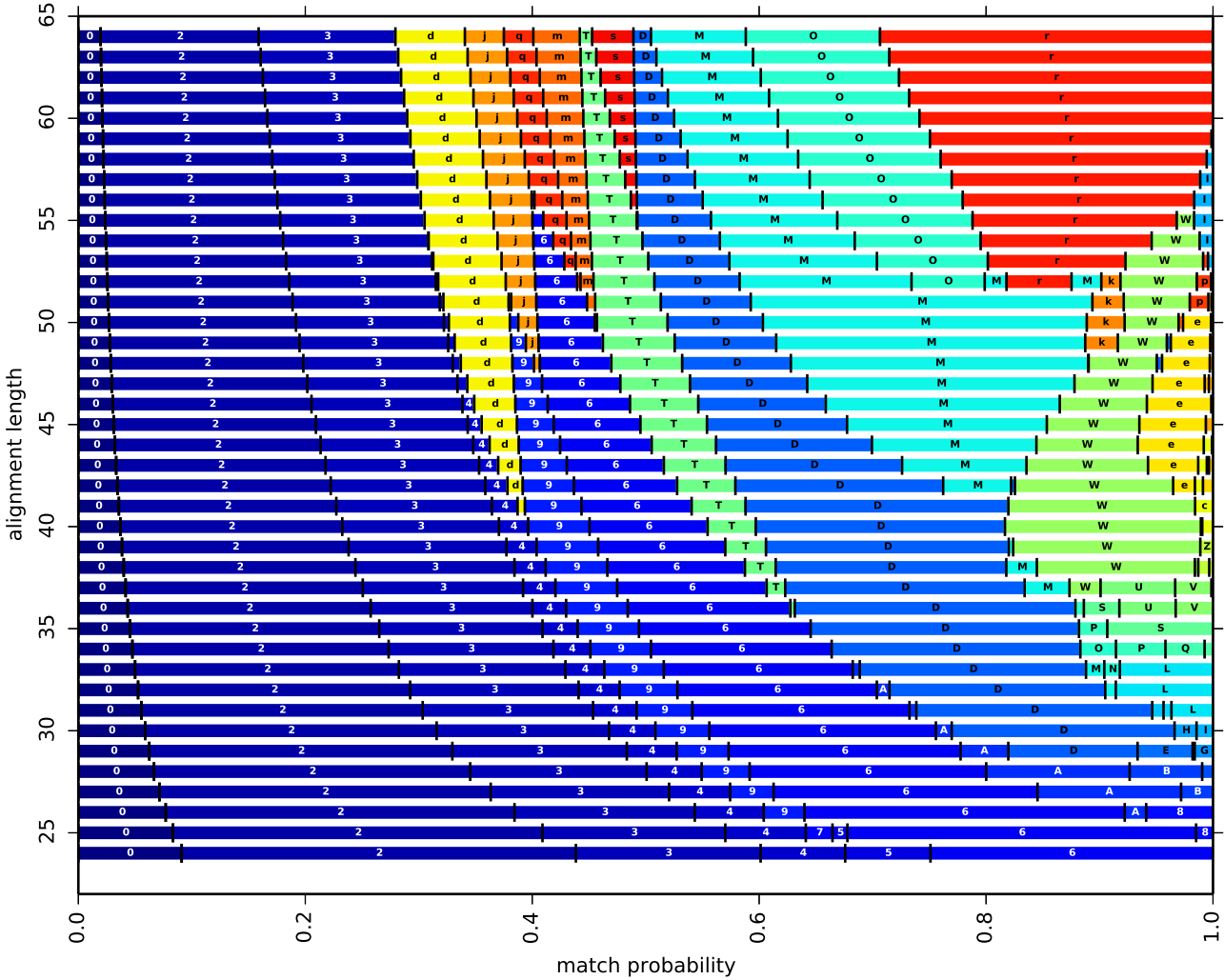
```

```

e = 111101110111,1101100101010011111
f = 111011011111,111101110001101
g = 1110111010111,111011000001001011111
h = 11101011010111,111010010001000111111
i = 11101011010111,111010010001000111111
j = 111010110010111,111001011000010101111
k = 11101011010111,11100110001000101111
l = 111101101111,111100010001001101111
m = 111011101111,11110000100101101111
n = 11101011010111,11101001000100001110111
o = 11101011010111,11110001100010101111
p = 1101011110111,11101110001011111
q = 1111011111,11001100001010111111
r = 111011001010111,111010010001000101111
t = 111101101111,111100100101011111
u = 111011011111,111101111010111
v = 111010111111,111100110010101111
w = 111011010111,11101010001001011111
x = 11101011010111,1110101000100010011111

```

Bernoulli (n:2,w:12)



```

0 = 111111111111,111110111111
2 = 111011111111,111110101111
3 = 1101111110111,11111001011111
4 = 1101110111111,111110011010111
5 = 1110110111111,1111100011010111
6 = 1111011101111,111110010100101111
7 = 1111011101111,111110010110101111
8 = 11101101101111,111110001000101111
9 = 1111011101111,11110010110101111
A = 1111011101111,1111100100101001111
B = 1111011101111,11111000010010101111
D = 1111011101111,11111001001010001111
E = 1111011101111,111110010000101111
G = 1111011011111,111110110010001111
H = 11011101101111,111110010001000101111
I = 111010011101111,11111010000011001010111
L = 11110011011111,1111100010010001001111
M = 111011011010111,111101010001001001111
N = 111100101110111,111110100010001001111

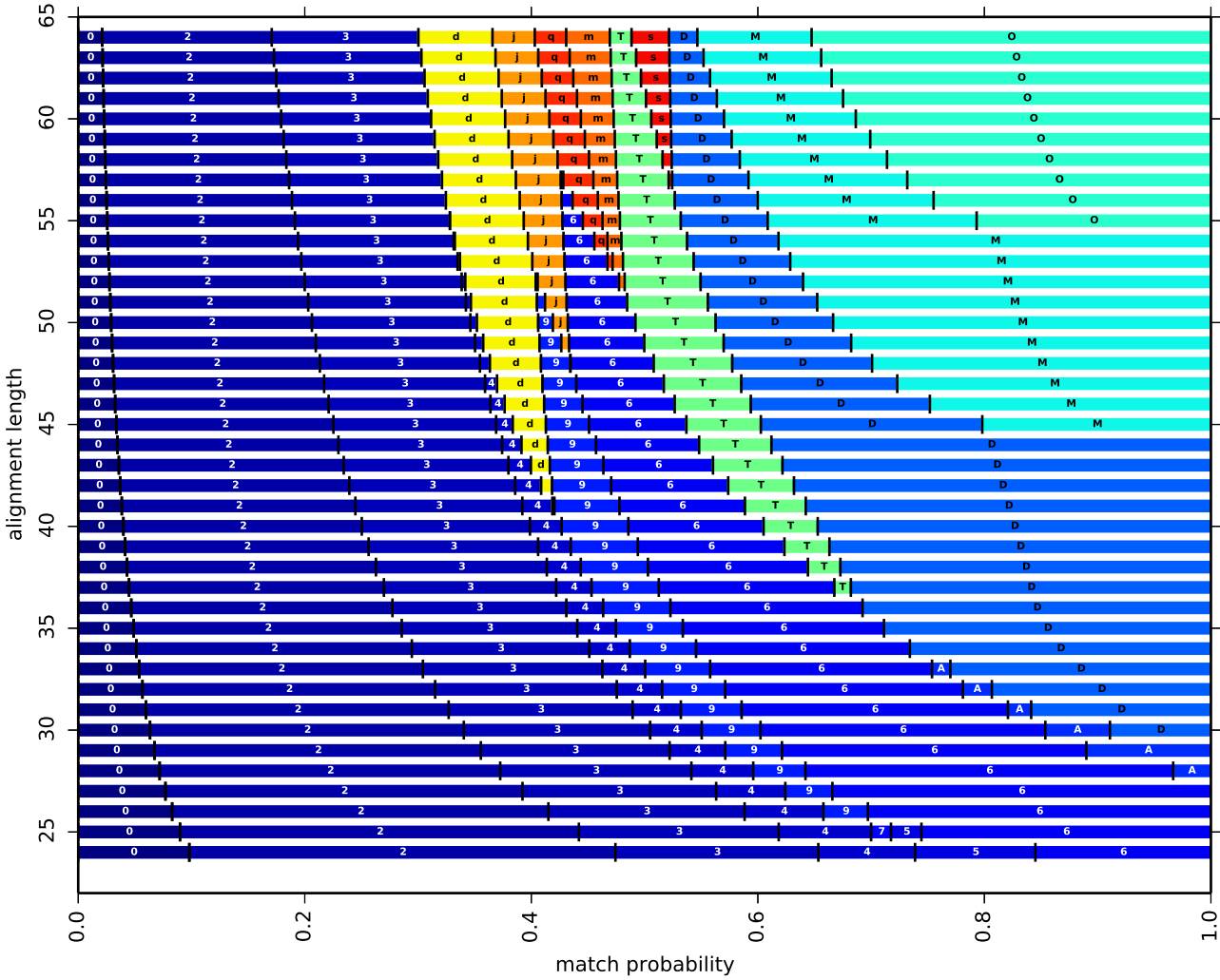
```

```

O = 1110110011010111,1111100101000101111
P = 1111001101010111,111110100001001000101111
Q = 1111001101010111,11111000010010001001111
S = 1111001101010111,11111001000100100101111
T = 111011101101111,1111001001010101111
U = 1111001101010111,1111100100010000001101111
V = 1111001101010111,1111101000100010001111
W = 11101110110111,1110101000100100101111
Z = 111011101111,1110101000010010011111
c = 1111011101111,1111100101001010111
d = 11010111110111,1111110100111011
e = 11101101110111,11111001010010010111
j = 11110110101111,11101011101100111
k = 111011011010111,11110101000100010111
m = 11101101110111,11111010100100101111
p = 111011011100111,111110100010100100111
q = 110111111010111,111101000110110111
r = 1110110110100111,1110101000100000101111
s = 11101101110111,111110010100100101111

```

\int_0^x Hit Integration (n:2,w:12)



```

0 = 111111111111,111110111111
2 = 111011111111,111110101111
3 = 110111111011,11111001011111
4 = 110111101111,11111001101011
5 = 111011011111,1111100011010111
6 = 111101101111,11111001010010111
7 = 111101101111,11111001011010111
9 = 111101101111,1111001011010111
A = 111101101111,111110010010100111

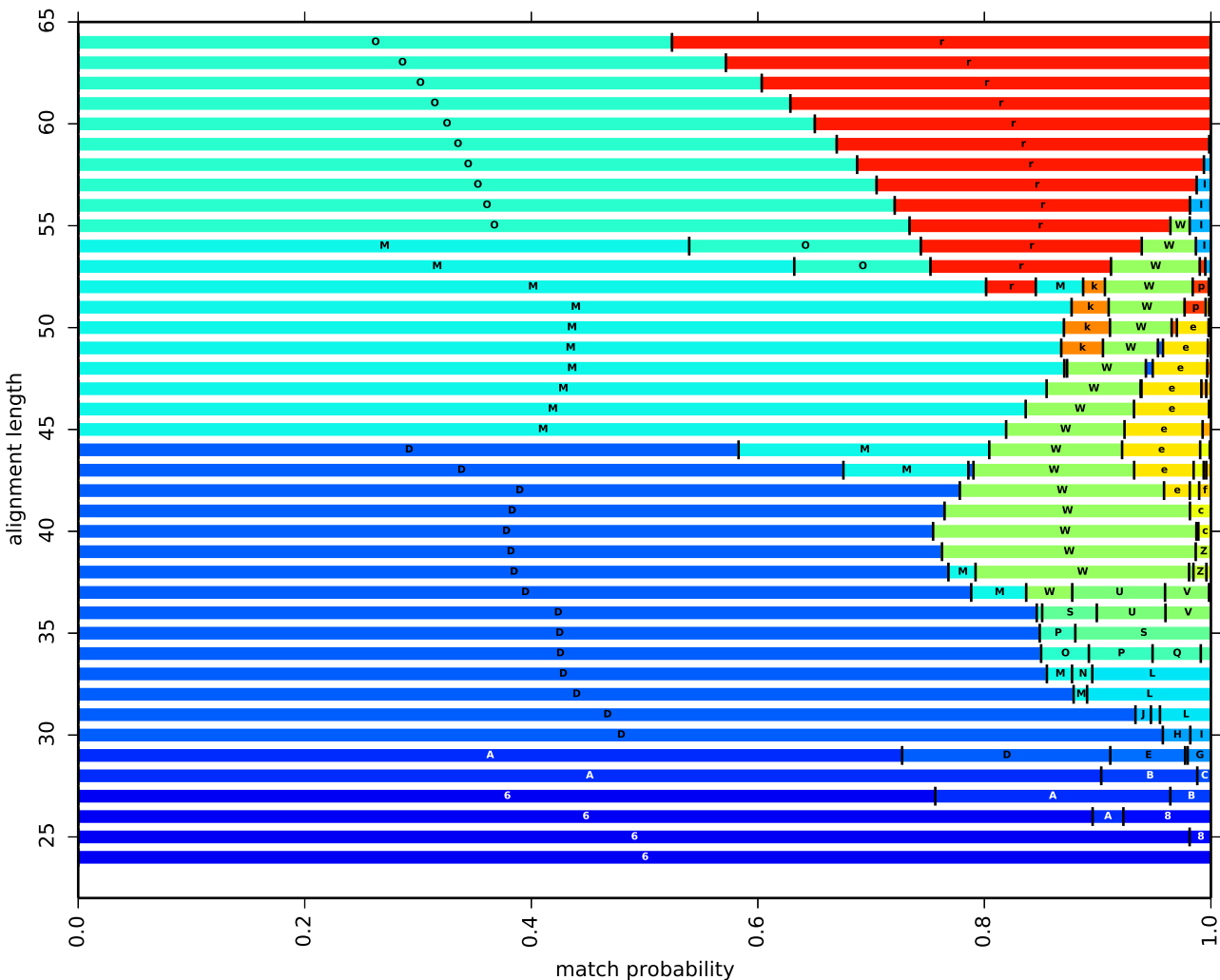
```

```

D = 11101110110111,11110010010100011111
M = 1110110110101111,111101010001001001111
O = 1110100110101111,1111001010001000101111
T = 11101110110111,1111001001010101111
d = 11010111110111,111111010011101011
j = 11110110101111,111010111101100111
m = 11101101101111,1111010100100101111
q = 11011110101111,111101000110110111
s = 11101101110111,11110010100100101111

```

\int_x^1 Hit Integration (n:2,w:12)



```

6 = 11110110101111,111110010100101111
8 = 1111011010101111,111110001000101111
A = 111101110101111,11111001001010001111
B = 11110111011111,11111000010010101111
C = 11111011011111,11110000100101011111
D = 111011101101111,11110010010100001111
E = 11110111011111,11111010010000101111
G = 11110101101111,11110101100100001111
H = 1101110101101111,1111100100010000101111
I = 1110100111011111,1111010000011001010111
J = 111011101101111,111110001000100101111
L = 111100110101111,11111000100100001001111
M = 1110110110101111,1111010100010010001111
N = 1111001011101111,1111010001000100101111

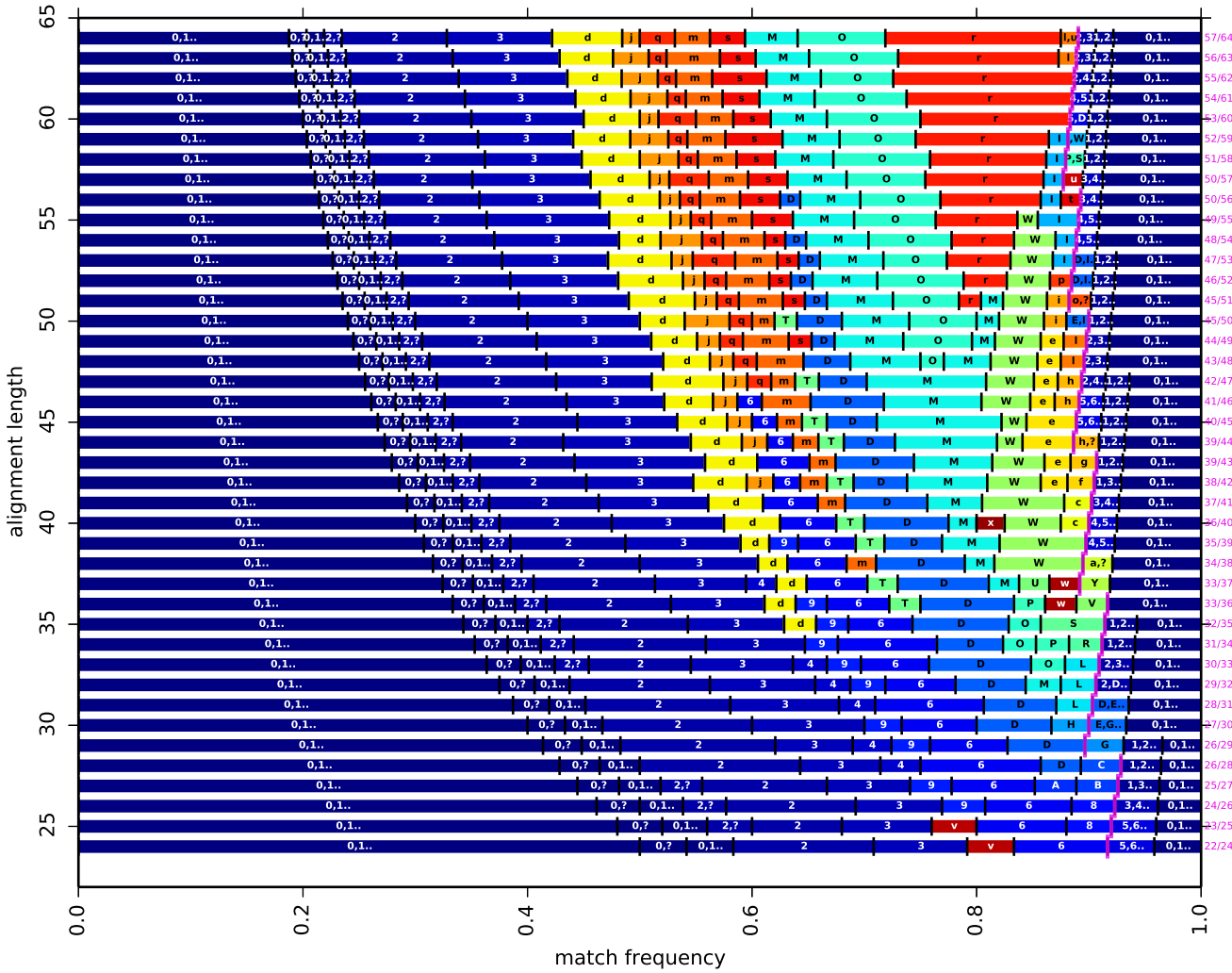
```

```

O = 11101100110101111,1111001010001000101111
P = 11110011010101111,11110100001001000101111
Q = 11110011010101111,11111000010010001001111
S = 11110011010101111,11110010001000100101111
U = 11110011010101111,111100100010000001101111
V = 11110011010101111,111101001000100010001111
W = 111011101101111,1110101000100100101111
Z = 11101111011111,1110101000010010011111
c = 11110111011111,11111001010010101111
e = 1110110111011111,11111001010010010111
f = 11110111011111,11111010010100110011
k = 1110110110101111,111101010001100010111
p = 1110110111001111,111110100010100100111
r = 1110110110011111,11101010010010000101111

```

Dirac (n:2,w:12)



```

0 = 111111111111,111110111111
1 = 111111111111,111101101111
2 = 111011111111,111111011011
3 = 110111111011,111110011111
4 = 110111011111,11111000101011
5 = 110110111111,111110000101011
6 = 111101101111,1111100101001011
7 = 111101101111,1111100101101011
8 = 111011011011,111110001000101111
9 = 111011011111,1111000101010111
A = 111101101111,111110010010100111
B = 111101101111,111110000100101011
C = 111110110111,111110000100101111
D = 111011011011,1111001001010001111
E = 111011011111,111110100000101111
F = 111101101111,1111100010001001111
G = 111101101111,1111010110010001111
H = 110110101011,11111001000100010111
I = 111010011011,111110100000110010111
J = 110110101111,11111000100010010111
K = 111011011111,111101000100100010111
L = 111100110111,11111000100100010111
M = 111011010111,11110101000100010111
N = 111100101111,111101000100010010111
O = 111010011011,11110001000010010111
P = 111100110111,1111010000100100010111
Q = 11110011010111,111110000100100010111
R = 11110011010111,11111000000100010010111
S = 11110011010111,11110001000100010010111
T = 111011011111,111100100101010111
U = 11110011010111,1111001000100000010111

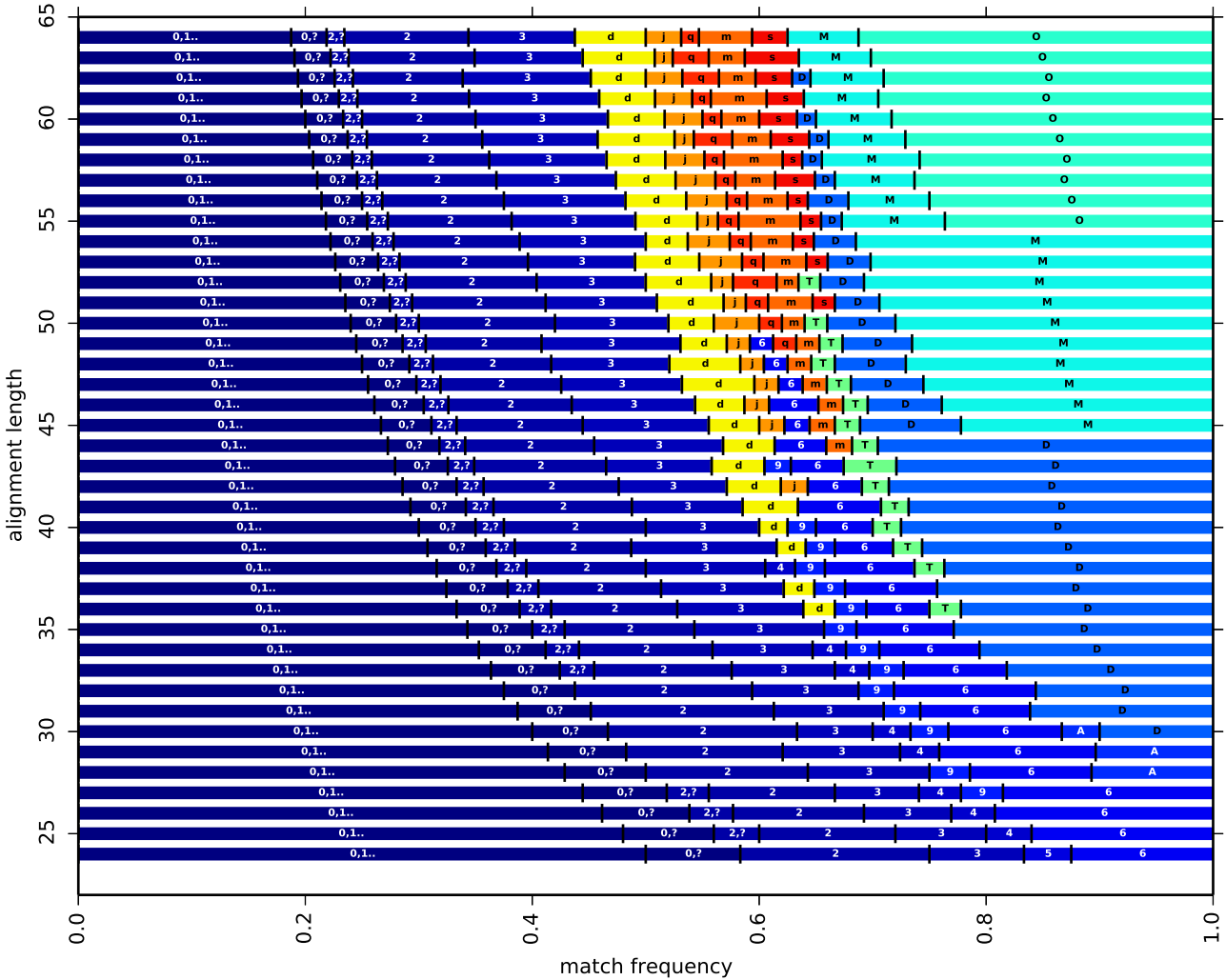
```

```

V = 1111001101010111,111101001000100010001111
W = 111011011011,1110101000100100101111
X = 111100110010111,111100100001010001001111
Y = 11010000110111,1011110010100001010111
Z = 110111011111,1110101000010010011111
a = 1101101010100111,111110000100010001001111
b = 111011011011,1110101000100101001111
c = 111101110111,11111001010010101011
d = 110101111011,1111101001110111
e = 111010110111,11111001010010010111
f = 111101101111,11111010010100100111
g = 111101101111,11111010010000101011
h = 111011011011,111110001001010111
i = 111010110111,111100101000010111
j = 111101101111,111010111011001111
k = 111011011011,11101010001000100111
l = 111011011011,10111100000100110111
m = 111011011011,111101010010010111
n = 111010110111,111100100100010010111
o = 111011011011,11111010001001001111
p = 11101101100111,11110100010100100111
q = 110111101011,111101000110110111
r = 111010110111,1110101001001000010111
s = 111011011011,111100100100010010111
t = 111011011011,10101110000000101111
u = 111101101111,111010001010101111
v = 111011011111,1111101110010111
w = 11110011010111,11110001000100010010111
x = 111010110111,1110110001000100010111
y = 111101101111,111100010010010111

```

$$\sum_0^x \text{Heaviside}(n:2,w:12)$$



```

0 = 111111111111,111110101111
1 = 111111111111,111011010111
2 = 110111111111,111110101011
3 = 11011111101011,11111001011111
4 = 11011101011111,1111100010101011
5 = 11101010111111,1111100010101011
6 = 11110110101111,111110001001010111
7 = 11110110101111,111110001010101011
8 = 1110101010101111,11111000100010101111
9 = 11101010101111,111100010101010111
A = 11110101011111,1111100010010001111
B = 11110110101111,111110000100101010111
C = 11111010101111,11110000100101011111
D = 1110110101010111,11110010001010001111
E = 11110110101111,1111101000100001010111
F = 111101010101111,111110001000100101111
G = 111101010101111,11110101100100010111
H = 11011010101010111,11111001000100001010111
I = 1110100110101111,1111010000011001010111
J = 111011010101111,1111100010001001010111
K = 1110101010101111,1111010001001000101111
L = 1111001010101111,1111100010010001001111
M = 1110101010101111,1111010100010001001111
N = 1111001011010111,1111010001000010010111
O = 1110100101010111,11110010100010001010111
P = 11110010101010111,11110100001001000101111
Q = 11110010101010111,11111000010010001001111
R = 11110010101010111,111110000001000100101111
S = 11110010101010111,11110010001000100101111
T = 1110110101010111,11110010010101010111
U = 11110010101010111,11110010001000001010111

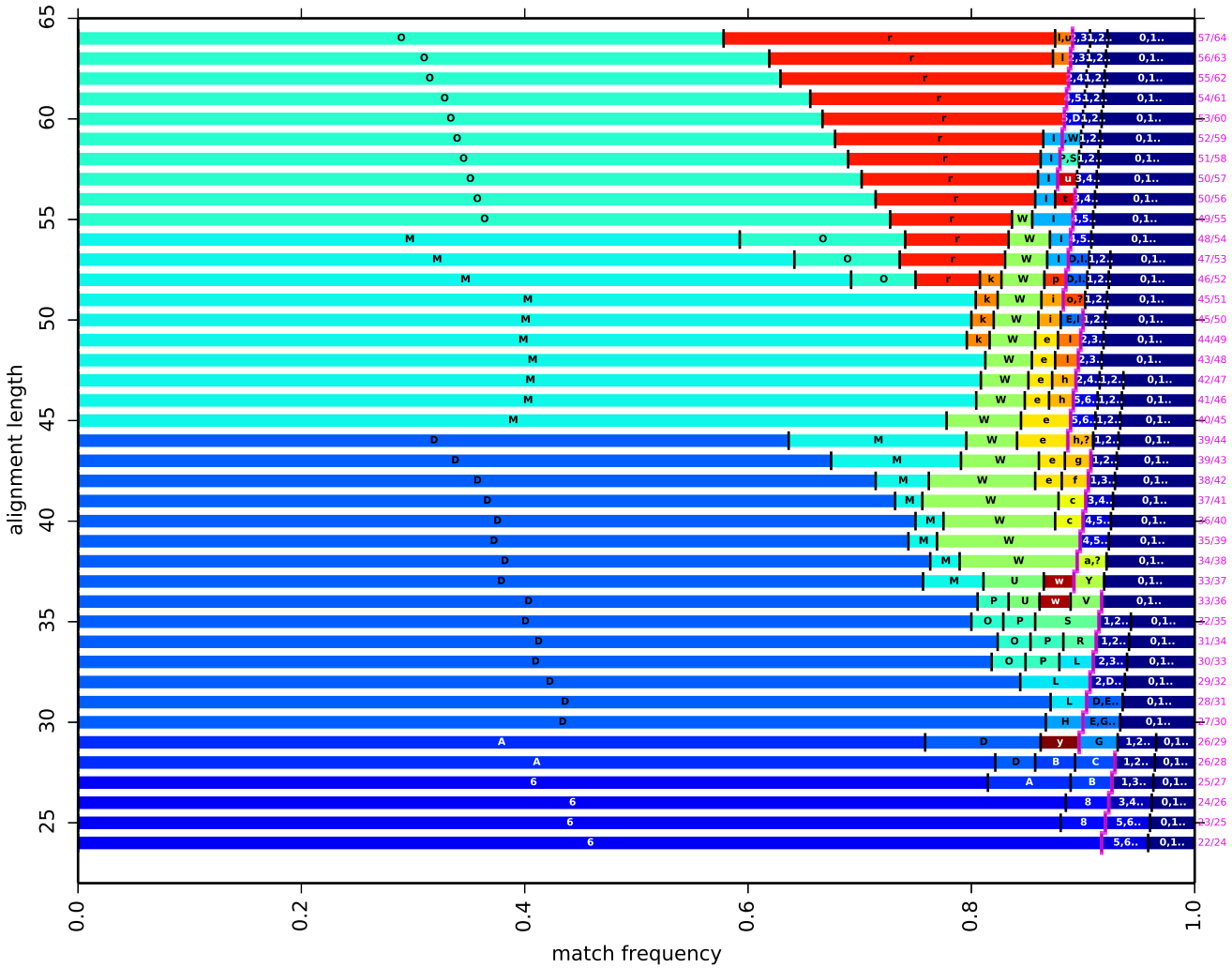
```

```

V = 111100110101010111,111101001000100010001111
W = 1110110101010111,111010100010010010010111
X = 111100100101010111,111100100001010001001111
Y = 110101000110101111,10111110010010000101011
Z = 11101110101111,11101010000100100101111
a = 11010101010010111,111110000100010001001111
b = 1110110101010111,11101010001001010010111
c = 11110110101111,11111001010010101011
d = 110101111010111,1111101001101011011
e = 111010101010111,111100101001001010111
f = 11110110101111,111110100101001010010111
g = 11110110101111,111110100100001010111
h = 1110101010101111,1111000100101010111
i = 111010101010111,11110010010001010111
j = 111101010101111,11101011010100111
k = 1110101010101111,111010100010000100010111
l = 11101101010111,10111100000100101010111
m = 111010101010111,1110101001001001010111
n = 111010101010111,1111001010001001010111
o = 11101101010111,1111010001001001010111
p = 111010101000111,11110100001000100100111
q = 110111101010111,111101000101010111
r = 1110101010001011,111010100100100001010111
s = 111010101010111,1111001010001001010111
t = 11101101010111,101011100000001010111
u = 1111010101111,11101000100101010111
v = 1110101011111,1111011001010111
w = 11110010101010111,11110001000100001010111
x = 111010101010111,1110100010010001010111
y = 11110110101111,111110001001001010111

```


$$\sum_x^1 \text{Heaviside}(n:2,w:12)$$



```

0 = 111111111111,111110111111
1 = 111111111111,11110111011111
2 = 11101111111111,111111010111
3 = 11011111101111,11111001011111
4 = 11011101111111,11111001101011
5 = 11101101111111,1111100011010111
6 = 11110110111111,111110010100101111
7 = 11110110111111,1111100101010111
8 = 11101101101111,11111000100011011111
9 = 11110110111111,111110010110101111
A = 11110110111111,11111001001001001111
B = 11110110111111,11111000010010101111
C = 11111011011111,11111000010010101111
D = 111011101101111,111110010010100011111
E = 11110111011111,11111010010000101111
F = 11110101101111,11111000100010001111
G = 11110101101111,11111010110010001111
H = 110110110101111,111110010001000101111
I = 111010011101111,1111101000011001010111
J = 11101110110111,111110001000100101111
K = 11101101101111,11111010001001000101111
L = 111100110101111,1111100010010001001111
M = 11101101101111,111101010001001001111
N = 111100101101111,1111100100010001001111
O = 111101001101111,1111100100001000101111
P = 111100110101111,111110100001001000101111
Q = 111100110101111,11111000010010001001111
R = 111100110101111,111110000001000100101111
S = 111100110101111,11111000100010001001111
T = 111011101101111,11111001001010101111
U = 111100110101111,1111100100010000001101111

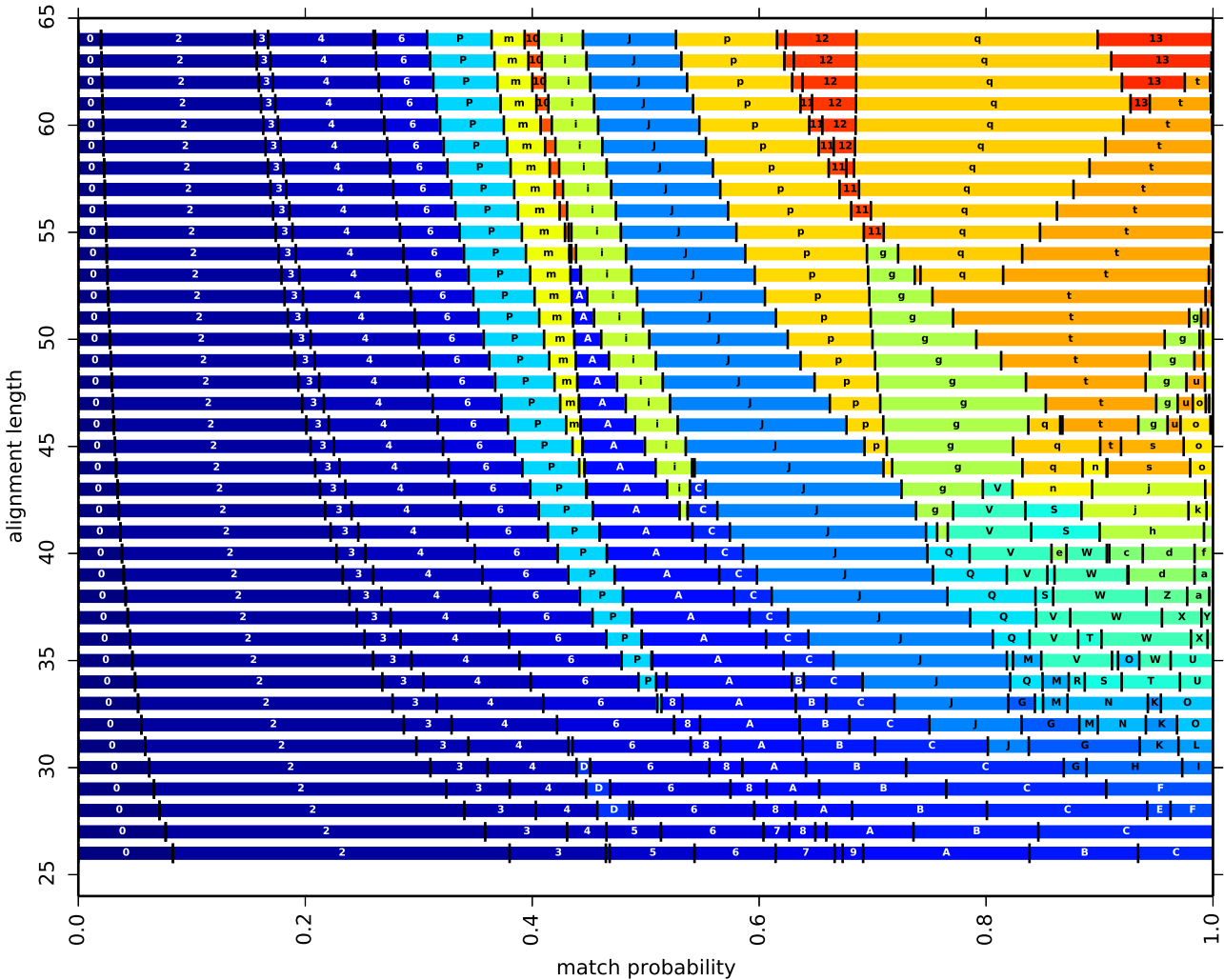
```

```

V = 11110011010101111,1111101001000100010001111
W = 111011101101111,11101101000100100101111
X = 1111001100010101111,1111001000001010001001111
Y = 1110100011101111,1011111001001100001011
Z = 11101110111111,1110101000010010011111
a = 110110101011001111,111110000100010001001111
b = 111011101101111,11101101000100101001111
c = 11110110111111,11111001010010101111
d = 110101111101111,1111110100111011
e = 111011011101111,11111001010010010111
f = 11110111011111,1111101000100101001111
g = 11110111011111,11111010010000101111
h = 111011011011111,11111000100101011111
i = 111011011101111,111110010110000101111
j = 11110110111111,111010111011001111
k = 111011011010111,111110100010001001111
l = 111011101101111,10111100001001101111
m = 111011011101111,11110101000100101111
n = 11101101101111,111110011001000101111
o = 111011101101111,11111010001001001111
p = 1110110111001111,1111101000101001001111
q = 110111110101111,11111010001010110111
r = 11101011011001111,11101010010010000101111
s = 111011011101111,111110010001001001111
t = 111011101101111,1010111100000000101111
u = 11111011011111,11101000100101011111
v = 11101101111111,1111101110010111
w = 11110001101010111,11111000100010000101111
x = 111011011101111,11111010001001000101111
y = 11110111011111,11111000100100101111

```

Bernoulli (n:2,w:13)



```

0 = 111111111111,111110111111
2 = 111101111111,11111110110111
3 = 111011111111,1111110110101111
4 = 11101110111111,1111101110101111
5 = 1110111110111,1111110010111111
6 = 11101111101111,111110100111101111
7 = 11101111101111,11111010011011011111
8 = 11101110111111,11111010110100111111
9 = 11101110111111,11111001101010111111
A = 11110111011111,11111001011010011111
B = 11110111011111,11111010010110011111
C = 1111011011011111,11111010010010101111
D = 11011110111111,111110111010111111
E = 11110111011111,11111001001010011111
F = 11110111011111,11111000100100101111
G = 1111011011101111,1111100010100100111111
H = 11111011101111,1111100010010010111111
I = 11110111011111,1111100010010101111111
J = 1111011011101111,11111001010010101111
K = 1110110111101111,1111100010001001101111
L = 11111011101111,1111100001001010011111
M = 1111011011101111,1111100100010001011111
N = 1111011011101111,1111101001000100011111
O = 1111011001101111,11111000101000100101111
P = 11010111101111,111111010011101111
Q = 1111011011101111,1111100010100100101111
R = 1111011011101111,1111100100010001011111
S = 1111011011101111,111101100001010001011111
T = 111101011001101111,111101000100010100111111

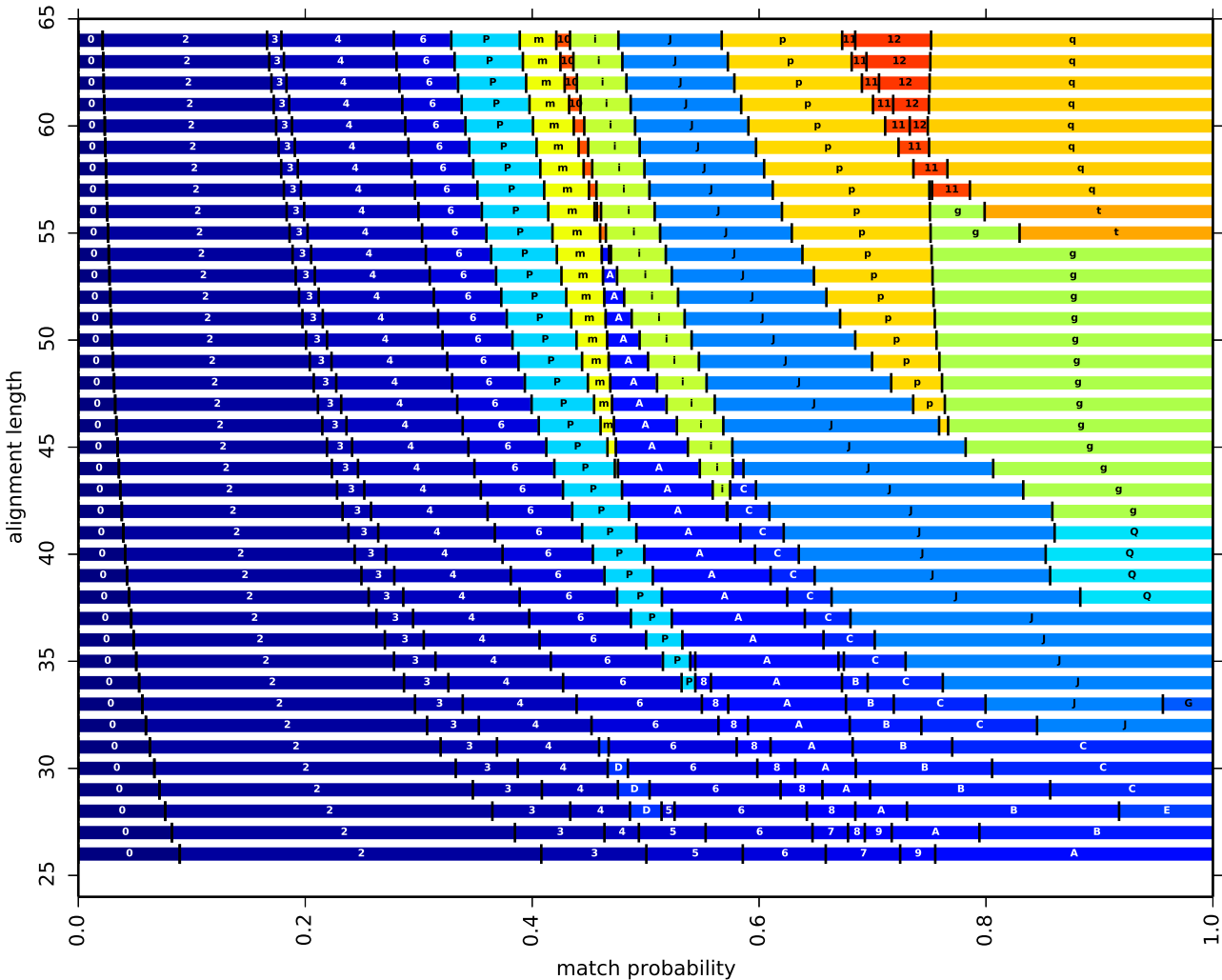
```

```

U = 111001101101011111,11111010001001000010101111
V = 11101110110101111,111110010100010001011111
W = 111101011001101111,11111010000100010001011111
X = 11110011010101111,11111001000100001001011111
Y = 11110101011001111,11111000100001000100111111
Z = 11110011010101111,11111001000010001001011111
a = 111100110101011111,1111101000100100001000111111
c = 111100110110101111,1111101010001001000010011111
d = 111100110110101111,1111100010001001000100111111
e = 1111011011101111,111110001001000101011111
f = 1111001101101111,1111100100001000010101011111
g = 1110110111011111,11111010100100100010111111
h = 1110101011011001111,11101010000100000010111111
i = 1111011011101111,111101010011010011111111
j = 1111011011101111,11111001000100010100111111
k = 1111011011101111,11111010000100010101111111
m = 1110111101011111,11110100110111111111
n = 11101101110101111,11110100100011000010111111
o = 1111011011101111,111011001101001011111111
p = 11101101011101111,111101001100010010111111
q = 111100110110101111,1111010100010001000100111111
s = 1111011011101111,1111001010010001010101111111
t = 11101101110101111,1111010010001100101011111111
u = 1110111011101111,11110101001001001111111111
10 = 1110111110101111,111101000110111011111111
11 = 1110110111101111,1111010100100100010101111111
12 = 111011011000110111,11111001000100010100111111
13 = 111100110110101111,111110001000100100011010111111

```

\int_0^x Hit Integration (n:2,w:13)



```

0 = 111111111111,111110111111
2 = 111101111111,1111111010111
3 = 111011111111,1111111010111
4 = 1110111101111,1111110110111
5 = 1110111111011,1111100101111
6 = 1101111110111,111110100111011
7 = 1110111101111,111110100111011
8 = 1111011101111,11111010110100111
9 = 1110111011111,11111010011010111
A = 1111011101111,111110010110100111
B = 1111011101111,111110100110100111
C = 111011101101111,111110100110101111
D = 1101111011111,1111101110101111
E = 1111011101111,111110010011001111

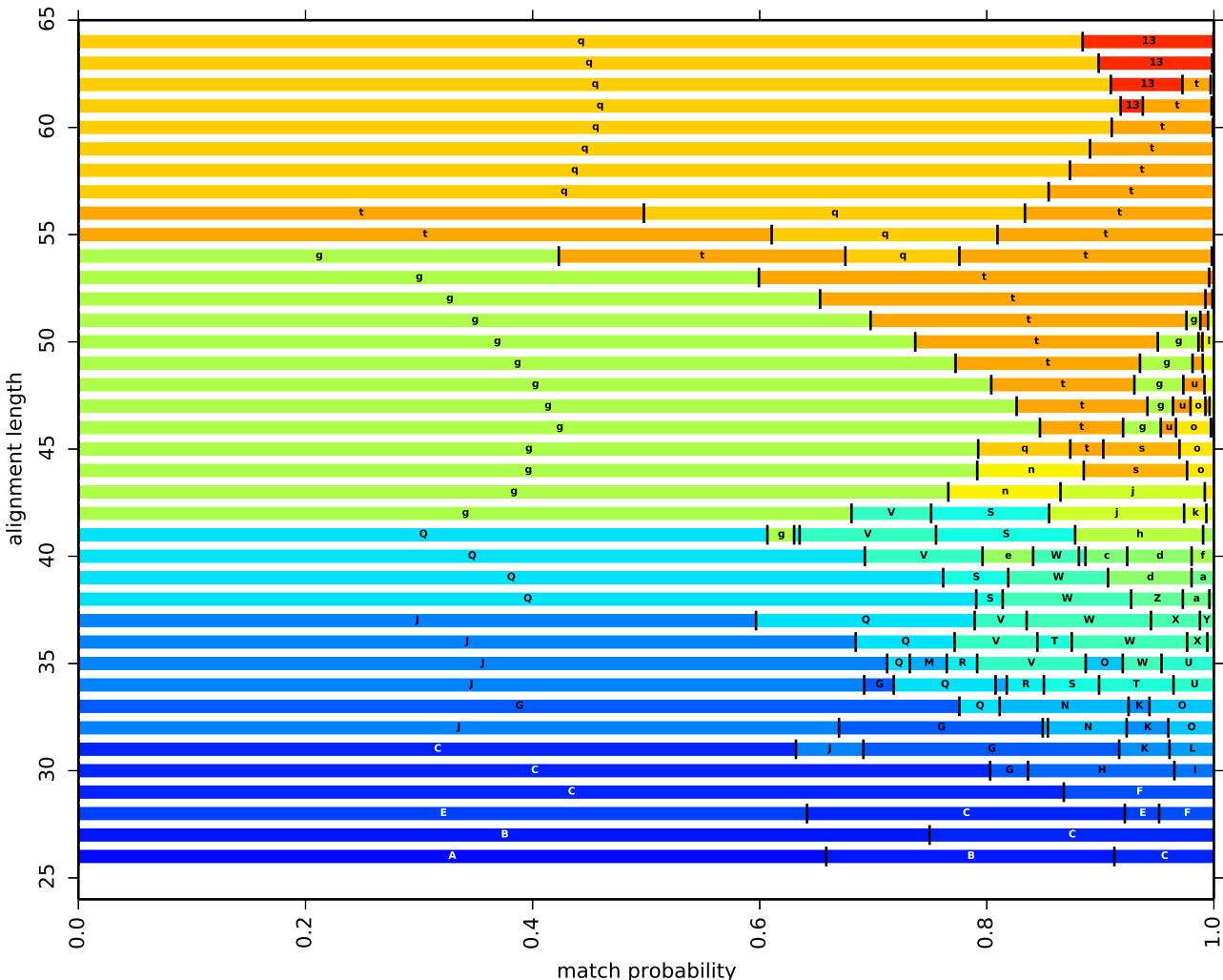
```

```

G = 111101101110111,11111000101001001111
J = 111101101110111,111110010100100101111
P = 11010111101111,11111101001110111
Q = 111101101110111,111110001010010010111
g = 1110110101110111,1111010110010001001111
i = 111101101110111,11110101001101001111
m = 11101110101111,111110100110110111
p = 11101101110111,111101001100010010111
q = 111100110110111,1111010100010010001111
t = 111011011101011,11110100100011001010111
10 = 11101111010111,1111010001101110111
11 = 111011010111011,111101001001000110111
12 = 111010110100111011,111110010001000101001111

```

\int_x^1 Hit Integration (n:2,w:13)



```

A = 111101110111111,1111100101101001111
B = 111101110111111,11111010001010001111
C = 1110111011011111,111110100100010101111
E = 111101110111111,111110010001010011111
F = 111101110111111,111110001001000101111
G = 1111011011101111,111110001010010011111
H = 111101110111111,111110001001010011111
I = 111101110111111,111110000100101011111
J = 1111011011101111,111110010100100101111
K = 1110110101110111,1111100010001001101111
L = 111110111011111,1111100001001010011111
M = 1111011011101111,111110010001000101111
N = 1111011011101111,11111010010001000011111
O = 1111011001110111,11111000101000100101111
Q = 1111011011101111,1111100010100100101111
R = 1111011011101111,11111001000100010101111
S = 1111011011101111,11110110000101000101111
T = 1111010100110111,11110100010001010011111
U = 1110011011010111,1111101000100100001010111
V = 1110111011010111,11111001010001000101111
W = 11110101100110111,1111011000010001000101111

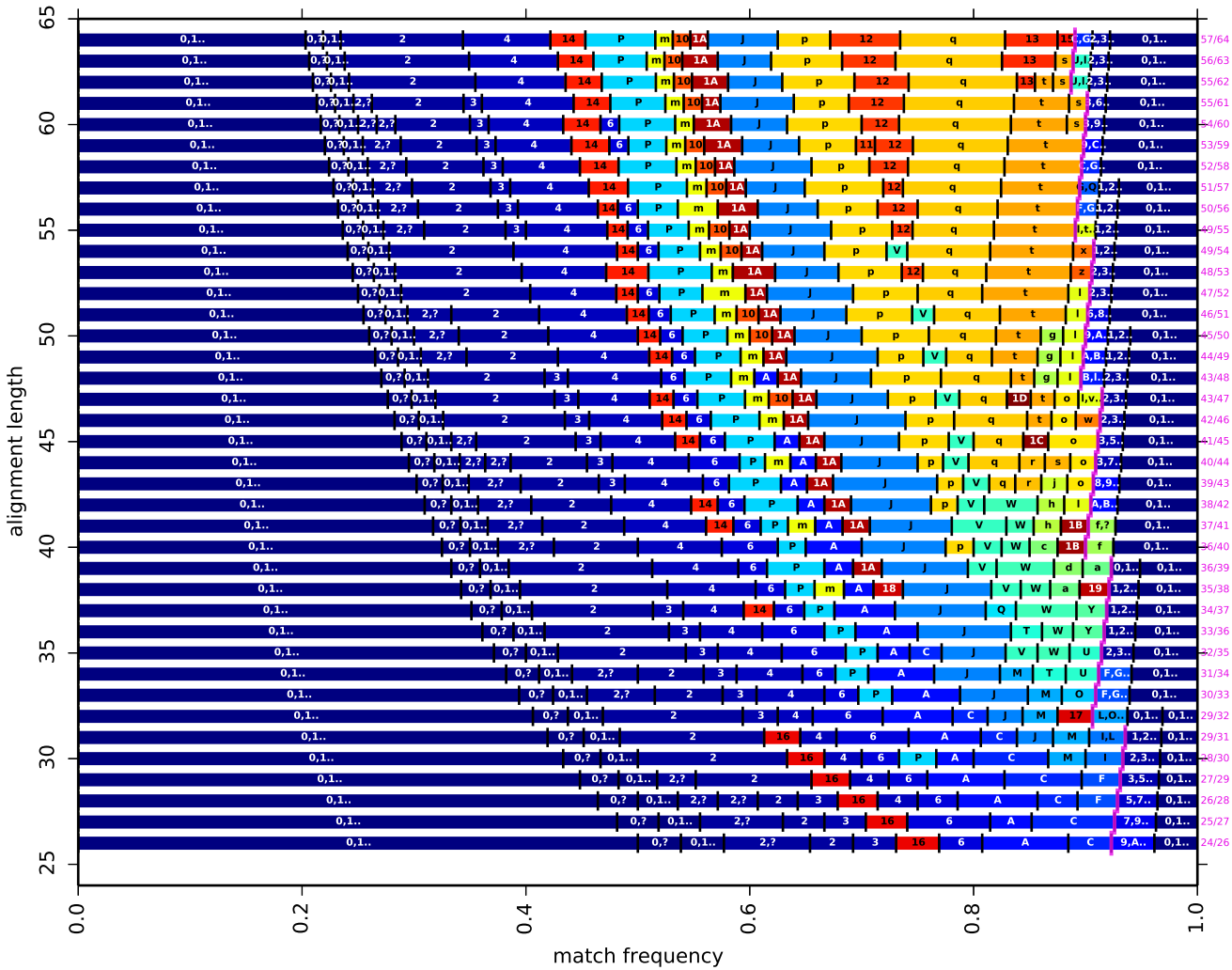
```

```

X = 11110011010101111,1111100100010000100101111
Y = 111101010110001111,1111100010000100001001111
Z = 11110011010101111,1111100100001000100101111
a = 11110011010101111,11111010001001000010001111
b = 11110011010101111,111110101000100100001001111
c = 111100110110101111,11110101000100100001001111
d = 11110011011010111,11111000100010010001001111
e = 1111011011101111,11111000100100010101111
f = 11110011011010111,11111001000010000101010111
g = 1110110111101111,1111010110010001000101111
h = 11101010110100111,11101011000010000001101111
i = 1111011011101111,11111001000100010101111
j = 1111011011101111,11111001000100010101111
k = 1111011011101111,11111001000100010101111
l = 11110111011111,11101110100110010100111
m = 111011011010111,111101001000110000101111
n = 111101011101111,1110100100010000101111
o = 111101011101111,11101100110100101111
p = 11110011011010111,11101010100010010001001111
q = 11110011011010111,111100101001000101010111
r = 1111011011101111,111100101001000101010111
s = 1111011011101111,111100101001000101010111
t = 1110110111010111,11110100100011001010111
u = 1110111011101111,111010101001001001111
13 = 11110011011010111,11111000100010010001101011

```

Dirac (n:2,w:13)



```

0 = 1111111111111,1111101011111
1 = 1111111111111,1111101101111
2 = 1111011111111,1111101010111
3 = 1110111111111,111110101010111
4 = 1101111101111,111110111010111
5 = 1110111110111,111110001011111
6 = 1101111101011,11111000111010111
7 = 1110111101011,11111000100110111
8 = 1111011101011,11111001010010111
9 = 1110111010111,11111000101001111
A = 1111011101011,11111000101001111
B = 1111011010111,11111001010010111
C = 1110111010111,111110001001001111
D = 1101111010111,1111101010101111
E = 1111011010111,111110001001001111
F = 1111011010111,111110001001001111
G = 1111011010111,11111000101001001111
H = 1111011010111,11111000101001001111
I = 1111011010111,11111000100100101111
J = 1111011010111,11111000100100101111
K = 111011010110111,111110001000100101111
L = 1111011010111,1111100001000100101111
M = 1111011010111,1111100010001000101111
N = 1111011010111,111110001000100011111
O = 111101100110111,11111000101000100101111
P = 110101111010111,11111100011010111
Q = 111101101010111,11111000100100101111
R = 111101101010111,11111000100100010101111
S = 111101101010111,111110001000100010101111
T = 1111011001010111,111110001000100010101111
U = 11100110101010111,111110001001000010101111
V = 11101101101010111,111110001000100010101111
W = 11110110011010111,1111100001000100010101111
Y = 11110101010010111,11111000100001000100101111
a = 1111011010101111,11111000100100001000101111
c = 111100110101010111,111110101000100100001001111
d = 111100110101010111,111110001000100010001001111

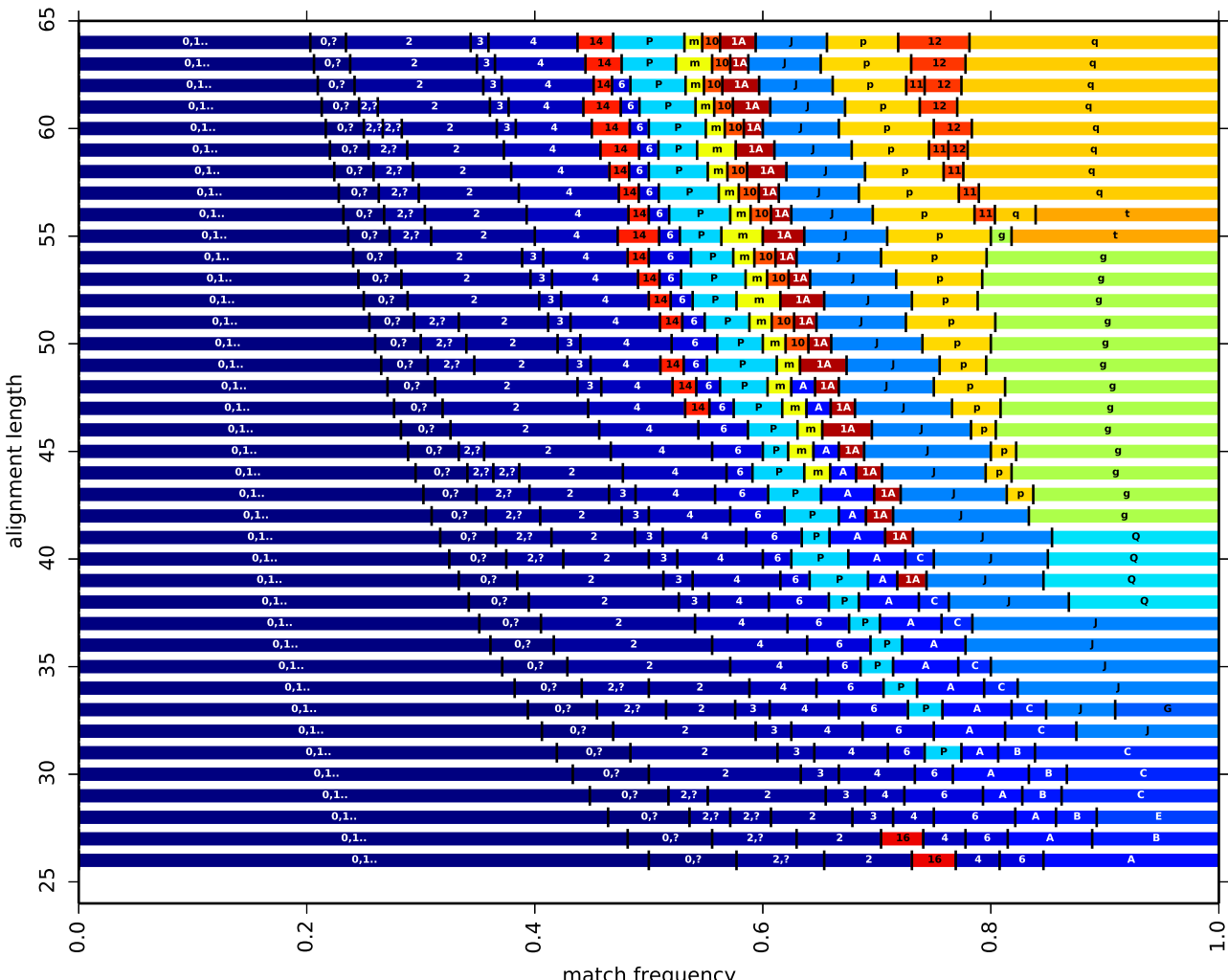
```

```

e = 1111011011101111,11111000100100010101111
f = 111100110110101111,111110001000010000101010111
g = 11101101101101111,11110110010010001001111
h = 111010101101001111,1110101100001000000101111
i = 1111011011010111,111101010011010010111
j = 1111011011010111,111110010001000010001111
k = 1111011011010111,111110010000100010101111
l = 1111011011111,11101100100100100100111
m = 1111011010101111,11111010010110110111
n = 11101101101010111,111010010001000010101111
o = 111101101101111,11101100101010101111
p = 111011011010111,1111010011000100101111
q = 11110011011010111,1111010100010010001001111
r = 1111001101010111,1111010001001000001010111
s = 1111011011010111,111100100100010101010111
t = 111011011010111,1111010010001100101010111
u = 111011011010111,1111010100100100101111
v = 111101101010111,1110110011010101010111
w = 111101111010111,1111010001000010101111
x = 1111011011010111,110110110001000101010111
y = 110101111010111,111110110001010010111
z = 111101111010111,111110100010001010111
10 = 11101101101010111,1111000010110110111
11 = 111011011010111,1111010100100010001010111
12 = 111010110100110111,111110010001000101001111
13 = 111100110101010111,1111100010001000010101011
14 = 111101101111111,1110111110100111
15 = 111100110101010111,1111100010001000101010111
16 = 1110110111111,1111111110010111
17 = 111101101010111,111110001001001010101111
18 = 1111011011010111,1111101010010010101111
19 = 1111010110011111,111101010000100010001111
1A = 1111010111010111,11110100101001010111
1B = 1111000110101010111,111110010000100001010111
1C = 11100110101010111,111110001000100001010111
1D = 111100110101010111,11101010001001000010101111

```

$$\sum_0^x \text{Heaviside}(n;2,w;13)$$



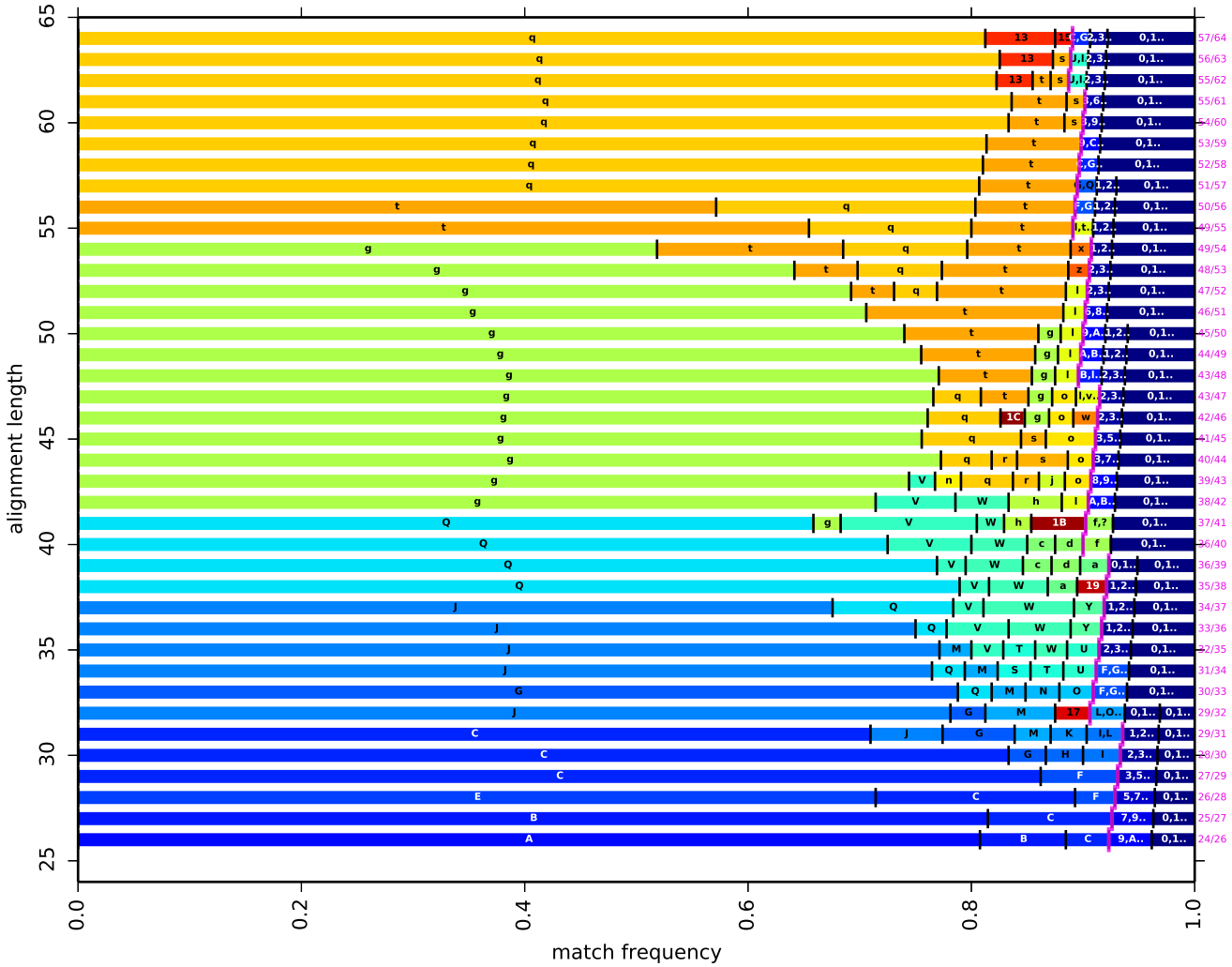
```

0 = 111111111111,111110111111
1 = 111111111111,111101101111
2 = 111011111111,111110110111
3 = 110111111111,111111010111
4 = 110111011111,111110110111
5 = 110101111011,111110010111
6 = 110111101111,111101001111
7 = 110111101111,111110100111
8 = 111011011111,111101010011
9 = 110111011111,111101001101
A = 111011011111,111100101001
B = 111011011111,111101001010
C = 110111011011,111101001001
D = 111011011111,111101101011
E = 111011011111,111100100100
F = 111011011111,111100010010
G = 111011011011,111100010100
H = 111101101111,111100010010
I = 111101101111,111100001010
J = 111011011011,111100101001
K = 111011011011,111100010010
L = 111011011111,111100010010
M = 111011011011,111100100010
N = 111011011011,111100100010
O = 111011001101,111100010001
P = 110101110111,111110100110
Q = 111011011011,111100010100
R = 111011011011,111100100010
S = 111011011011,111101000010
T = 111011000101,111101000100
U = 111001101010,111101000100
V = 111011011011,111100100010
W = 111010100101,111101000100
Y = 111010101001,111100010001
a = 111001101010,111101000100
c = 111001101010,111101010001
d = 111001101010,111100010001

e = 111101101110,111100010001
f = 111001101010,111100000010
g = 111011011011,111101001001
h = 111010110101,111010100001
i = 111011011011,111101001010
j = 111010111011,111100000010
k = 111011011011,111100100010
l = 111011011111,111011010010
m = 111011101011,111101001011
n = 111011011011,111101000100
o = 111010111011,111101001010
p = 111011011011,111101001001
q = 111001101010,111101000100
r = 111001101010,111101000100
s = 111011011011,111100100010
t = 111011011011,111101000100
u = 111011011011,111101000100
v = 111010111011,111010010010
w = 111011011111,111010001000
x = 111011011011,110101000100
y = 110101110111,111101001001
z = 111011011111,111101000100
10 = 111011110101,111010001011
11 = 111010101101,111101001001
12 = 111010101001,111100100010
13 = 111001101010,111100010001
14 = 111011011111,111011110011
15 = 111001101010,111100010001
16 = 111011011111,111111100101
17 = 111011010111,111100010010
18 = 111011011011,111101001001
19 = 111011011011,111010100001
1A = 111011011011,111101001001
1B = 111000110101,111100100001
1C = 111001101010,111101000100
1D = 111001101010,111010100010

```

$$\sum_x^1 \text{Heaviside}(n;2,w:13)$$



```

0 = 111111111111,111110111111
1 = 111111111111,11110111011111
2 = 111101111111,11111110101111
3 = 111011111111,11111101010111
4 = 111011101111,111110111010111
5 = 111011111011,11111001011111
6 = 110111110111,11111001110111
7 = 111011110111,111110100110111
8 = 111101110111,1111101011001111
9 = 111011101111,1111100110101111
A = 111101101111,11111001011001111
B = 111101101111,11111010011001111
C = 111011101111,11111010010101111
D = 110111011111,1111101110101111
E = 111101101111,11111001001001111
F = 111101101111,111110001001001111
G = 111101101111,111110001010011111
H = 111101110111,1111100010010101111
I = 111101110111,111110001001011111
J = 111101101111,111110010100101111
K = 11101101110111,111110001000101111
L = 111101110111,111110001001001111
M = 111101110111,111110010001000101111
N = 111101101111,11111001000100011111
O = 111101100111,11111000101000101111
P = 11010111101111,111111010011101111
Q = 111101101111,11111000100100101111
R = 111101101111,111110010010001010111
S = 111101101111,111110100001000010111
T = 11110110010111,111110001000101001111
U = 11100110110111,1111101000100100001010111
V = 11101110110111,1111100101000100010111
W = 11110110011011,111110100001000100010111
Y = 111101010110111,11111000100001000101111
a = 11110011010111,11111010001001000010001111
c = 1111001101010111,111110101000100100001001111
d = 1111001101010111,111110001000100100001001111

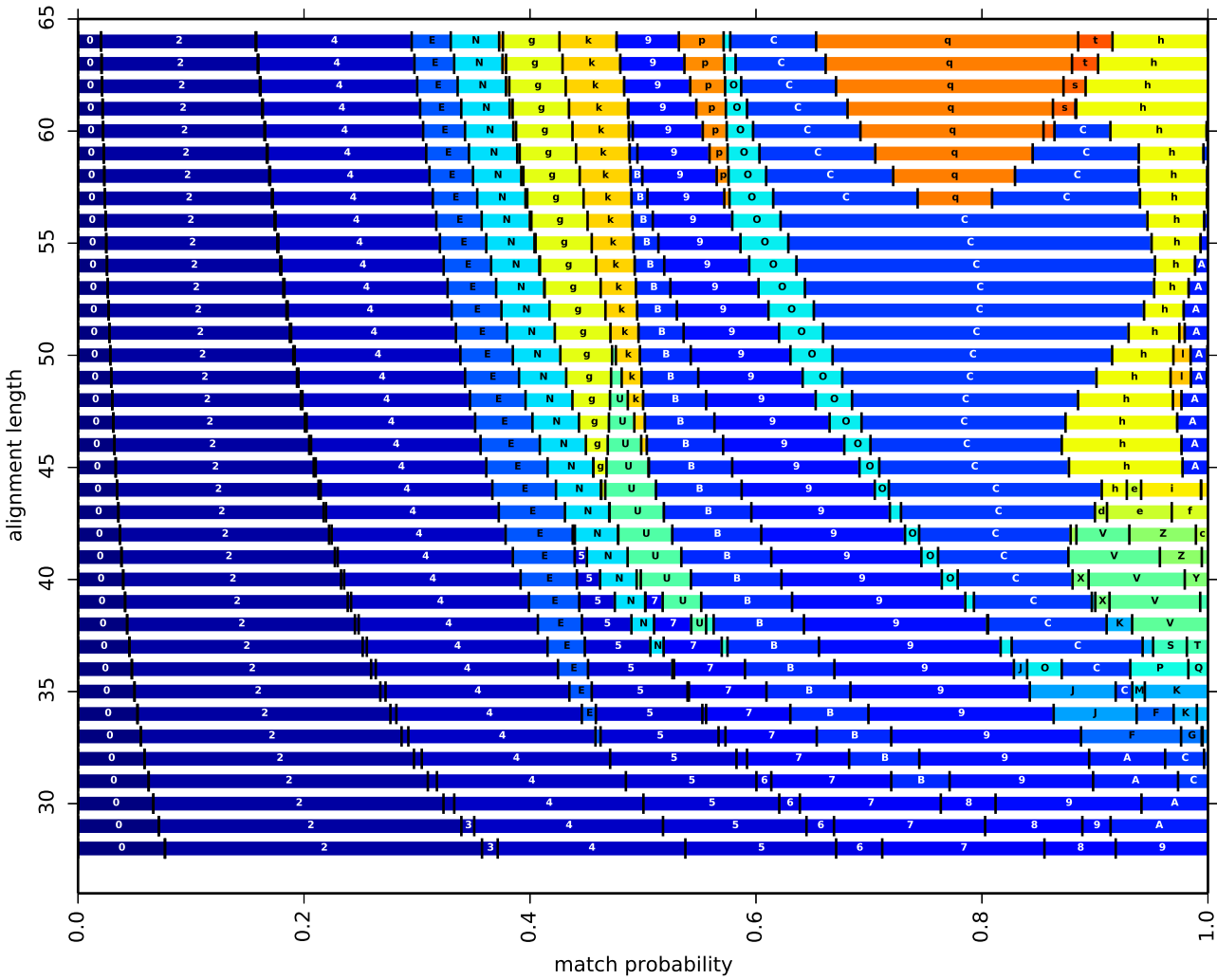
```

```

e = 111101101110111,1111100010010001010111
f = 11110011011010111,11111001000010000101010111
g = 1110110110110111,11110110110010001001111
h = 1110101101100111,11101011000010000001101111
i = 11110110110111,11110101001101001111
j = 11110110110111,11111001000100010001111
k = 11110110110111,111110010000100010101111
l = 111101110111,111011101001001001111
m = 111011110110111,111101001101110111
n = 1110110111010111,111101001000110000101111
o = 11110110110111,11101100110100101111
p = 11101101110111,1111010011000100101111
q = 11110011011010111,1111010100010010001001111
r = 1111001101101011,1111010001001000001010111
s = 11110110110111,11110010010000101010111
t = 1110110111010111,11110100100011001010111
u = 11101110110111,11110101001001001111
v = 11110110110111,111011001101001010111
w = 111101110111,11110100010001011111
x = 11110110110111,11011011000100010101111
y = 11010111011111,1111101100101001111
z = 111101110110111,11111010001000100101111
10 = 11101111010111,11110100010111010111
11 = 1110110110110111,11110101001000100010111
12 = 11101011000110111,111110010001000101001111
13 = 11110011011010111,111110001000100001010111
14 = 11110110111111,111011111101001111
15 = 11110011011010111,11111000100010001010111
16 = 11101101111111,1111111110010111
17 = 11110110110111,1111100010010010101111
18 = 11110110110111,11111010100100101111
19 = 11110110011111,111101010000100010001111
1A = 111101101110111,11110110010100101111
1B = 111100011011010111,111110010000100100001010111
1C = 1110011011010111,11111001000100100001010111
1D = 11110011011010111,1110101000100100001001111

```

Bernoulli (n:2,w:14)



```

0 = 11111111111111,11111101111111
2 = 11110111111111,111111101101111
3 = 11101111111111,1111110101101111
4 = 11111011011111,111011101010111
5 = 11011111101111,11111010011101111
6 = 11110111011111,111110001010101111
7 = 11110111011111,1111101001011001111
8 = 1111011101101111,11111010011000101111
9 = 1111011101101111,111110100100101001111
A = 11110111011111,1111010100110000101111
B = 1111011101101111,111110001000110101111
C = 1111011101101111,111101010011000100101111
E = 111011111101111,111111100101101111
F = 1111011011101111,11111100010100100101111
G = 111101110101111,11111100010010010101111
J = 1111011101101111,11111000100100101111
K = 1111011101101111,11111010001001000101111
M = 1111011101101111,11111001000010010101111
N = 11110111011111,11111110011010111
O = 111101011101111,11111010011000100101111
P = 111101011101111,111110100011000100101111

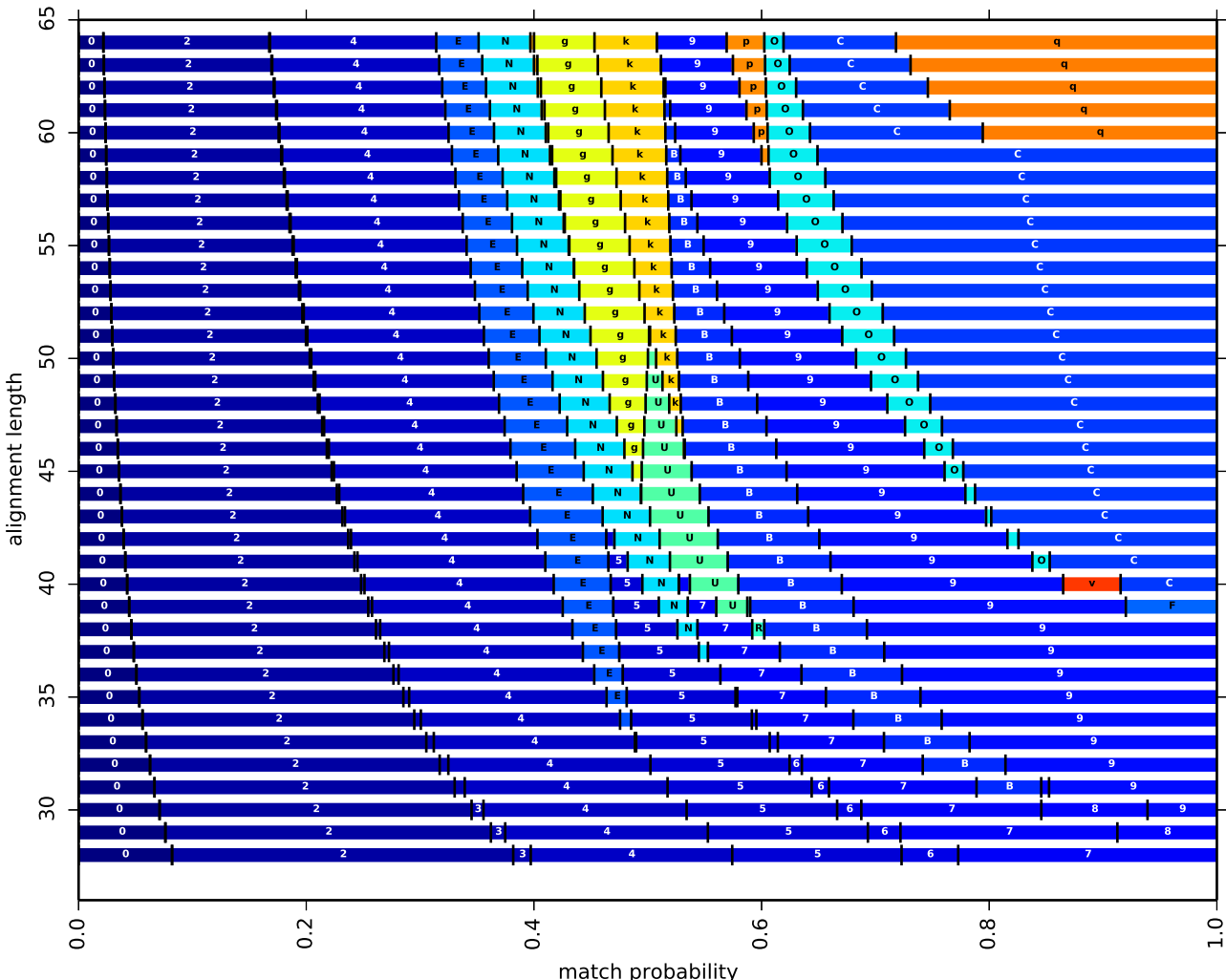
```

```

Q = 1111010011011101111,11110110000100100010101111
S = 111101011101101111,1111010100110001000011111
T = 1111010111011001111,111110100000100100011001111
U = 110101111101111,111101011000101111
V = 111101011011001111,111110010000100100010101111
X = 111101011011001111,11110110000100100010101111
Y = 1111001101011111,1111100110001000001001010111
Z = 111101101011001111,1110101010000100010010011111
c = 1111010110011001111,11111010010000100001111
d = 111101001101101111,111101100001000100010101111
e = 11110100110110101111,1111010100010001000010011111
f = 111101101011001111,1110100101000100000110011111
g = 11101101111110111,111011101010010101111
h = 11110101110110111,1111101001100010001001111
i = 111010011101010111,111110101000010000100110111
k = 1110111101101111,111110010011010101111
l = 1111011101101111,1111001101001010011111
p = 1110110101101111,11111001100010010101111
q = 1111010110011010111,111110100010001010011111
s = 11110100110110111,11110110001001000101001111
t = 11110100110110111,111010110001001000101001111

```


\int_0^x Hit Integration (n:2,w:14)



```

0 = 11111111111111,1111110111111
2 = 11110111111111,11111110110111
3 = 11101111111111,11111110110111
4 = 11111011011111,111011111101011
5 = 11011111101111,1111101001110111
6 = 11110110111111,1111100110101111
7 = 11111011101111,111110100101100111
8 = 1111011101101111,11111010011000110111
9 = 1111011101101111,1111101001010011111
B = 1111011101101111,111110010100110101111
C = 111101011101101111,11110101001100010011111

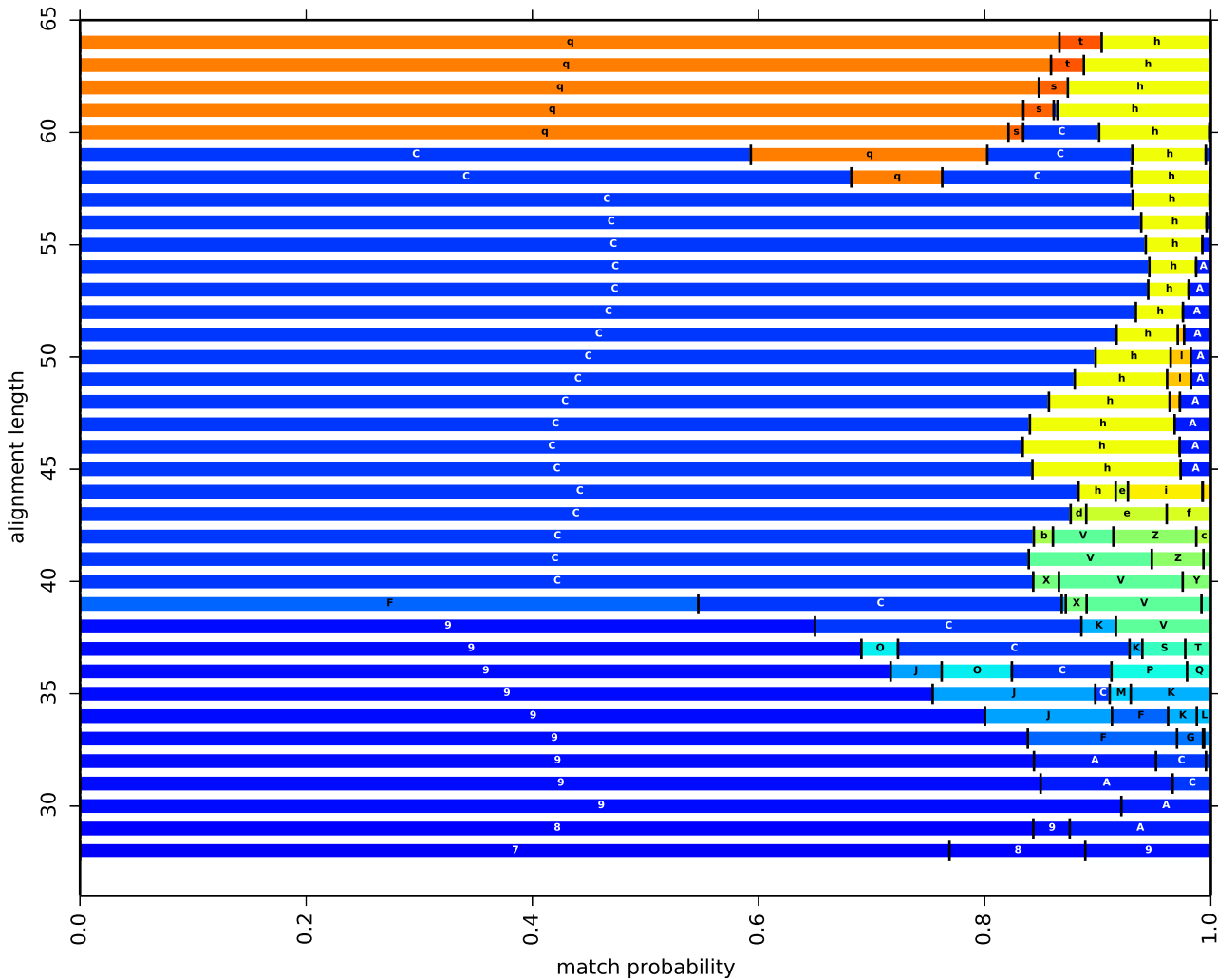
```

```

E = 1110111111101111,111111100101110111
F = 1111011011101111,11111100010100100101111
N = 1110101111011111,11111110011010111
O = 111101011101101111,11111010011000100101111
R = 1110111101101111,11110110010011101111
U = 1110110111110111,11111010110001101111
g = 11101101111110111,11101110101001101111
k = 1110111101101111,111110010011010101111
p = 1110110101101111,11111001100010010101111
q = 111101100110101111,1111010001000101001001111
v = 1111011101110111,1111100100100101001111

```

\int_x^1 Hit Integration (n:2,w:14)



```

7 = 111101110111111,1111101001011001111
8 = 11110111011011111,11110100110001101111
9 = 11110111011011111,111101001000101001111
A = 1111101111011111,111101010011000101111
C = 11110101110110111,11110101001100010010111
F = 11110110111011111,111110001010010010111
G = 1111011101011111,111110001001001010111
J = 11110111011011111,111100010010010101111
K = 11110101110110111,1111101000010010001101111
L = 1111011101011111,1111100010010010100111
M = 1111011101101111,11111001000010010101111
O = 11110101110110111,1111101001100010010111
P = 11110101110110111,111110100001100010010111
Q = 111101001101110111,1111011000010010001010111
S = 11110101110110111,111101010011000100001111
T = 111101011011001111,1111101000010010001100111

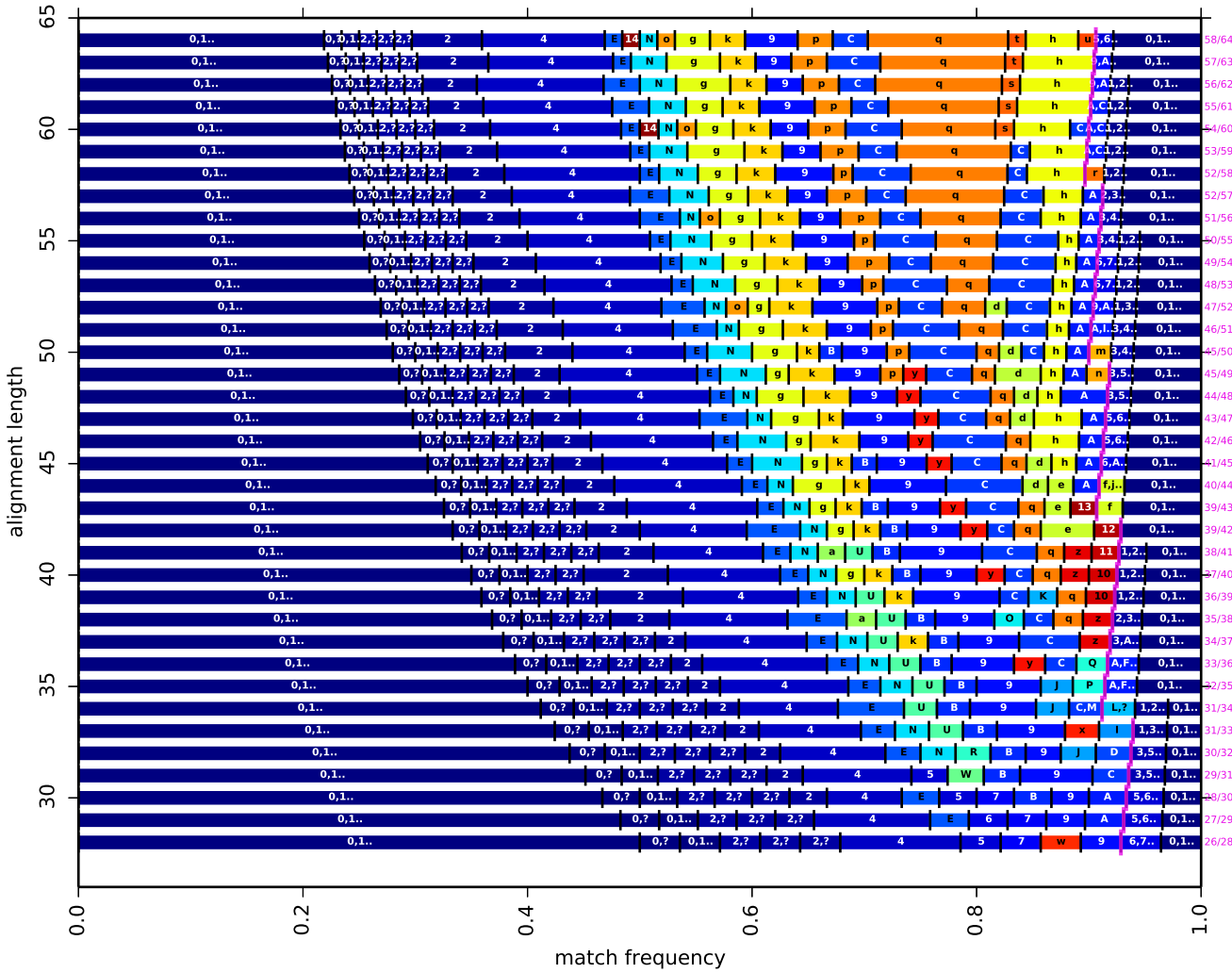
```

```

V = 1111010110110011111,11111001000010010001010111
X = 1111010110110011111,1111011000010010001010111
Y = 11111001101011111,11111001100010000010010111
Z = 1111011011011001111,111010101000010001001001111
b = 111101011100110111,11110101000100100000101011
c = 1111010110011001111,1111101001010001000100111
d = 111101001101110111,11110011000010010001010111
e = 1111010011011010111,11101010001000100001001111
f = 1111011011011001111,111010010100010000011001111
h = 111101011101101111,111101010011000100100111
i = 1110100111010110111,111110101000010000100110111
l = 11110111011101111,111100110100101001111
q = 1111010110011010111,1111010001000101001001111
s = 111101001101110111,111101100010001010010111
t = 111101001101110111,11101011000100100010100111

```

Dirac (n:2,w:14)



```

0 = 11111111111111,11111101111111
1 = 11111111111111,11110111011111
2 = 11110111111111,11111110101111
3 = 11101111111111,11111101010111
4 = 11110110111111,11101111101011
5 = 11011111101111,1111010001101111
6 = 11110110111111,1111100010101011
7 = 11110110111111,111110100010100111
8 = 11110110111111,11110100101000101111
9 = 11110110111111,11110100001000101111
A = 11110110111111,111101001001000101111
B = 11110110111111,1111000100010101111
C = 1111010110110111,111101010010001000101111
D = 11110110111111,1111110000010000111011
E = 11101111110111,111111000101110111
F = 11110101101111,1111100001000100101111
G = 11110110101111,111110001000100101111
H = 1111010010110111,111010100001000100100111
I = 11110110111111,1111100000010000111011
J = 11110110101111,11110001000100101111
K = 1111010110110111,1111010000100001001111
L = 11110110101111,11111000100010010100111
M = 11110110101111,11110001000010010101111
N = 11110110111111,1111110001010111
O = 111101011010111,1111010001000100010111
P = 111101011010111,1111010000100010010111
Q = 11110100010110111,1111010000100010101111
R = 111101101010111,1111010001011010111
S = 111101011010111,111101010001000010001111
U = 111010111101011,111101010001010111
W = 11110110111111,111100101101001111

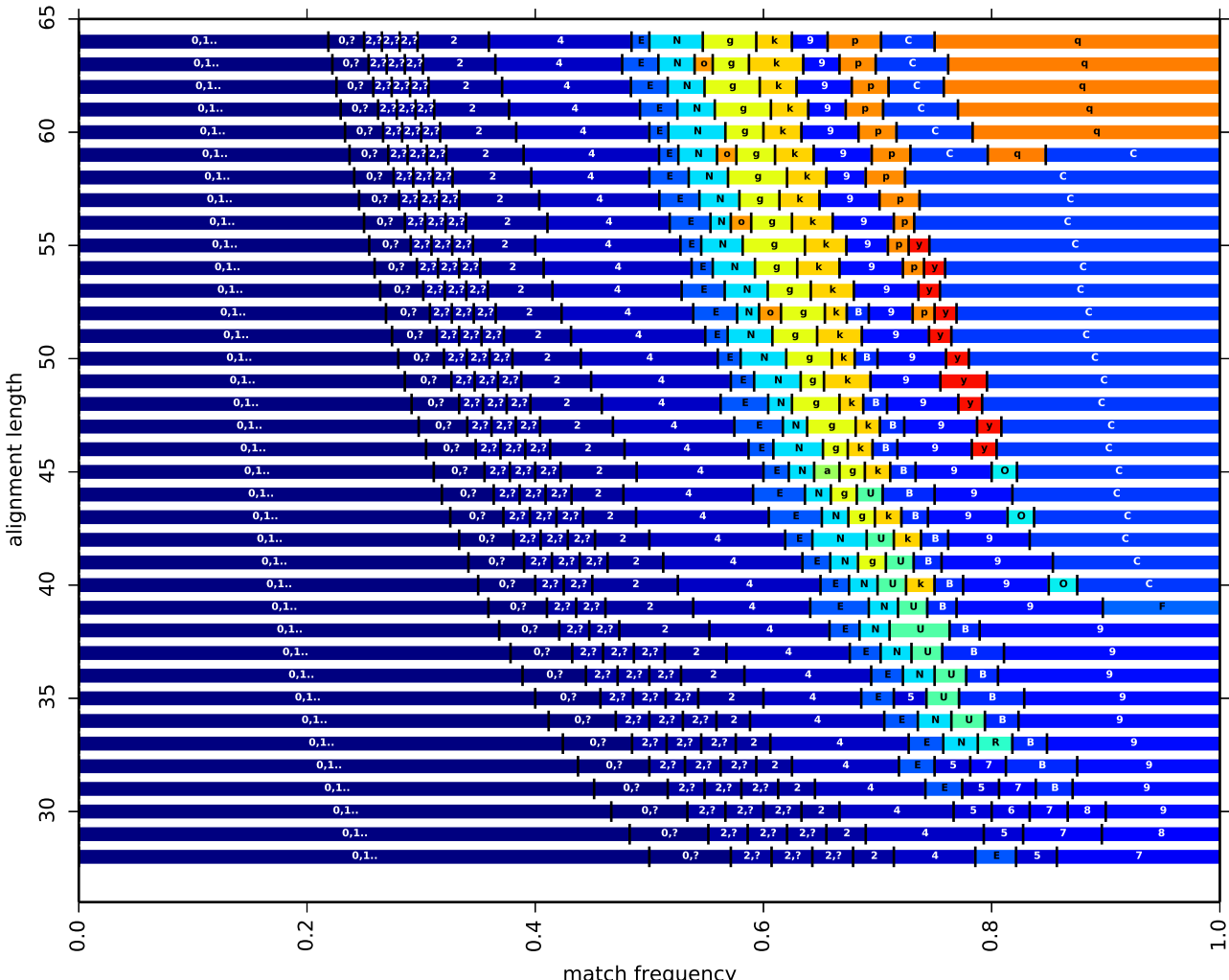
```

```

a = 1110110101111111,111101101100100111
d = 111101000101101111,1111001000001000100101111
e = 1111010010101010111,111101010000100001000101111
f = 111101010100101111,111100101000100000100011111
g = 1110110111110111,1110110101001010111
h = 1111010110110111,111010100100010001001111
i = 1110100110101010111,111110101000001000010010111
j = 111001010110010111,1111100101001000100010001111
k = 1110111010101111,11110010010101010111
l = 1111011011010111,111100101001010010111
m = 111101101010111,11110101001000100010011111
n = 111101101010111,11110100010001000101111
o = 110110101111111,1111010101100101011
p = 11101101011010111,1111001001001001010111
q = 1110101001010111,1111010000100010001001111
r = 11110111010111,1111010000100010101111
s = 11110100101101011,111101000100100010001111
t = 11110100101010111,11101010000100010001010111
u = 1111010110101011,1111000001000010010111
v = 111101101101011,111100010001001000101111
w = 111101101010111,1111010001010010101111
x = 111101101010111,11110100010100001010111
y = 1111010101010111,11110001000010001010111
z = 11110101010010111,1111010100001000001000111
10 = 111100101010111,111100100000000101010111
11 = 1111001101010111,11100010001000001010111
12 = 11110110101001111,11101010000100001001111
13 = 111101010010001111,111101010000100010001111
14 = 1101101010111111,1111011110010111
15 = 11110101001010111,11110101000100010000101111

```

$$\sum_0^x \text{Heaviside}(n:2,w:14)$$

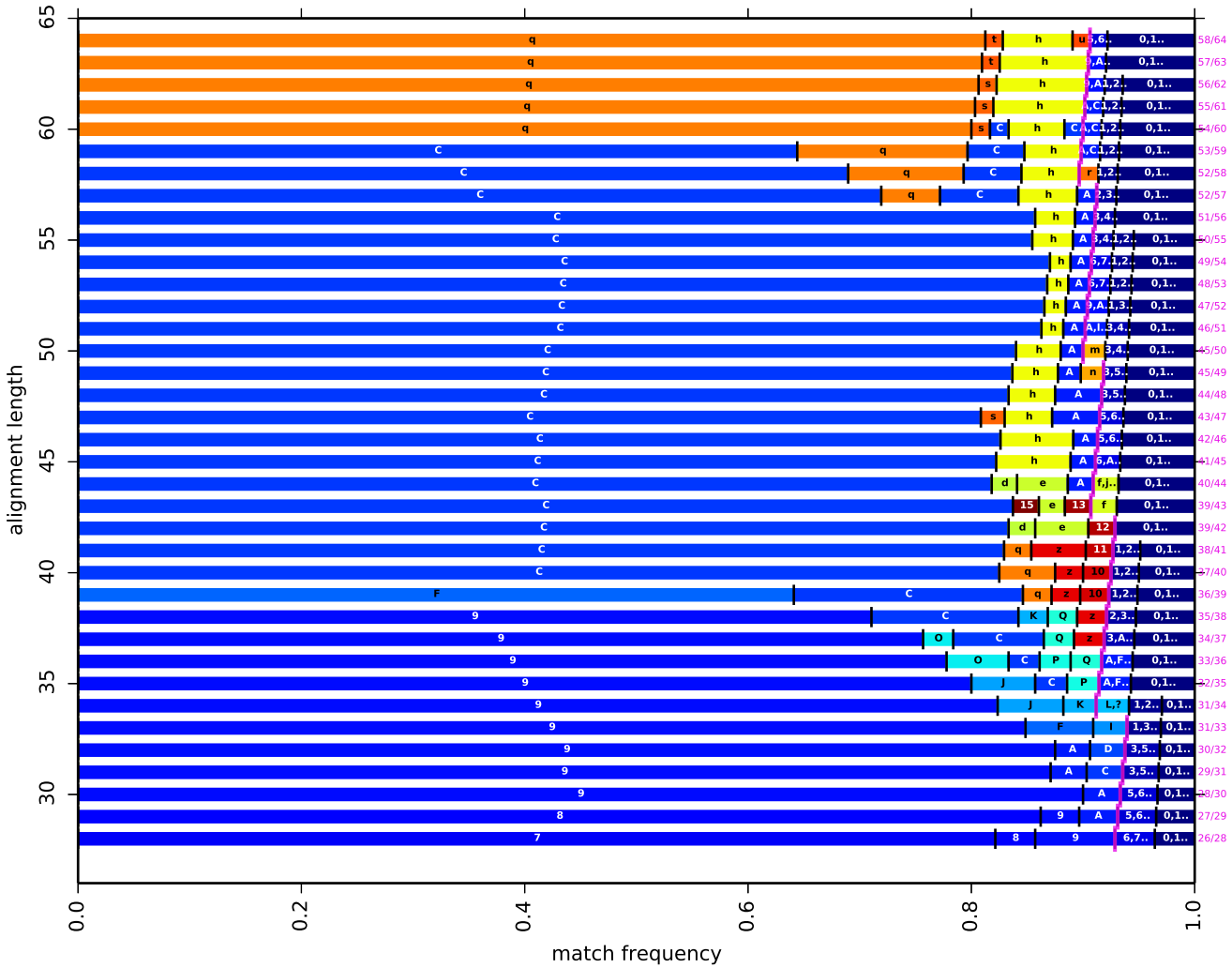


```

0 = 11111111111111,11111101111111
1 = 11111111111111,11110110111111
2 = 11110111111111,11111101101111
3 = 11101111111111,11111101101111
4 = 11110110111111,111011111010111
5 = 11011111101111,1110101001101111
6 = 11110110111111,11111000101010111
7 = 11111011011111,111110100010100111
8 = 11110110110111,1111101001100010111
9 = 11110110110111,11111010010010100111
A = 11110111101111,1111010011000101111
B = 11110110110111,1111000100010101111
C = 1111010111010111,111101010011000100101111
D = 11110110111111,1111110000010000111011
E = 11101111110111,1111110010110111
F = 11110110110111,1111100001000100101111
G = 11110110101111,111110001001001010111
H = 1111010011010111,111010100010001000100111
I = 11110110111111,11111100000010000111011
J = 11110110101111,111100010010010101111
K = 11110110110111,11110100001001000101111
L = 11110110101111,1111100010010010100111
M = 11110110101111,11111001000010010101111
N = 11110110111111,11111100101010111
O = 1111010111010111,111110100100010010111
P = 1111010111010111,11111010000100010010111
Q = 1111010011010111,11110100001001000101111
R = 1111011101010111,111101100100111010111
S = 1111011101010111,111101010011000100001111
U = 1110101111010111,1111101010001010111
W = 11110110111111,11111001011010011111
a = 1110110101111111,11111011101100101111
d = 111101001101101111,11110011000010010001010111
e = 1111010011010111,111101010001000100001001111
f = 1111011011001111,11101001100010000010011111
g = 1110110111101111,1110110101001101111
h = 1111010111010111,1111010100110001001001111
i = 111010011010110111,1111101010000010000100110111
j = 1110010101100111,1111100101001000100010001111
k = 111011101101111,11111001001101010111
l = 11110110110111,111100110100101001111
m = 11110110110111,111100100101001001111
n = 11111011101111,1111011000110001001111
o = 11011010111111,1111011011010010111
p = 111011011101111,1111100110001001010111
q = 11110101001010111,11110100010001001001111
r = 11110111011111,111101000010010101111
s = 11110100110110111,1111011000100100010100111
t = 11110100110110111,111101100010010001000111
u = 111101011010111,1111000100100010010111
v = 11110110110111,111110010001001001001111
w = 11110111010111,1111010011010101111
x = 11110110110111,1111101000101000101111
y = 1111011011010111,1111100101000100101111
z = 1111010110100111,11111001000100010001111
10 = 111100110101111,11110010000000010101111
11 = 1111001101010111,11110010000100000101111
12 = 1111011011001111,111101101000100001001111
13 = 1111010100100111,11110110000100010001111
14 = 11011010111111,1111011110010111
15 = 11110101001010111,1111010100010001000101111

```

$$\sum_x^1 \text{Heaviside}(n;2,w;14)$$



```

0 = 11111111111111,11111101111111
1 = 11111111111111,1111101110111111
2 = 11110111111111,1111111011011111
3 = 11101111111111,1111110101101111
4 = 11111010111111,1110111111010111
5 = 11011111101111,111111010011101111
6 = 11110110111111,111110010110101111
7 = 11110110111111,11111010010110011111
8 = 11110110110111,11110100110001101111
9 = 11110110110111,111101001001010011111
A = 11110111011111,11110100110001011111
B = 11110111010111,11110010100110101111
C = 1111010110110111,111101010011000100101111
D = 11110110111111,1111110000010000111011
E = 11101111110111,111111100101110111
F = 11110101101111,1111100010100100101111
G = 11110111010111,1111100010010010101111
H = 11110100110110111,111101010001000100101001111
I = 11110110111111,11111100000010000111011
J = 11110110110111,1111100010010010101111
K = 111101011010111,11111000100100010101111
L = 11110110101111,11111000100100101001111
M = 11110110101111,11111001000010010101111
N = 11110111011111,111111100110011010111
O = 111101011010111,11111010011000100101111
P = 1111010111010111,1111101000011000100101111
Q = 11110100110110111,11110110000100100010101111
R = 111101110101111,111101100100110101111
S = 1111010111010111,11110101001100010000011111
U = 111101011110111,11110101100010101111
W = 11110110111111,11111001011010011111

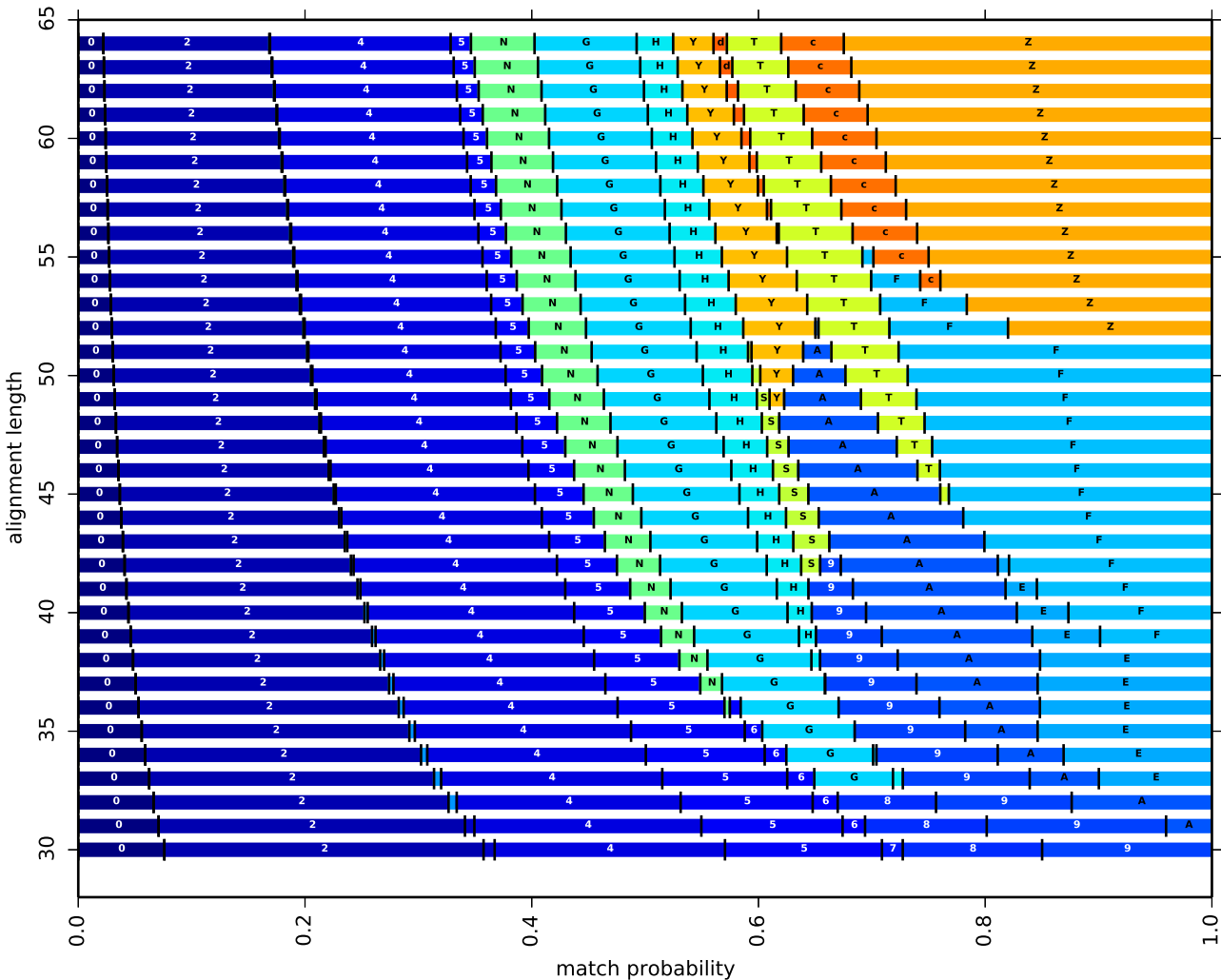
```

```

a = 1110110101111111,11111011101100101111
d = 111101001101101111,111100110000100100010101111
e = 111101001101101111,11110100010000100010011111
f = 1111011011011111,11110100101000100000110011111
g = 1110110111110111,1110110101010011011111
h = 11110101110110111,11110101001100010010011111
i = 1110100111010110111,1111101010000010000100110111
j = 111001011011001111,111110010001000100010001111
k = 1110111101101111,1111100100110101011111
l = 1111011101101111,1111001101001010011111
m = 1111011101101111,11111001001010010011111
n = 1111011101101111,111110100011000100111111
o = 1101110101111111,111101101110010111
p = 1110110101101111,111110011000100101011111
q = 1111010110011010111,111110100010001010010011111
r = 1111101110110111,111110100001010011011111
s = 11110100110110111,111101100010010000100011111
t = 11110100110110111,1110101100010001000101001111
u = 11110101110110111,111110001001100010010011111
v = 111101110110111,111110010010010100111111
w = 111101110101111,11111010011010100111111
x = 111101110101111,1111101000101000011011111
y = 1111011010110111,111110010100011001011111
z = 111101011011001111,111110101000100100001001111
10 = 11111001101011111,1111100110000000010101011111
11 = 111100111011010111,11111001100010000001011111
12 = 111101101011001111,11110110100010000010011111
13 = 1111010110011001111,1111101100001000100010001111
14 = 1101110101111111,11110111110010111
15 = 1111010110011010111,1111010100010001000010011111

```

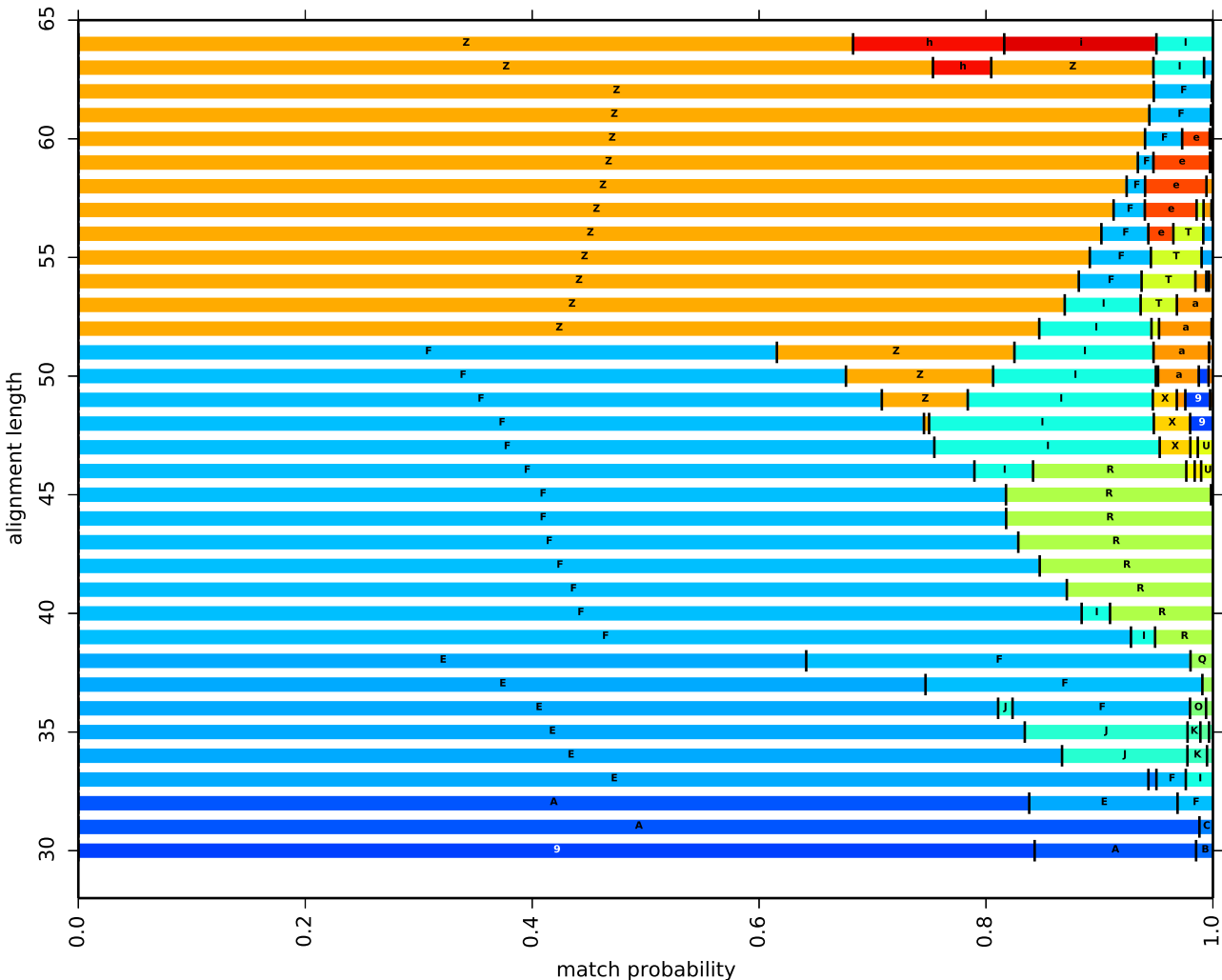

\int_0^x Hit Integration (n:2,w:15)



0 = 1111111111111111,1111110111111111
 2 = 1111011111111111,1111110111011111
 4 = 1110101111111111,1111110101101111
 5 = 1110111110111111,111111010011011111
 6 = 1110111110111111,111110100111011111
 7 = 1111011101111111,111111001011011111
 8 = 1111011011111111,11111010010100111111
 9 = 1111011011101111,1111101001100101101111
 A = 1111011011101111,1111101000101001011111
 E = 1111011011101111,1111101001010001011111

F = 111101101110101111,1111101001000110010101111
 G = 111011111010101111,11110100101011101111
 H = 111011101110101111,11110101000110101111
 N = 1110110111101111,1111111010011101111
 S = 111101101101101111,1111101010010100111111
 T = 111101011101101111,111101001100101001011111
 Y = 1111011101101111,1111100101001010011111
 Z = 111011011010101111,111101010011000100011111
 c = 11101101101011101111,111110100010010010101111
 d = 111101011101101111,111110011001010010111111

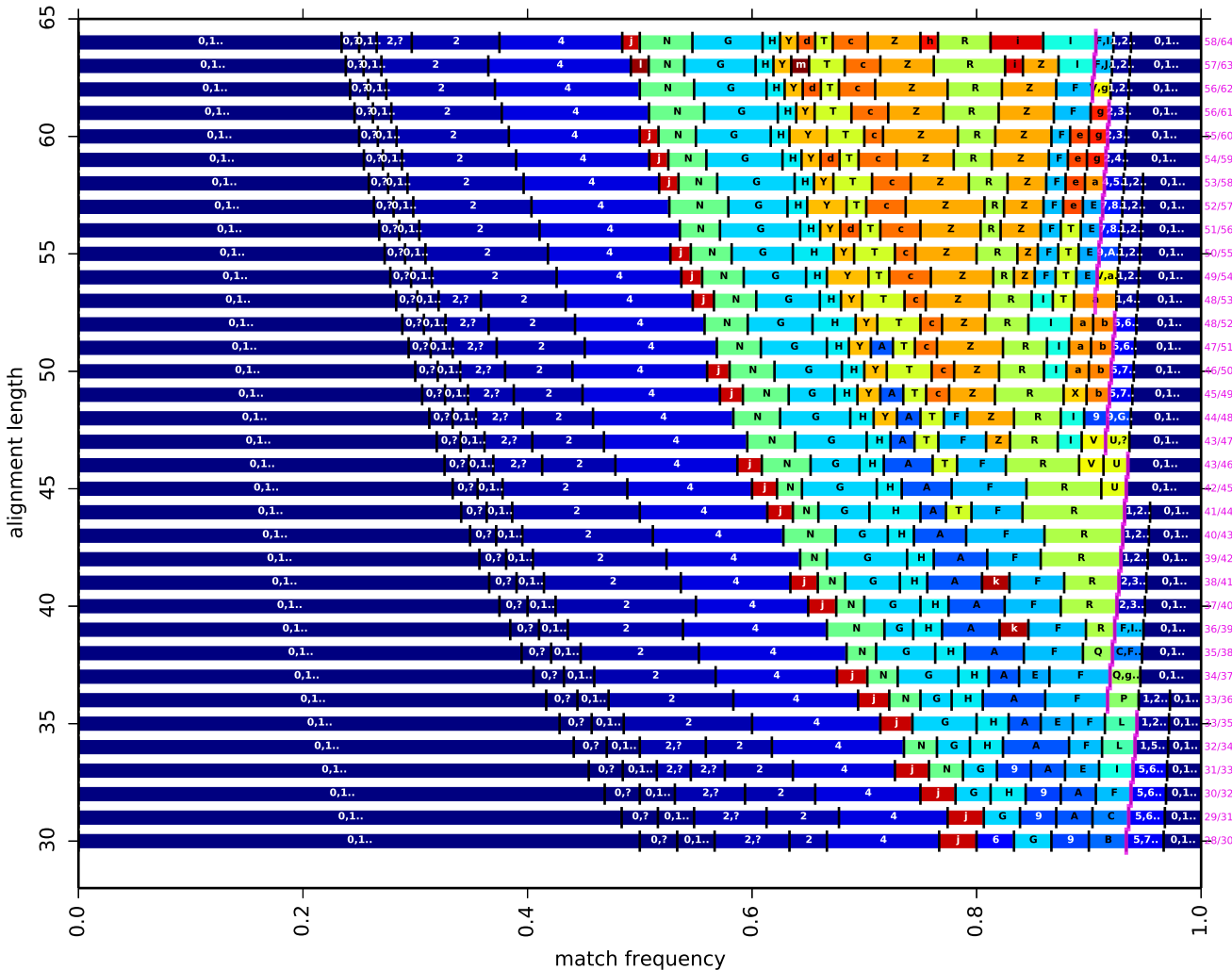
\int_x^1 Hit Integration (n:2,w:15)



9 = 1111011011101111,1111101001100101101111
 A = 1111011011101111,1111101000101001011111
 B = 1111011011101111,111110100100010100111111
 C = 1111011011101111,111110100010010100111111
 E = 1111011011101111,1111101001010001101111
 F = 1111011011101111,1111101001000110010101111
 l = 1111011011101111,11111001001000110010101111
 j = 1111011011101111,1111100010100100101111
 K = 1110111011011111,11111000101001001101111
 O = 11101101101011101111,11111010001100100100011111

Q = 11110110011010101111,1111101000001100001101111
 R = 11110110011010101111,11111010010000110001011111
 T = 1111011011101111,1111101001100101001011111
 U = 1111011011101111,111110101001010001101111
 X = 1111101101101111,11111001010010010001110111
 Z = 11101101110101101111,11110101001100010010011111
 a = 1111011011101111,111110100011010010101111
 e = 111011011011010111,1111100011000110010101111
 h = 11110100110101101111,111101010011001000100101111
 i = 11110110011010101111,1111011010001100001001010111

Dirac (n:2,w:15)



```

0 = 11111111111111111111111111111111
1 = 11111111111111111111111111111111
2 = 11110111111111111111111111111111
3 = 11110111111111111111111111111111
4 = 11110111111111111111111111111111
5 = 11110111111111111111111111111111
6 = 11110111111111111111111111111111
7 = 11110111111111111111111111111111
8 = 11111011111111111111111111111111
9 = 11110111111111111111111111111111
A = 11110111111111111111111111111111
B = 11110111111111111111111111111111
C = 11110111111111111111111111111111
D = 11111011111111111111111111111111
E = 11110111111111111111111111111111
F = 11110111111111111111111111111111
G = 11110111111111111111111111111111
H = 11110111111111111111111111111111
I = 11110111111111111111111111111111
J = 11110111111111111111111111111111
K = 11110111111111111111111111111111
L = 11111011111111111111111111111111
M = 11110111111111111111111111111111
N = 11110111111111111111111111111111
O = 11110111111111111111111111111111

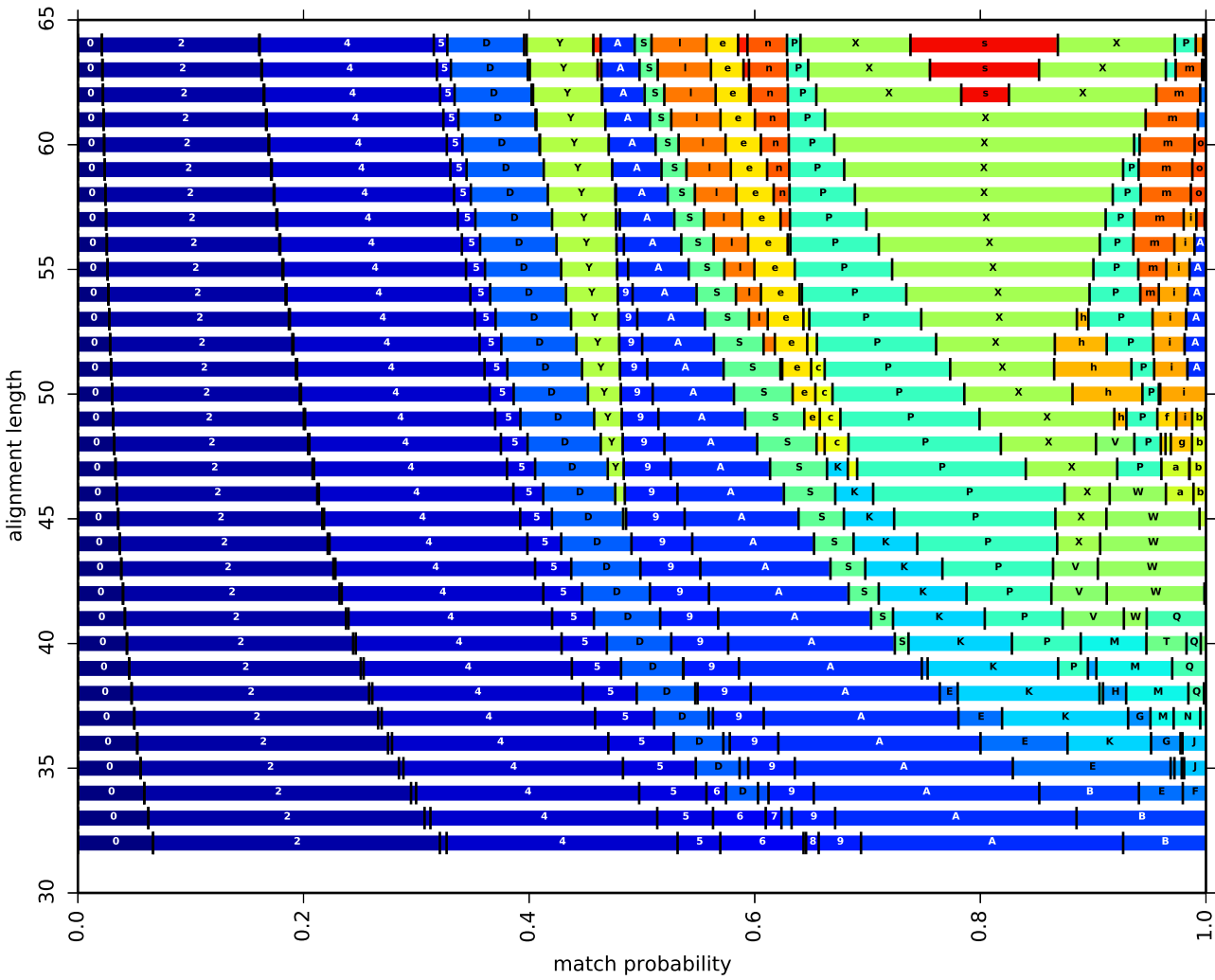
```

```

P = 11111011101101111111111111111111
Q = 11110110011010101111111111111111
R = 11110110011010101111111111111111
S = 11110111011011111111111111111111
T = 11110101110110111111111111111111
U = 11110111011011111111111111111111
V = 11110111011011111111111111111111
W = 11110111011011111111111111111111
X = 11110110111011111111111111111111
Y = 11110111011011111111111111111111
Z = 11110111011011111111111111111111
a = 11110111011011111111111111111111
b = 11110111011011111111111111111111
c = 11110111011011111111111111111111
d = 11110111011011111111111111111111
e = 11110111011011111111111111111111
f = 11110111011011111111111111111111
g = 11110111011011111111111111111111
h = 11110111011011111111111111111111
i = 11110111011011111111111111111111
j = 11110111111011111111111111111111
k = 11110111011011111111111111111111
l = 11110111011011111111111111111111
m = 11110111011011111111111111111111

```


Bernoulli (n:2,w:16)



```

0 = 1111101110111111,1111110111111111
2 = 111101111101111111,1111111011011111
4 = 110111110111111111,111111011110110111
5 = 110111111011111111,11111010011111011111
6 = 110111110111111111,11111100110110111111
7 = 110111111011011111,11111101001101111111
8 = 111101110101111111,11111101101110010111
9 = 111011011101111111,1111101101001100111111
A = 111101101101111111,1111101001100101101111
B = 111101101101111111,111111010001001011011111
D = 110110111110111111,11111110100111101111
E = 111101110110111111,111110001010010110111111
F = 111101110110111111,11111101001100010100111111
G = 11110110110110111111,11111010100110001001011111
H = 11110110110110111111,11111010100100011000111111
J = 11111010111011011111,1111101010011000100010111111
K = 111101110110111111,11111010100100110001111111
M = 11111010110110111111,1111101010001100010010111111
N = 11111010110110111111,1111101010001001001010111111
P = 11110110111011011111,11111010011000101001011111

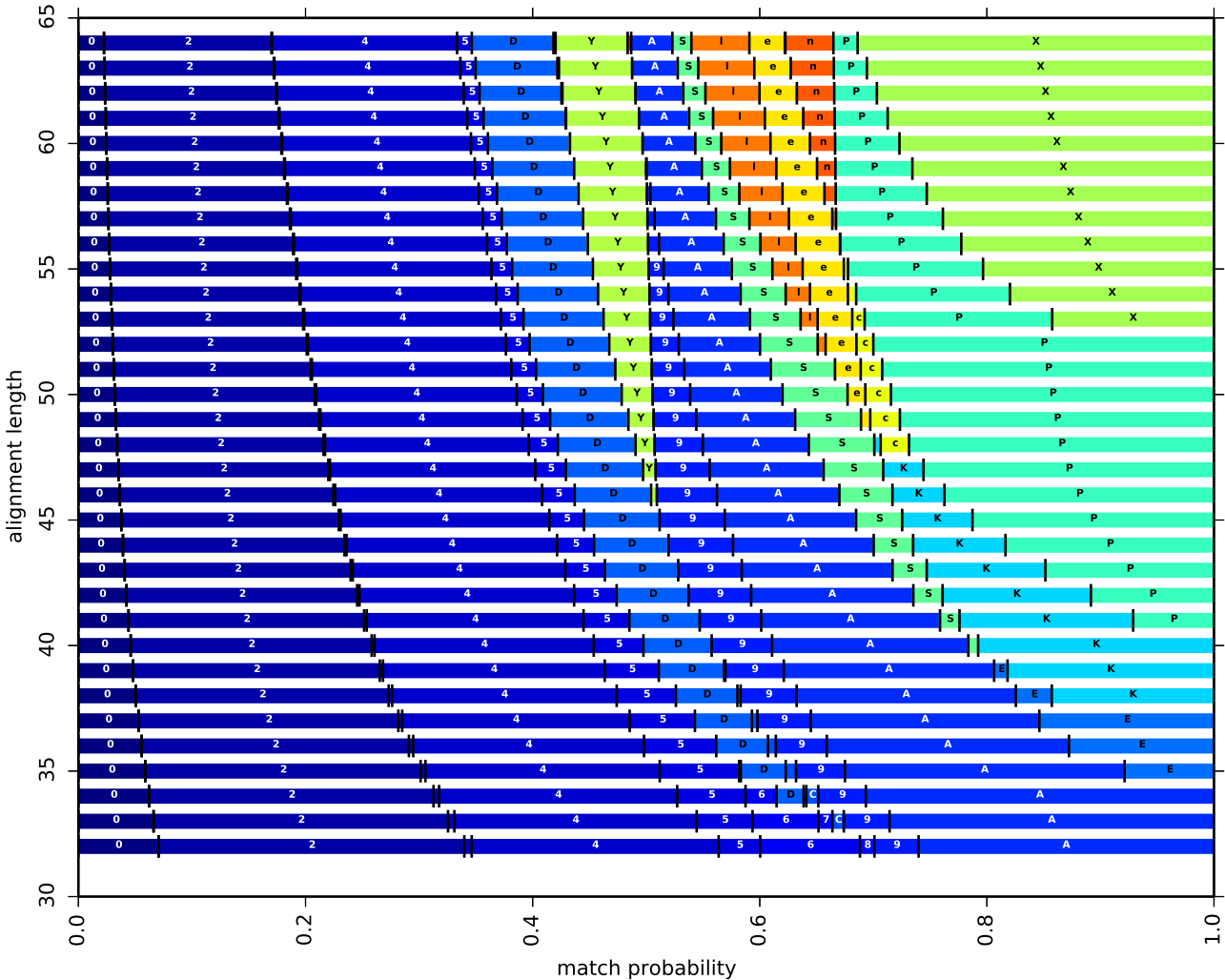
```

```

Q = 11111010110110111111,1111101001100001001010111111
S = 11110111011101111111,111110101000100101111111
T = 11111010110110111111,1111101010011000100001111111
V = 11111010111011011111,1111101001000100100101011111
W = 1101101110101010111111,1111110001000010010101111111
X = 1101101110101010111111,1111110010010001100101011111
Y = 11101111110110111111,111101100110110110111111
a = 11110111101101111111,1111101001010011000101111111
b = 11110111011101111111,1111011010100110001011111111
c = 11110110111011011111,1111110001010011010011111111
e = 11110110111011011111,1111101010001010010111111111
f = 11111011011110111111,111110101010010000110011111111
g = 11110111011101111111,11111001100100101001011111111
h = 11011011101010111111,11111010010010001100101011111111
i = 11110110111011011111,111101010100110001011111111111
l = 11110110111011011111,111110011100101001011111111111
m = 11110110111011011111,11111001010001101001011111111111
n = 11110110110110111111,11111010100010100100111111111111
o = 11110110111011011111,11111000011001010111111111111111
s = 1110110111010100111111,111110100100100011001010111111111111

```

\int_0^x Hit Integration (n:2,w:16)



```

0 = 1111111111111111,1111111011111111
2 = 1111011111111111,11111111011101111
4 = 1110111110111111,1111111011110110111
5 = 1110111111011111,11111110100111101111
6 = 1110111101111111,11111110011101101111
7 = 111011111101101111,11111110100111011111
8 = 1111011010111111,111111101101110010111
9 = 11101101111011111,11111110111010011001111
A = 111101101110111111,111111101001100110101111
C = 111011011111011111,1111111011100110101111
D = 111011011111101111,11111111010011110111

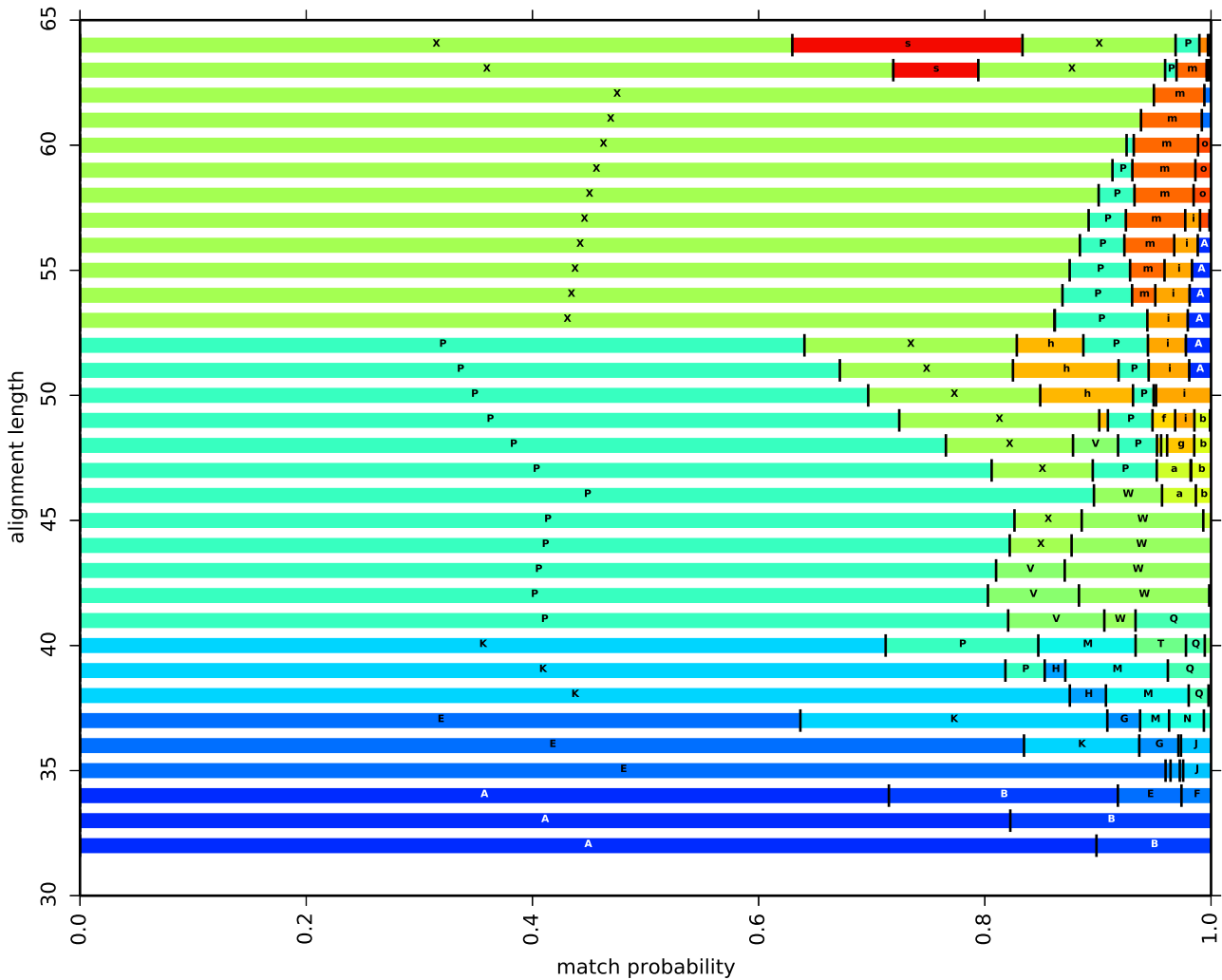
```

```

E = 111101101110111111,111111100010100101101111
K = 111101111011101111,111110101001001100011111
P = 11110110111011101111,11111101001100010100101111
S = 111101101111011111,111110110100011001011111
X = 111011011101101111,111111001001000110010101111
Y = 111011111101101111,1111011010011101101111
c = 11110110111011101111,111111000101001101001111
e = 11110110111011101111,111110101000110100101111
l = 11110110111011101111,11111001110010100101111
n = 11110110111011101111,1111101011000101001001111

```

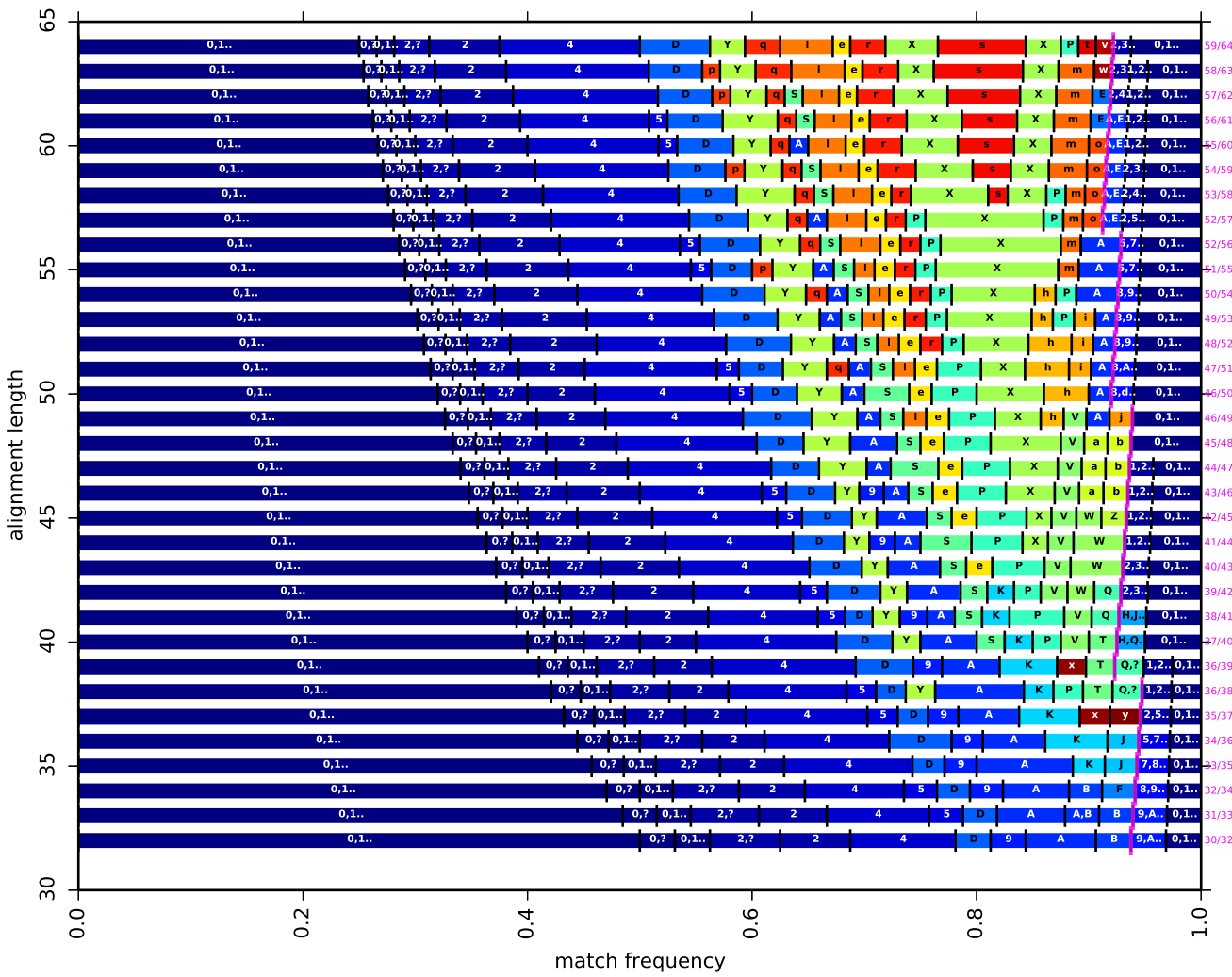
\int_x^1 Hit Integration (n:2,w:16)



A = 111101101110111111,11111101001100101101111
 B = 111101101110111111,11111101000100101101111
 E = 111101110111011111,11111100010100101101111
 F = 111101110111011111,1111110100110001010011111
 G = 111101101110111111,1111011010011000100101111
 H = 111101101110111111,1111011010010001100011111
 J = 111101110111011111,11110110100110001000101111
 K = 111101110111011111,111101101001001100011111
 M = 111101101110111111,11110110100011000100101111
 N = 111101101110111111,1111011000010010010101111
 P = 111101101110111111,111101001100010100101111
 Q = 111101101110111111,1111010011000010010101111
 T = 111101101110111111,11110110100110001000011111

V = 111101101110111111,11111001100010010010101111
 W = 11101101111010111111,11111100011000010010101111
 X = 11101101111010111111,11111001001000110010101111
 a = 111101110111011111,1111101001010011000101111
 b = 111101110111011111,111101101010011000101111
 f = 111101101111011111,11111010101001000011001111
 g = 111101110111011111,1111100110010010100101111
 h = 111011011101011111,111101001001000110010101111
 i = 111101101111011111,111101011010011000101111
 m = 111101101111011111,1111100101000110100101111
 o = 111101110111011111,1111100001100101101111
 s = 1110110111010110011111,1111101001001000110010101111

Dirac (n:2,w:16)



```

0 = 1111111111111111,1111111011111111
1 = 1111111111111111,1111101110111111
2 = 1111011111111111,1111111011101111
3 = 1111011111111111,1111111011011111
4 = 1110111110111111,1111111011101111
5 = 1110111110111111,111111001111101111
6 = 1110111101111111,1111101001101111
7 = 1110111110110111,1111101001101111
8 = 1111011011111111,111111011011100111
9 = 1110110111011111,111110110100110011
A = 1111011011011111,11111010011001010111
B = 1111011011011111,11111010001001010111
C = 1110110111101111,1111110110011010111
D = 1110110111101111,111111011001110111
E = 1111011011011111,11111000101001010111
F = 1111011010110111,1111101001000101001111
H = 1111101010110111,1111101001000100011111
J = 1111010111010111,11111010011000100010111
K = 1111011101101111,1111101001000100011111
L = 1111010110110111,1111101000100101010111
P = 1111010110110111,11111010010001010010111
Q = 1111010110110111,11111010011000100101111
S = 1111011011101111,1111101101000100101111
T = 1111010110110111,11111010100110001000011111
V = 1111010110110111,1111100110001001001011101
W = 111011011010110111,1111100011000010010101111
X = 1110110111010110111,1111110010010001100101111

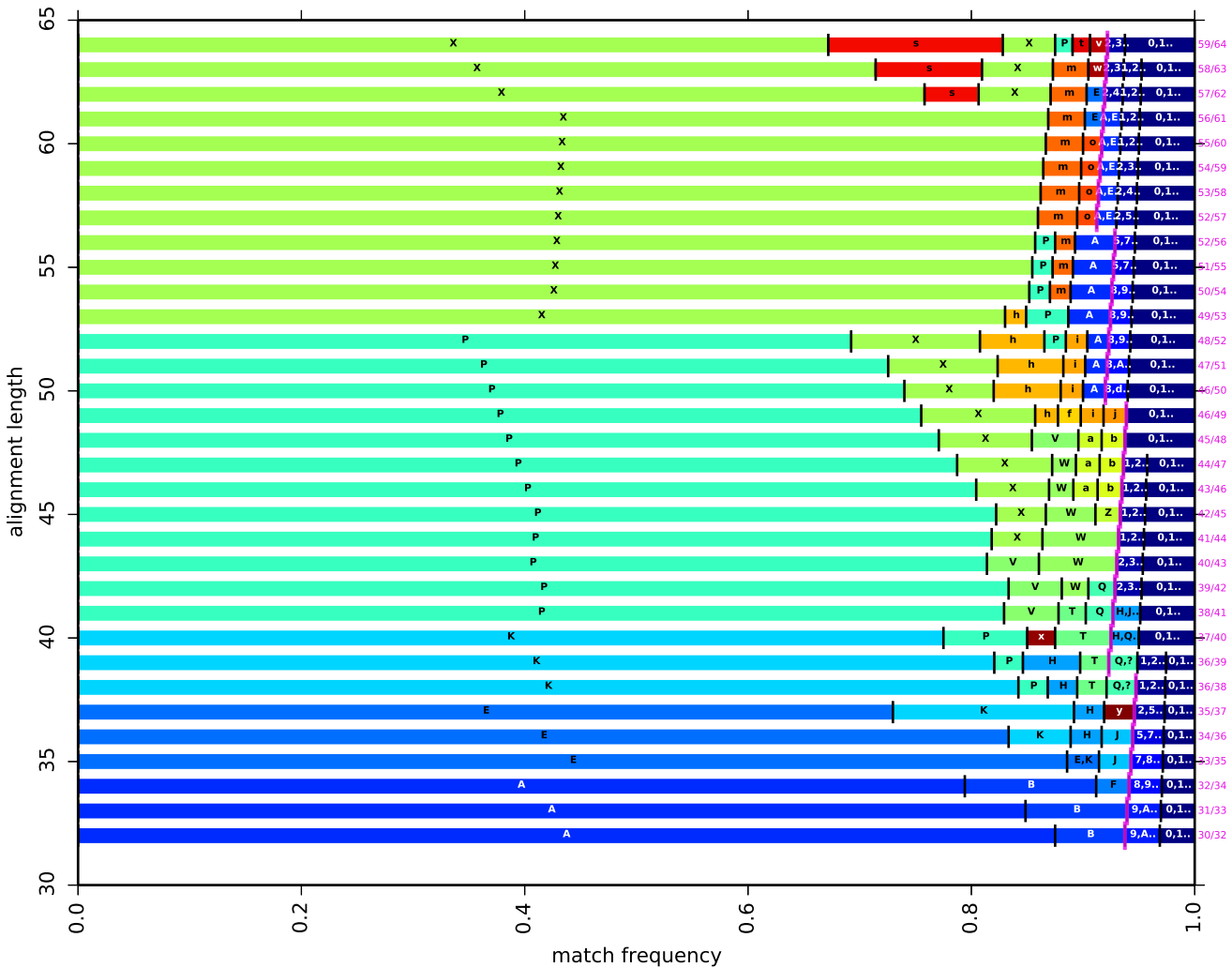
```

```

Y = 111011111110110111,11111010011011011111
Z = 1111101111101111,1111101000100010101111
a = 1111011101101111,11111010010100110001011111
b = 1111011011101111,11110110100110001011111
c = 111101101110110111,111110001010011010011111
d = 1111011011101111,111110100100100010111111
e = 1110110110110111,111110101000110100101111
f = 1111011011101111,111110101001000100011111
g = 1111011101101111,1111100110010010100101111
h = 11101101110110111,111110100100100011001010111
i = 1111011011101111,11110110100110001011111
j = 1111011011101111,111110100110101101100111
k = 11110110110110111,11110110001010010010111011
l = 11110110110110111,11111001100101001011111
m = 11110110110110111,11111010100010100010101111
n = 11110110110110111,11111010010001010010011111
o = 1111011011101111,111110000100101101101111
p = 11101101111110111,111111101001011011011
q = 111010111111011011,1111101010001110110111
r = 111101101110110111,1111101000101001010011111
s = 1110110110101100111,11111010010001000100101111
t = 111101101110110111,1111110001010010010100111
u = 111101101110110111,1111011000101001001011111
v = 11110110110110111,111110101001010000111111
w = 1111011011101111,111110001010010101101101
x = 1111010110110111,1111101000100001001011111
y = 1111011101101111,11111000001001011011111

```


$$\sum_x \text{Heaviside}(n;2,w;16)$$



```

0 = 11111111111111111111111111111111
1 = 11111111111111111111111111111111
2 = 11110111111111111111111111111111
3 = 11110111111111111111111111111111
4 = 11101111101111111111111111111111
5 = 11101111101111111111111111111111
6 = 11101111101111111111111111111111
7 = 11101111101101111111111111111111
8 = 11101111101111111111111111111111
9 = 11101111101111111111111111111111
A = 11101111101101111111111111111111
B = 11110111011101111111111111111111
C = 11101101111011111111111111111111
D = 11101101111101111111111111111111
E = 11110111011101111111111111111111
F = 11110111011101111111111111111111
H = 11111011011101111111111111111111
j = 11111011101101111111111111111111
K = 11110111101101111111111111111111
L = 11111011011101111111111111111111
P = 11110111011101111111111111111111
Q = 11111011011101111111111111111111
S = 11110111011101111111111111111111
T = 11111011011101111111111111111111
V = 11111011011101111111111111111111
W = 11101101110110111111111111111111
X = 11101101110110111111111111111111

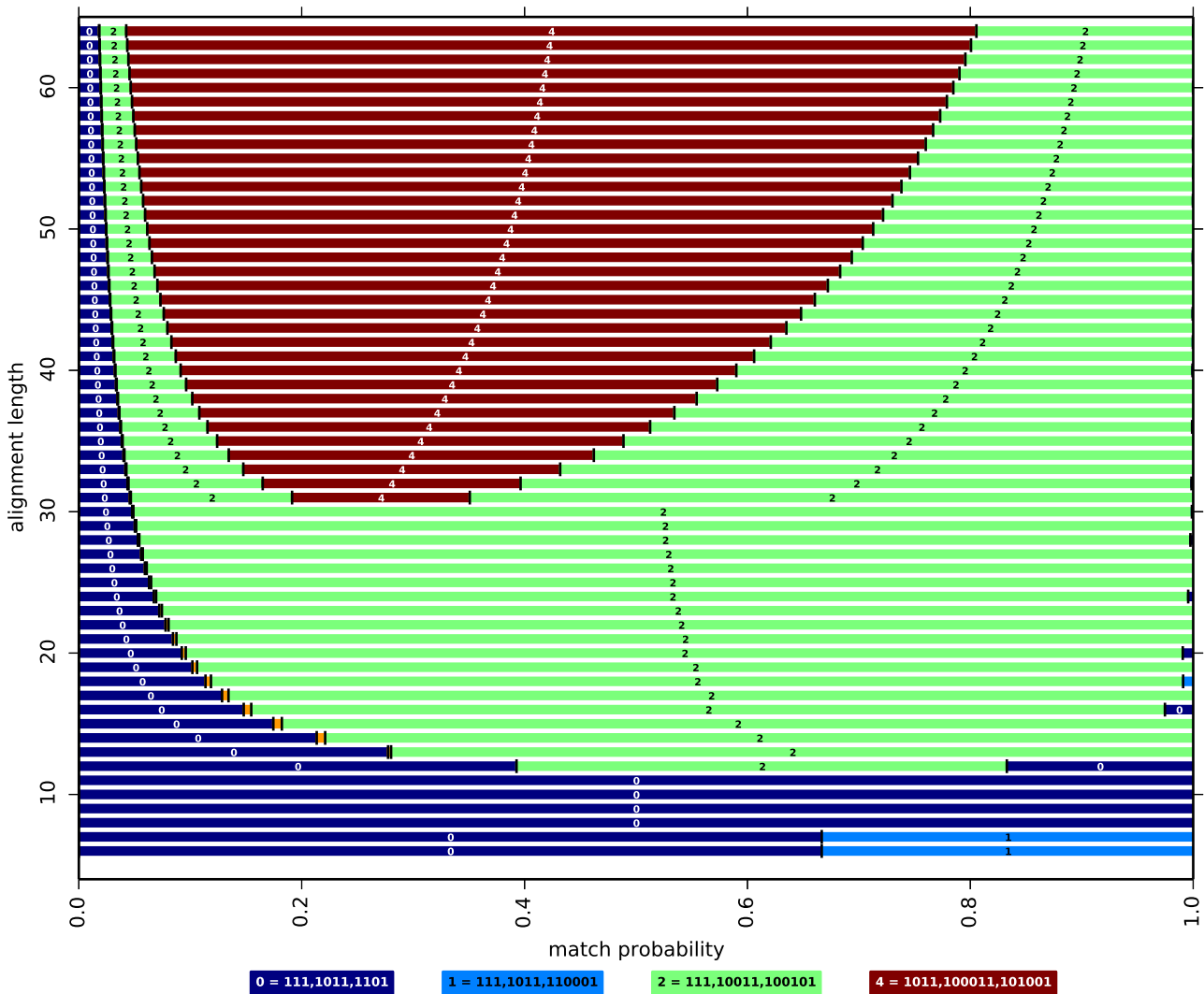
```

```

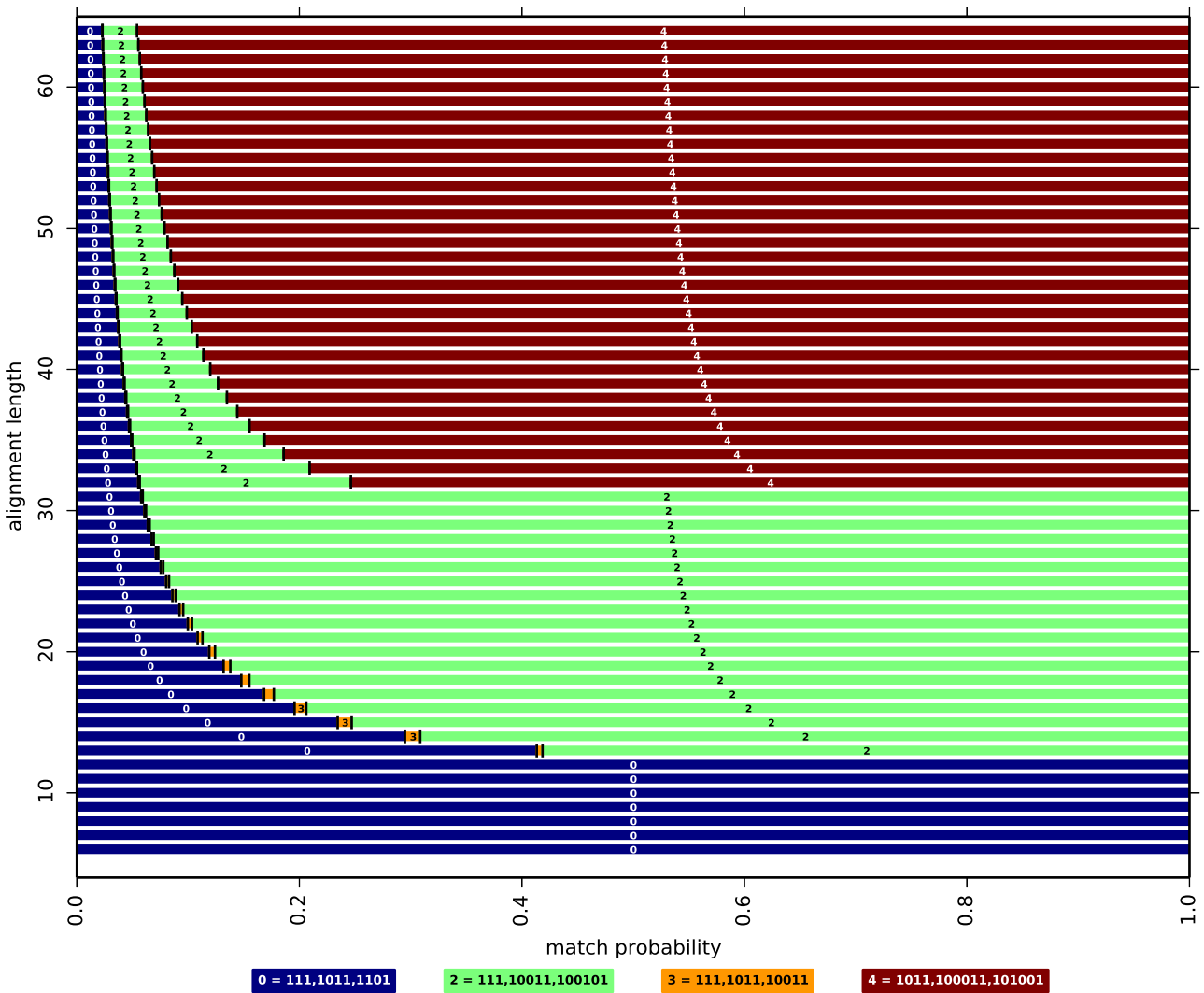
Y = 11101111111101101111111111111111
Z = 11111011111101111111111111111111
a = 11110111111101111111111111111111
b = 11110111011101111111111111111111
c = 11110111011101111111111111111111
d = 11110111011101111111111111111111
e = 11110111011101111111111111111111
f = 11110111011101111111111111111111
g = 11110111011101111111111111111111
h = 11110111011101111111111111111111
i = 11110111011101111111111111111111
j = 11110111011101111111111111111111
k = 11110111011101111111111111111111
l = 11110111011101111111111111111111
m = 11110111011101111111111111111111
n = 11110111011101111111111111111111
o = 11110111011101111111111111111111
p = 11101101111111011111111111111111
q = 11101011111111011111111111111111
r = 11110111011101111111111111111111
s = 11101101110111001111111111111111
t = 11110111011101111111111111111111
u = 11110111011101111111111111111111
v = 11110111011101111111111111111111
w = 11110111011101111111111111111111
x = 11110111011101111111111111111111
y = 11110111011101111111111111111111

```

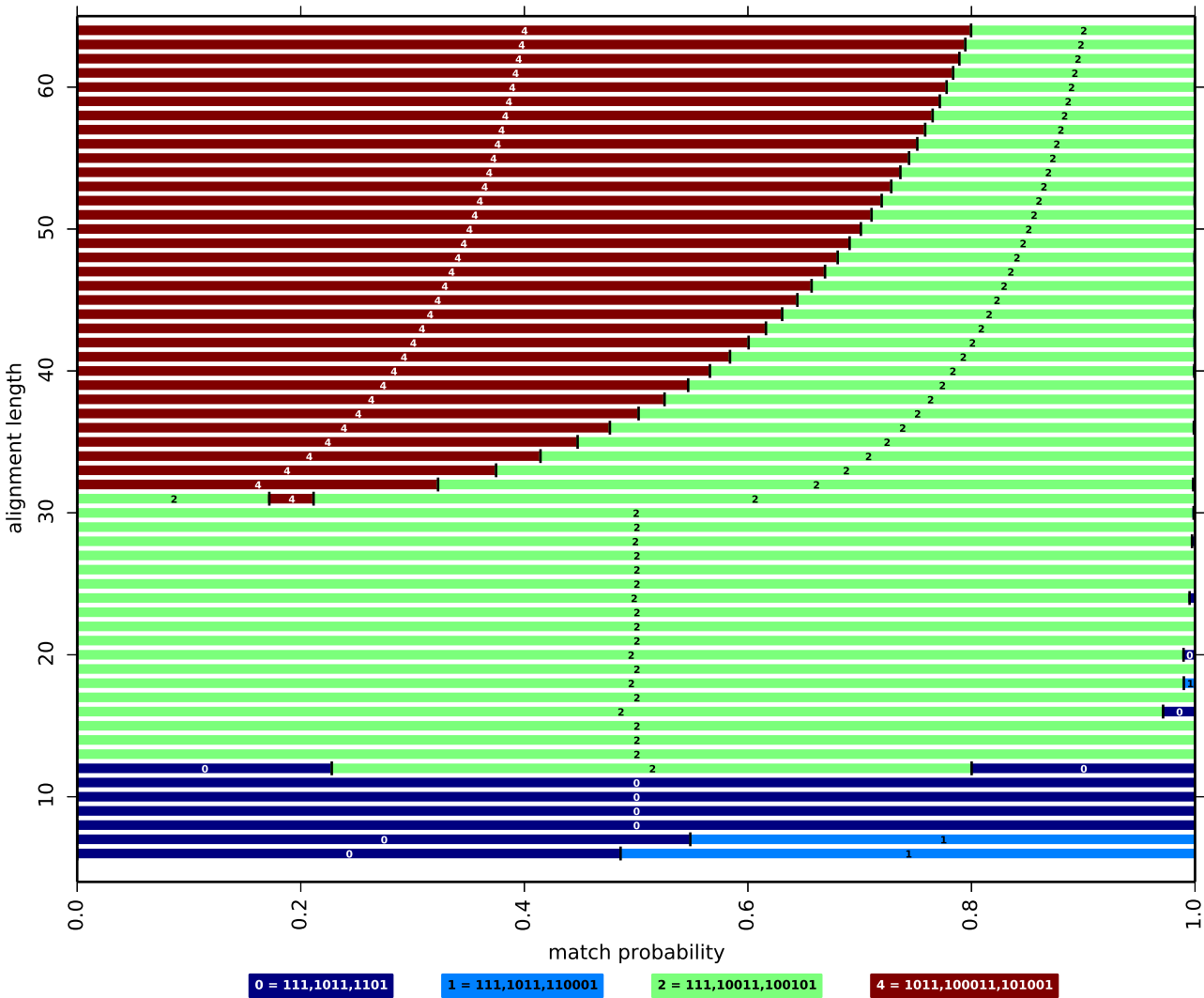
Bernoulli (n:3,w:3)



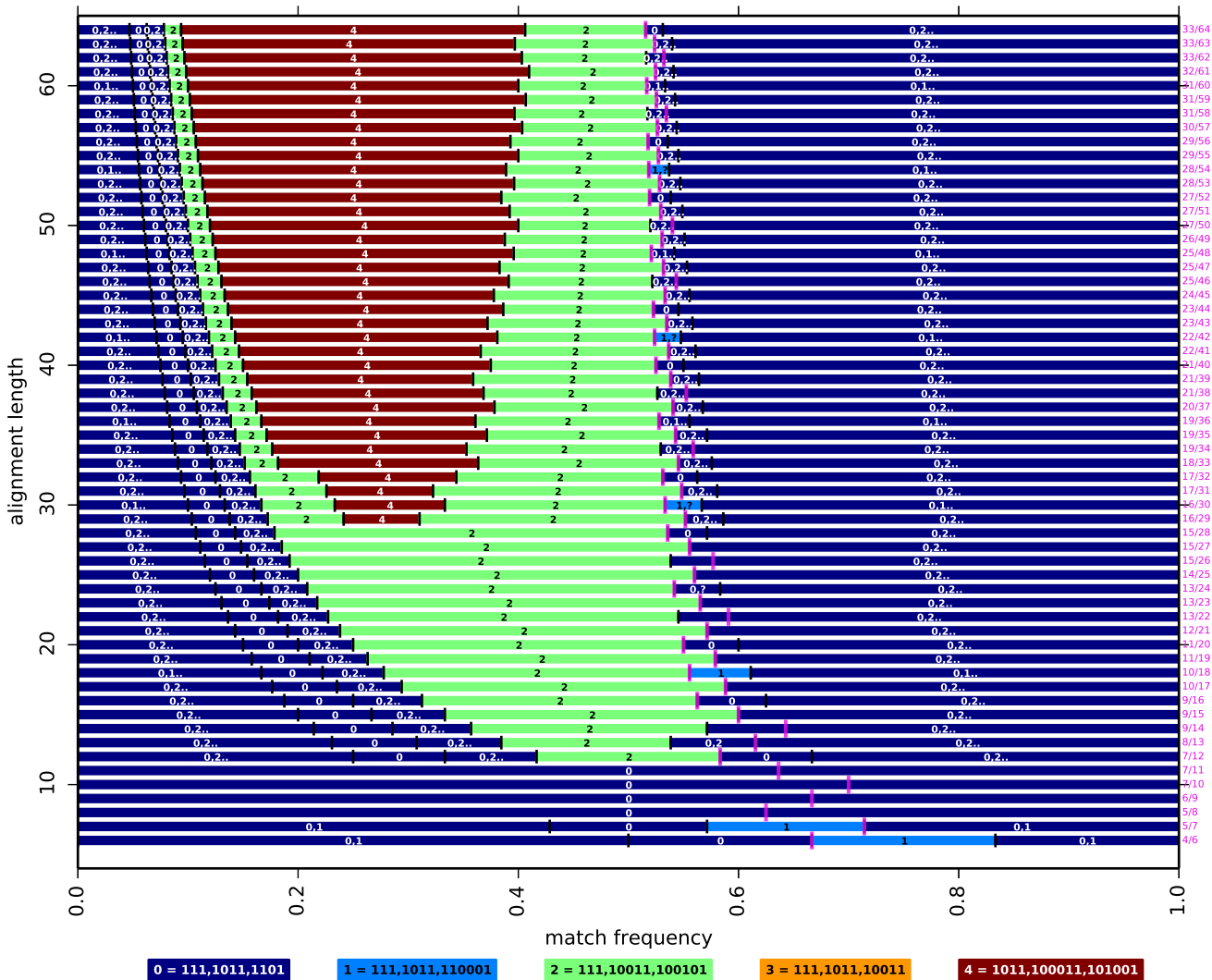
\int_0^x Hit Integration (n:3,w:3)



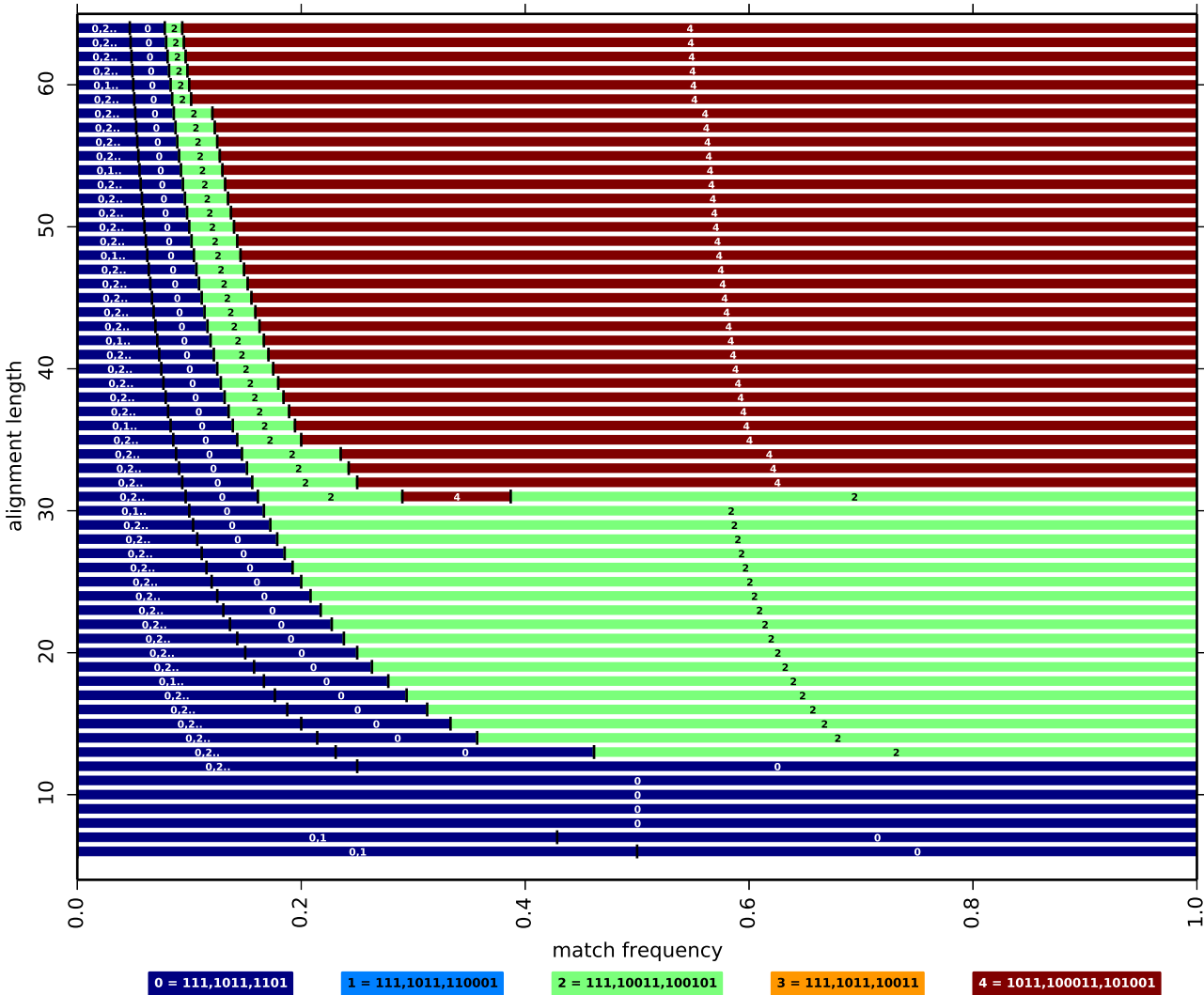
\int_x^1 Hit Integration (n:3,w:3)



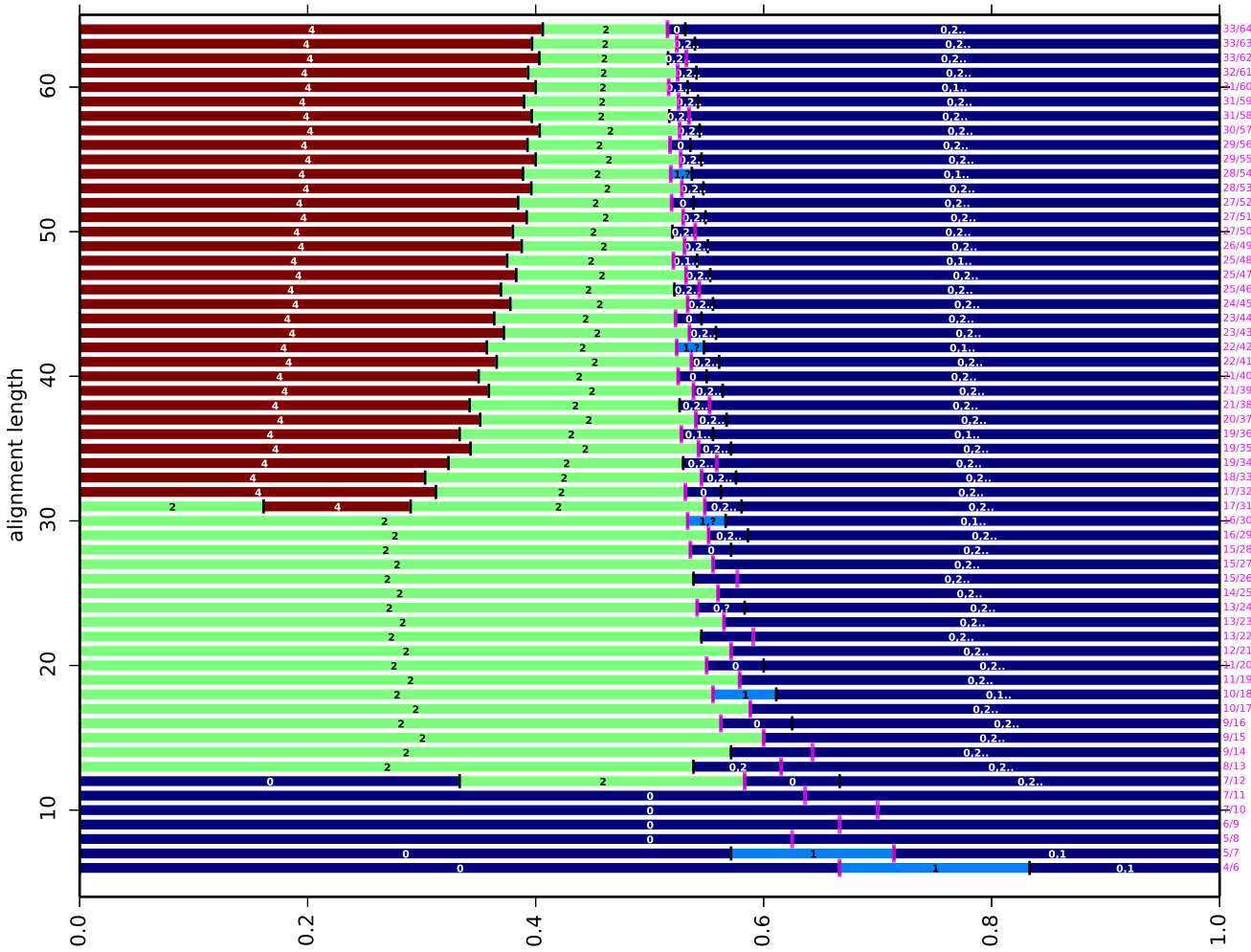
Dirac (n:3,w:3)



$$\sum_0^x \text{Heaviside}(n:3,w:3)$$



$$\sum_x^1 \text{Heaviside}(n:3,w:3)$$



0 = 111,1011,1101

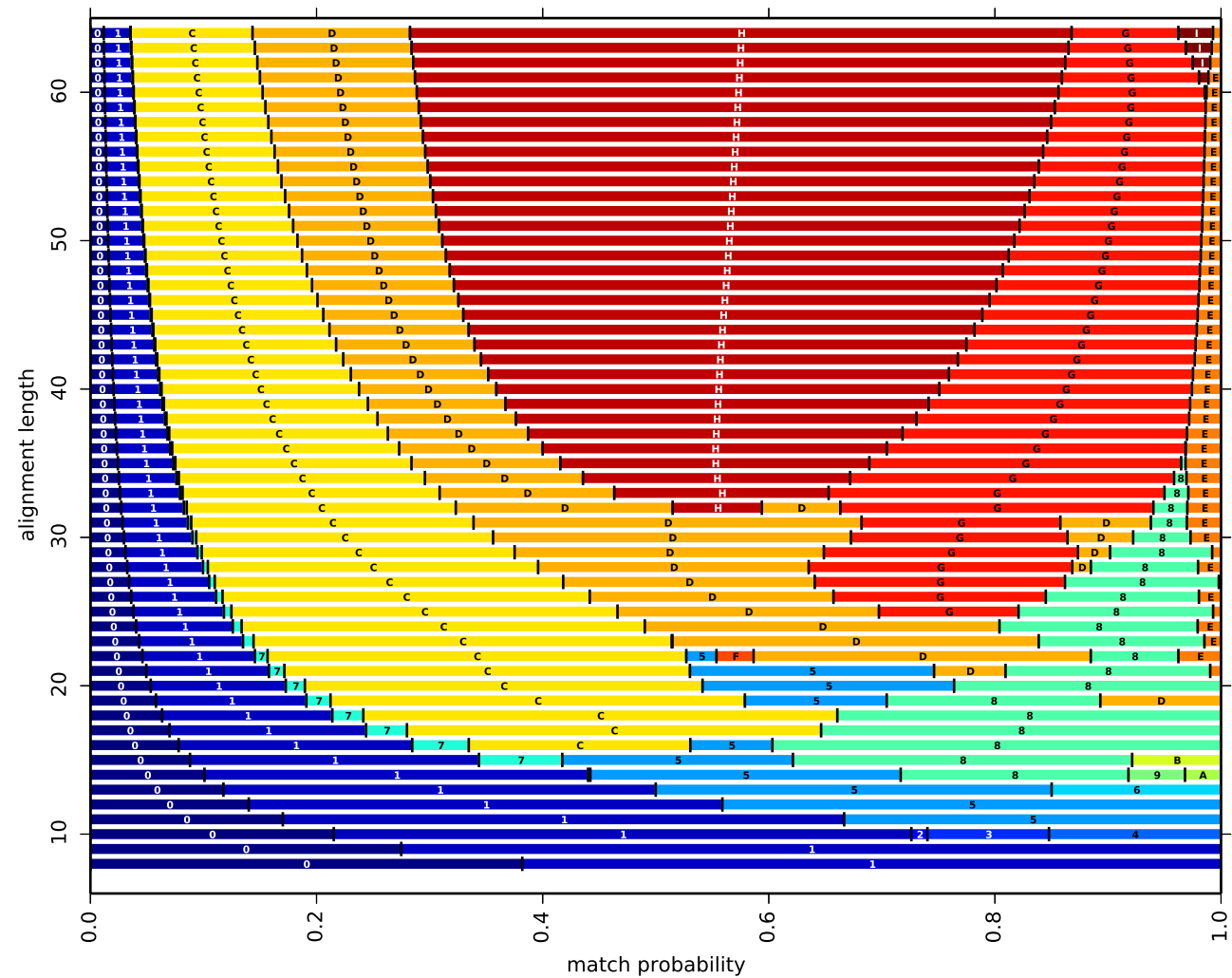
1 = 111,1011,110001

2 = 111,10011,100101

3 = 111,1011,10011

4 = 1011,100011,101001

Bernoulli (n:3,w:4)



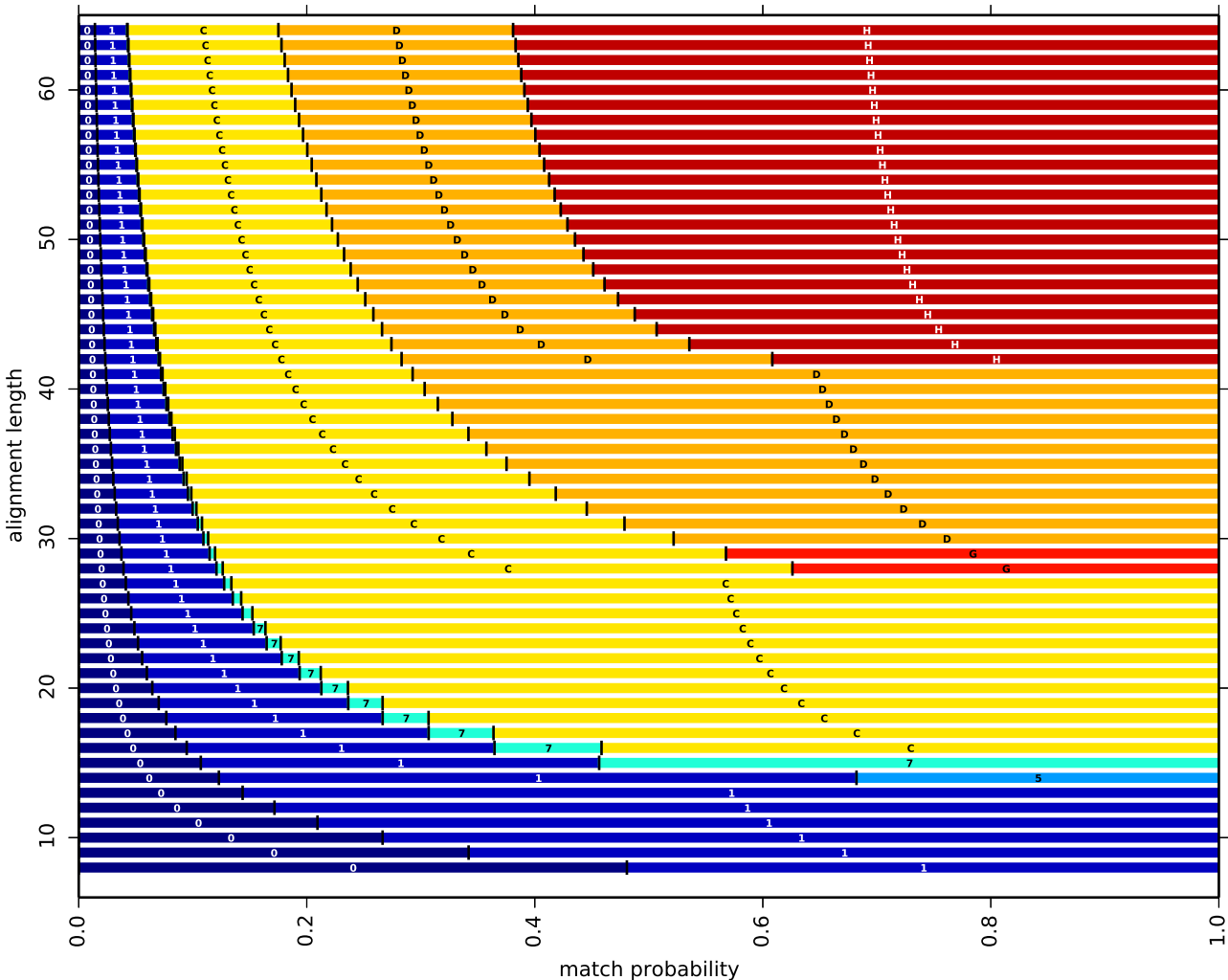
0 = 1111,10111,11011
1 = 1111,11011,1100011
2 = 1111,110011,1001011
3 = 11011,101011,11000011
4 = 11011,1010101,11000011

5 = 10111,1100011,11010001
6 = 1111,1010011,11001001
7 = 10111,101101,1100011
8 = 10111,101101,10100011
9 = 1111,110011,1010011

A = 10111,111001,1100101
B = 10111,111001,1001011
C = 10111,1101001,11000101
D = 10111,10010101,11000011
E = 10111,101011,10000111

F = 10111,1101001,10100011
G = 11011,1000111,10010101
H = 101011,1110001,11001001
I = 101011,10000111,10011001

\int_0^x Hit Integration (n:3,w:4)



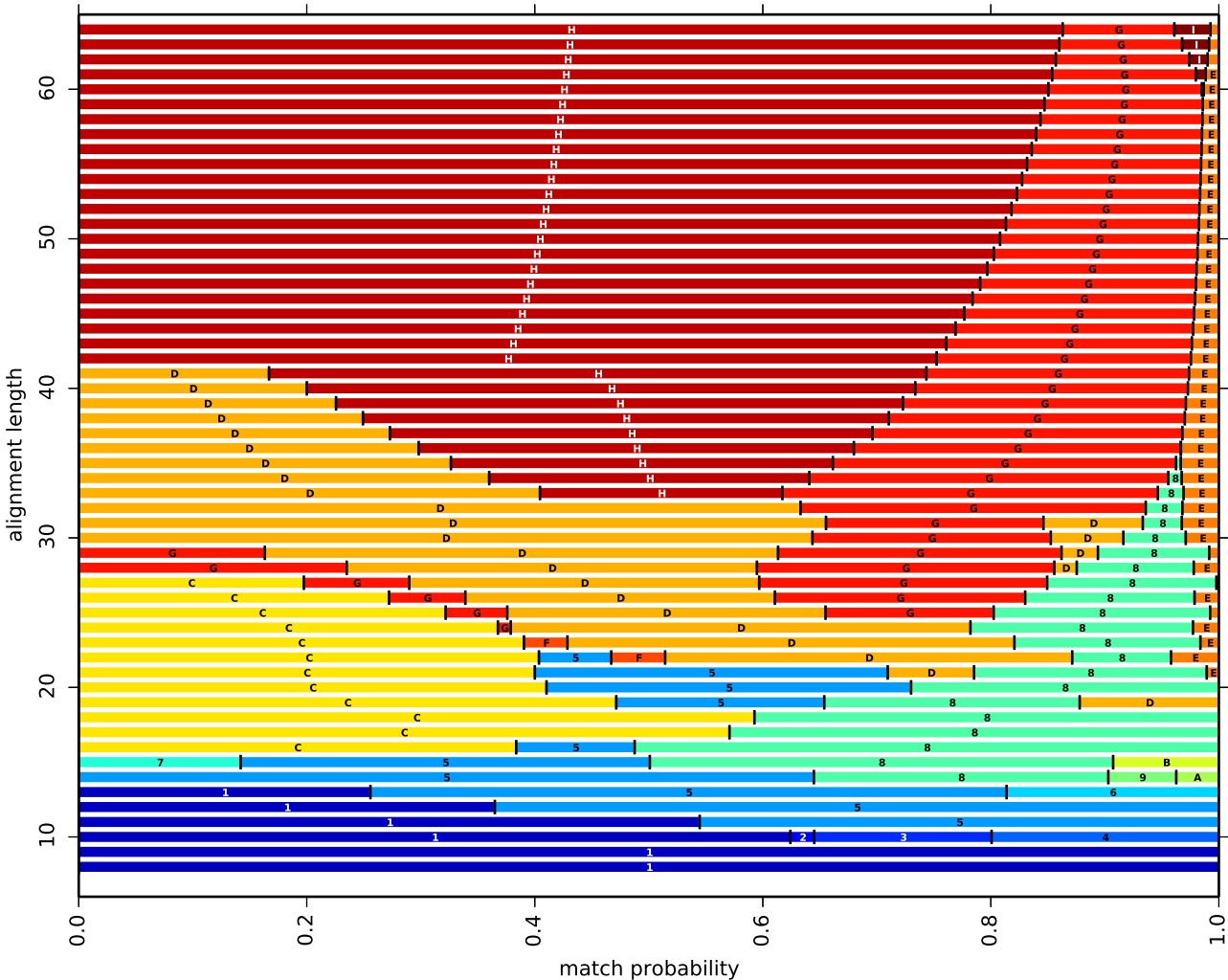
0 = 1111,10111,11011
1 = 1111,11011,1100011

5 = 10111,1100011,11010001
7 = 10111,101101,1100011

C = 10111,1101001,11000101
D = 11011,10010101,11000011

G = 11011,1000111,10010101
H = 101011,1110001,11001001

\int_x^1 Hit Integration (n:3,w:4)



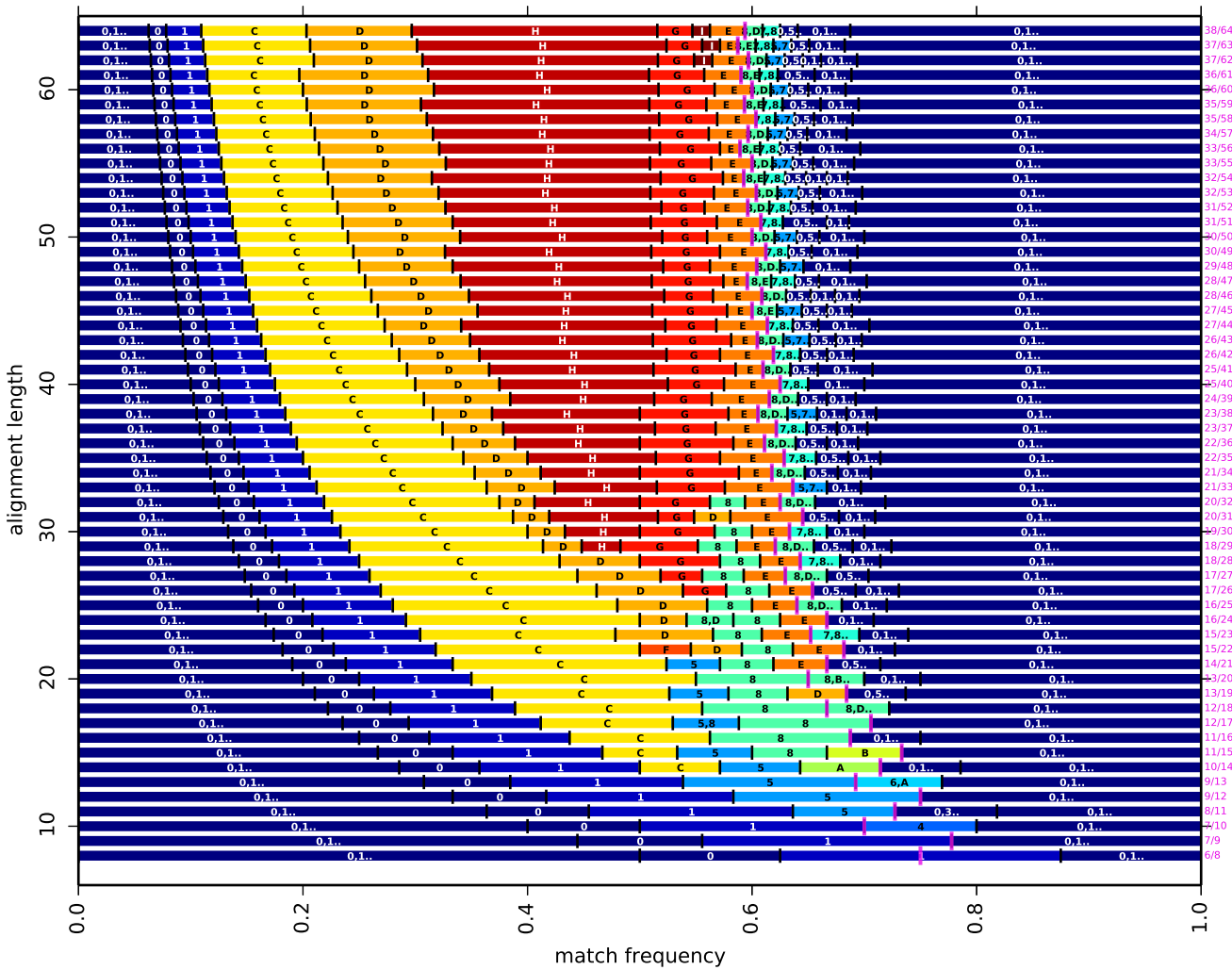
1 = 1111,11011,1100011
2 = 1111,110011,1001011
3 = 11011,101011,11000011
4 = 11011,1010101,11000011
5 = 10111,1100011,11010001

6 = 1111,1010011,11001001
7 = 10111,101101,1100011
8 = 10111,101101,10100011
9 = 1111,110011,1010011
A = 10111,111001,1100101

B = 10111,111001,1001011
C = 10111,1101001,11000101
D = 11011,10010101,11000011
E = 11011,101011,10000111

F = 10111,1101001,10100011
G = 11011,1000111,10010101
H = 101011,1110001,11001001
I = 101011,10000111,10011001

Dirac (n:3,w:4)



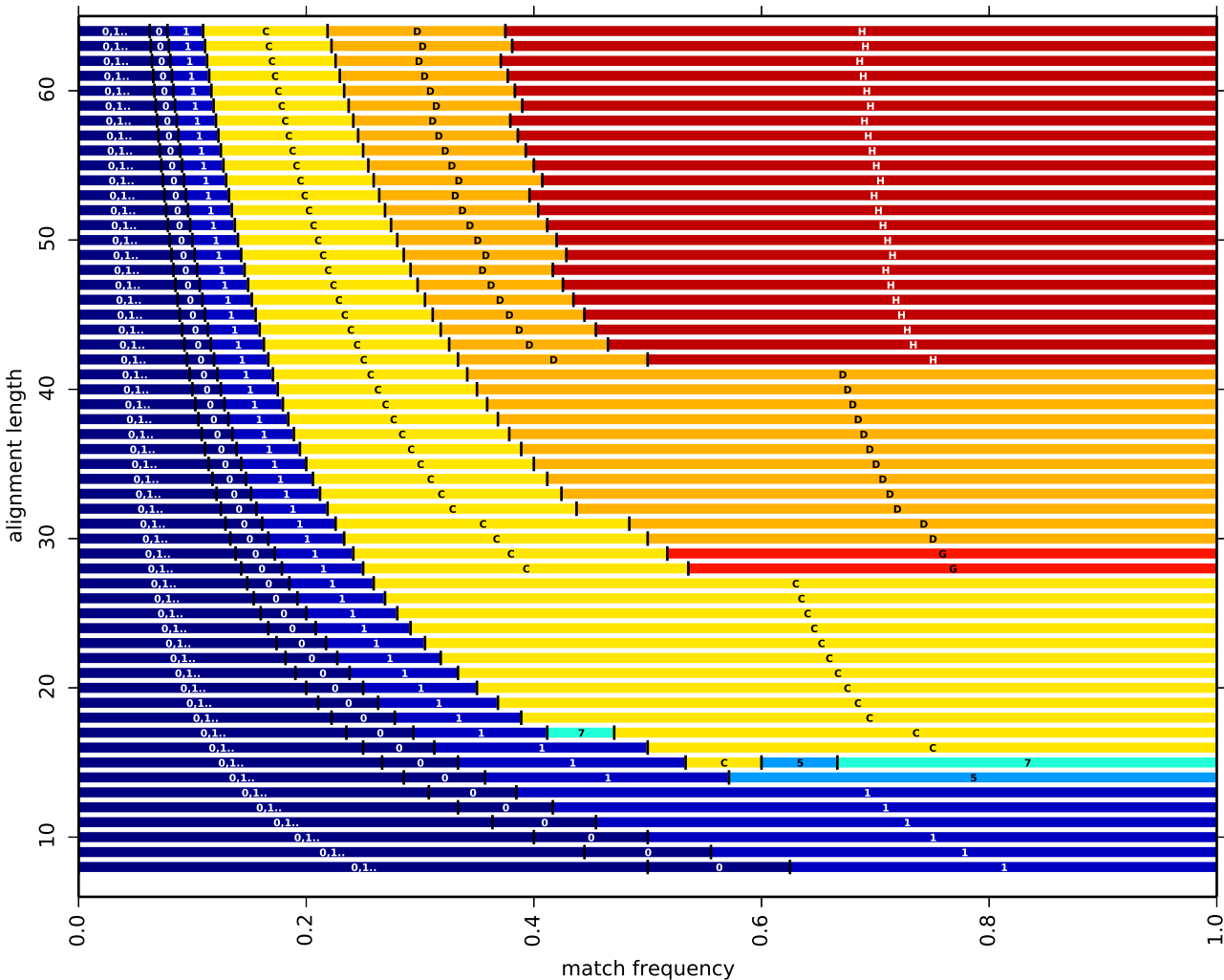
0 = 1111,10111,11011
1 = 1111,11011,1100011
2 = 1111,110011,1100111
3 = 11011,101011,11000011
4 = 11011,1010101,11000011

5 = 10111,1100011,11010001
6 = 1111,1010011,11001001
7 = 10111,101101,1100011
8 = 10111,101101,10100011
9 = 1111,110011,1010011

A = 10111,111001,1100101
B = 10111,111001,1001011
C = 10111,1101001,11000101
D = 11011,10010101,11000011
E = 11011,101011,10000111

F = 10111,1101001,10100011
G = 11011,1000111,10010101
H = 101011,1110001,11001001
I = 101011,10000111,10011001

$$\sum_0^x \text{Heaviside}(n:3,w:4)$$



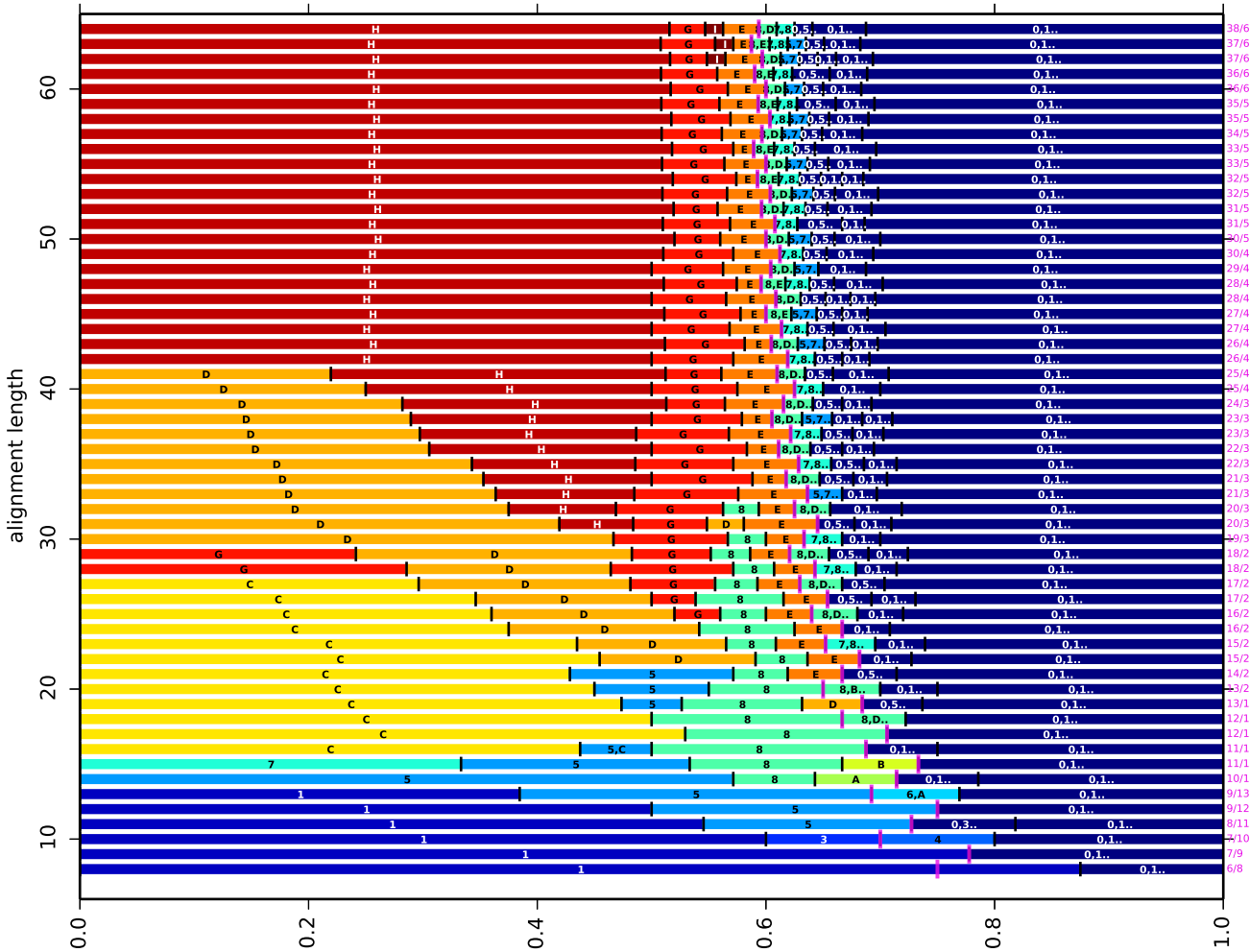
0 = 1111,10111,11011
1 = 1111,11011,1100011
2 = 1111,110011,1001011
3 = 11011,101011,11000011
4 = 11011,1010101,11000011

5 = 10111,1100011,11010001
6 = 1111,1010011,11001001
7 = 10111,101101,1100011
8 = 10111,101101,10100011
9 = 1111,110011,1010011

A = 10111,1111001,11001011
B = 10111,1111001,1001011
C = 10111,1101001,11000101
D = 10111,10010101,11000011
E = 10111,101011,10000111

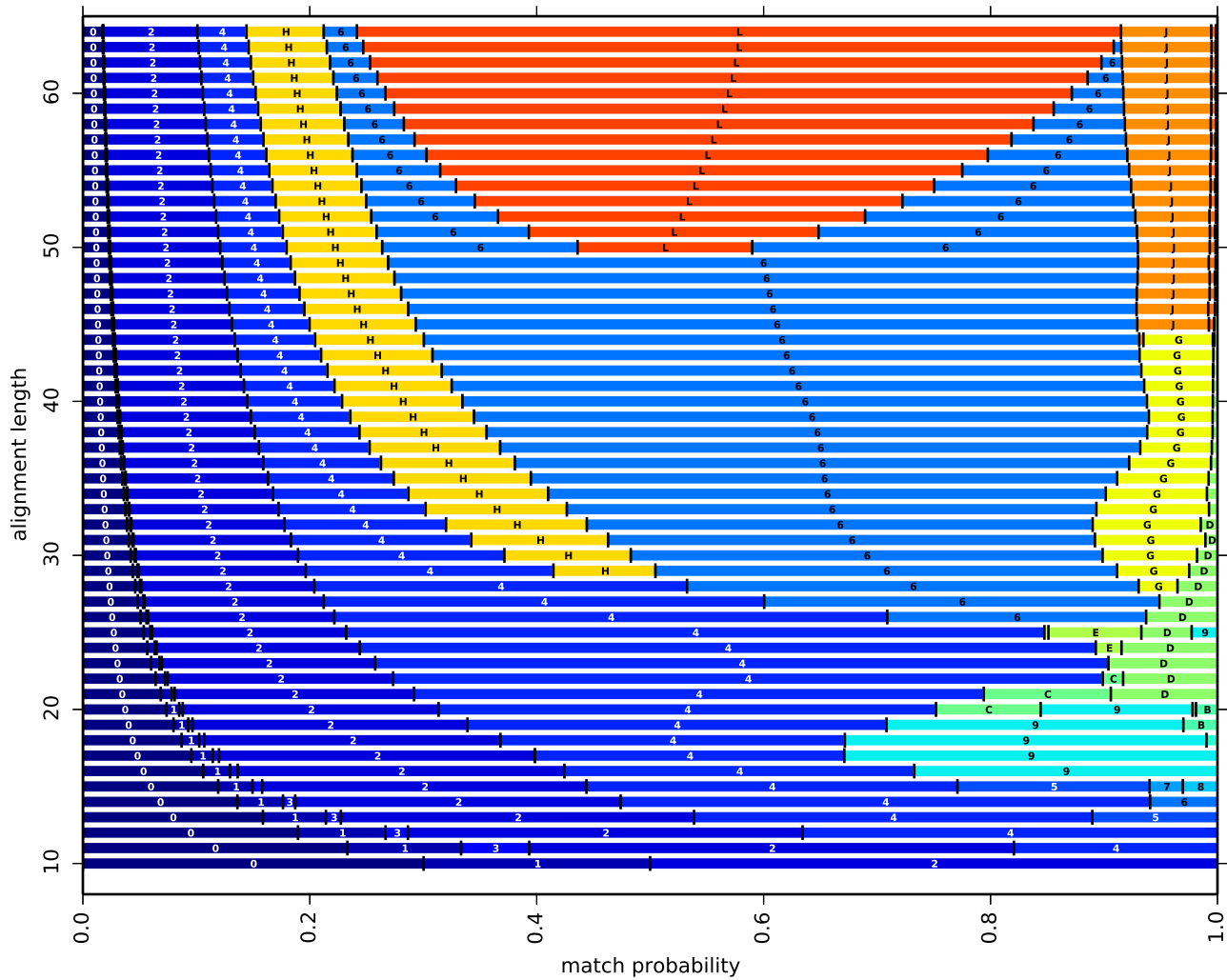
F = 10111,1101001,10100011
G = 11011,1000111,10010101
H = 101011,1110001,11001001
I = 101011,10000111,10011001

$$\sum_x^1 \text{Heaviside}(n:3,w:4)$$



- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> 0 = 1111,10111,11011 1 = 1111,11011,1100011 2 = 1111,110011,1001011 3 = 11011,101011,11000011 4 = 11011,1010101,11000011 | <ul style="list-style-type: none"> 5 = 10111,1100011,11010001 6 = 1111,1010011,11001001 7 = 10111,101101,1100011 8 = 10111,101101,10100011 9 = 1111,110011,1010011 | <ul style="list-style-type: none"> A = 10111,111001,1100101 B = 10111,111001,1001011 C = 10111,1101001,11000101 D = 11011,10010101,11000011 E = 11011,101011,10000111 | <ul style="list-style-type: none"> F = 10111,1101001,10100011 G = 11011,1000111,10010101 H = 101011,1110001,11001001 I = 101011,10000111,10011001 |
|--|---|--|---|

Bernoulli (n:3,w:5)



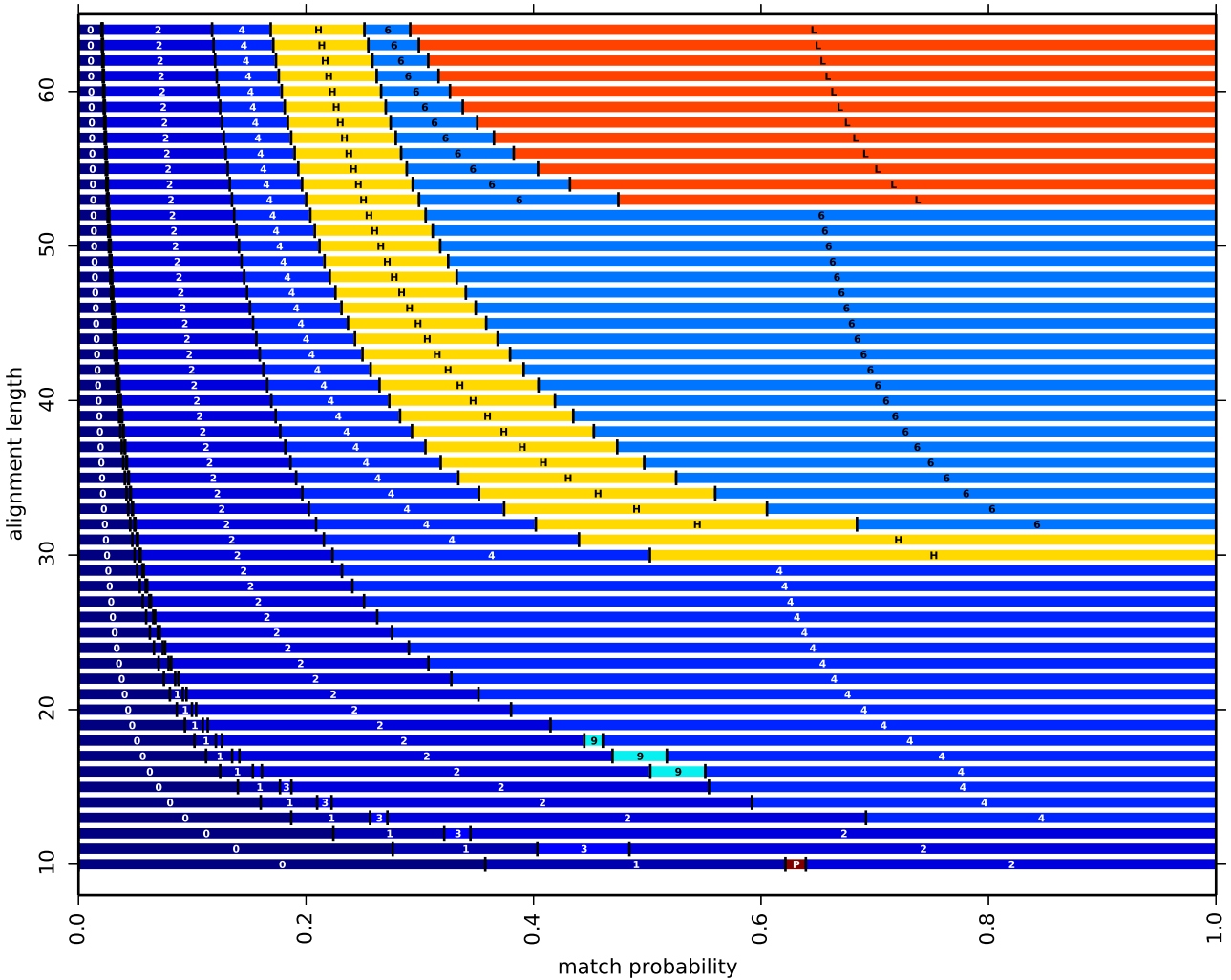
0 = 11111,101111,111011
 1 = 11111,110111,1101011
 2 = 101111,1110011,11001011
 3 = 11111,1100111,1101011
 4 = 110111,11001011,110100011

5 = 110111,11001011,1101000011
 6 = 1101011,1010001011,1100100011
 7 = 110111,111000101,1001000111
 8 = 110111,1001000111,1110001001
 9 = 101111,1110101,11001101

B = 11111,1101011,110001011
 C = 110111,11010011,110010101
 D = 110111,11010011,1010001011
 E = 110111,101000111,1101001001

G = 110111,110100101,111010001
 H = 1101011,101000111,110010011
 J = 1100111,100010111,101001011
 L = 10010111,1100011001,1101000101

\int_0^x Hit Integration (n:3,w:5)



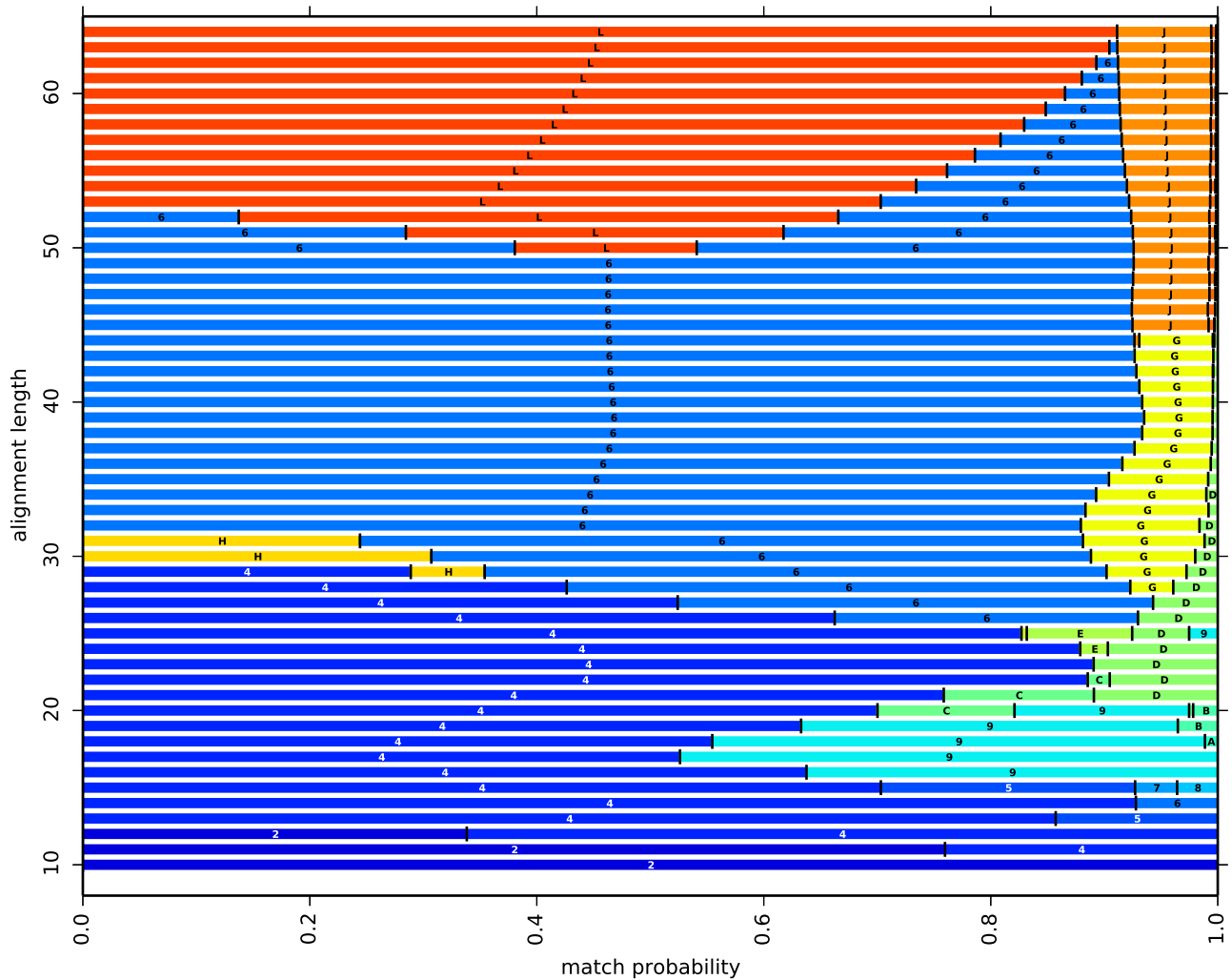
0 = 11111,101111,111011
 1 = 11111,110111,1101011
 2 = 101111,1110011,11001011

3 = 11111,1100111,1101011
 4 = 110111,11001011,110100011
 6 = 1101011,1010001011,1100100011

9 = 101111,1110101,11001101
 H = 1101011,101000111,110010011

L = 10010111,1100011001,1101000101
 P = 11111,1101011,10110011

\int_x^1 Hit Integration (n:3,w:5)



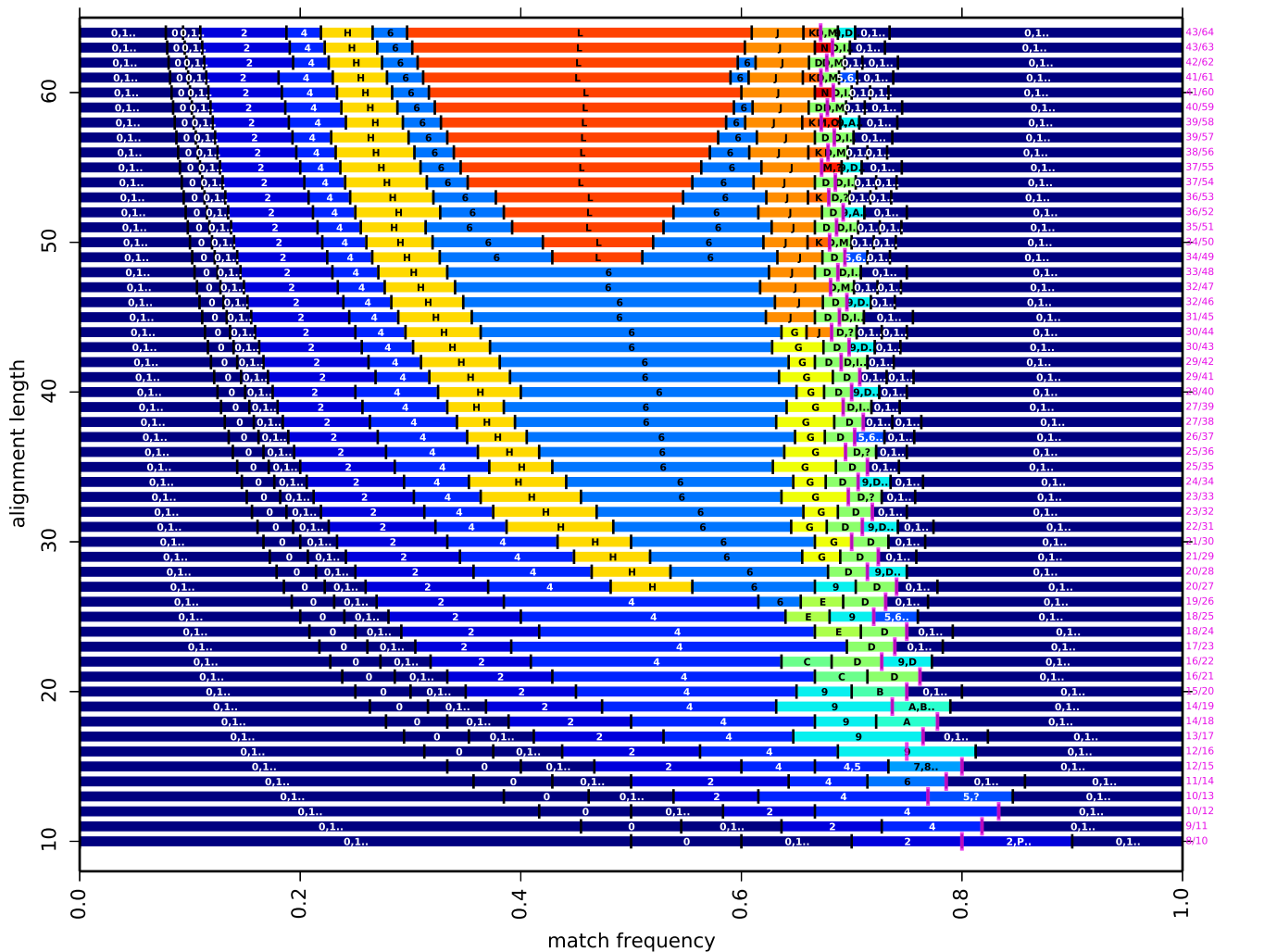
2 = 101111,1110011,11001011
 4 = 110111,11001011,110100011
 5 = 110111,11001011,1101000011
 6 = 1101011,1010001011,1100100011

7 = 110111,111000101,1001000111
 8 = 110111,1001000111,1110001001
 9 = 101111,1110101,11001101
 A = 110111,1111001,110001011

B = 11111,1101011,110001011
 C = 110111,11010011,110010101
 D = 110111,11010011,1010001011
 E = 110111,101000111,1101001001

G = 110111,110100101,111010001
 H = 1101011,101000111,110010011
 J = 1100111,100010111,101001011
 L = 10010111,1100011001,1101000101

Dirac (n:3,w:5)



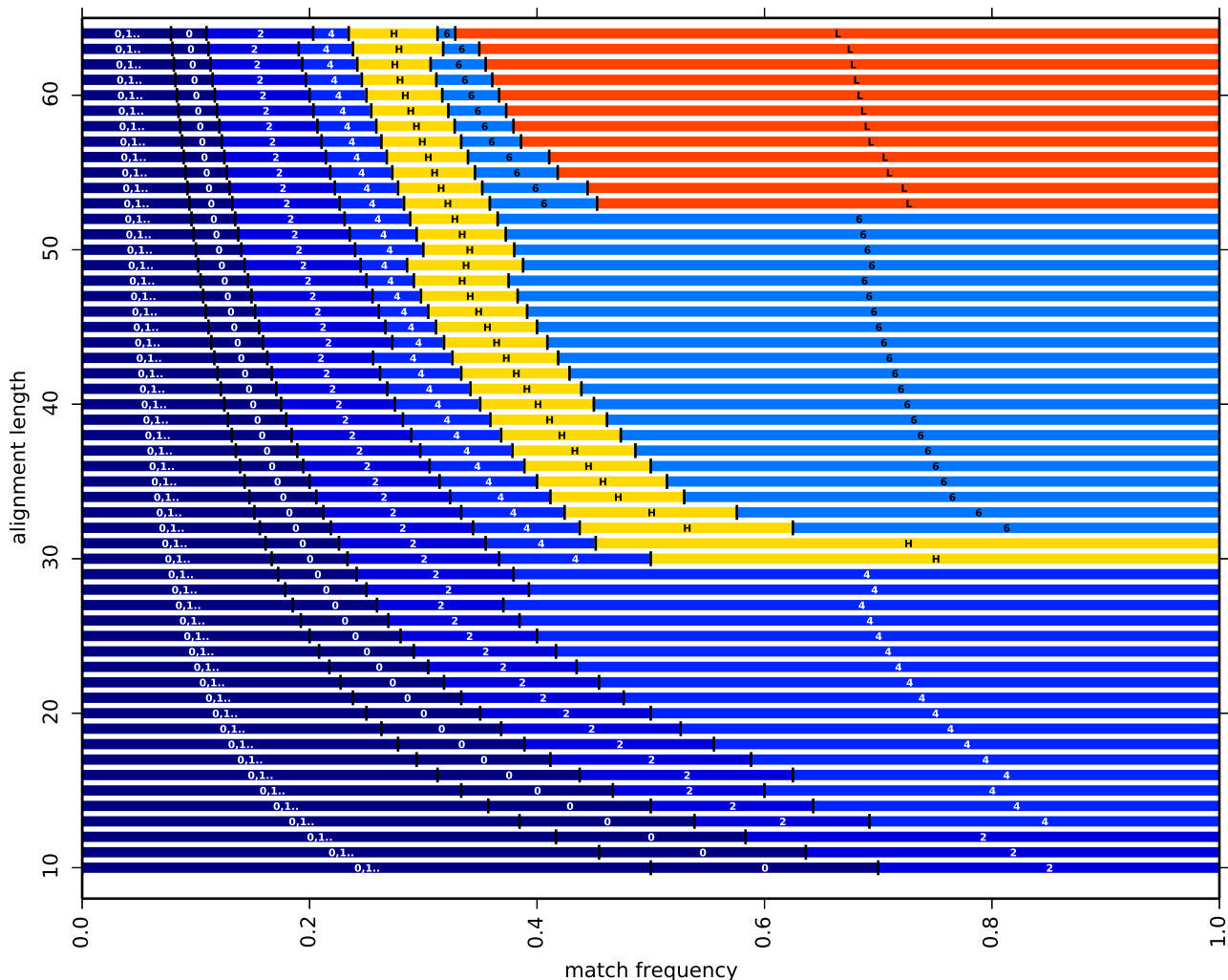
0 = 11111,101111,110111
 1 = 11111,110111,1101011
 2 = 101111,1110011,11001011
 3 = 11111,1100111,1101011
 4 = 110111,11001011,110100011
 5 = 110111,11001011,1101000011
 6 = 1101011,1010001011,1100100011

7 = 110111,111000101,1001000111
 8 = 110111,1001000111,1110001001
 9 = 101111,1110101,11001101
 A = 110111,111001,110001011
 B = 11111,1101011,110001011
 C = 110111,11010011,110010101
 D = 110111,11010011,1010001011

E = 110111,101000111,1101001001
 F = 110111,101001011,1101000101
 G = 110111,110100101,111010001
 H = 1101011,101000111,110010011
 I = 110111,110010101,111001001
 J = 1100111,100010111,101001011

K = 1100111,110100101,111010001
 L = 10010111,1100011001,1101000101
 M = 110111,111000101,1011010001
 N = 10011101,101001101,1000011101
 O = 101001101,1000011101,1000100111
 P = 11111,1101011,10110011

$$\sum_0^x \text{Heaviside}(n:3,w:5)$$



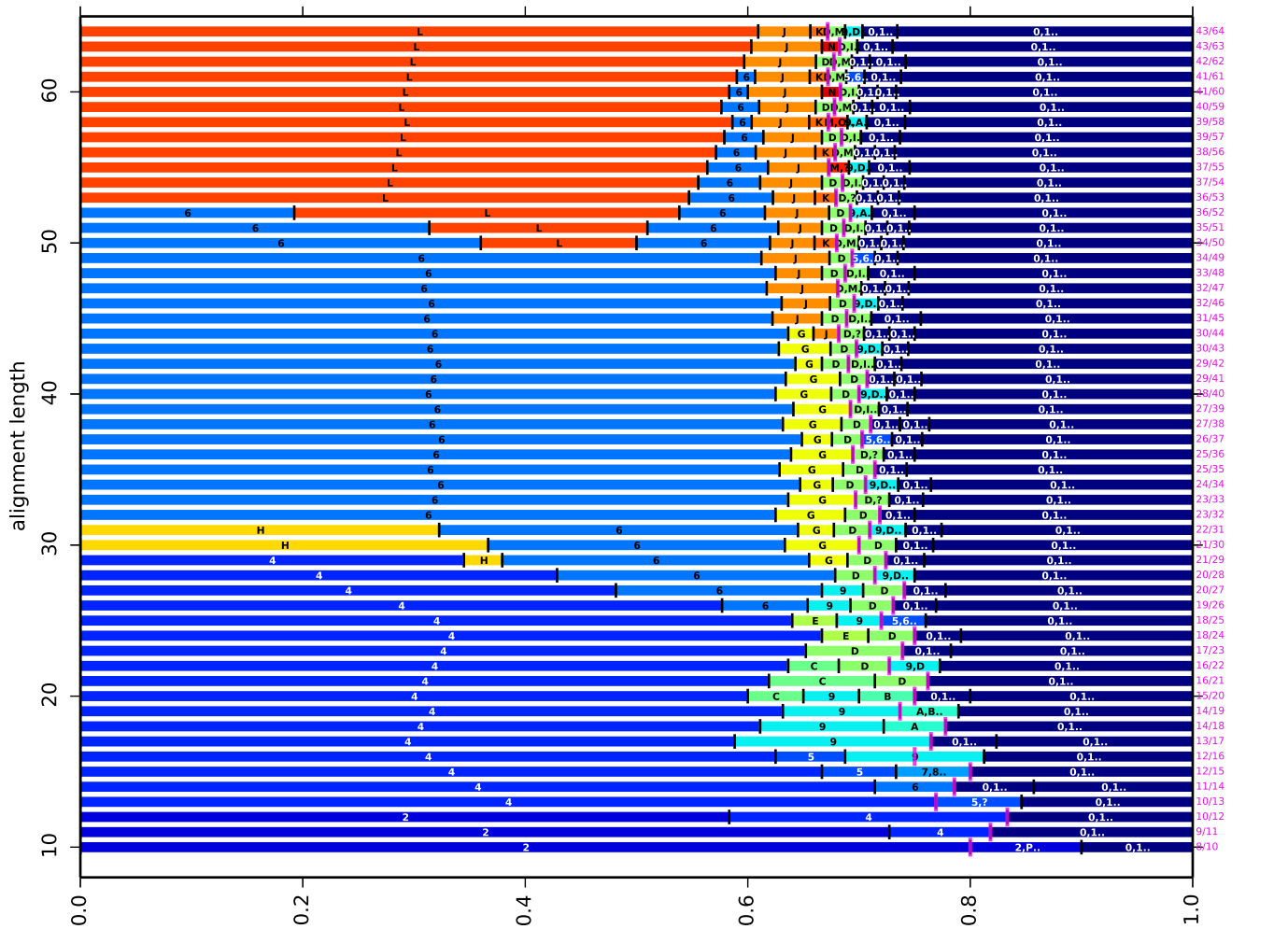
0 = 11111,101111,11011
 1 = 11111,110111,1101011
 2 = 101111,1110011,11001011
 3 = 11111,1100111,1101011
 4 = 110111,11001011,110100011
 5 = 110111,11001011,1101000011
 6 = 1101011,1010001011,1100100011

7 = 110111,111000101,1001000111
 8 = 110111,1001000111,1110001001
 9 = 101111,1110101,11001101
 A = 110111,1111001,110001011
 B = 11111,1101011,110001011
 C = 110111,11010011,110010101
 D = 110111,11010011,1010001011

E = 110111,101000111,1101001001
 F = 110111,101001011,1101000101
 G = 110111,110100101,111010001
 H = 1101011,101000111,110010011
 I = 110111,110010101,111001001
 J = 1100111,100010111,101001011

K = 1100111,110100101,111010001
 L = 10010111,1100011001,1101000101
 M = 110111,111000101,1011010001
 N = 10011101,101001101,1000011101
 O = 101001101,1000011101,1000100111
 P = 11111,1101011,10110011

$$\sum_x^1 \text{Heaviside}(n:3,w:5)$$



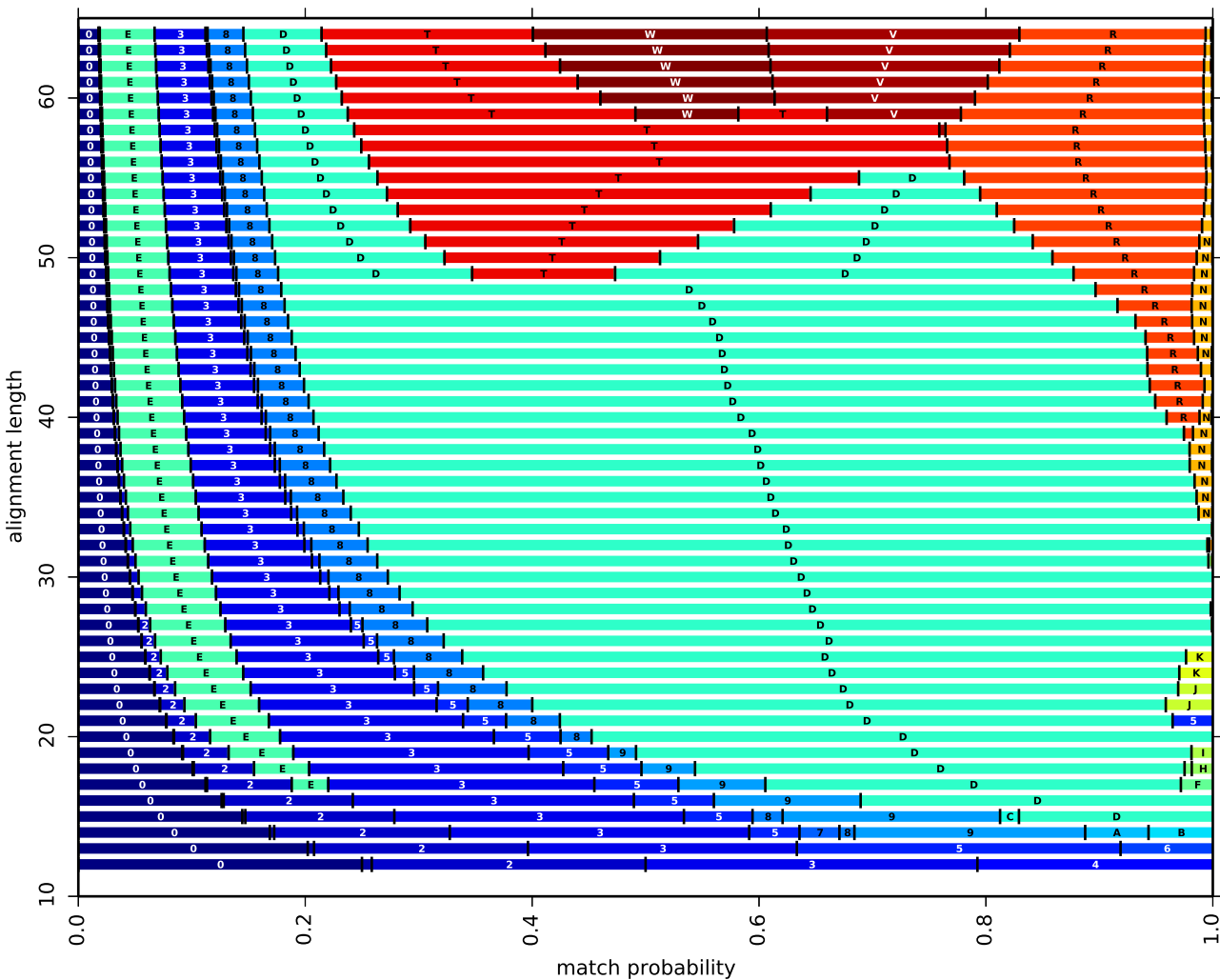
0 = 11111,101111,11011
 1 = 11111,110111,1101011
 2 = 101111,1110011,11001011
 3 = 11111,1100111,1101011
 4 = 110111,11001011,110100011
 5 = 110111,11001011,1101000011
 6 = 1101011,1010001011,1100100011

7 = 110111,111000101,1001000111
 8 = 110111,1001000111,1110001001
 9 = 101111,1110101,11001101
 A = 110111,1111001,110001011
 B = 11111,1101011,110001011
 C = 110111,11010011,110010101
 D = 110111,11010011,1010001011

E = 110111,101000111,1101001001
 F = 110111,101001011,1101000101
 G = 110111,110100101,111010001
 H = 1101011,101000111,110010011
 I = 110111,110010101,111001001
 J = 1100111,100010111,101001011

K = 1100111,110100101,111010001
 L = 10010111,1100011001,1101000101
 M = 110111,111000101,1011010001
 N = 10011101,101001101,1000011101
 O = 101001101,1000011101,1000100111
 P = 11111,1101011,10110011

Bernoulli (n:3,w:6)

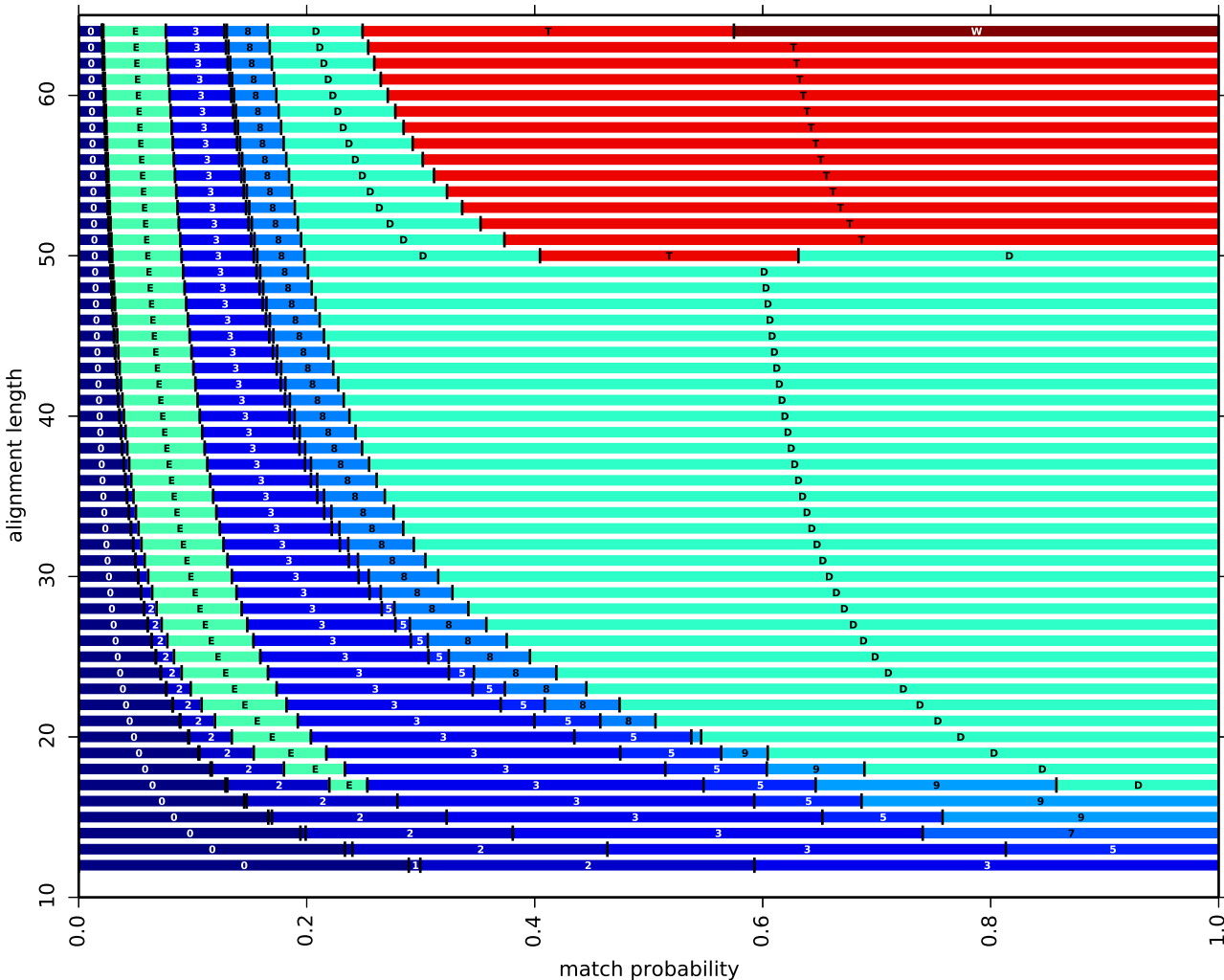


0 = 111111,1101111,1111011
 2 = 111111,11011011,11100111
 3 = 1101111,11110011,11010111
 4 = 1101111,10111011,1110000111
 5 = 1101111,10111011,1110001011
 6 = 1110111,110011011,1101000111
 7 = 1101111,11110011,1100010111
 8 = 1101111,111010011,1110001011

9 = 1110111,11011011,11010000111
 A = 1110111,110100111,11100010011
 B = 1110111,1101001011,11100000111
 C = 1110111,110110011,11100001011
 D = 1110111,1101001011,110010001011
 E = 1011111,11101101,11110011
 F = 11010111,1010001011,111001000011
 H = 1110111,1010010111,110010001011

I = 1101111,1100010111,111010000011
 J = 1101111,10111011,10110000111
 K = 1101111,110101011,10110000111
 N = 11010111,110111001,110100000111
 R = 11010111,10100011011,11100100101
 T = 10110111,1110001011,110100100011
 V = 11010111,10100001011,110010100011
 W = 11010111,110010100011,110100001101

\int_0^x Hit Integration (n:3,w:6)

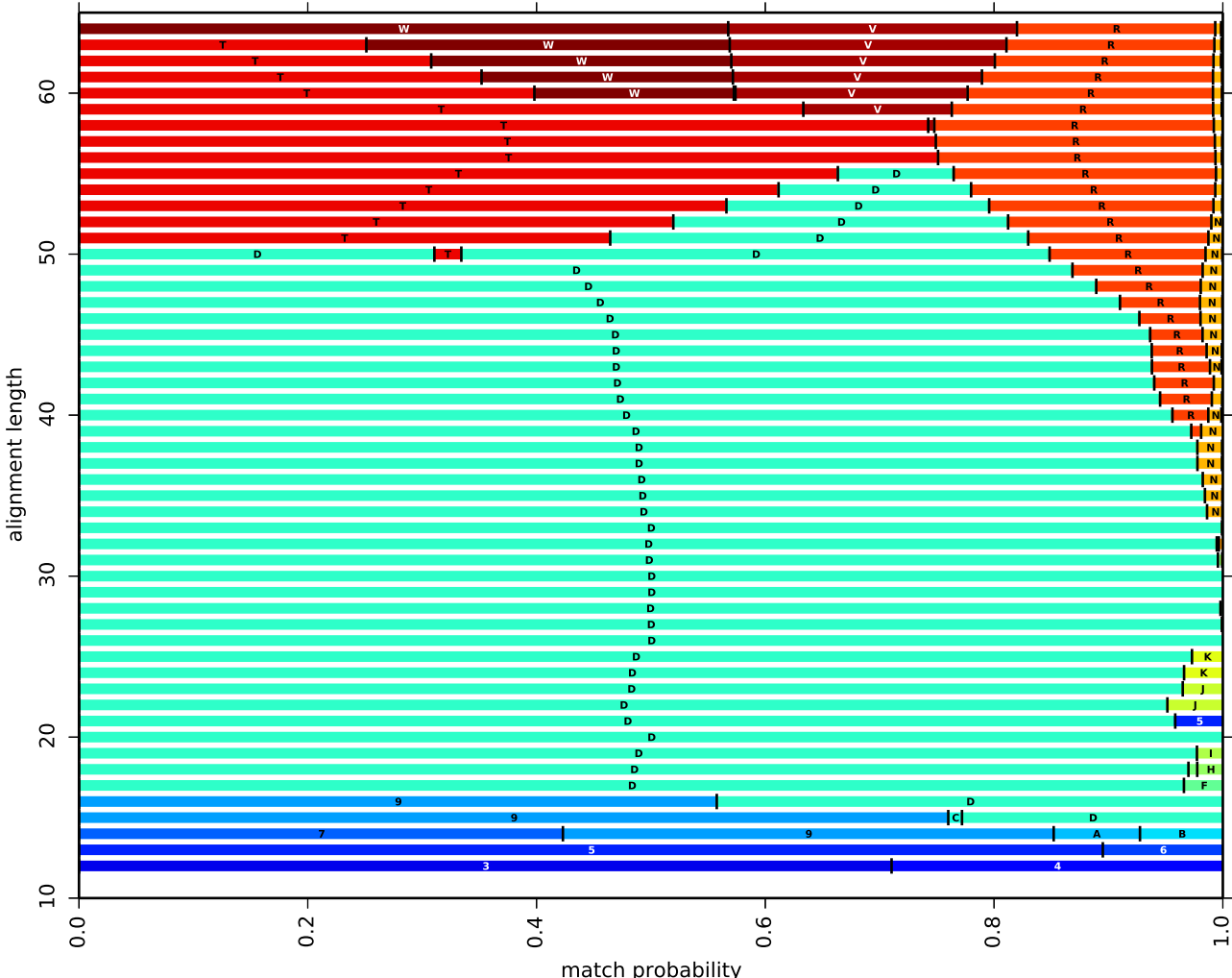


0 = 111111,1101111,1111011
 1 = 111111,1110111,11011011
 2 = 111111,11011011,11100111
 3 = 1101111,11110011,110110111

5 = 1101111,10111011,1110001011
 7 = 1101111,11110011,1100010111
 8 = 1101111,1111010011,1110001011
 9 = 1110111,11011011,11010000111

D = 1110111,1101001011,110010001011
 E = 1011111,11101101,11110011
 T = 10110111,11110001011,1101000100011
 W = 11010111,110010100011,110100001101

\int_x^1 Hit Integration (n:3,w:6)

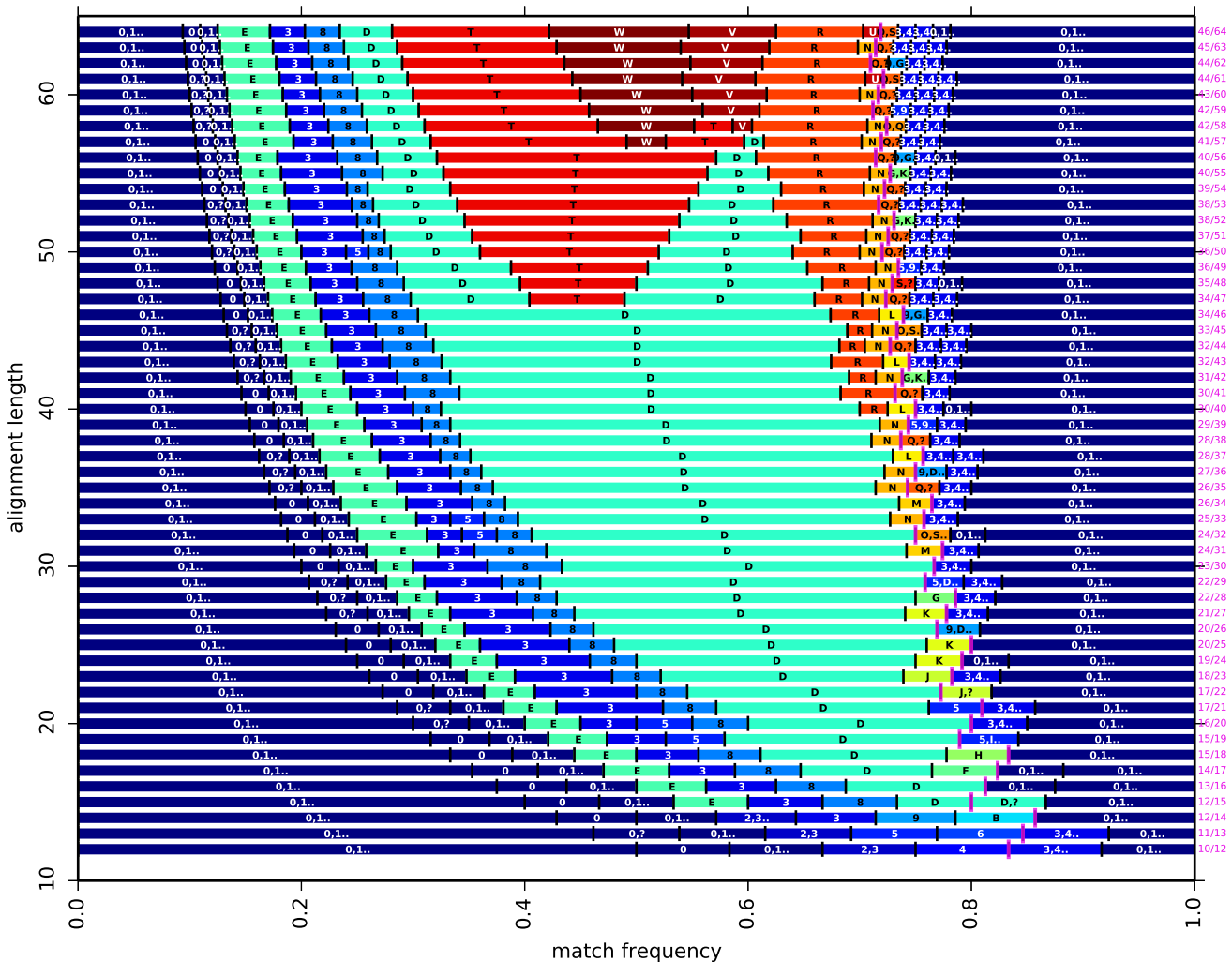


3 = 1101111,11110011,110101011
 4 = 1101111,10111011,1110000111
 5 = 1101111,10111011,1110001011
 6 = 1110111,110011011,1101000111
 7 = 1101111,11110011,1100010111
 9 = 1110111,11011011,1101000011
 A = 1110111,110100111,11100010011

B = 1110111,1101001011,11100000011
 C = 11010111,110110011,11100001011
 D = 1110111,1101001011,110010001011
 F = 11010111,10100011011,111001000011
 H = 1110111,101001011,110010001011
 I = 1101111,1100010111,111010000011
 J = 1101111,10111011,10110000111

K = 1101111,110101011,10110000111
 N = 11010111,110111001,110100000111
 R = 11010111,10100011011,11100100101
 T = 10110111,1110001011,110100100011
 V = 11010111,101000011011,110010100011
 W = 11010111,110010100011,110100001101

Dirac (n:3,w:6)



```

0 = 111111,1101111,1111011
1 = 111111,1110111,11011011
2 = 111111,11011011,11100111
3 = 1101111,1110011,11010111
4 = 1101111,10111011,1110000111
5 = 1101111,10111011,1110001011
6 = 1110111,110011011,1101000111
7 = 1101111,11110011,1100010111
8 = 1101111,111010011,1110001011
9 = 1110111,11011011,11010000111
A = 1110111,110100111,11100010011

```

```

B = 1110111,1101001011,11100000111
C = 11010111,110110011,11100001011
D = 1110111,1101001011,110100001011
E = 1011111,11101101,11110011
F = 11010111,1010001011,111001000011
G = 1110111,110010111,110100001011
H = 1110111,1101001011,110010001011
I = 1101111,1100010111,111010000011
J = 1101111,10111011,11010000111
K = 1101111,110101011,10110000111
L = 1101111,110101011,100110000111

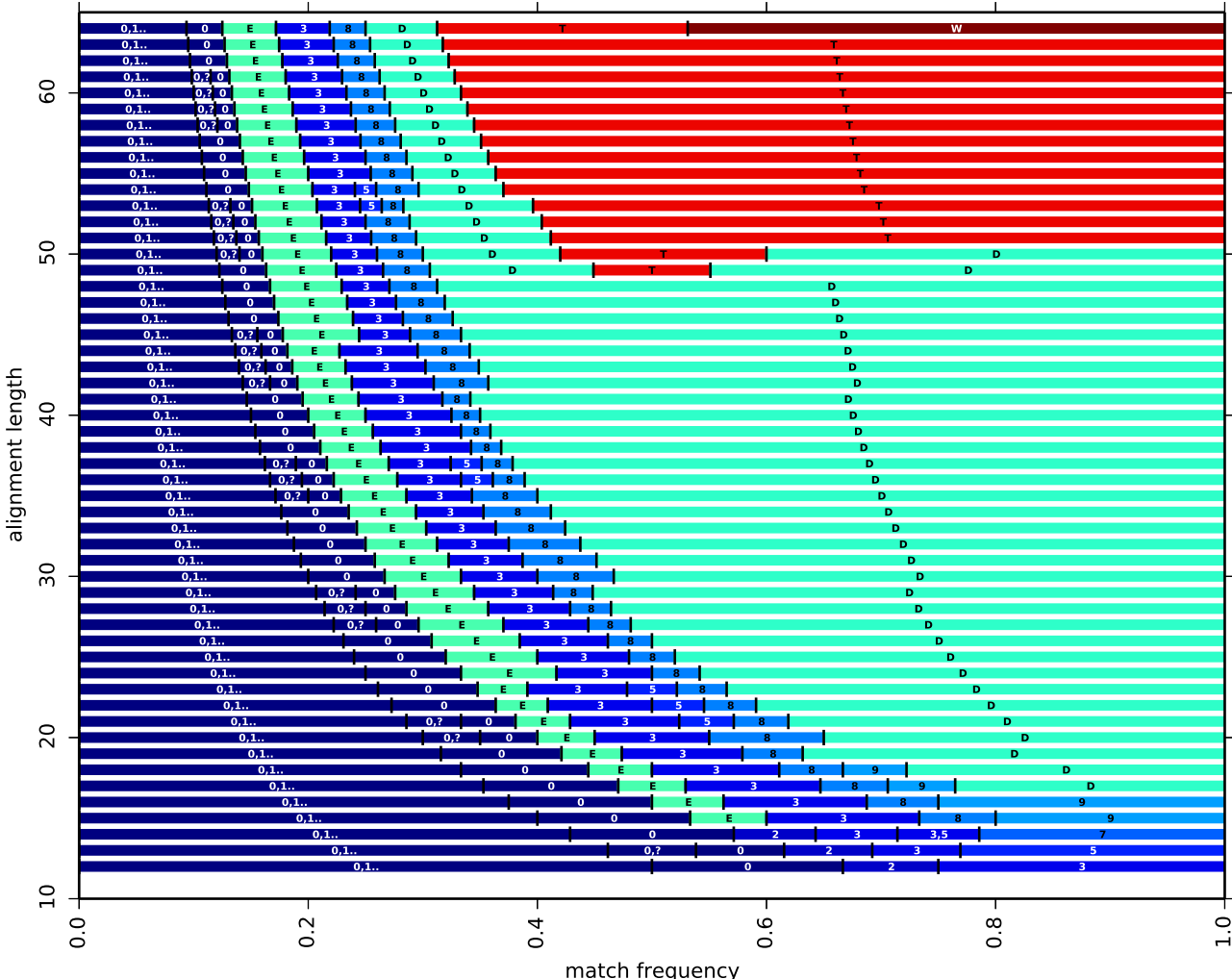
```

```

M = 1110111,10010010111,10100001111
N = 11010111,110111001,11010000111
O = 1110111,10100011011,101101000011
P = 1110111,1011010011,11010010111
Q = 10110111,10010001111,10100010111
R = 11010111,10100011011,11100100101
S = 1101111,1101010101,100110000111
T = 10110111,1110001011,110100100011
U = 10110111,1100100011,100101000111
V = 11010111,10100001011,110010100011
W = 11010111,110010100011,110100001101

```

$$\sum_0^x \text{Heaviside}(n:3,w:6)$$



```

0 = 111111,1101111,1111011
1 = 111111,1110111,11011011
2 = 111111,11011011,11100111
3 = 1101111,11110011,110101011
4 = 1101111,10111011,1110000111
5 = 1101111,10111011,1110001011
6 = 1110111,110011011,1101000111
7 = 1101111,11110011,1100010111
8 = 1101111,111010011,1110001011
9 = 1110111,11011011,11010000111
A = 1110111,110100111,11100010011

```

```

B = 1110111,1101001011,11100000111
C = 11010111,110110011,11100001011
D = 1110111,1101001011,110010001011
E = 1011111,111011101,11110011
F = 111010111,1010001011,111001000011
G = 1110111,110010111,110100001011
H = 1110111,1010010111,110010001011
I = 1101111,1100010111,111010000011
J = 1110111,10111011,10110000111
K = 1101111,110101011,10110000111
L = 1101111,110101011,100110000111

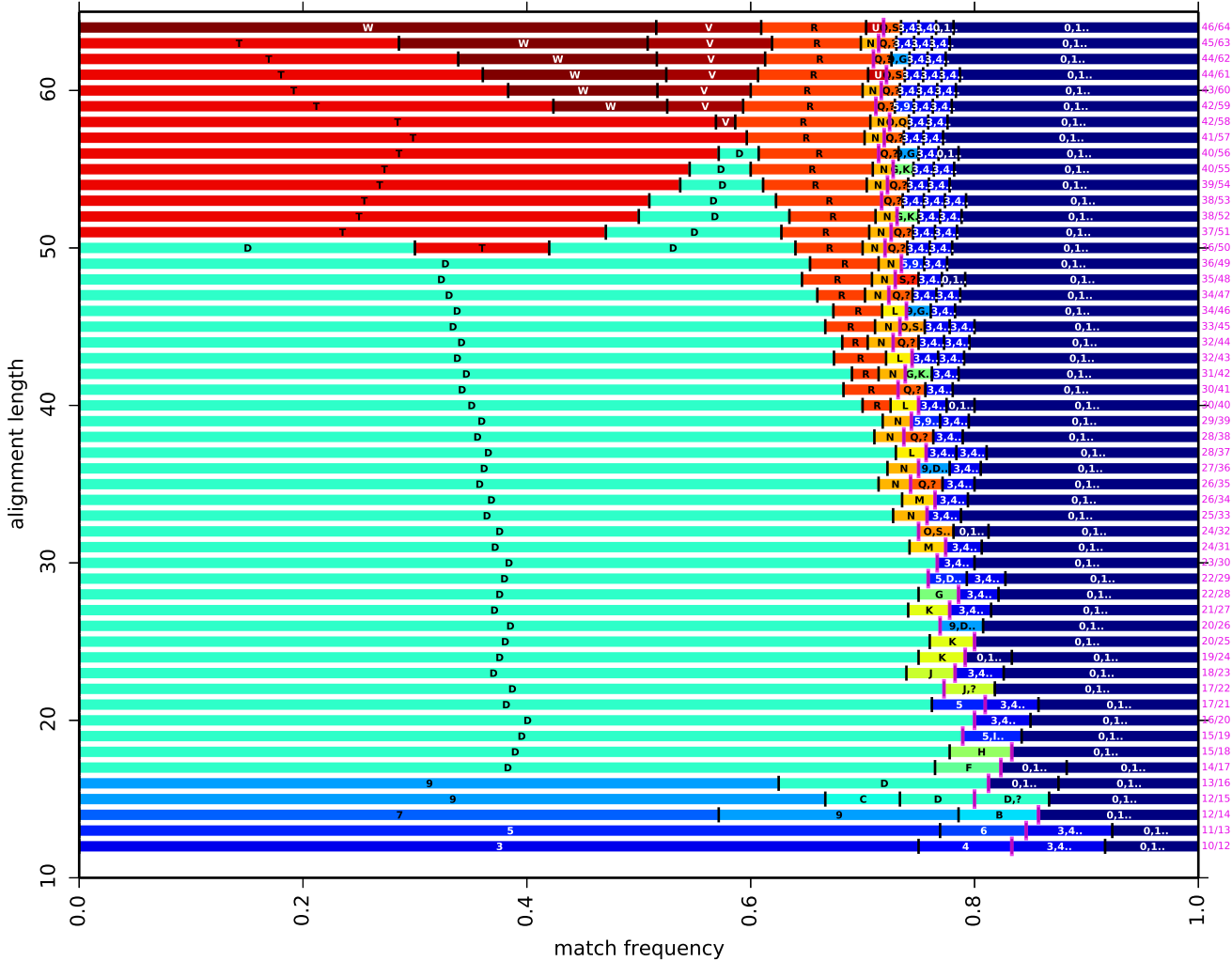
```

```

M = 1110111,10010010111,10100001111
N = 11010111,110111001,110100000111
O = 1110111,1010001011,101101000011
P = 1110111,10110100011,11010010011
Q = 10110111,1001000111,10100010111
R = 11010111,1010001011,11100100101
S = 1110111,1101010101,100110000111
T = 10110111,1110001011,110100100011
U = 10110111,11001000111,100101000111
V = 11010111,10100001011,110010100011
W = 11010111,110010100011,110100001101

```


$$\sum_x \text{Heaviside}(n:3,w:6)$$



```

0 = 111111,1101111,1111011
1 = 111111,1101011,1101011
2 = 111111,1101011,1110011
3 = 1101111,11100011,1101011
4 = 1101111,10111011,111000011
5 = 1101111,10111011,1110001011
6 = 1110111,110011011,1101000011
7 = 1101111,111100011,1100010111
8 = 1101111,111010011,1110001011
9 = 1110111,11011011,1101000011
A = 1110111,110100111,11100010011

```

```

B = 1110111,1101001011,11110000011
C = 11010111,110110011,11100001011
D = 1110111,1101001011,11001000011
E = 1011111,111011011,11110011
F = 11010111,10100011011,111001000011
G = 1110111,110010111,110100001011
H = 1110111,11010010111,110010001011
I = 1101111,1100010111,111010000011
J = 1101111,10111011,10110000111
K = 1101111,110101011,10110000111
L = 1101111,110101011,100110000111

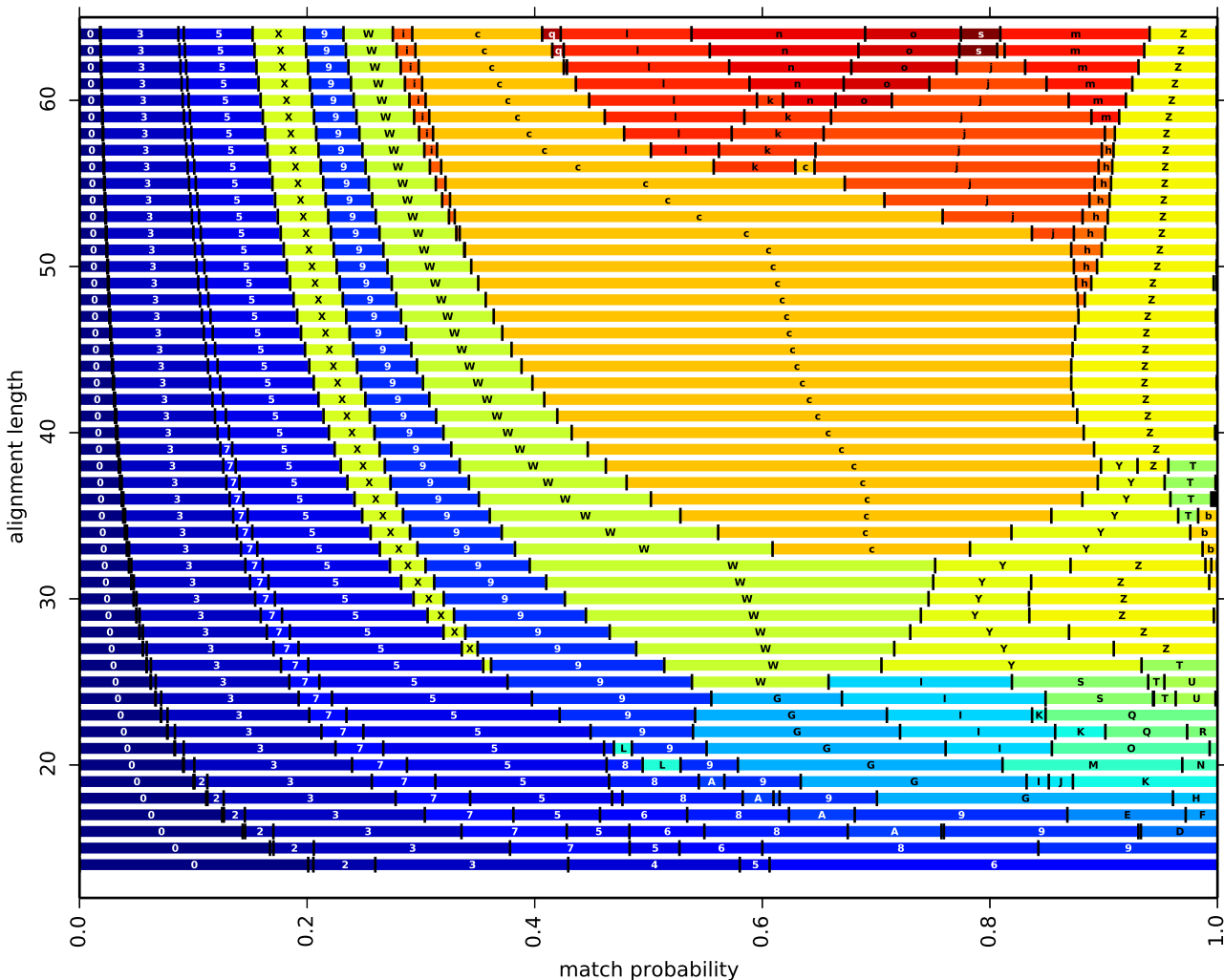
```

```

M = 1110111,10010010111,10100001111
N = 11010111,110111001,110100000111
O = 1110111,110100011011,101101000011
P = 1110111,10110100011,111010010011
Q = 10110111,10010001111,10100010111
R = 11101011,11000011011,11100100101
S = 1101111,1101010101,100110000111
T = 10110111,1110001011,110100100011
U = 10110111,11001000111,100101000111
V = 11010111,101000011011,110010100011
W = 11010111,110010100011,110100001101

```

Bernoulli (n:3,w:7)



```

0 = 1111111,11011111,11110111
2 = 1111111,11011011,111001111
3 = 1011111,11101011,111100111
4 = 1101111,11110011,110010111
5 = 1101111,11110101,1110010011
6 = 1101111,11011011,11110001011
7 = 1101111,11110101,1110011011
8 = 1101111,11110001,1101001011
9 = 11010111,1110010011,111010001011
A = 1101111,11110101,111000100111
D = 11010111,111100010011,10001001101011
E = 1101111,1110010011,1110001010011
F = 11010111,1110011011,11101000001011
G = 1110111,1101001011,1110100010011
H = 101100111,1110101001,1110000010111
    
```

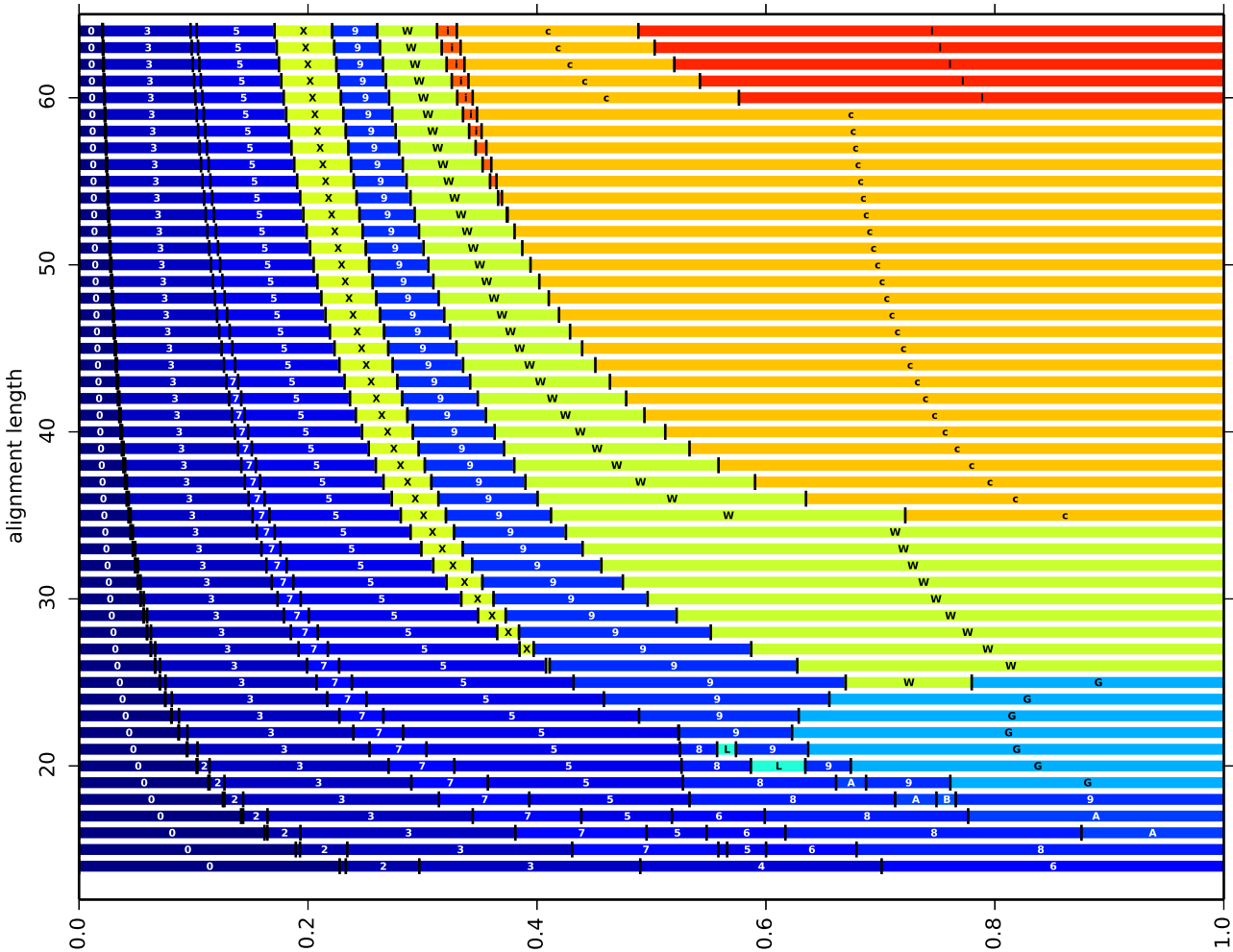
```

I = 1110111,1101001011,11101000100011
J = 1110111,1101001011,11100100010011
K = 1110111,1101001011,11100010001011
L = 1101111,11110101,1110010001011
M = 11010111,1110011011,11101000000111
N = 11101011,11010010011,11100100001011
O = 11010111,11101100101,11101000000111
Q = 1110111,111010001011,11001000010111
R = 1110111,1101001011,11001000100111
S = 1110111,1101001011,11000100010111
T = 11010111,11101100101,11001000100111
U = 1110111,110101011,111001001011
W = 1101011,1110101001,1110000101011
X = 11010111,1101100101,11100110011
    
```

```

Y = 11010111,11101100101,1101000100111
Z = 11010111,11101100101,11100010011011
b = 11101011,1100101011,11100100001011
c = 11011011,11010100011,11100001010011
h = 11011011,11010100011,11001001000111
i = 101100111,1110101001,1110000101011
j = 110101011,11100100101,11010001000111
k = 110101011,111001000101,1110001000111
l = 1101001011,11001100101,11101000100011
m = 110100111,1010010000111,10101010010011
n = 1010011011,1100100010101,11101001000011
o = 110101011,1100100100101,11010010000111
q = 110110011,111000101011,11010100001011
s = 110110011,1011000010011,11010101001001
    
```

\int_0^x Hit Integration (n:3,w:7)

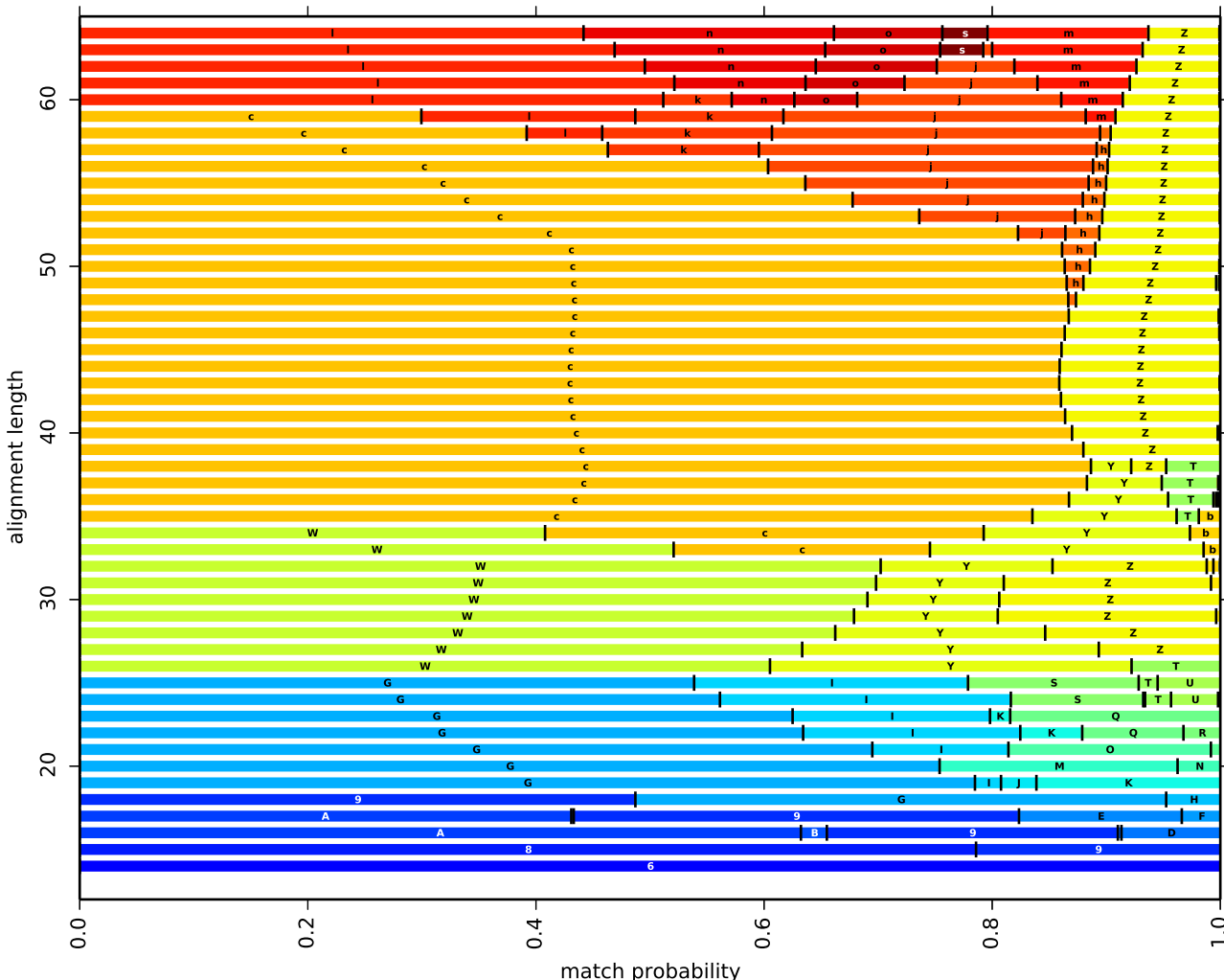


0 = 1111111,11011111,11110111
 2 = 1111111,110110111,111001111
 3 = 10111111,1110110011,111100111
 4 = 11101111,111110011,1100101111
 5 = 11011111,111101011,11100110011
 6 = 11101111,110110111,11110001011

7 = 11011111,111101011,1110011011
 8 = 11101111,111110011,1101001011
 9 = 11010111,111100110011,111010001011
 A = 11011111,111101011,111000100111
 B = 11011111,111010011,111001010011
 G = 11101111,1101001011,1110100010011

L = 11011111,111101011,111001000111
 W = 110110111,11101010011,1110000101011
 X = 11010111,11011001011,11100110011
 c = 110111011,11010100011,11100001010011
 i = 101100111,11101010011,1110000101011
 l = 1101001011,110011001011,11101000100011

\int_x^1 Hit Integration (n:3,w:7)



```

6 = 11101111,11011011,11110001011
8 = 11101111,111110011,11010010111
9 = 11010111,11100110011,111010001011
A = 11011111,111101011,111000100111
B = 11011111,111010011,111001010011
D = 11010111,111100010011,10001001101011
E = 11011111,1110010011,1110001010011
F = 11010111,1110011011,11101000001011
G = 11101111,1101001011,1110100010011
H = 101100111,11101010011,11100000010111
I = 11101111,1101001011,11101000100011
J = 11101111,1101001011,11100100010111

```

```

K = 11101111,1101001011,11100010001011
M = 11010111,1110011011,11101000000111
N = 11101011,11010010011,11100100001011
O = 11010111,11101100101,11101000000111
Q = 11101111,111010001011,11001000010111
R = 11101111,1101001011,11001000100111
S = 11101111,1101001011,11000100010111
T = 11010111,11101100101,11001000100111
U = 11101111,110101011,111001001011
W = 11011011,11101010011,1110000101011
Y = 11010111,11101100101,1101000100111

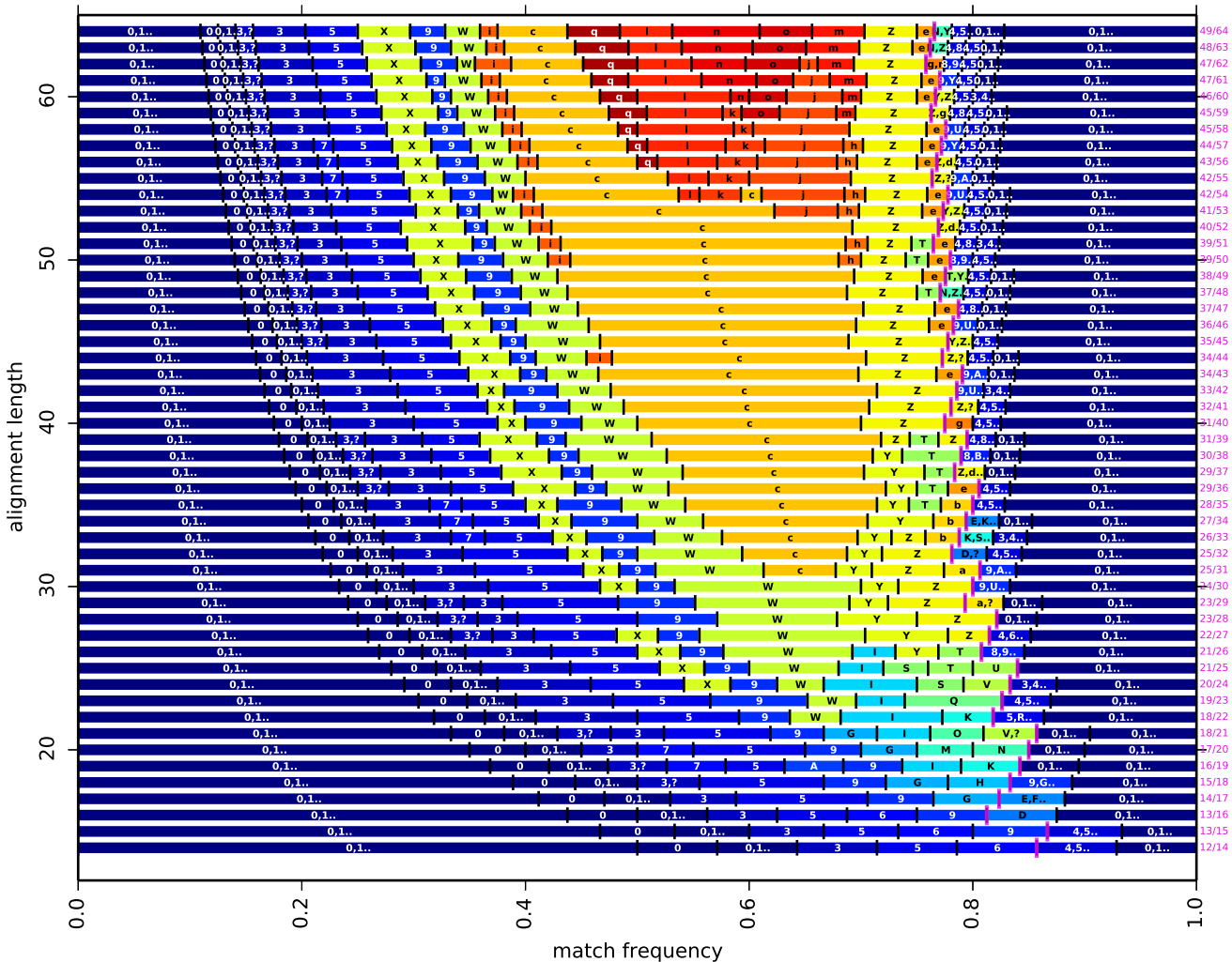
```

```

Z = 11010111,11101100101,1110001001101
b = 11101011,1100101011,11100100001011
c = 110111011,11010100011,11100001010011
h = 11011011,11010100011,11001001000111
j = 11010111,111001001011,11010001000111
k = 110101011,1110010001011,11010001000111
l = 1101001011,110011001011,11101000100011
m = 11010011,1010010000111,10101010010011
n = 1010011011,1100100010101,111010001000011
o = 110101011,11001100100101,11010010000111
s = 110110011,1011000010011,11010101001001

```

Dirac (n:3,w:7)



```

0 = 1111111,1101111,11110111
1 = 1111111,1101111,11011011
2 = 1111111,11011011,11001111
3 = 10111111,11011011,111100111
4 = 11011111,11100111,110010111
5 = 11011111,11110111,1110010011
6 = 11101111,110110111,11110001011
7 = 11011111,11110111,1110010111
8 = 11101111,111110011,1101001011
9 = 110101111,1110010011,111010001011
A = 11011111,11110111,111000100111
B = 11011111,1110100111,11100100111
C = 110101111,1110010011,1110100010011
D = 110101111,111100010011,10001001101011
E = 11011111,11100100111,1110001010011
F = 110101111,111001011,11101000001011
G = 11101111,11010010111,1110100010011
H = 1011001111,11101010011,1110000001011

```

```

I = 11101111,11010010111,11101000100011
J = 11101111,11010010111,11100100010011
K = 11101111,11010010111,11100010001011
L = 11011111,111101011,111001000111
M = 110101111,1110011011,11101000000111
N = 111010111,11010010111,11100100001011
O = 110101111,11101100101,11101000000111
Q = 11101111,11101000101,11001000010111
R = 11101111,11010010111,11001000100111
S = 11101111,11010010111,11000100010111
T = 110101111,11101100101,11001000010111
U = 11101111,110101011,1110010010011
V = 11111111,111010111,11010010111
W = 110101111,11101010011,1110000101011
X = 110101111,11011001011,111001100111
Y = 110101111,11101100101,1110000100111
Z = 110101111,11101100101,1110001001101
a = 110101111,110111000101,1101000100111

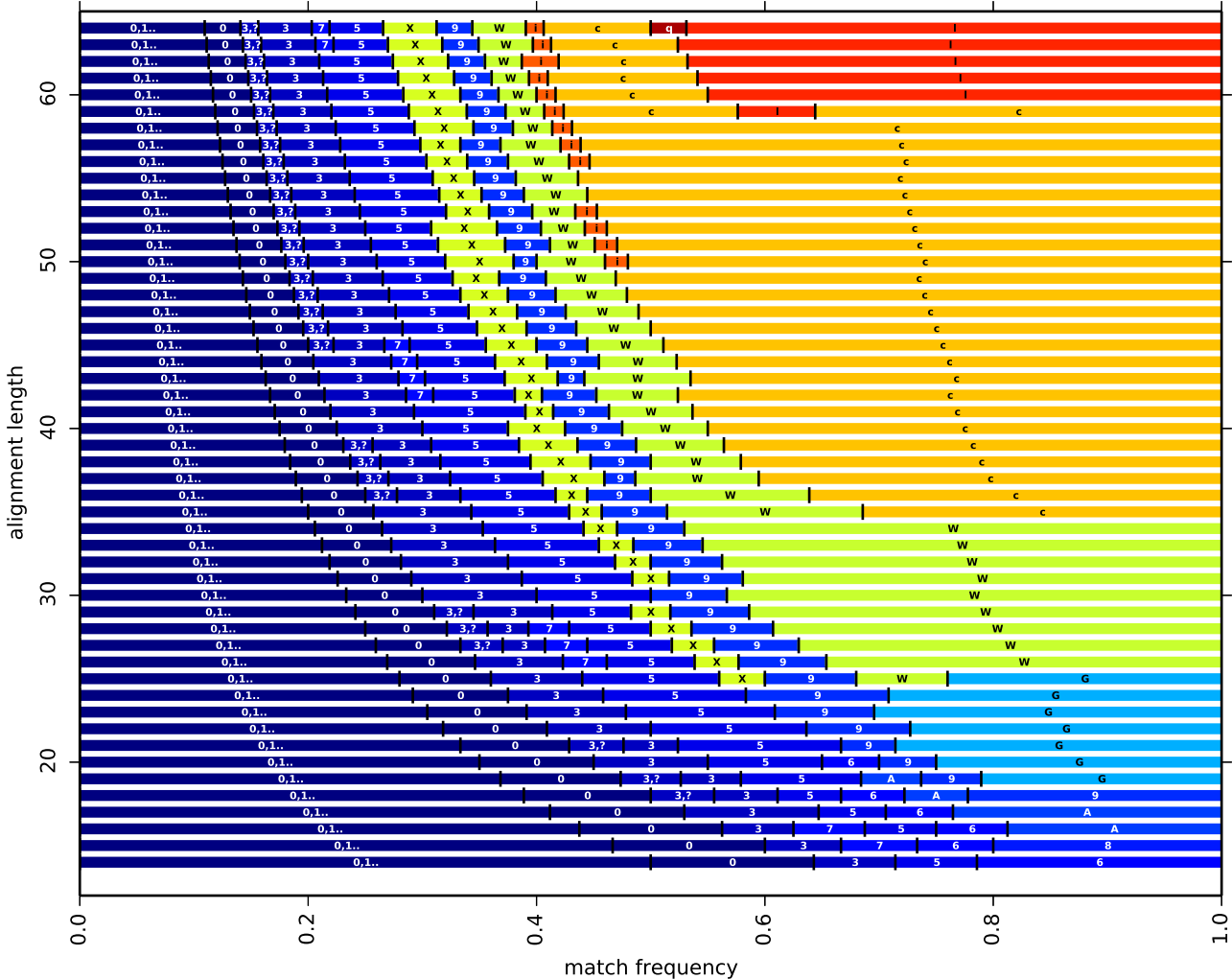
```

```

b = 111010111,11001011011,11100100001011
c = 110110111,110101000111,11100001010011
d = 11101111,110001001111,1101100101011
e = 11101111,110101001101,1001100101011
f = 110110111,11010100111,11010001000111
g = 11101111,1100101111,11001000010111
h = 110110111,110101000111,11001010000111
i = 1011001111,11101010011,1110000101011
j = 1101010111,111001001011,11010001000111
k = 110101011,1110010001011,11010001000111
l = 11010010111,110011001011,11101000100011
m = 1101100111,1010010000111,101010100010011
n = 1010010111,1100100010101,11101001000011
o = 110101011,11001100100101,11010010000111
p = 101110111,1110010101,11101001000101
q = 1101100111,1110001010011,11010100001011
r = 110101111,110100010111,1100111001001
s = 1101100111,10110000100111,11010101001001

```

$$\sum_0^x \text{Heaviside}(n:3,w:7)$$



```

0 = 1111111,1101111,11110111
1 = 1111111,11010111,110110111
2 = 1111111,110110111,110011111
3 = 10111111,11011011,111100111
4 = 11101111,11110011,1100101111
5 = 11011111,11101011,1110010011
6 = 11101111,110110111,11110001011
7 = 11011111,111101011,1110010111
8 = 11101111,111110011,11010010111
9 = 110101111,1110010011,111010001011
A = 11011111,111101011,111000100111
B = 11011111,1110100111,11100100111
C = 110101111,11100100111,1110100010011
D = 110101111,111100010011,10001001101011
E = 11011111,11100100111,1110001010011
F = 110101111,111101011,11101000001011
G = 11101111,11010010111,1110100010011
H = 1011001111,11101010011,1110000010111

```

```

I = 11101111,11010010111,11101000100011
J = 11101111,11010010111,11100100010011
K = 11101111,11010010111,11100010001011
L = 11011111,111101011,111001000111
M = 110101111,1110011011,11101000000111
N = 111010111,11100100111,11100100001011
O = 110101111,11101100101,11101000000111
Q = 11101111,111010001011,11001000010111
R = 11101111,11010010111,11001000100111
S = 11101111,11010010111,11000100010111
T = 110101111,11101100101,11001000100111
U = 11101111,1101010111,1110010010011
V = 11111111,111010111,11010010111
W = 110110111,11101010011,1110000101011
X = 110101111,1101001011,11100110011
Y = 110101111,11101100101,11010000100111
Z = 110101111,11101100101,1110001001101
a = 110101111,110111000101,1101000100111

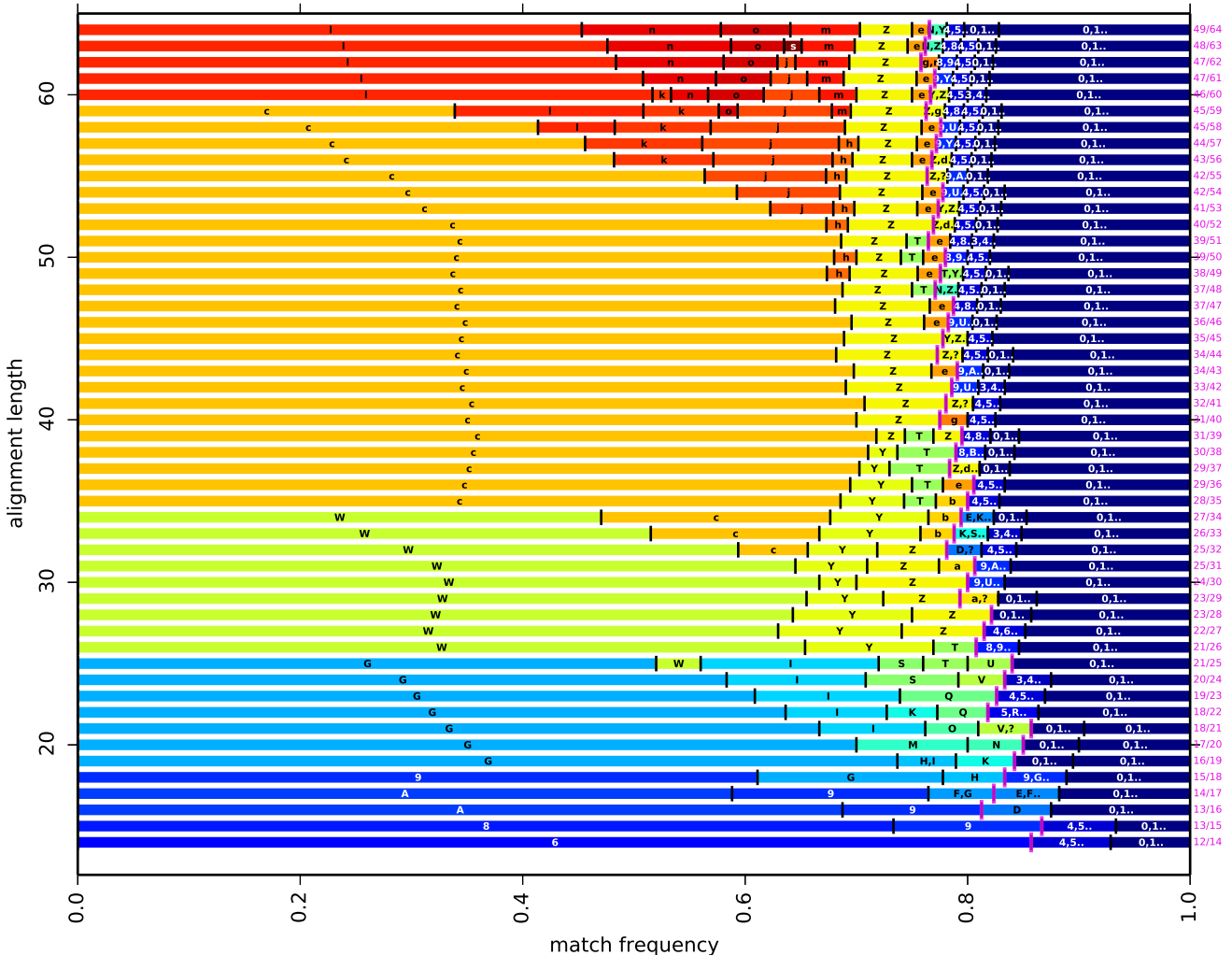
```

```

b = 111010111,11001011011,11100100001011
c = 11011011,110101000111,11100001010011
d = 11101111,110001001111,110110010101
e = 11101111,110101001101,1001100101011
f = 110110111,11010100111,11010001000111
g = 11101111,1100101111,11001000010111
h = 110110111,110101000111,11001001000111
i = 110100111,11101010011,1110000101011
j = 110101011,111001001011,11010001000111
k = 110101011,1110010001011,11010001000111
l = 11010010111,110011001011,11101000100011
m = 1101100111,1010010000111,101010100100111
n = 1010010111,1100100101101,11101001000011
o = 1101010111,11001100100101,11010010000111
p = 101110111,1110010101,111010010000101
q = 1101100111,1110000100011,110101000001011
r = 110101111,110100010111,11001110010001
s = 1101100111,10110000100111,11010101001001

```

$$\sum_x \text{Heaviside}(n:3,w:7)$$



```

0 = 1111111,1101111,11110111
1 = 1111111,1101011,110110111
2 = 1111111,11011011,11001111
3 = 1011111,11011011,111100111
4 = 1101111,11110011,110010111
5 = 1101111,11101011,1110010011
6 = 1101111,11011011,11110001011
7 = 1101111,11101011,1110011011
8 = 1101111,111110011,1101001011
9 = 11010111,1110010011,111010001011
A = 1101111,11101011,11100010011
B = 1101111,111010011,11100100011
C = 11010111,1110010011,111010001011
D = 11010111,111100010011,10001001101011
E = 1101111,1110010011,1110001010011
F = 11010111,1110011011,11101000001011
G = 1110111,1101001011,1110100010011
H = 101100111,11101010011,1110000010111

```

```

I = 1110111,1101001011,11101000100011
J = 1110111,1101001011,11100100010011
K = 1110111,1101001011,11100010001011
L = 1101111,11101011,111001000111
M = 11010111,1110011011,11101000000111
N = 11101011,11101001011,11100100001011
O = 11010111,1110100101,11101000000111
Q = 1110111,11101000101,11100100010111
R = 1110111,1101001011,11001000100111
S = 1110111,1101001011,11000100010111
T = 11010111,11101100101,11001000100111
U = 1110111,110101011,1110010010011
V = 1111111,11101011,11010010111
W = 11101011,1110101011,1110000101011
X = 11010111,11011001011,11100110011
Y = 11010111,1110100101,1110000100111
Z = 11010111,11101100101,1110001001101
a = 11010111,110111000101,1101000100111

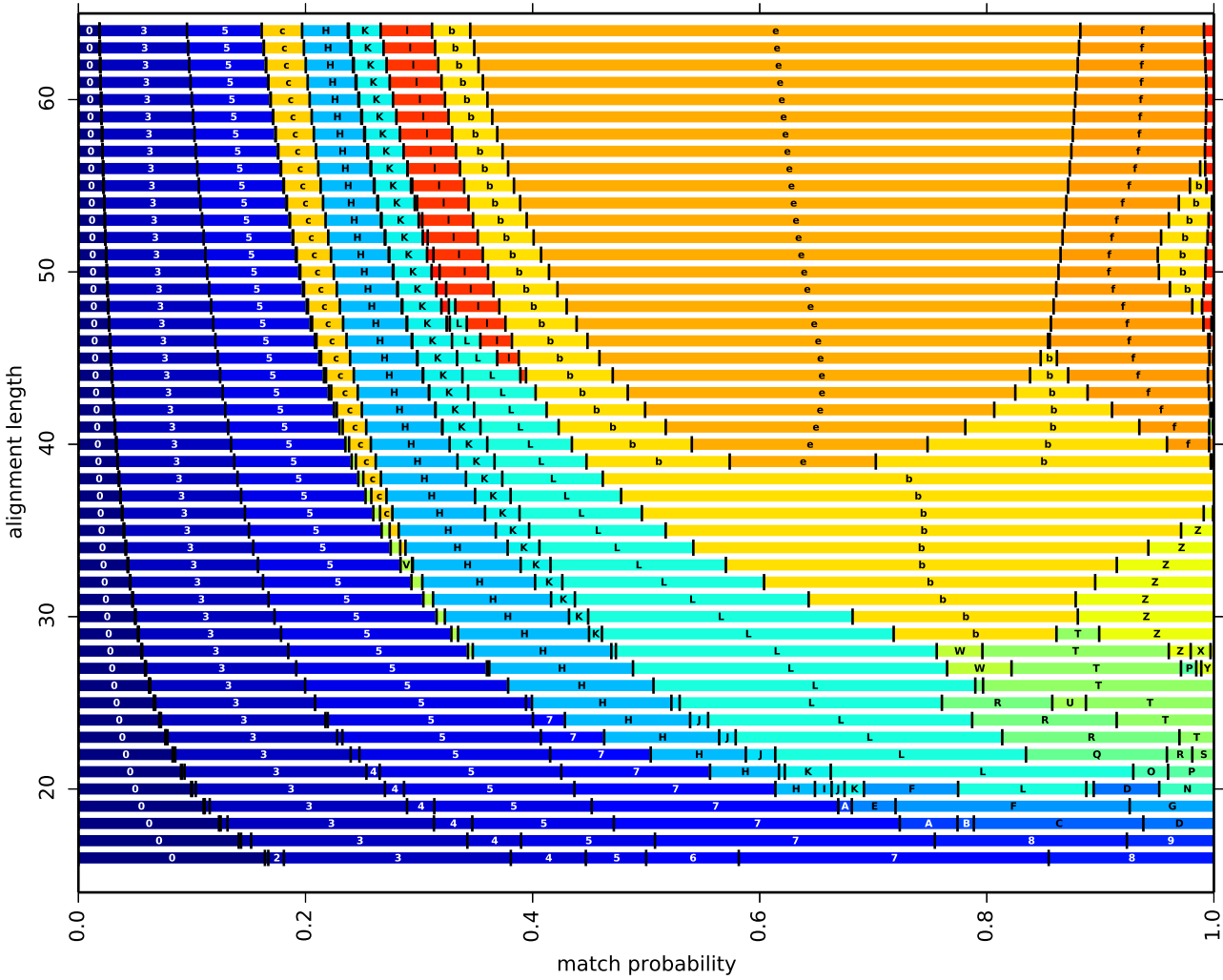
```

```

b = 11101011,11001011011,11100100001011
c = 11011011,1110101000111,11100001010011
d = 11101111,110001001111,110110010101
e = 11101111,110101001101,1001100101011
f = 11011011,1101010011,11010001000111
g = 1110111,1100101111,11001000010111
h = 11010111,110101000111,11001001000111
i = 110100111,11101010011,1110000101011
j = 110101011,111001001011,11010001000111
k = 110101011,1110010001011,11010001000111
l = 1101001011,110011001011,11101000100011
m = 1101100111,1010010000111,10101010010011
n = 101001011,11001000101101,11101001000011
o = 110101011,11001100100101,11010010000111
p = 10111011,1110010101,11101001000101
q = 1101100111,111000010011,11010100001011
r = 11010111,11010001011,1100111001001
s = 110110011,1011000010011,11010101001001

```

Bernoulli (n:3,w:8)



```

0 = 11111111,11011111,11111011
2 = 11111111,11010111,1111001111
3 = 11011111,1111010111,1111101101
4 = 11110111,1101110111,1111001011
5 = 11011111,1111101011,111001100111
6 = 11011111,1111101011,111000110111
7 = 11110111,1101110111,111010010111
8 = 11110111,1101110111,1111000010111
9 = 11010111,111001101011,11101000100111
A = 11110111,1101110111,1110100010111
B = 11101111,11110101011,1110010010111
C = 110110111,111000101011,1111010001101
D = 1111010111,110100110111,1111010000100111
E = 10110111,1111010011,1110000101111
F = 111010111,11010011011,11110100001011
G = 111010111,11010011011,11110001001011
H = 111010111,11011110011,11101000101111
I = 11010111,11110011011,1110101000111
J = 111010111,11011110011,11101000010111
K = 111011011,11001100111,1111000101011

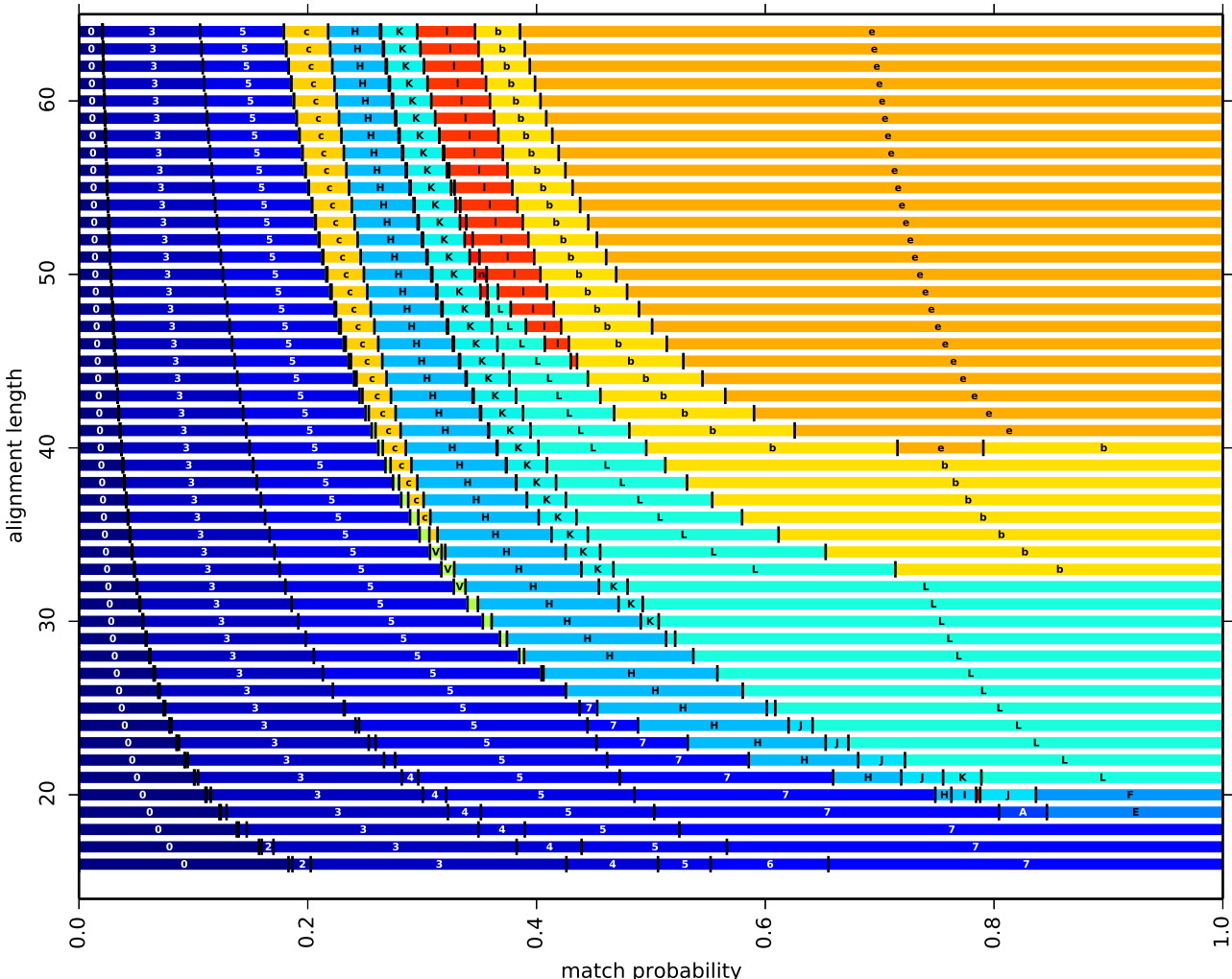
```

```

L = 111010111,110100110111,111001000010111
N = 111010111,110100110111,1110100001001011
O = 11110111,1110100010111,1110001000010111
P = 11101111,1110100101011,1110010000010111
Q = 111010111,111000101011,1110100100000111
R = 111010111,111000101011,1110000100100111
S = 111011011,111000101011,1110000010010111
T = 110101111,1110011001011,1110010100000111
U = 110110111,1110101000111,1110010010000111
V = 11011111,11111001011,110101100111
W = 111011011,1101000101011,1110010100001011
X = 11110111,110111011,1110100100111
Y = 11101111,1111110011,1101001010111
Z = 111010111,111101000101,11010000110111
b = 111011011,1101001000111,11010100010011
c = 101111011,1110100111,110110101011
e = 1101101011,1110100010011,1110010010100011
f = 111010111,1101000100111,1101001000110011
i = 110111011,111010001011,110100011000111

```


\int_0^x Hit Integration (n:3,w:8)



```

0 = 11111111,11011111,111110111
2 = 11111111,110110111,111100111
3 = 11011111,111101011,1111101011
4 = 111101111,110110111,1111001011
5 = 110111111,111101011,111000100111
6 = 110111111,111101011,111000110111
7 = 111101111,110110111,111010010111
A = 111101111,110110111,1110100010111
E = 1011101111,1111010011,1110000101111
F = 1110101111,110100110111,111101000010111
H = 1110101111,11011110011,1110100010111

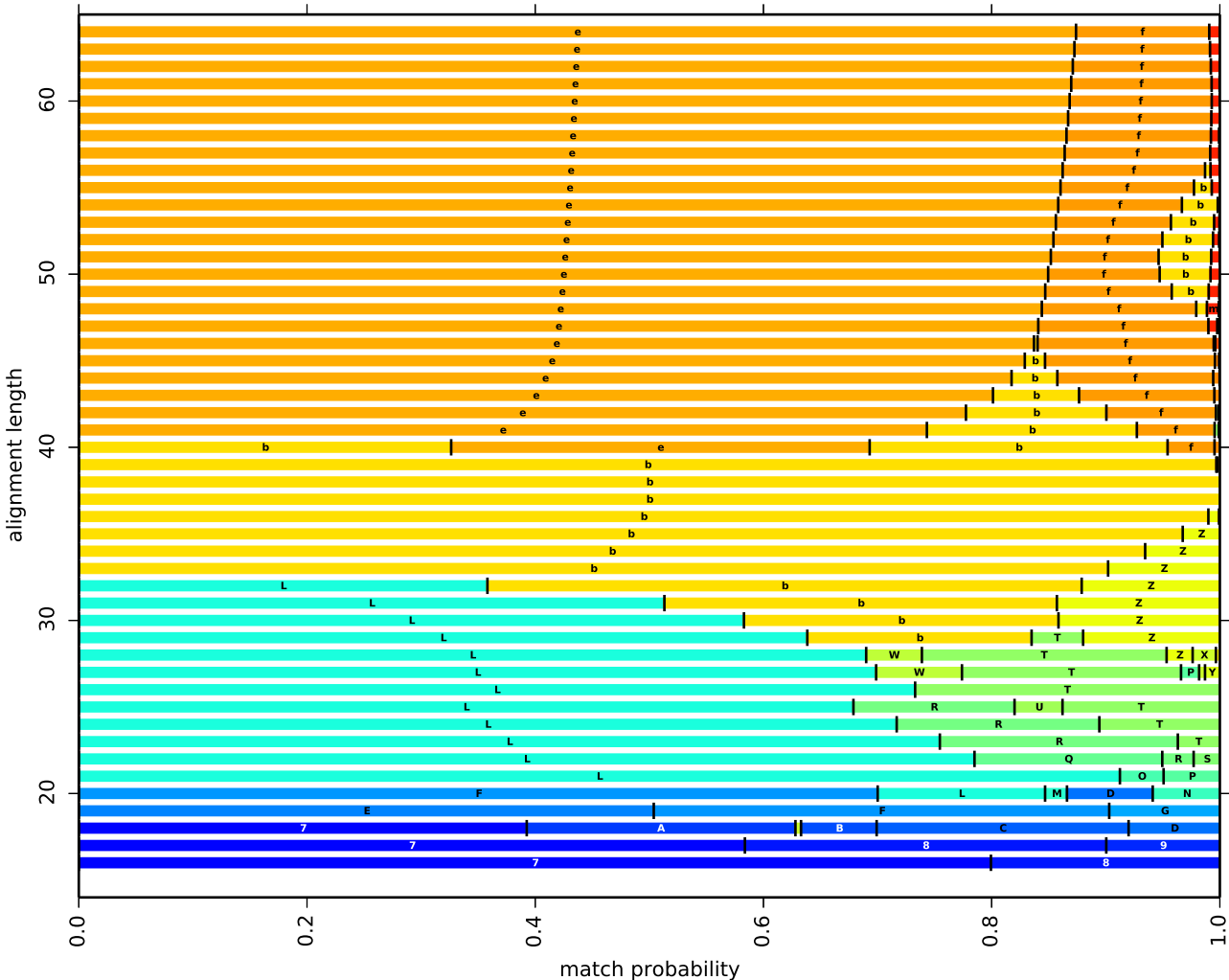
```

```

I = 1101101111,11110011011,1110101000111
J = 1110101111,1101110011,11101000010111
K = 111010111,1100101001111,1111000101011
L = 1110101111,110100110111,111001000010111
V = 110111111,11111001011,110101100111
b = 1110110111,1101001001111,1101010001010011
c = 1011111011,11101001111,110110101011
e = 11011010111,11101000100111,1110010010100011
I = 1101111011,1110100010111,110100011000111
n = 1011110111,110110010111,111010000100111

```

\int_x^1 Hit Integration (n:3,w:8)



```

7 = 111101111,1101110111,1110100010111
8 = 111101111,1101110111,1111000010111
9 = 110101111,111001101011,11101000100111
A = 111101111,1101110111,1110100010111
B = 111011111,11110101011,1110010010111
C = 1101101111,111000101011,11110100001101
D = 1110101111,110100110111,111101000010011
E = 1011101111,11110110011,1110000101111
F = 1110101111,110100110111,11110100001011
G = 1110101111,110100110111,11110001001011
L = 1110101111,110100110111,111001000010111
M = 1110101111,111100110011,111010000010111
N = 1110101111,110100110111,1110100001001011
O = 111101111,1110100010111,1110001000010111

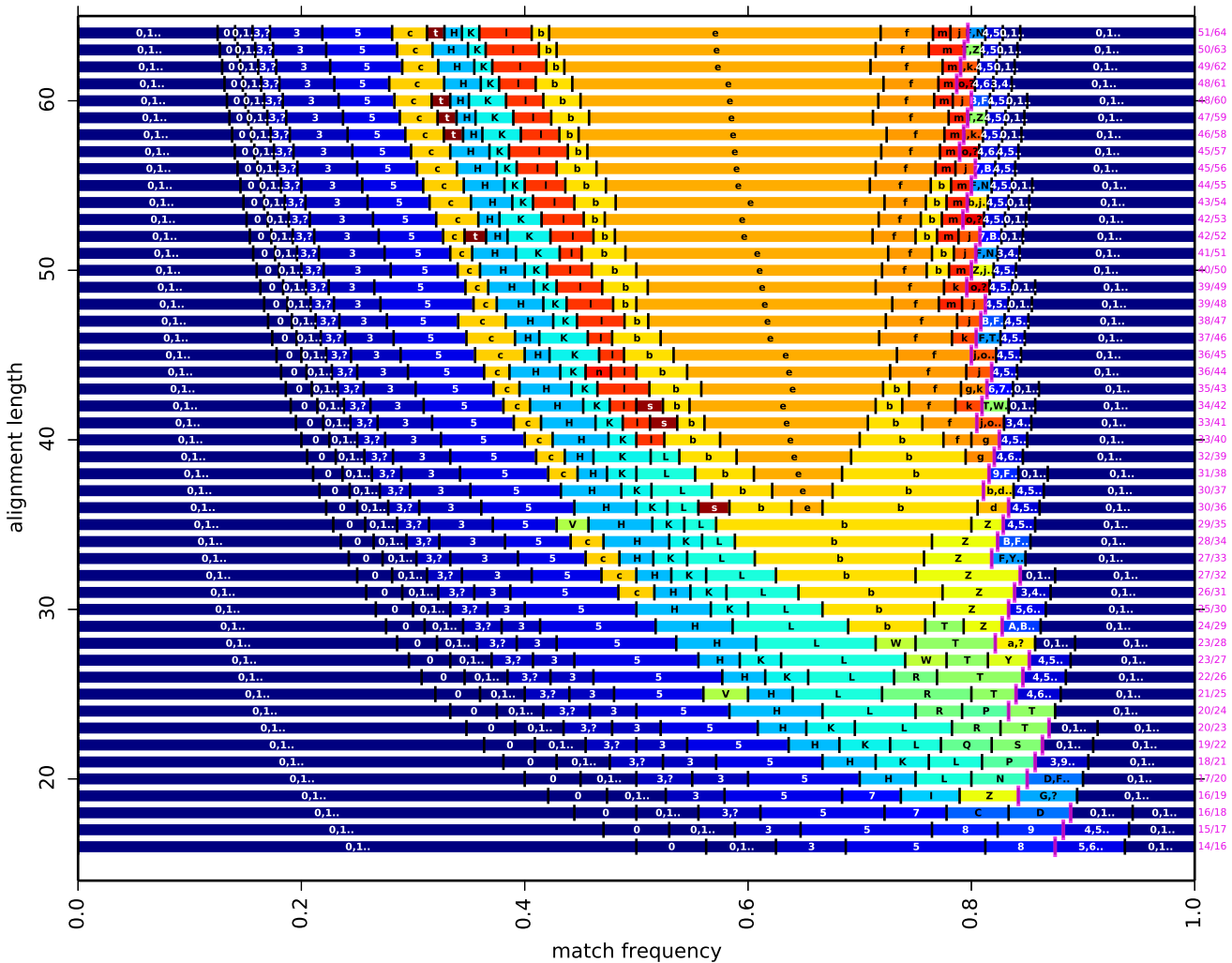
```

```

P = 111011111,1110100101011,1110010000010111
Q = 1110110111,1110001010111,1110100100000111
R = 1110110111,1110001010111,1110000100100111
S = 1110110111,1110001010111,1110000010010111
T = 111011111,1110011001011,1110010100000111
U = 1101101111,1110101000111,1110010010000111
W = 1110110111,11010001010111,1110010100001011
X = 111101111,1101110111,1110100100111
Y = 111011111,1111110011,1101001010111
Z = 1110101111,1111011000101,11010000110111
b = 1110110111,11010010001111,1101010001010011
e = 11011010111,11101000100111,1110010010100011
f = 1110101111,111010001001011,1101001000110011
m = 1110110111,11001010001111,1110110010000101

```

Dirac (n:3,w:8)



```

0 = 11111111,11011111,111110111
1 = 11111111,111010111,111011011
2 = 11111111,110110111,111001111
3 = 110111111,111101011,1111101101
4 = 111101111,110110111,11111001011
5 = 110111111,1111101011,111001100111
6 = 110111111,1111101011,111000110111
7 = 111101111,110110111,1110100010111
8 = 111101111,110110111,1111000010111
9 = 110101111,111001101011,111010001000111
A = 111010111,110110111,11101000010111
B = 111011111,111101011,1110010010111
C = 110110111,111000101011,1111010001101
D = 111010111,11010011011,111101000010011
E = 101110111,11110110011,1110000101111
F = 111010111,11100110111,11110100001011
G = 111010111,11010011011,11110001001011
H = 111010111,11011110011,1110100010111
I = 110110111,11110011011,1110101000111
J = 111010111,11011110011,11101000010111
K = 111011011,11001100111,1111000101011
L = 111010111,11010011011,11100100001011
M = 111010111,11110011001,111010000010111
N = 111010111,11010011011,1110100001001011
O = 111010111,111010001011,1110001000010111
P = 111011111,11100101011,111001000010111
Q = 111011011,111000101011,1110100100000111
R = 111010111,111000101011,1110000100100111

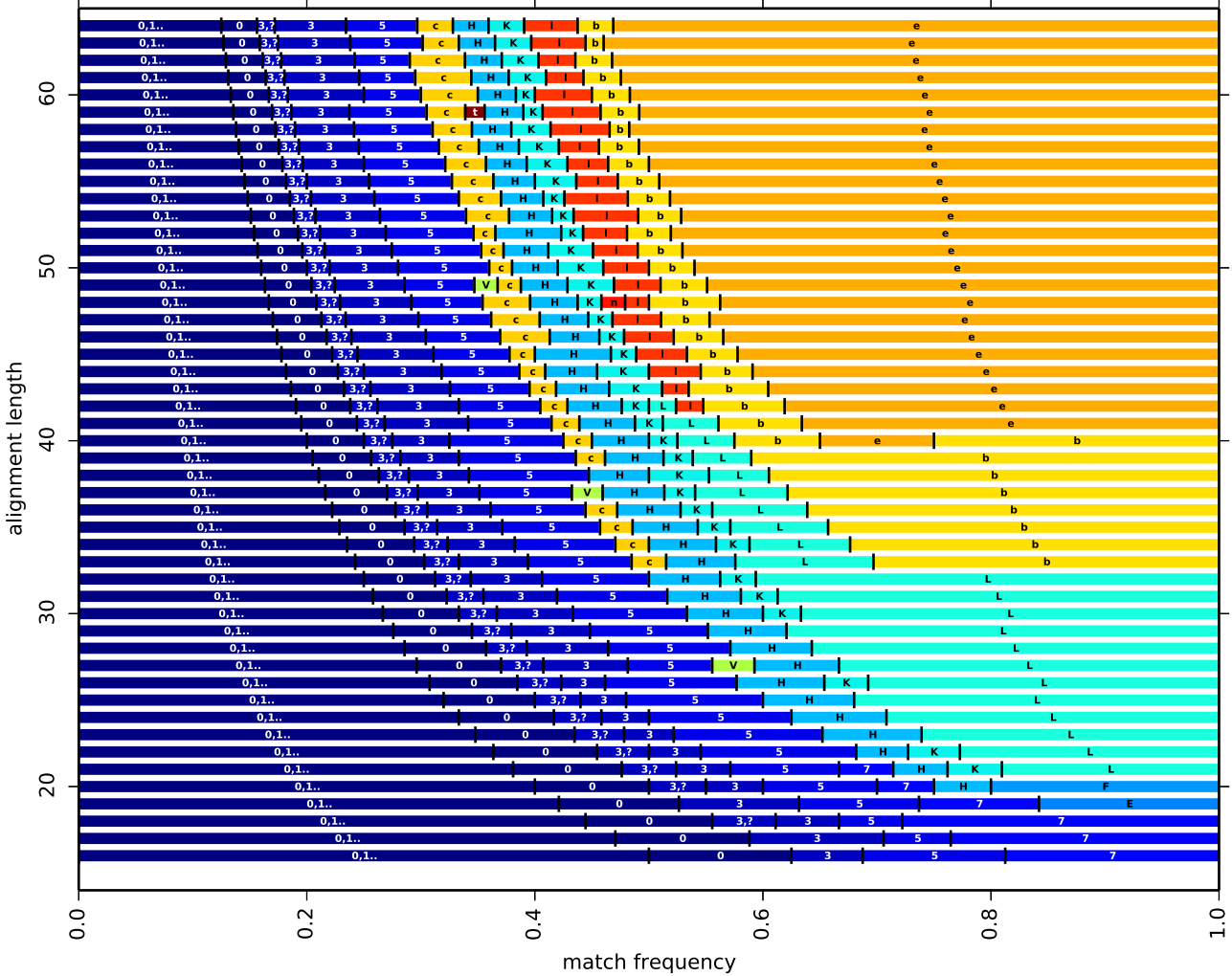
```

```

S = 1110110111,111000101011,1110000010010111
T = 110101111,1110011001011,1110010100000111
U = 110110111,111010100011,1110010010000111
V = 110111111,11111001011,110101100111
W = 111011011,1101000101011,1110010100001011
X = 111101111,110110111,1110100100111
Y = 111011111,1111110011,1101001010111
Z = 111010111,111101000101,11010000110111
a = 111011111,11111100101,1101001010111
b = 111011011,1101001000111,1101010001010011
c = 101111011,111010111,11010101011
d = 111010111,10110110011,11011000010111
e = 1101101011,1110100010011,1110010010100011
f = 111010111,111010001001011,1110010000110011
g = 111011011,1100101000111,1110100100010011
h = 110101111,1110010111,11100100101011
i = 111010111,111011000101,1000100001101111
j = 111011111,11101001011,110010101100111
k = 111010111,110100010111,1000100001101111
l = 110111011,111010001011,1101000110001111
m = 110110111,1100101000111,1110110010000101
n = 101111011,11011001011,111010000100111
o = 111101111,10110101011,1001100101111
p = 110110111,110100011011,11010001000111
q = 110110111,110100011011,1011000100011101
r = 111011111,11101101011,1110100010111
s = 111011011,111000101011,1110001001000111
t = 110101111,110111001011,111100110011

```

$$\sum_0^{\infty} \text{Heaviside}(n;3,w;8)$$



```

0 = 11111111,11011111,111101011
1 = 11111111,11101011,110101011
2 = 11111111,11010101,111001011
3 = 11011111,11110101,111101010
4 = 11110111,11011011,111100101
5 = 11011111,11110101,110010011
6 = 11011111,11110101,110001011
7 = 11110111,11011011,111001011
8 = 11110111,11011011,11100001011
9 = 11010111,11100101,1110100010011
A = 11101011,11011011,111010001011
B = 11101111,11110101,111001001011
C = 11010111,1110001011,1110100010101
D = 11101011,1101001011,111101000010011
E = 10111011,1111010011,1110000101111
F = 11101011,1101001011,11110100001011
G = 11101011,1101001011,1110001001011
H = 11101011,1101110011,111010001011
I = 11010111,1111001011,1110101000111
J = 11101011,1101110011,1110100010111
K = 11101011,1100101011,1111000010101
L = 11101011,1101001011,111001000010111
M = 11101011,1110010011,111010000010111
N = 11101011,1101001011,1110100001001011
O = 11110111,111010001011,1110001000010111
P = 11101111,110100101011,1110010000010111
Q = 11101011,111000101011,1110100100000111
R = 11101011,111000101011,1110000100100111

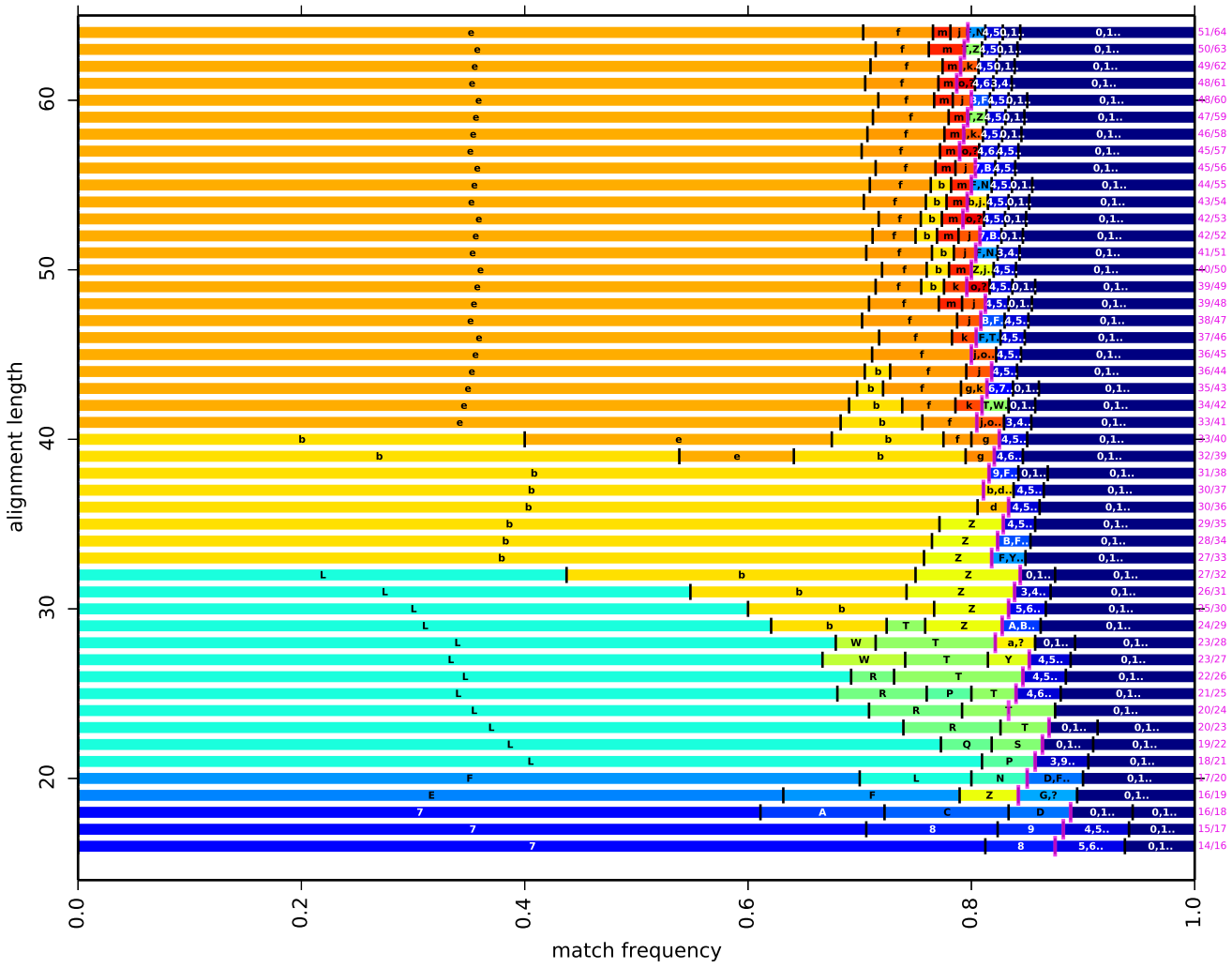
```

```

S = 11101011,111000101011,1110000010010111
T = 11010111,111001001011,1110010100000111
U = 11010111,111010100011,111001010000111
V = 11011111,1111001011,11010100111
W = 11101011,1101000101011,1110010100001011
X = 11110111,11011011,11101011,111010010111
Y = 11101111,111110011,110100101011
Z = 11101011,111101000101,1101000101111
a = 11101111,1111100101,1101001010111
b = 11101011,1101001000111,110100001010011
c = 10111011,1110100111,111010101011
d = 11101011,10110110011,11010000010111
e = 11010101,111010001011,111001001000011
f = 11101011,11101000100101,110100100010011
g = 11101011,1100101000111,1110100100100011
h = 11010101,111010010101,1110011001011
i = 11101011,111010001011,100010000101111
j = 11101111,1110101011,110010100101111
k = 11101011,11010001011,1000100001010111
l = 11011101,111010001011,111000110001111
m = 11010101,1110010000111,111010010000101
n = 10111011,1101001011,111010000100111
o = 1110111,1011010101,100100101111
p = 11010111,11010001011,11010001000111
q = 11010111,11010001011,1011000100011101
r = 11101111,11010101,1110100010111
s = 11101011,111000101011,1110001001000111
t = 11101111,1101100101,111100110011

```

$$\sum_x \text{Heaviside}(n:3,w:8)$$



```

0 = 11111111,11011111,111110111
1 = 11111111,111101111,1110110111
2 = 11111111,1110110111,111001111
3 = 110111111,1111010111,1111101101
4 = 111101111,1101110111,11111001011
5 = 110111111,1111101011,111001100111
6 = 110111111,1111101011,111000110111
7 = 111101111,1110110111,111010010111
8 = 111101111,1101110111,1111000010111
9 = 110101111,111001101011,111010001000111
A = 111101111,1101110111,1110100010111
B = 111011111,1111010111,1110010010111
C = 110101111,111000101011,1111010001101
D = 111010111,110100110111,111101000010011
E = 101110111,11110110011,1110000101111
F = 111010111,110100110111,11110100001011
G = 111010111,110100110111,11110001001011
H = 111010111,11101110011,1110100010111
I = 110110111,11110011011,1110101000111
J = 111010111,11011110011,11101000010111
K = 111010111,110010100111,1111000101011
L = 111010111,110100110111,111001000010111
M = 111010111,111100110011,111010000010111
N = 111010111,110100110111,1110100001001011
O = 111101111,1110100010111,1110001000010111
P = 111011111,1110100101011,1110010000010111
Q = 1110110111,1110001010111,1110100100000111
R = 1110110111,1110001010111,1110000100100111

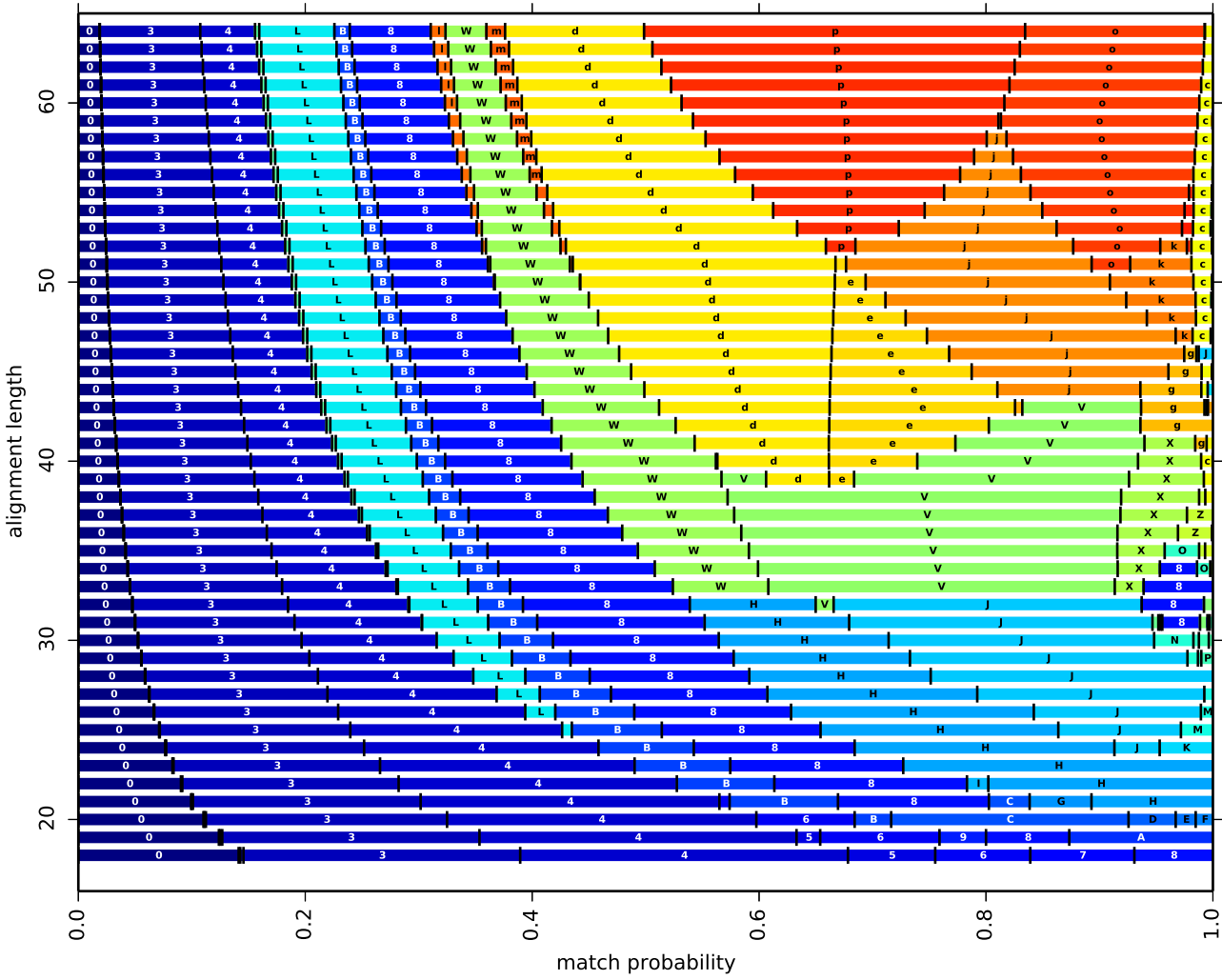
```

```

S = 1110110111,1110001010111,1110000010010111
T = 1101011111,1110011001011,1110010100000111
U = 1101101111,111011000111,1110010010000111
V = 110111111,11111001011,110101100111
W = 1110110111,111010001010111,11100101000010111
X = 111101111,1101101111,1110100100111
Y = 111011111,1111110011,11101001010111
Z = 1110101111,111011000101,11010000110111
a = 111011111,11111100101,1101001010111
b = 1110110111,11010010001111,1101010001010011
c = 1011111011,1110101011,111010101011
d = 1110101111,101101110011,110110000010111
e = 11011010111,11101000100111,1110010010100011
f = 1110101111,111010001001011,1101001000110011
g = 1110110111,11001010001111,11101001001000111
h = 1101011111,11100101011,11100100101011
i = 1110101111,1110110001011,1000100001101111
j = 111011111,111010010111,110010100110111
k = 1110101111,1101100010111,1000100001101111
l = 1101111011,1110100010111,110100010000111
m = 1101101011,11001010001111,111010010000101
n = 1011110111,110110010111,111010000100111
o = 111101111,101101010111,1001100101111
p = 1101101111,1101000110111,111010001000111
q = 1101101111,1101000110111,1011000100011101
r = 111011111,11101101011,1110100010111
s = 1110110111,1110001010111,1110001001000111
t = 1101011111,110111001011,111100110011

```

Bernoulli (n:3,w:9)



```

0 = 1111101111,1110111111,1111101111
3 = 1101111111,1111011011,11111001111
4 = 1110111111,1111101011,1110100110111
5 = 1111011111,1101101111,1111010010111
6 = 1110111111,1111101011,11101001001111
7 = 1101101111,11110011011,11110100010111
8 = 1101011111,111011001011,111010001100111
9 = 1110111111,11101100111,11101000101111
A = 1110101111,1111001100111,111001010010111
B = 1101110111,111110011011,11100010101111
C = 1011101111,111101100111,111100010010111
D = 1110101111,1111001100111,1111010000100111
E = 1101011111,1110011010111,11110000100010111
F = 1110101111,1101000110111,11110110000100101
G = 1110101111,11101100010111,111000101001111
H = 1101101111,11110100100111,11101000100001111
I = 1111010111,1110100110111,1111001000010111
J = 1101101111,11110100100111,111001000100001111
K = 1111010111,11100100110111,11110010000100111

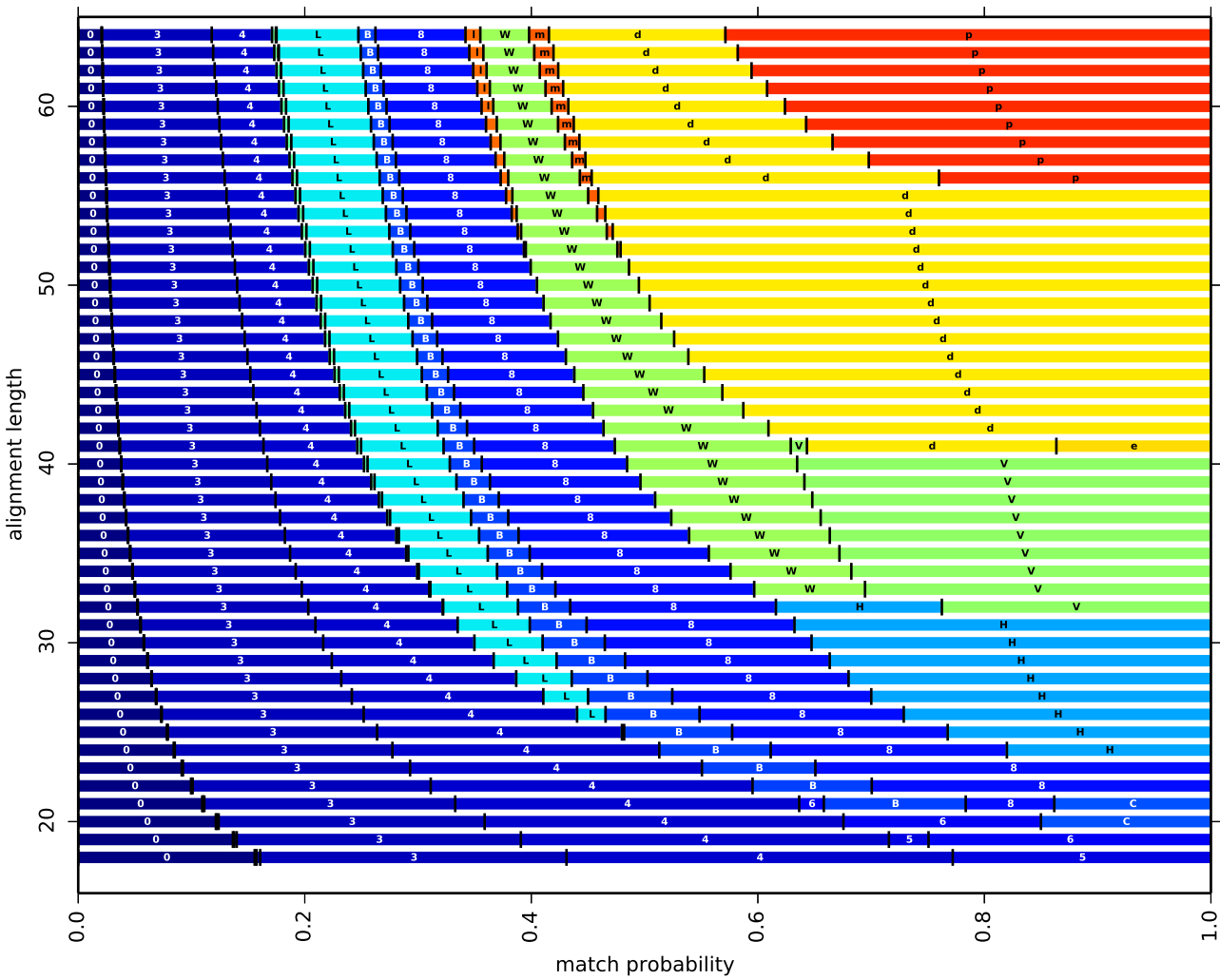
```

```

L = 1110101111,11011100111,1110110011011
M = 1110110111,111100100010111,1110001001000011111
N = 1110110111,111101010001011,1110010000001011111
O = 1110110111,111101010001011,11001000010101111
P = 1101011111,111111001101,1110011010111
V = 1110110111,1110010101011,11100010010010111
W = 1101101111,111101001100111,11100100010100111
X = 1101101111,11110100100111,11001000101001111
Z = 1110110111,111101010001011,11101100001010111
c = 1110101111,11011001100111,1110101000010010111
d = 11101011011,111001101000111,111001000010010111
e = 11101011011,111010011000111,111010000100100111
g = 1110101111,11101001100111,111001000010010111
j = 11101011011,1110100100001111,11101000010100111
k = 11011101011,1111010010000111,11100100010100111
l = 1101101111,11101100011011,111100010100111
m = 1110101011,11110010010111,1110100001010111
o = 1110101011,110110001001011,110100010100100111
p = 1101101011,11100011001001011,111010000100011011

```

\int_0^x Hit Integration (n:3,w:9)



```

0 = 111111111,111011111,1111110111
3 = 110111111,1110111011,1111100111
4 = 111011111,1111110101,111010011011
5 = 111101111,1101110111,111101001011
6 = 111011111,1111110101,111010011011
8 = 110101111,111101100101,11101000110011
B = 1101111011,11111001101,111000101011
C = 101110111,11110110011,11110001001011
H = 110111011,111101001011,1110100010001111

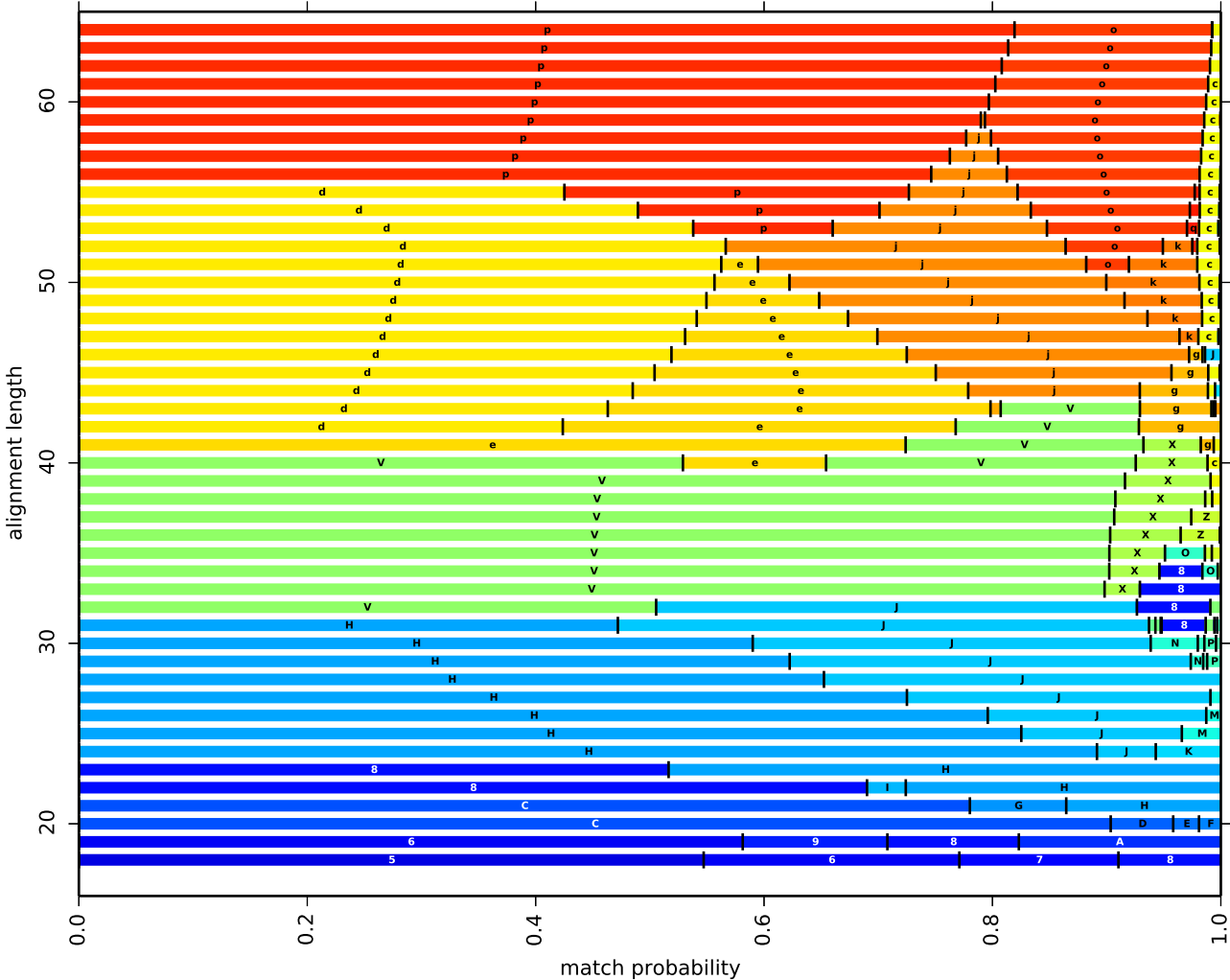
```

```

L = 111010111,11011110011,1110110011011
V = 1110110111,1110010101011,11100010010111
W = 1101110111,1111010010011,1110010001010011
d = 1110101111,11100110100011,111001000010010111
e = 1110101011,11101001100011,11101000010010111
l = 110111011,11010110001101,111100010100111
m = 11101011011,11100110010011,111010000101011
p = 1101101011,1110001100100101,111010000100011011

```

\int_x^1 Hit Integration (n:3,w:9)



```

5 = 111101111,1101110111,1111010010111
6 = 111011111,11111101011,11101001001111
7 = 1101110111,111100111011,11110100010111
8 = 1101011111,1111011001011,111010001100111
9 = 1111011111,111011100111,11101000010111
A = 1110101111,1111001100111,111001010010111
C = 1011101111,111101100111,111100010010111
D = 1110101111,1111001100111,111110000100111
E = 1101011111,1110011010111,11110001000100111
F = 1110101111,1101000101111,11110110000100101
G = 1110110111,11101100010111,111000101001111
H = 1101110111,11110100100111,11101000100001111
I = 1111010111,1110100110111,1111001000010111
J = 1101110111,11110100100111,111001000100001111
K = 1111010111,11100100110111,111100100000100111
M = 1110110111,111100100010111,111000100100001111

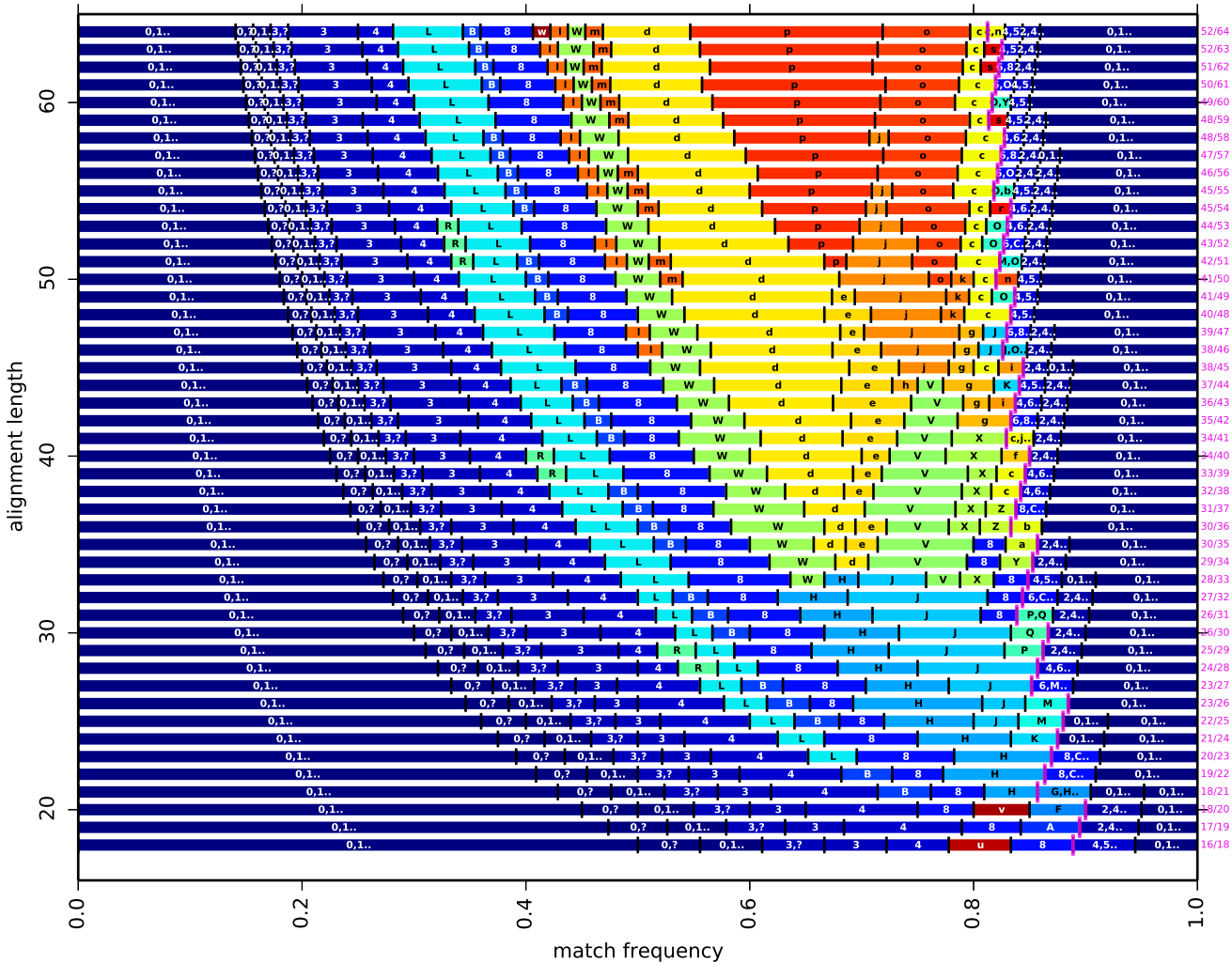
```

```

N = 1110110111,111101010001011,11100100000101111
O = 1110110111,111101010001011,11001000010101111
P = 1101011111,111111001101,1110011010111
V = 1110110111,11100101010111,11100010010010111
X = 1101110111,11110100100111,11001000101001111
Z = 1110110111,111101010001011,11001100001010111
c = 1110101111,11011001100111,111010100001001011
d = 11101010111,111001101000111,111001000010010111
e = 11101010111,111010011000111,111010000100100111
g = 1110101111,11101001100111,1111001000010010111
j = 11101010111,1110100100001111,11101000010100111
k = 11011101011,1111010010000111,111001000101001011
o = 11101010111,1101100010010111,110100010100100111
p = 11011010111,11100011001001011,111010000100011011
q = 1101110111,1101010100010111,111001000101001011

```


Dirac (n:3,w:9)



```

0 = 11111111,1110111111,1111110111
1 = 11111111,11101111,1111101011
2 = 11111111,1110101111,1111011011
3 = 1101111111,1111011011,1111100111
4 = 1110111111,1111101011,1110100111
5 = 1110111111,1110110011,1111010011
6 = 1110111111,1111101011,1110100111
7 = 1101110111,1111001101,1111010001
8 = 1101011111,1111010011,1110100011
9 = 1111011111,1110110011,1110100011
A = 1110101111,1110010011,1110010001
B = 1101110111,1111001011,1110001011
C = 1011101111,1111010011,1111000101
D = 1110101111,1110010011,1111010001
E = 1101011111,1110010101,1111000100
F = 1110101111,1101000101,1111010000
G = 1110101111,1110100011,1110001001
H = 1110101111,1111010001,1110001001
I = 1110101111,1110100101,1111001000
J = 1101101111,1111010001,1110010000
K = 1111010111,1110010011,1111001000
L = 1110101111,1101110011,1110100101
M = 1110101111,1111001000,1111000100
N = 1110101111,1110101000,1111001000
O = 1110101111,1110101000,1111001000
P = 1101011111,1111100101,1110010101
Q = 1011110111,1110010111,1110110010
R = 1111111111,1111001011,1101011001
S = 1101101111,1111001001,1111001000
T = 1110101111,1110101000,1111010000

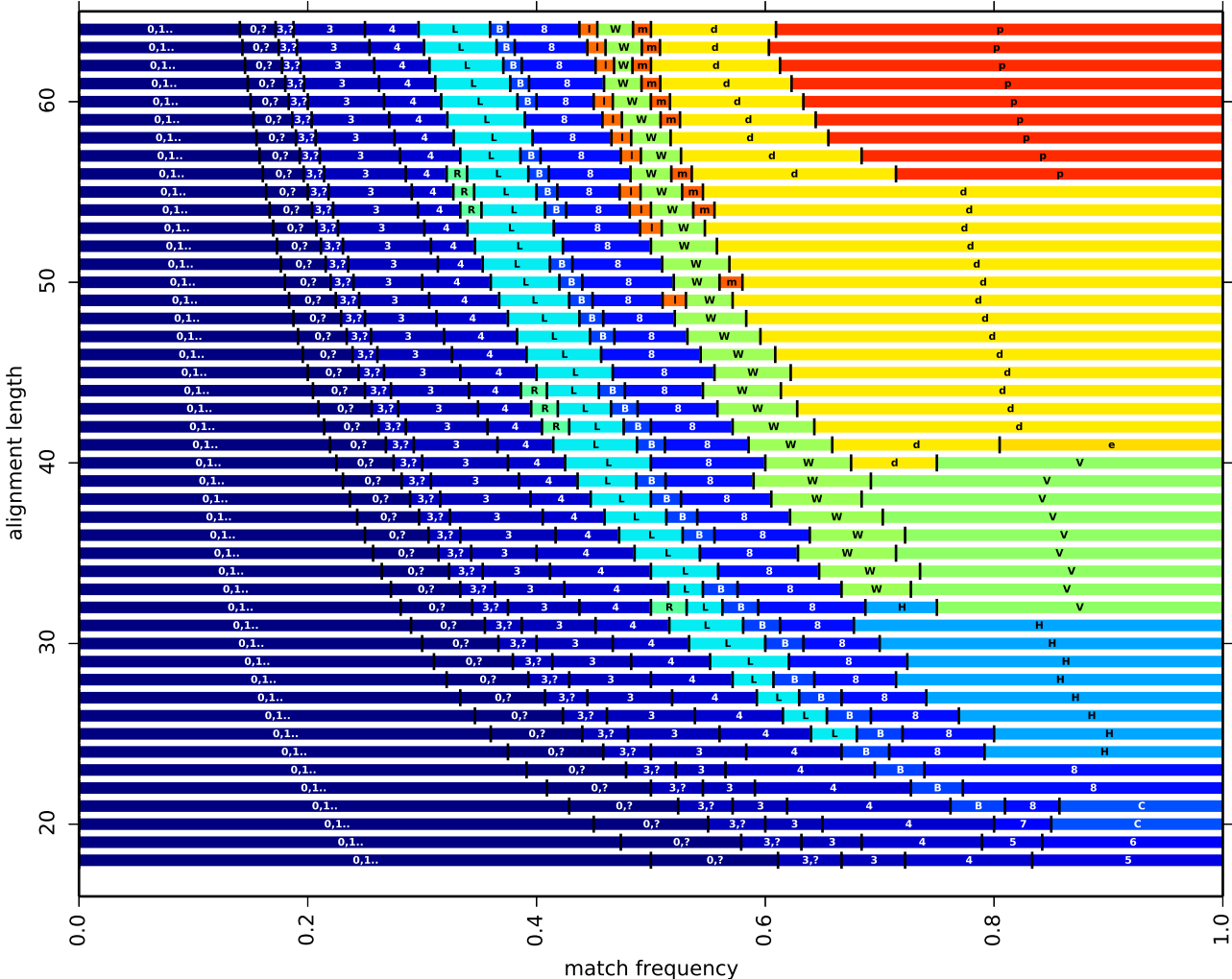
```

```

U = 1110101111,111011100101,1110010011011
V = 1110101111,111001010101,1110001001011
W = 1101110111,111101001001,1110010001011
X = 1101101111,111101000101,1100100010101
Y = 1110101111,1110011011,1111010000101
Z = 1110101111,1111010000101,1100100001011
a = 1110101111,111101000101,1001100001011
b = 1110101111,11101001001,1101001000101
c = 1110101111,11010010011,1110100001011
d = 1110101011,111001100001,1110010000101
e = 1110101011,111010010001,1110100001001
f = 1110101011,11101010001,1110100000001
g = 1110101111,1110100101,1110010000101
h = 1110101011,11010001001,111011000001001
i = 1110101111,1100100101,11100100000101
j = 1110101011,1110100001,11101000101001
k = 1101101011,111101000001,1110010001001
l = 1101101111,110101000101,111100010011
m = 1110101011,1110010001,111010000101
n = 1110111111,1100101011,1100100001
o = 1110101011,11010001001,11010001001
p = 1101101011,1110001000101,1110100001001
q = 1101101111,1101010001,1110010001001
r = 1110111111,1101000101,110010000101
s = 1110111111,1110010011,1110010001
t = 1101111111,1111001011,11101010101
u = 1101111111,1111001011,111000110011
v = 1110101011,11100010101,111010000101
w = 1101110111,1111000101,110101000011
x = 1110101111,11110010101,111010001001

```

$$\sum_0^x \text{Heaviside}(n:3,w:9)$$



```

0 = 111111111,111011111,111110111
1 = 111111111,111011111,111101011
2 = 111111111,111010111,111101011
3 = 110111111,111101101,111100111
4 = 111101111,111101011,11110001011
5 = 111011111,110110111,111101001011
6 = 111011111,111110101,111000100111
7 = 110110111,11110011011,111100001011
8 = 110101111,11110100101,111010001100111
9 = 111101111,11101100111,1110100010111
A = 111010111,11100100111,111001010010111
B = 110111011,11110011011,1110001010111
C = 101110111,11110100111,111100010010111
D = 111010111,11100100111,1111010000100111
E = 110101111,11100101011,1111000100010111
F = 111010111,110100010111,1111010000100101
G = 111010111,111010001011,11100010100111
H = 111010111,111101001011,1110100010000111
I = 111010111,11101001011,1111001000010111
J = 110110111,111101001011,111001000100001111
K = 111101011,111001001011,111100100000100111
L = 111010111,11011100111,1110110011011
M = 111010111,1111001001011,1110001000001111
N = 111010111,1111010000101,11100100000010111
O = 111010111,11110101000101,11100100001010111
P = 110101111,111111001101,1110011010111
Q = 101111011,11100101111,111011001011
R = 110111111,11110010111,110101100111
S = 110110111,1111001001011,111100100010000111
T = 111010111,1110101000101,11101000010100111

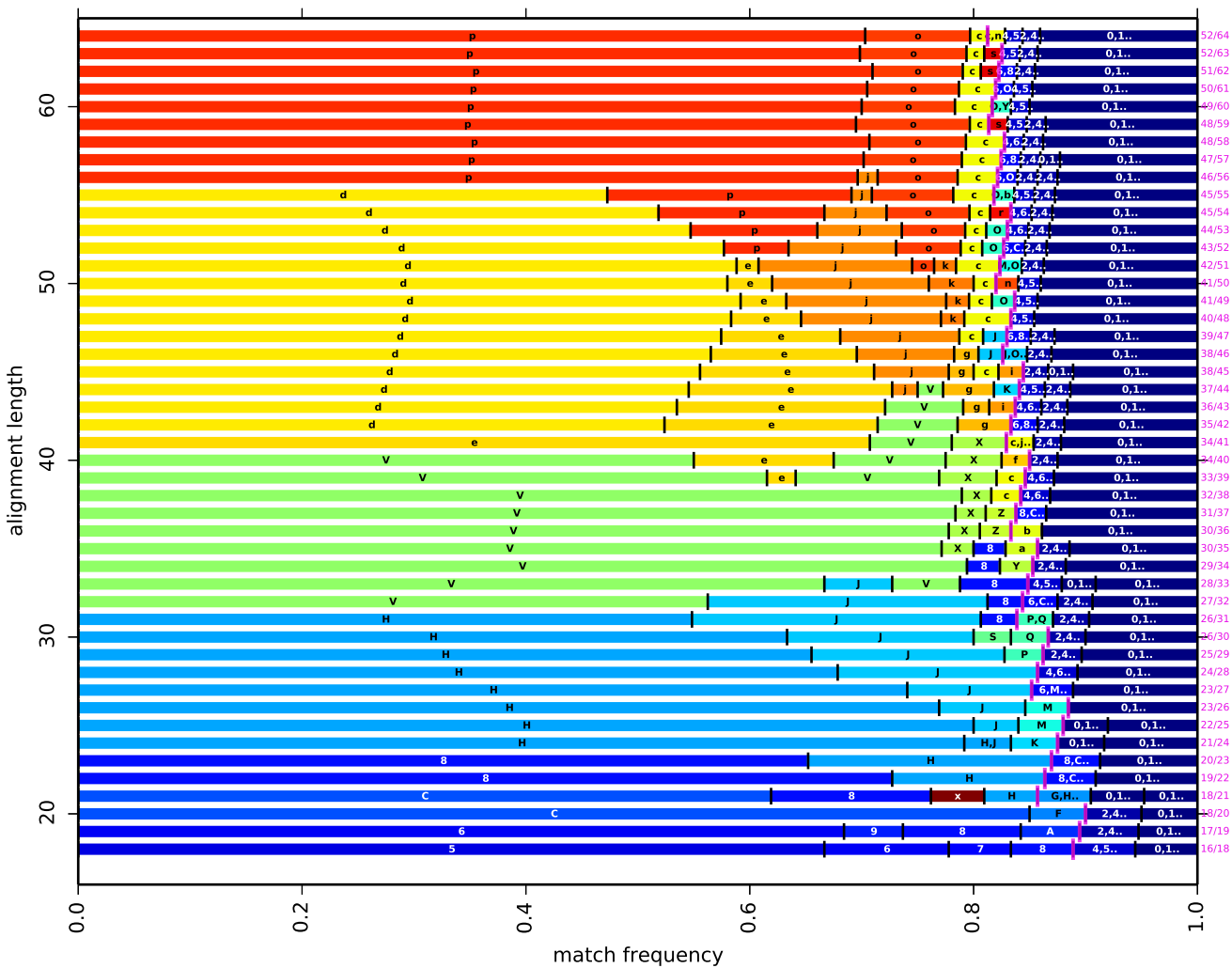
```

```

U = 111010111,111101100101,110100100111011
V = 111010111,1110010101011,11100010010010111
W = 110110111,1111010010011,11100100010100111
X = 110110111,1111010010011,11001000101001111
Y = 111010111,11100110111,111101000011011
Z = 111010111,1111010000101,11001100001010111
a = 111010111,1111010000101,1001100001010111
b = 111010111,111000110011,1101001000110111
c = 111010111,110110011011,111010100001001011
d = 1110101011,1110011000011,11101000010010111
e = 1110101011,1110100100011,111010000100100111
f = 111010111,1111010000101,11101100000001111
g = 111010111,111000110011,11100100001001011
h = 1110101011,111010001001011,111011000001010011
i = 111010111,111001001011,11100100001001111
j = 1110101011,11101001000011,11101000101001011
k = 1101101011,111101001000011,111001000101001011
l = 110110111,1101010001011,111100010100111
m = 1110101011,1110011001011,1110100001010111
n = 111011111,110011001011,110010100010111
o = 1110101011,110110001001011,11010001010010011
p = 1101101011,1110001100100101,111010000100011011
q = 110110111,11010100001011,111001000101001011
r = 111011111,110100010111,1100101000101111
s = 110101111,111001001011,1110010100010111
t = 110111111,1111001101,1110101101011
u = 110111111,1111001011,1110001100111
v = 111010111,11110001011,11100100001011
w = 110111011,111100010101,11010100001111
x = 110101111,111100110101,11101000100010111

```

$$\sum_x \text{Heaviside}(n:3,w:9)$$



```

O = 11111111,11101111,111110111
1 = 11111111,11101111,1111010111
2 = 11111111,1110101111,1111011011
3 = 110111111,1111011011,1111100111
4 = 111011111,1111101011,111010011011
5 = 111101111,1101101111,111101001011
6 = 111011111,1111101011,111010010111
7 = 110110111,11110011011,1111010001011
8 = 110101111,1111011001011,11101000100111
9 = 111101111,11101110011,1110100010111
A = 111010111,111100110011,11100101001011
B = 110110111,11111001011,1110001010111
C = 101110111,11110110011,11110001001011
D = 111010111,111100110011,1111010000100111
E = 110101111,111001101011,1111000100010011
F = 111010111,110100010111,11110110000100101
G = 111010111,1110110001011,11100010100111
H = 111010111,11101001011,1110100010000111
I = 111101011,111010011011,111100100001011
J = 110110111,111101001011,1110010001000111
K = 111101011,111001001011,11110010000010011
L = 111010111,11011110011,1110110011011
M = 111010111,11110010001011,1110001000001111
N = 111010111,111101010001011,11100100000010111
O = 111010111,11101010001011,11100100001010111
P = 110101111,11111001101,1110011010111
Q = 101111011,11100010111,1110111001011
R = 111010111,11111001011,1101011100111
S = 110110111,11110010010101,111100100010000111
T = 111010111,111010110001011,1110100000100111

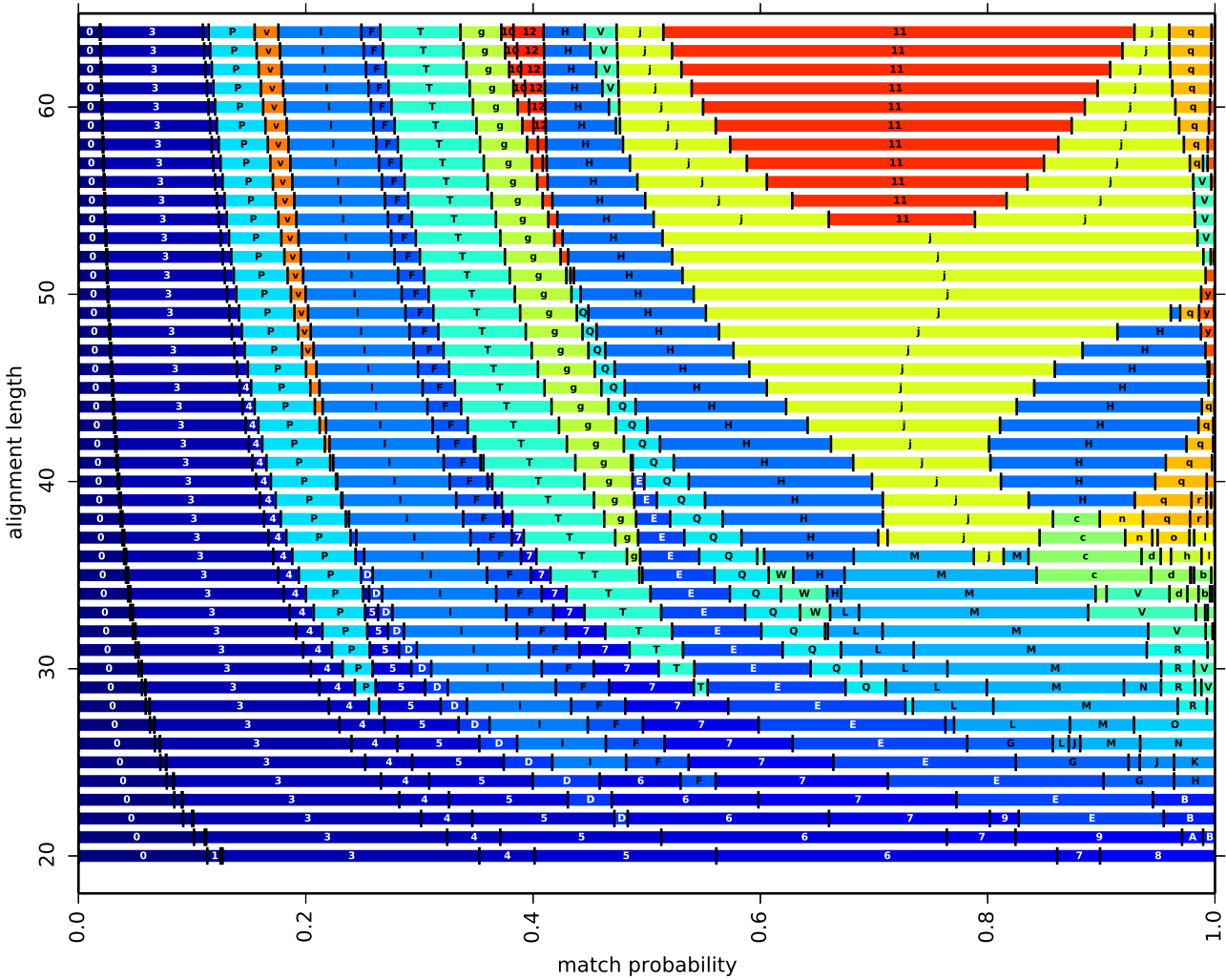
```

```

U = 111010111,111011100101,1110100100111011
V = 111010111,1110010101011,1110001001001011
W = 110110111,11110100100111,11100100010100111
X = 110110111,1111010010011,1100100010100111
Y = 111010111,11100111011,111101000011011
Z = 111010111,11101010001011,11001100001010111
a = 111010111,111101010001011,10011000001010111
b = 111010111,1110100110011,110100100011011
c = 111010111,1101100110011,111010100001001011
d = 111010111,11100110100011,11100100001001011
e = 111010111,11101001100011,11101000001001011
f = 111010111,111101010001011,1110100000000111
g = 111010111,1110100110011,11100100001001011
h = 111010111,110100011001011,111011000001010011
i = 111010111,111001001011,11100100000100111
j = 111010111,111010010000111,111010001010010011
k = 1101101011,111101001000011,111001000101001011
l = 110110111,11010110001011,111100010100111
m = 111010111,11100110010011,1110100001010111
n = 111011111,110011010111,110010110001011
o = 111010111,110110001001011,11010001010010011
p = 1101101011,111000110010011,111010000100011011
q = 110110111,11101010001011,11100100001001011
r = 11101111,110100010111,1100101000101111
s = 110101111,1110011001011,1110010100010011
t = 110111111,11111001101,1110101101011
u = 110111111,11111001011,11100001100111
v = 111010111,1111000101011,111010100001011
w = 110111011,1111000101011,110101100001111
x = 110101111,1111001101011,11101000100010111

```

Bernoulli (n:3,w:10)



```

0 = 1111111111,1110111111,11111101111
1 = 1111111111,1111101111,111011110111
3 = 1101111111,1111011011,11111001111
4 = 1101111111,1111011011,11110100111
5 = 1111011111,1111101011,111010011111
6 = 1111101111,1110111011,11110100010111
7 = 1101110111,11110011011,1111000101001111
8 = 1110110111,11100111011,111101000010111
9 = 1110110111,111001101011,111101000010111
A = 1110110111,1110011010011,111101000010111
B = 1111011011,111001010111,1111010000010111
D = 1110111111,11011110011,1111010010111
E = 1110110111,111101001011,11110100001111
F = 1101110111,111101011011,11101100100111
G = 1110110111,1111101001011,11100100010010111
H = 1110110111,1110101001011,111010001000010111
I = 1101111011,11110100111,1110011101011
J = 1111011111,11101100111,111010100001001111
K = 1111011111,1110110011011,1111001000010010111
L = 1110111011,1110100101011,1111000100010010111
M = 1110111011,1110100101011,11110000100010010111
N = 1110110111,11101001001011,1111001000100010111
O = 1111011111,1110110011011,1111000100001001111

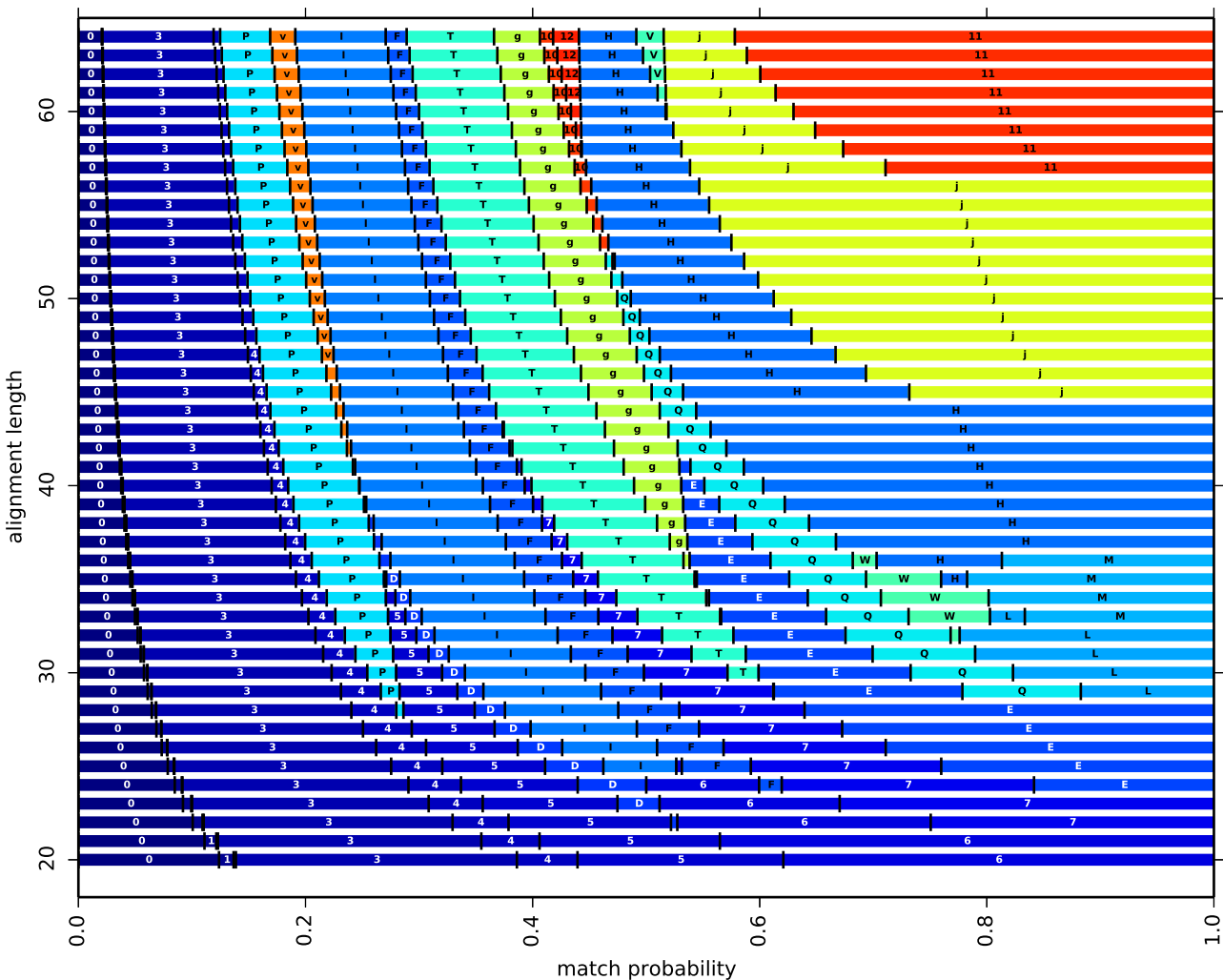
```

```

P = 1110111111,1101111100111,1111110011011
Q = 11101110111,11101001011011,111100100100010111
R = 11101110111,1110100100111,11110010001000001111
T = 11101111011,11011100100111,1111000101011011
V = 11011110111,11110010010111,11100100001010001111
W = 1110110111,11101001011011,1111000100010010111
b = 11101110111,1110100100010111,11110011000100100101
c = 11101110111,1110100100111,11110001000100100111
d = 11101110111,1110100010010111,11101001001010000111
g = 1101110111,1110110010111,11110001010010111
h = 11101110111,1110100101011011,11101000100010100111
j = 111011011011,1110010101000111,11110001001001000111
l = 11101110111,11100011101011,11111010000011011
n = 11101110111,111010010100111,11100100100010010111
o = 11110110111,1101100010101011,11100100100010010111
q = 11101110111,1110100010010111,11101001010010010011
r = 1110110111,1101011010001011,110110000101010111
v = 10111011111,1110011110111,1111110010111
y = 11101110111,1110100100010111,11010011000100100111
10 = 110101110111,11110100101011,111010001001001111
11 = 11101010111,11101001001000111,11100110001001001011
12 = 111011011011,111000110101011,1110101000001001111

```

\int_0^x Hit Integration (n:3,w:10)



```

0 = 1111111111,1110111111,11111101111
1 = 1111111111,1111011111,11101110111
3 = 1101111111,11111011011,11111100111
4 = 1101111111,11110111011,11111010011
5 = 1111011111,11111101011,11101001011
6 = 1111101111,11101110111,1111010001011
7 = 1101110111,11110011011,111100010100111
D = 1110111111,11011110011,1111010010111
E = 1110111011,11110100101011,1110100110000111
F = 1101110111,1111010111011,111011001001111
H = 11101101111,111010110010011,111010001000011011
I = 1101111011,11101001111,11100111011011
L = 1110111011,111010010100111,111100010001001011

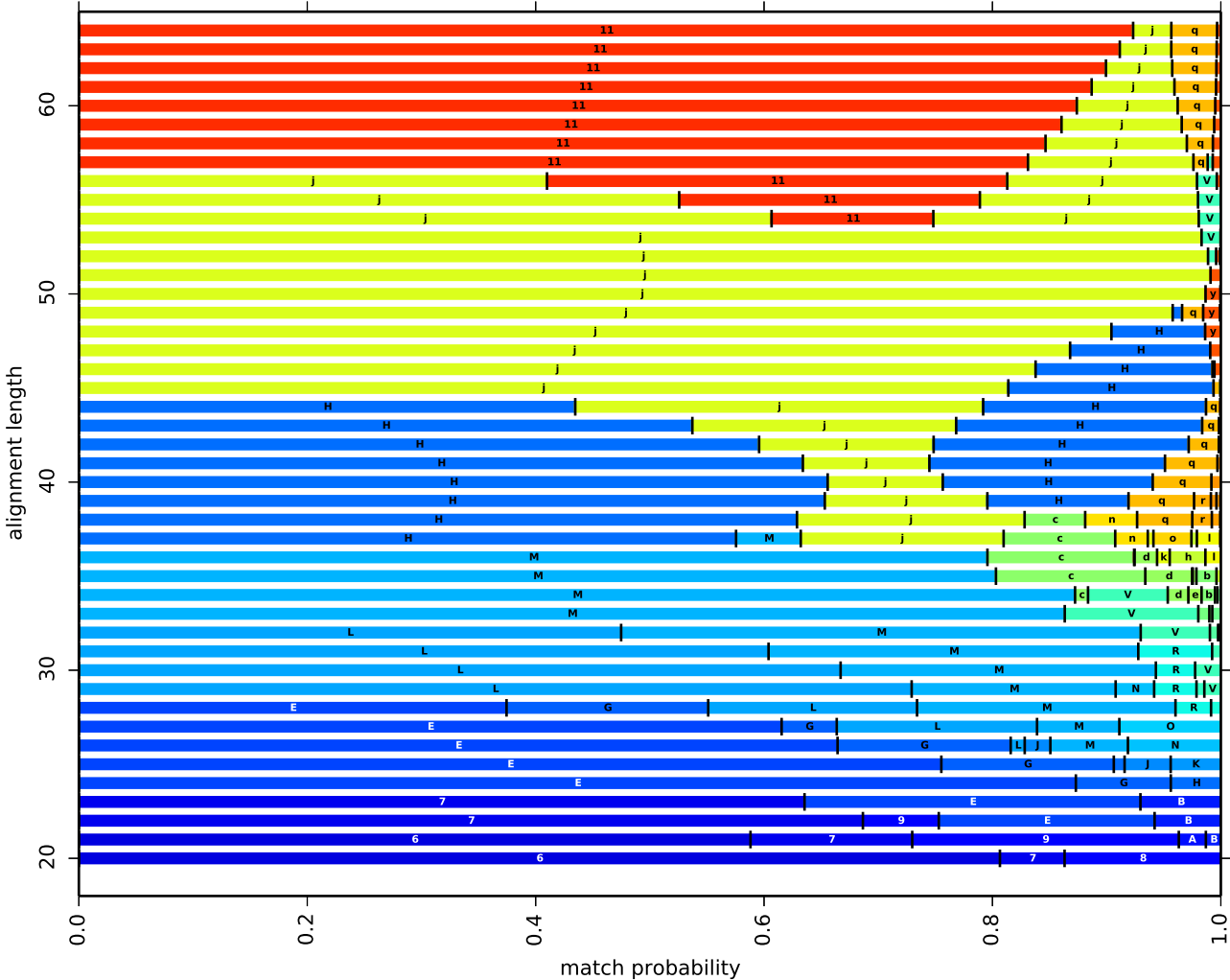
```

```

M = 11101110111,111010010100111,1111000010001001011
P = 1110111111,110111110011,1111110011011
Q = 1110111011,11101001011011,11110010010001011
T = 11011111011,11011100100111,111100010101101
V = 1101111011,1111001001001011,1110010000101000111
W = 1110110111,11101001011011,111100010001001011
g = 1101111011,11011100100111,11110000101001011
j = 1110110111,1110010101000111,11110001001000111
v = 1011101111,111001111011,1111111001011
10 = 11010111011,111101100101011,11101000100100111
11 = 1110101011,11101001001000111,11100110001001001011
12 = 11101101011,111000110101011,111010100000100111

```

\int_x^1 Hit Integration (n:3,w:10)



```

6 = 1111101111,1110111011,11110100010111
7 = 1101110111,111100110111,1111000101001111
8 = 1110110111,11110011101011,1111010000110111
9 = 1110110111,111001101011,1111010000110111
A = 1110110111,11110011010011,1111010000110111
B = 1111011011,11100101010111,11110100000110111
E = 1110110111,11110100101011,1110100110000111
G = 1110110111,11111010010011,11100100010010111
H = 1110110111,11101011001011,111010001000011011
J = 1111011111,11101100110011,111010100000100111
K = 1111011111,11101100110011,1111001000001001011
L = 1110110111,11101001010011,111100010001001011
M = 1110110111,11101001010011,1111000010001001011
N = 1110110111,11101001001011,11110010001000100111
O = 1111011111,11101100110011,1111000100000100111
R = 1110110111,11101001010011,1111001000100000111

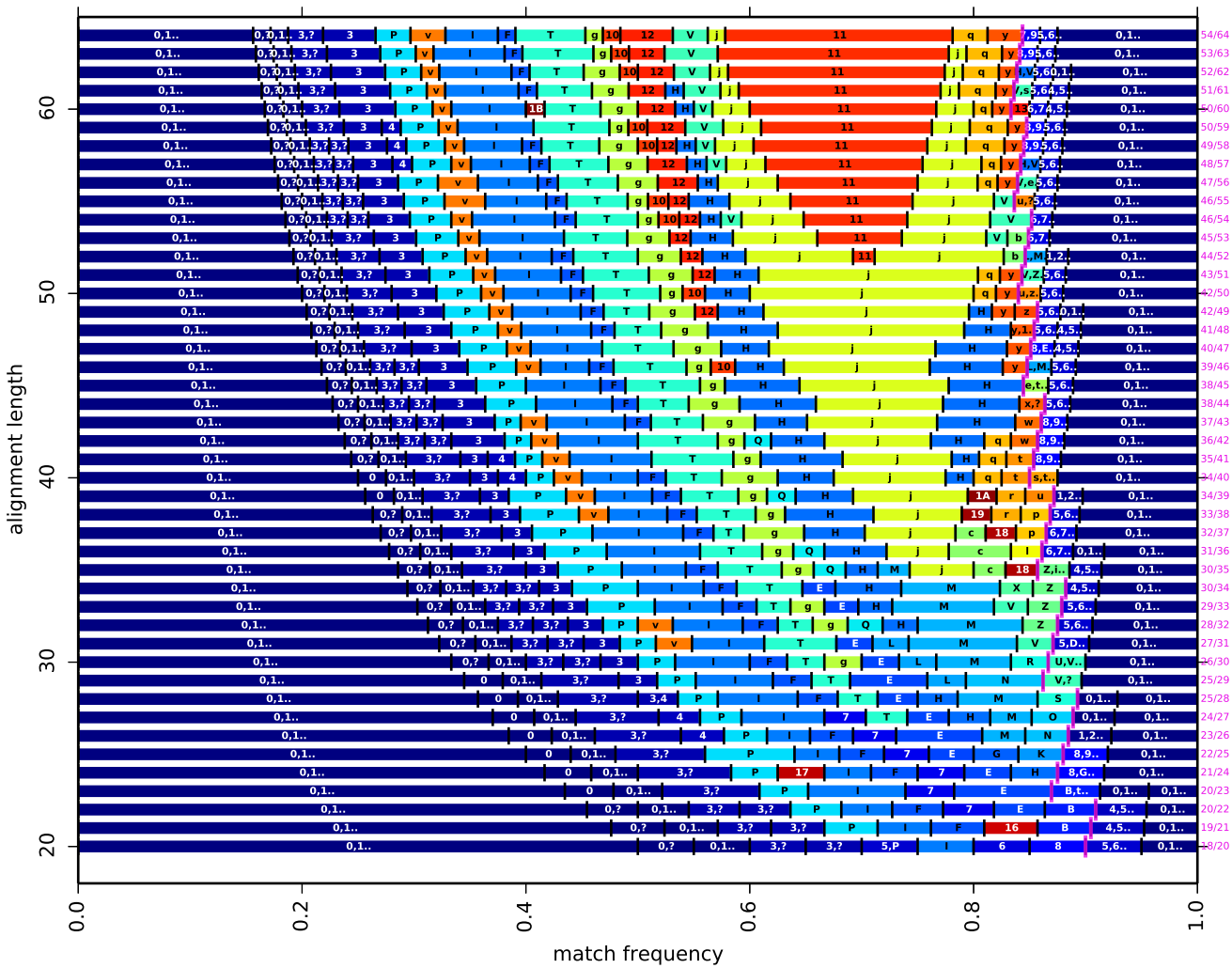
```

```

V = 110111101011,1111001001001011,11100100001010001111
b = 1110111011,1110100100010111,11110011000100100101
c = 1110111011,11101001010011,11110001000100100111
d = 1110111011,1110100010010111,11101001001010000111
e = 1110111011,111011010000111,11101010000100100111
h = 1110111011,1110100101001011,11101000100010100111
j = 1110110111,1110010101000111,11110001001001000111
k = 1110111011,111100101001011,11100100010010010111
l = 1110111011,11010011101011,1111101000011011
n = 1110111011,11101001010011,11100100100010010111
o = 1111011011,1110100010101011,11100100100010010111
q = 1110111011,1110100010010111,11101001010010010011
r = 1110111011,1101011010001011,11011000011010111
y = 1110111011,1110100100010111,11010011000100100111
11 = 1110101011011,11101001001000111,11100110001001001011

```

Dirac (n:3,w:10)



```

0 = 1111111111,1110111111,11111101111
1 = 1111111111,1111011111,111011110111
2 = 1111111111,111101110111,111110011111
3 = 1101111111,111101110111,11111001111
4 = 1101111111,111110110111,111101001111
5 = 1111011111,111111010111,1110100110111
6 = 1111011111,111011101111,1111010010111
7 = 1101110111,111110011011,111100010100111
8 = 1110111011,111100111011,11110100110111
9 = 1110110111,111001110111,111101000110111
A = 1110110111,111100110100111,11101000110111
B = 1111011011,111001010111,111011000010111
C = 1111111111,1110110111,11110110111
D = 1110111111,110111110011,1111010010111
E = 1110110111,11110100101011,1110100100001111
F = 1101110111,111101011011,11101100110111
G = 1110110111,111110100111,11100100010111
H = 1110110111,1110101100111,111010001000110111
I = 1101111011,111101001111,1110011011011
J = 1111011111,11101100110111,11101010000100111
K = 1111011111,11110100110111,1110010000100111
L = 1111011111,1110100100111,11110001000100111
M = 1110110111,11100010100111,11100001000100111
N = 1110110111,11100100100111,11110010001000111
O = 1111011111,11101100110111,111100010000100111
P = 1110111111,110111110011,111110011011
Q = 1110110111,1110100110111,1110010001000111
R = 1110110111,111010010100111,111100100010000111
S = 1111011011,11100100110111,111100001000100111
T = 1101111011,11101100110111,1111000101011011
U = 1110110111,111000010010111,11110000100010111
V = 1101110111,11100100100111,111001000010000111
W = 1110110111,11101001010111,11110001000100111
X = 1101110111,11110010100111,11110010001010000111
Y = 1110110111,11101101000111,1110001000100111
Z = 1101111111,1111110011101,111100110100111
a = 1110110111,11110100100011011,1111001001000010111

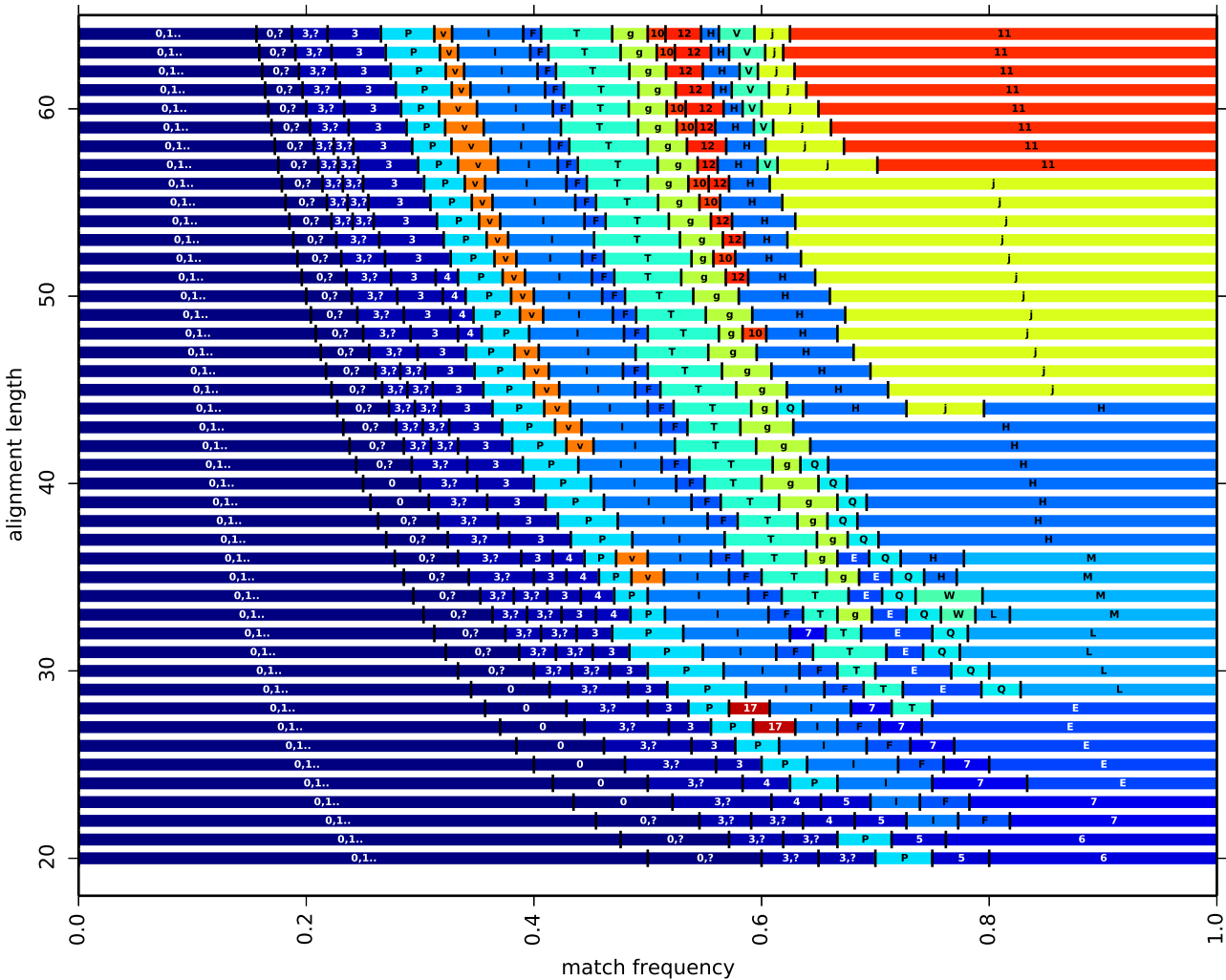
```

```

b = 1110110111,1110100100010111,11110011000100100101
c = 1110110111,111010010100111,11110001000100100111
d = 1110110111,11101001010111,11101001001010000111
e = 1110110111,111011010000111,1110101000100100111
f = 1101110111,111100110111,1111010010010111
g = 1101111011,111011001111,1110001010010111
h = 1110110111,11101001010011011,11101000100010100111
i = 1110110111,111111011001,111010010011111
j = 1110110111,1110010101000111,11110001001001000111
k = 1110110111,1111001010010111,11100100010010010111
l = 1110110111,111010011010111,111101000011011
m = 1110110111,1110101100111,1110100010000100111
n = 1110110111,111010010100111,11100100100010010111
o = 1111011011,111010001010111,11100100100010010111
p = 1110110111,11110110001011,1101000011101111
q = 1110110111,111010001010111,11101001010010010111
r = 1110110111,1110110100011011,11011000011010111
s = 1110110111,11101101100111,11011000010101111
t = 1110110111,111101010010111,11101000011010111
u = 1110110111,11110001100101,11101000001110101
v = 1011101111,111001110111,1111111001011
w = 1110110111,1111010010001011,11100100100100100111
x = 1111010111,11101001100111,11100101000001001111
y = 1110110111,111010010010111,11010011000100100111
z = 1110110111,1111001001001011,11110001000100101011
10 = 1110110111,11110110010111,111010001000100111
11 = 1110101011,111010010000111,11100100001001001011
12 = 1110110111,1111000101010111,111010100001001111
13 = 1110110111,11111001100101,111101000001010111
14 = 1110110111,11110100110111,1101101100010111
15 = 1110110111,1111001010010111,11101000100010010111
16 = 1110101111,1110011010111,11110100110111
17 = 1101111111,11110010111,11101011100111
18 = 1110110111,111001011010111,11111000100010010111
19 = 1110110111,110110001010111,11101010000100100111
1A = 1110110111,111010010100111,1110101000100100111
1B = 1110111011,11101100100111,1111001010110111

```

$$\sum_0^x \text{Heaviside}(n:3,w:10)$$



```

0 = 1111111111,1110111111,11111101111
1 = 1111111111,1111011111,111011110111
2 = 1111111111,11101110111,111110011111
3 = 1101111111,11110111011,111111001111
4 = 1101111111,11110111011,1111100100111
5 = 1110111111,11111101011,1110100110111
6 = 1111011111,11101110111,1110100010111
7 = 1101110111,11110011011,11110001001111
8 = 1101101111,11110011101011,1111010000110111
9 = 1101101111,11100111010111,111010000110111
A = 1110110111,111100110100111,111010000110111
B = 1110110111,11100101010111,1110100000110111
C = 1111111111,11101101111,11101110111
D = 1110111111,1101111100111,11110100101111
E = 1110110111,1111010010111,11101001100001111
F = 11011110111,1111010111011,11101001001111
G = 1110110111,111110100100111,11100100010010111
H = 1110110111,1110110100100111,1110100010000110111
I = 11011110111,111101001111,1110011101011
J = 1111010111,111011001100111,1110101000001001111
K = 1111010111,111011001100111,11110010000010010111
L = 11101110111,111010010100111,1111000100010010111
M = 1110110111,111010010100111,1110000100010010111
N = 1110110111,1110100100100111,1110010001000100111
O = 1111010111,111011001100111,1111000100000100111
P = 1110111111,1101111100111,11111100110111
Q = 1110110111,111010011010111,1111001000100010111
R = 1110110111,111010010100111,11110010001000001111
S = 11110110111,111001001001111,1111000010001000111
T = 11011110111,11011100100111,1111000101010111
U = 1110110111,1111000010010111,11110000100010010111
V = 11011110111,1111001001001011,11100100001010001111
W = 1110110111,111010010110111,1111000100010010111
X = 1101110111,1110010100100111,11110010001010000111
Y = 1110110111,111101100001011,111000100010010111
Z = 1101011111,1111110011101,11110010100111
a = 1110110111,1110100100011011,11110010010000010111

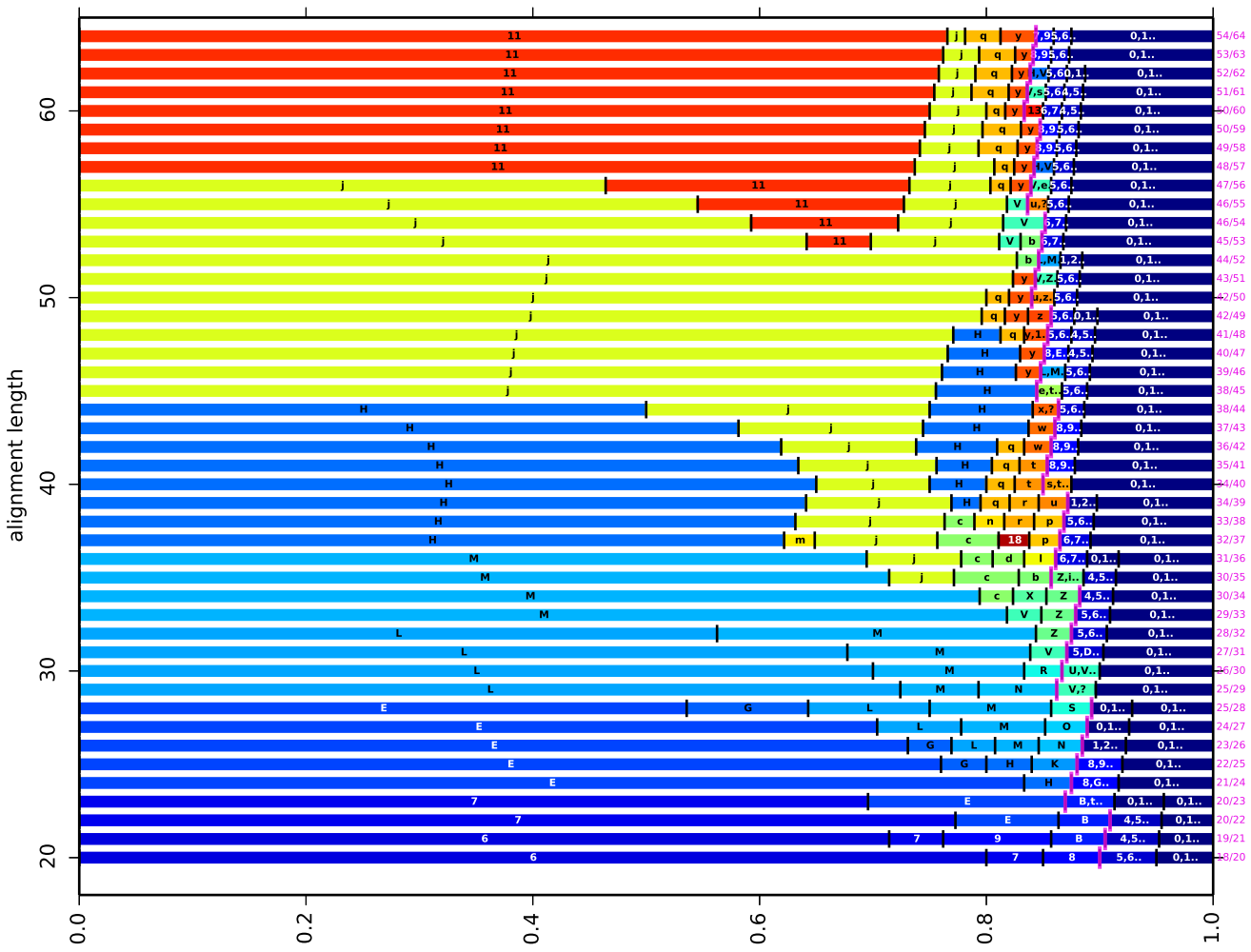
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```

b = 11101110111,11101001000101111,11110011000100100101
c = 11101110111,1110100110010111,11110001000100100111
d = 11101110111,1110100010010111,11101001001010000111
e = 11101110111,1110110100001111,1110101000100100111
f = 11011101111,1111001110111,111101001001010111
g = 11011110111,110111001001111,11110001010010111
h = 11101110111,1110100110011011,11101000100010100111
i = 11101101111,1111101110011,1110100100101111
j = 11101101111,1110010101000111,11110001001001000111
k = 11101110111,1111001010010111,11100100010010010111
l = 11101101111,1110100111010111,11111010000110111
m = 111011010111,1110101100100111,11101000100001001111
n = 11101110111,111010010100111,11100100100010010111
o = 11110110111,11011000101010111,11100100100010010111
p = 11101101111,111101110001101,111010000011101111
q = 11110110111,111010001010111,1110100100100100111
r = 11101110111,11010110100011011,11011000011010111
s = 11101101111,110101101100111,11011000010101111
t = 11011101111,1110101000100111,11011000011010111
u = 11101101111,111110011100101,11101000001110101
v = 10111011111,1110011110111,11111111001011
w = 11101110111,1110100100011011,11100100100100100111
x = 11110101111,111011001100111,1110011000001001111
y = 11101110111,1110100100010111,11010011000100100111
z = 11101110111,11110010010010111,11110001000100101011
10 = 110101110111,1110110010101,111100010001001111
11 = 111010101111,1110100100001111,11100100010010010111
12 = 11101101111,111000110101011,1110101000001001111
13 = 11101101111,111110011100101,111101000001010111
14 = 11101110111,111010010110111,1101101100010111
15 = 11101101111,11110010010111,11101000100010010111
16 = 11101111111,1111010101011,111101000100111
17 = 11011111111,111100101111,11101011100111
18 = 11101110111,11100101101011,11111000100010010111
19 = 11101101111,111010001010111,11101010000100100111
1A = 11101110111,111010010100111,1110101000100100111
1B = 11101110111,110111001001111,1111001010110111

```


$$\sum_x \text{Heaviside}(n;3,w:10)$$

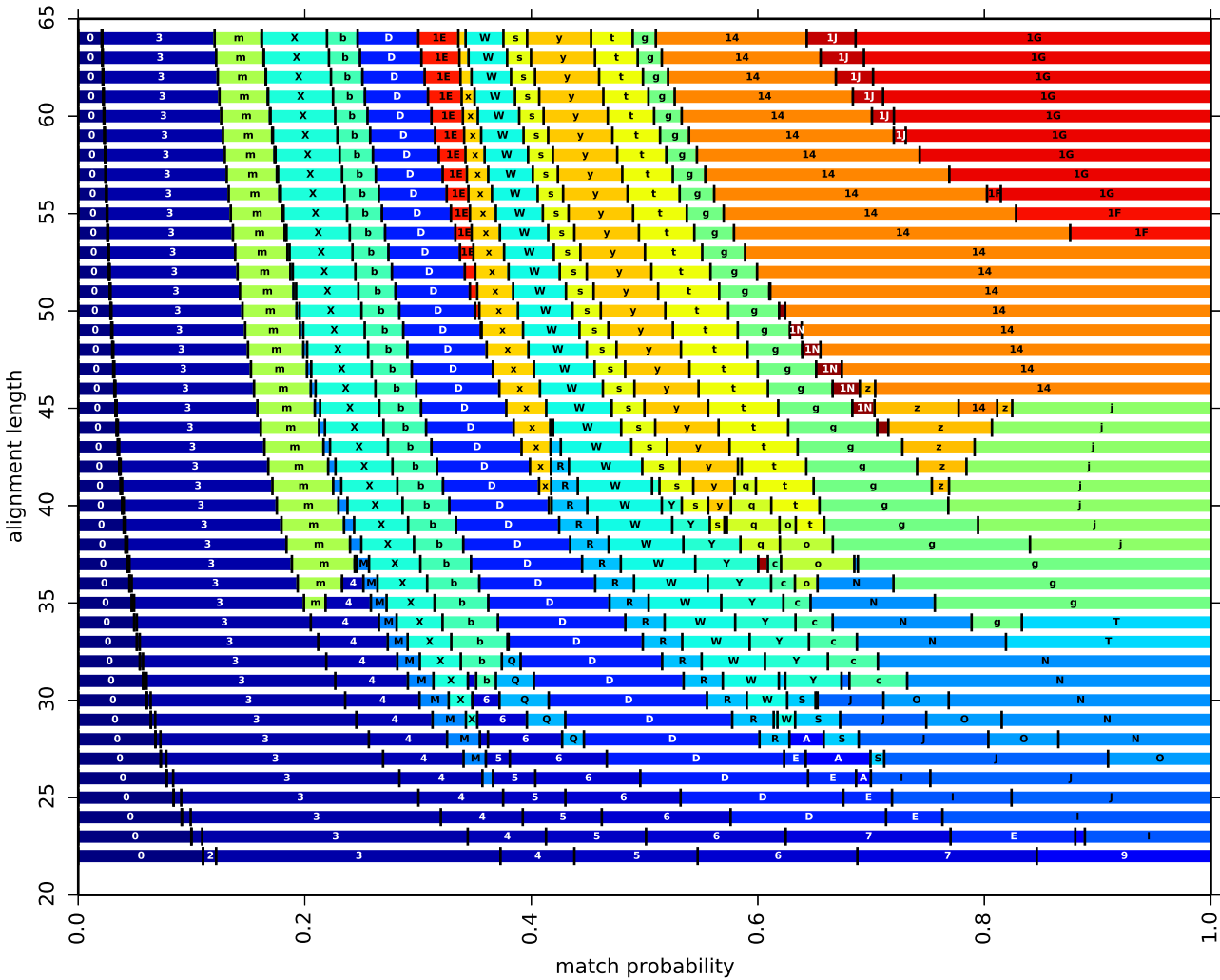


```

0 = 1111111111,1110111111,11111101111
1 = 1111111111,1111011111,11011101011
2 = 1111111111,111011110111,11110011111
3 = 1101111111,11110111011,11111001111
4 = 1101111111,11110111011,11110100111
5 = 1110111111,11111101011,11101001111
6 = 1111011111,11101110111,1110100010111
7 = 1101110111,111110011011,111100010100111
8 = 1110110111,111100110111,111101000010111
9 = 1110110111,1110011101011,111101000010111
A = 1110110111,111100110100111,111101000010111
B = 1111011011,1110010101011,1110110000010111
C = 1111111111,11101101111,11110110111
D = 1110111111,1101111100111,1111010010111
E = 1110110111,11110100101011,11110100100001111
F = 1101110111,1111010111011,1110100100111
G = 1110110111,1111100100111,11100100010010111
H = 1110110111,111010110010011,1111000010000110111
I = 1101110111,111101001111,1110011011011
J = 1111010111,11101100110011,1110101000001001111
K = 1111010111,11101100110011,1111001000001001011
L = 1110110111,11110010100111,1111000100010010111
M = 1110110111,111010010100111,1111000010001001011
N = 1110110111,1110100100100111,11110010001000100111
O = 1111010111,11101100110011,1111000100000100111
P = 1110111111,110111110011,1111110011011
Q = 1110110111,1110100101011,11110001000010111
R = 1110110111,111010010100111,11110010001000001111
S = 1110110111,11100100100111,1111000010001000111
T = 1101110111,11101100100111,111000101011011
U = 1110110111,111000010010111,11110000100010010111
V = 11011101011,1111001001001011,11100100001010001111
W = 1110110111,1110100101011,1111000100010010111
X = 1101110111,1111001010001011,11110010001010000111
Y = 1110110111,11110110000101,111000100010010111
Z = 1101110111,1111110011101,111100110100111
a = 1110110111,1111010010001011,11110010010000010111
b = 1110110111,1110100100010111,111100110001001001011
c = 1110110111,111010010010111,11110001000010010111
d = 1110110111,1110100010010111,11101001001010000111
e = 1110110111,111011010000111,1110101000100100111
f = 1101110111,111100110111,1111010010010111
g = 1101110111,1111010010111,1110001010010111
h = 1110110111,1110100101001011,11101000100010100111
i = 1110110111,111110110011,1110100100101111
j = 1110110111,11100101000111,11110001001001000111
k = 1110110111,111100101001011,11100100010010010111
l = 1110110111,111010011101011,111101000011011
m = 1110110111,11101010010011,11101000100001001111
n = 1110110111,111010010100111,11100100100010010111
o = 1110110111,1101100010101011,11100100100010010111
p = 1110110111,1111011000101,11010000011101111
q = 1110110111,1110100010010111,1110100101001001011
r = 1110110111,1110101010001011,11011000011010111
s = 1110110111,110101101100111,11011000010101111
t = 1101110111,111010100101011,110110000110101011
u = 1110110111,11110011100101,11101000001110101
v = 1011101111,111001110111,1111111001011
w = 1110110111,111010010001011,11100100100100100111
x = 1111010111,11101001100111,11100101000001001111
y = 1110110111,1110100100010111,11010011000100100111
z = 1110110111,1111001001001011,11110001000100101011
10 = 110101110111,111101100101011,111010001001001111
11 = 111010101011,1110100010000111,11100100010010010111
12 = 111011010111,111000110101011,1110101000001001111
13 = 1110110111,111110011100101,111101000001010111
14 = 1110110111,11101001010111,1101011100010111
15 = 1110110111,111100101001011,11101000100010010111
16 = 1110101111,1111001101011,111011000100111
17 = 1101111111,11110010111,11101011100111
18 = 1110110111,11100101010111,11111000100010010111
19 = 1110110111,111010001010111,11101010000100100111
1A = 1110110111,111010010100111,1110101000100100111
1B = 1110111011,11011100100111,111100101011011

```


$$\int_0^x \text{Hit Integration (n:3,w:11)}$$



```

0 = 1111111111,1110111111,111111101111
2 = 1111111111,1110111110111,111110101111
3 = 1101111111,111101111011,111111010111
4 = 1110111111,110111110111,1111110011011
5 = 1111101111,11101110111,1111100010111
6 = 1110111111,111011010111,111100010111
7 = 1111011111,111011101011,11101100010111
9 = 11110110111,1110100110111,111011100010111
A = 111101101111,11101111100111,1111100100010111
D = 11011110111,11110101111011,11101100010111
E = 11101101111,111101101011,111100010111
I = 11101101111,11111001101011,111100100011111
J = 111101110111,11101010010111,111101001100010111
M = 1110111111,1101111100111,11111100110111
N = 11110110111,111101010100111,1111001000100010111
O = 11101101111,11111001101011,11110010100010111
Q = 11010111111,111110011011,11101110100111
R = 11101101111,111011110010111,111110001010111
S = 11110110111,11101011100111,11110100100010111
T = 11110110111,1111001010010111,1111001000100010111
W = 111011110111,110111100100111,11101001010110111

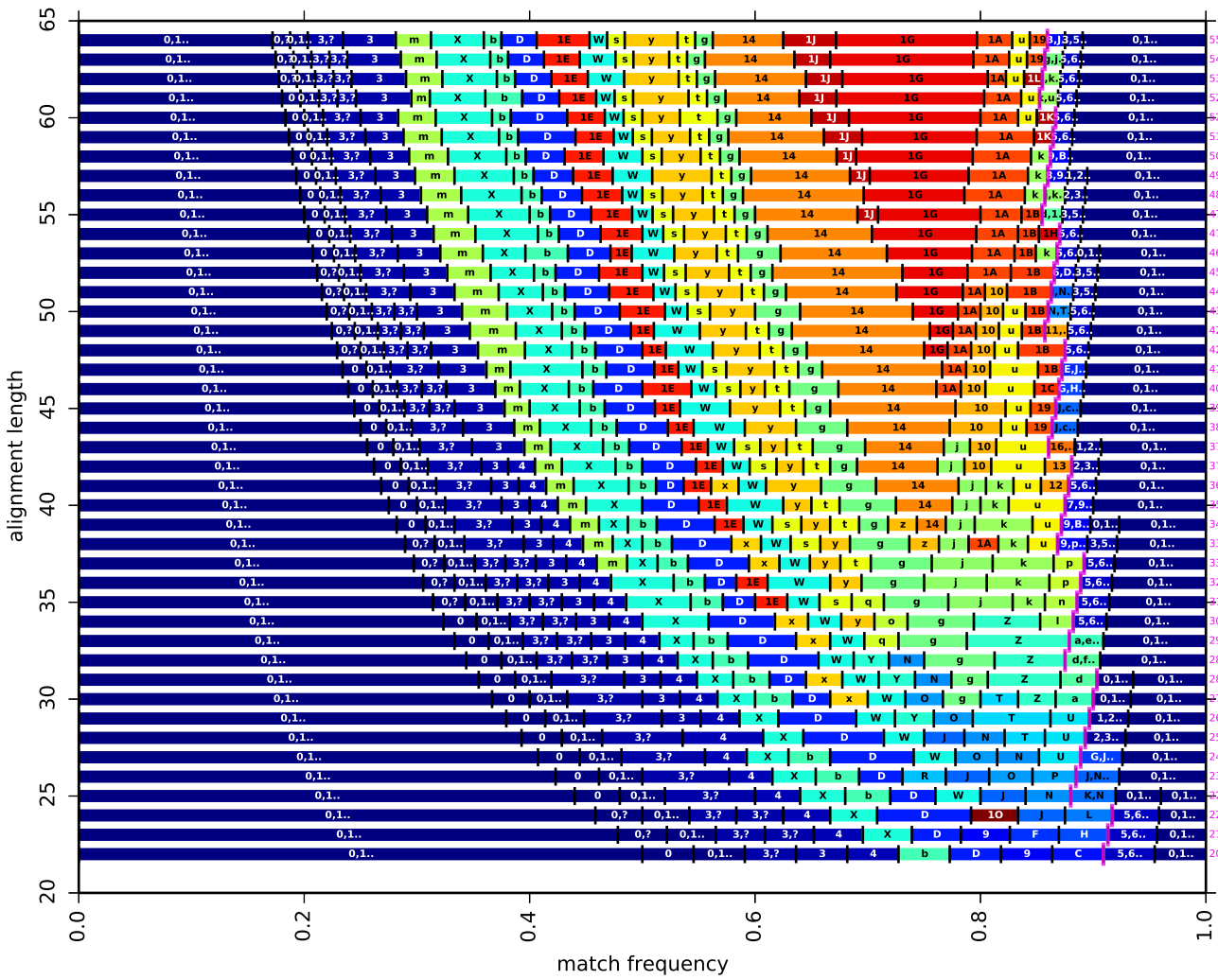
```

```

X = 110111011111,11110011110111,11111111001011
Y = 111101101111,1110101011100111,111011001000101111
b = 110111110111,1111101001111,1110011101110111
c = 111011101111,11110110100111,111101000100100111
g = 111011101011,1111010010110011,111100100010000101111
j = 1110110110111,1111000110101011,1111011000100001001111
m = 11101111111,111110111011,11011111001111
o = 111101110111,111010110100111,11110100010001001111
q = 110111101011,1111010011010111,11110011000100010111
s = 1101111010111,111010011010111,111100110001010111
t = 1110110110111,1111011000101011,11110001001001010111
x = 111011011111,111011100010111,1111000111010111
y = 1110111010111,111010011010111,11110010100001010111
z = 111111010111,1111010010100111,1110100100010000101111
14 = 11101011010111,11110110001010111,11110010000100010001111
1E = 110111101111,1101111010010111,1111000101110111
1F = 11101101100111,111100010101100111,111011001000010010111
1G = 1101111010111,1111001010010010111,1111001000100101000111
1J = 1101110110111,11110101000100111,1111001000100101000111
1N = 1110110110111,1111010100010111,111100100100001010111

```

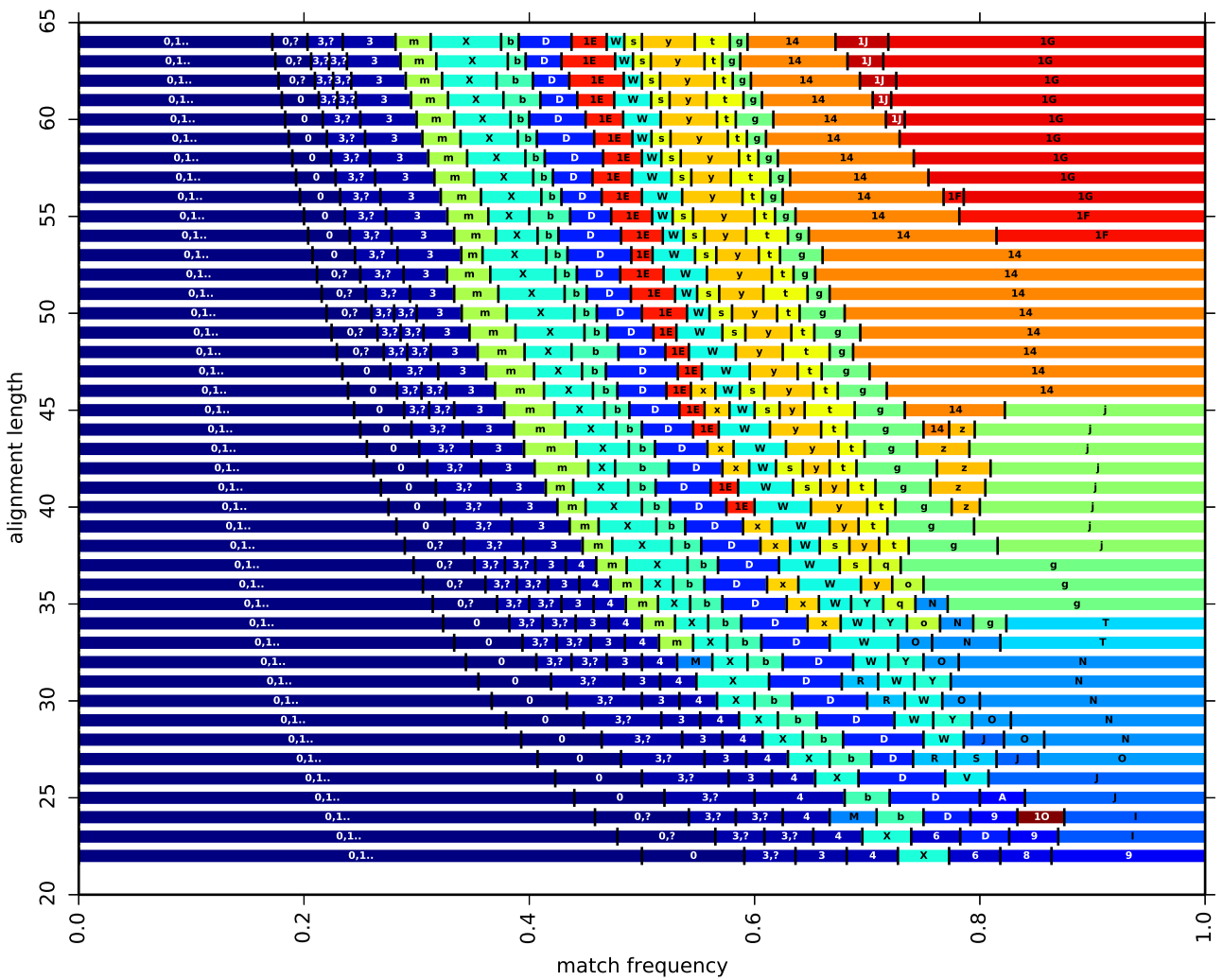

Dirac (n:3,w:11)



```
0 = 1111111111,1110111111,111111011111
1 = 1111111111,1111011111,111011011111
2 = 1111111111,111011110111,111101011111
3 = 1101111111,111011110111,111110101111
4 = 1111011111,110111110111,111111001011
5 = 1111101111,111011110111,11111010010111
6 = 1111011111,111011010111,1111101001011111
7 = 1111011111,111011101011,1110110001011111
8 = 11011110111,111100101111,1110111001001111
9 = 11110110111,1110100110111,1111101100010111
A = 11110110111,11101011100111,1111100100101111
B = 11101101111,11110001101011,1111101000010111
C = 11101101111,11110011010111,1111010001001111
D = 11011110111,111101111011,1110111001001111
E = 11101101111,1111011101011,1111101000101111
F = 11110101111,111010001101011,1111010100010111
G = 11101101111,1110011101011,11111010000100111
H = 11101101111,111100001011011,111001110001001111
I = 11101101111,11111001101011,11110010100011111
J = 11110110111,11101010010111,111101001100010111
K = 11101101111,11110001101011,1111100100001100111
L = 1110100110111,1111011000010011,1110100001110100111
M = 1110111111,1101111100111,11111100110111
N = 11110110111,111010110100111,1111001000100010111
O = 11101101111,111110001101011,111101010001001111
P = 11101101111,1111001001001011,11111001010000100111
Q = 11010111111,111110011011,111011101001111
R = 11101101111,111011100100111,111110001010111
S = 11110110111,11101011100111,111011001000101111
T = 11110110111,1111001010010111,11110010001000101111
U = 11110110111,1111001010010111,11110001000100101111
V = 11011101111,11111001101011,1111010001010111
W = 11101110111,111011100100111,111010010101011111
X = 11011011111,1111001110111,1111111001011
Y = 11110110111,111010101100111,111011001000101111
Z = 11101110111,1111010011001011,1111001000010000101111
a = 11110110111,111100100100111,111100001000100101111
b = 11011111011,1111101001111,111001110110111
c = 11101101111,111101101001011,1111010001001001111
d = 11110110111,111100101001011,1111000010001000101111
e = 11110110111,111100100100111,1111001001000100011111
f = 11110110111,1111000101001011,1111001001000100010111
g = 111011010111,111101001010011,111100100010000101111
h = 111010110111,111110010001000111,1110001010010010001111
```

```
i = 11101011010111,111110010001000111,1110001000010010011111
j = 1110110110111,1111000101010111,1110110001000001001111
k = 11110110111,1110100101001011,11100100010000100010111
l = 11110110111,1101100101001011,1111100001000100010111
m = 1110111111,111110111011,1101111001111
n = 10111101111,1110110010100111,1110100010001001001111
o = 11110110111,11101010100111,1111010001000010011111
p = 11011110111,11101001101011,11110011101010111
q = 110111101011,11101001101011,11110011000100011111
r = 11101101111,1110100111011,11110110100010111
s = 11011101111,11101001101011,11100110001010111
t = 11101101111,11101010001011,11110001001001010111
u = 11110110111,111010010100111,1110000110010001010111
v = 11110110111,1101100101001011,111000110010001010111
w = 11101110111,11100101101011,111101100100010111
x = 11101101111,11101100010111,1111000111010111
y = 11011101011,11101001101011,111100101000010111
z = 11101110111,111101001101011,1110100100010000101111
10 = 111011011011,1111000100101011,1111000010010001010111
11 = 11110110111,111100010001011,1110010100001000101011
12 = 11110110111,11101101001011,11001100000110101111
13 = 11110110111,1101100101001011,1110111000100100111
14 = 111011011011,1110111000101011,1111001000010010001111
15 = 11110110111,1101100101001011,11110010001000101011
16 = 11101101111,11110010101011,111011000001010111
17 = 11101101111,111100010100111,1110110000100010010111
18 = 11110110111,1101100101001011,11100101000100010111
19 = 11110110111,1101100101001011,111101001000101000111
1A = 111011011011,1110100101001011,1111000100010001010111
1B = 11110110111,111100101001011,11101000100010010111
1C = 11011101011,1111010101011,11101000100101001111
1D = 111010110111,1110111000101011,1111010000100100010111
1E = 11011110111,11011101001011,1111000101101111
1F = 1110110100111,111100010100111,11101001000010010111
1G = 1101101101011,111100010001001011,111100100010010000111
1H = 11110110111,1101100101001011,111100001000100101111
1I = 111011011011,11101001000100111,111000100001000101111
1J = 1101110101011,111011000010001011,111100100010001000111
1K = 11110110111,11101010010111,111100010001001111
1L = 111011011011,1110101101001011,1100001100100010101111
1M = 11110110111,111010110001011,11101100100010010111
1N = 111011010111,11110101000101011,11110010010000101011
1O = 11101101111,11101110001011,11110100011010111
```

$$\sum_0^x \text{Heaviside}(n:3,w:11)$$



```

0 = 1111111111,1101111111,11111101111
1 = 1111111111,1110101111,11101101111
2 = 1111111111,11010110111,11101010111
3 = 1101111111,11101110111,11110101111
4 = 1110111111,11011110111,11111001011
5 = 1111011111,11101110111,1111010010111
6 = 1111011111,11101101011,1111010010111
7 = 1111011111,11101110111,1110100010111
8 = 11011110111,11100101111,1110110010111
9 = 1110101111,1110100110111,1110110001011
A = 11101010111,1110101100111,111100100010111
B = 11101011111,1110001101011,11101000010111
C = 11101011111,11100101011,111010001001111
D = 11011110111,11101011011,111011001001111
E = 11101011111,11110110101,111101000010111
F = 11101011111,11101000110111,111010110001011
G = 11101011111,111001101011,1111010000100111
H = 11101010111,1111000010111,1110011000100111
I = 11101011111,1111100110101,11110010001111
J = 11101010111,11101010010111,11101000100010111
K = 11101011111,1110001101011,1111001000100111
L = 1110100110111,1110111000010011,111010000110100111
M = 11101111111,110111100111,111110010111
N = 11101010111,11101010100111,111001000100010111
O = 11101011111,11110001010111,11100101000100111
P = 11101101111,11100100100111,11100101010000100111
Q = 11010111111,111110011011,11101101001111
R = 11101011111,11101110010011,11110001010111
S = 11101010111,11101011100111,1110100100010111
T = 11101010111,111001010010111,1110010001000100111
U = 11101010111,111001010010111,111000100010010111
V = 11101010111,1111001101011,111010100010111
W = 11101110111,11011100100111,1110100101010111
X = 11011011111,111001110111,11111100101011
Y = 11101011111,11101011100111,11101100100010111
Z = 11101101011,1111010011001011,11100100001000010111
a = 11101010111,111001001010111,11110000100010010111
b = 11011110111,1111010010111,11100101101011
c = 11101101111,111010101001011,11101000100100111
d = 11101010111,111001010010111,11100001000100010111
e = 11101010111,1110010010100111,11100100100010000111
f = 11101010111,1110000100010111,1110010001000100111
g = 11101101011,111101001010011,1110010001000010111
h = 1110101010111,11110010001000111,11100010100100010111

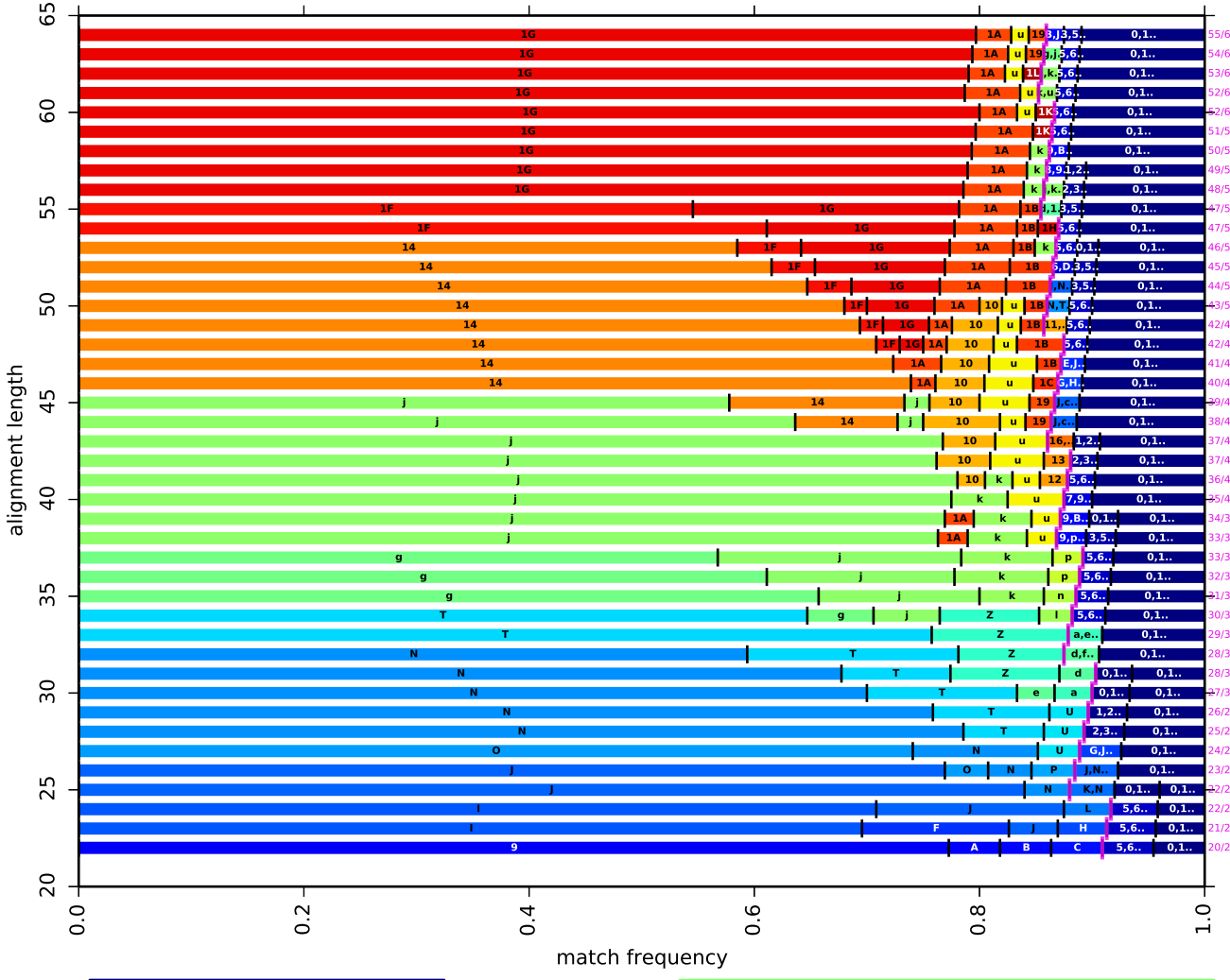
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```

i = 11101011010111,111110010001000111,1110001000010010011111
j = 1110101010111,1111000101010111,111010001000001001111
k = 11101010111,11101001010010111,1110010001000100010111
l = 11101010111,1101001010010111,1111000010001000010111
m = 11101111111,111101011011,1101111001111
n = 10111011111,111010010100111,1110100010001001001111
o = 11101010111,11101010100111,11101000100010010111
p = 11011010111,111010001010111,1110010101001011
q = 110111010111,111010011010111,111001000100010111
r = 11101010111,1110100111011,1110101000010111
s = 11011010111,111010011010111,1110010001010111
t = 11101010111,111010100010111,1110001001001010111
u = 11101010111,1101001010010111,111000010010001010111
v = 11101010111,1101001010010111,11100010010001010111
w = 11101010111,11100101010111,111010100100010111
x = 11101011111,111011000101011,111000101010111
y = 11101101011,11101001101011,11100010100001010111
z = 11101010111,111010010100111,1110100100010000101111
10 = 111010101011,1111000100101011,1111000010010001010111
11 = 11101010111,111001010010111,1110010101000101011
12 = 11101010111,11011010100111,110010000011010111
13 = 11101010111,1101001010010111,1110101000100100111
14 = 111010101011,1110101000101011,111001000010010001111
15 = 11101010111,1101001010010111,11100101000100010111
16 = 11101010111,11100101010111,1110100000101010111
17 = 11101010111,111000101010111,111010000100010010111
18 = 11101010111,1101001010010111,11100101000100010111
19 = 11101010111,1101001010010111,11101001000101000111
20 = 11101010111,1110010010010111,1110010000100010100111
1A = 11101010111,1110100101001011,11101000100010010111
1B = 11101010111,1110100101001011,111000100010010010111
1C = 11011101011,111010010010111,1110000100010010111
1D = 111010101011,1110101000101011,1111010000100100010111
1E = 11011110111,11011101001011,11110000101101011
1F = 111010100111,1110001010100111,111010010000010010111
1G = 110110101011,11100101001001011,111001000100101000111
1H = 11101010111,110100101001011,11100001000100100111
1I = 11101010111,1110100101001011,111000010000100100111
1J = 110110101011,11101010000100111,111100100010000101000111
1K = 11101010111,111010100010111,111100001000100100111
1L = 111010101011,111010101001011,11000010010001010111
1M = 11101010111,11101010010111,1110101000100010111
1N = 111010101011,111010100101011,11100100100001010111
1O = 11101010111,1110101001011,11101000101010111

```

$$\sum_x \text{Heaviside}(n;3,w:11)$$



```

0 = 1111111111,1101111111,1111110111
1 = 1111111111,1110111111,1110111011
2 = 1111111111,1101111101,1111010111
3 = 1101111111,1110111101,1111101011
4 = 1110111111,1101111101,1111100101
5 = 1111011111,1110111101,1111010011
6 = 1110111111,1101110101,1111010011
7 = 1111011111,1110111011,1110100011
8 = 1101111011,1111001011,1111011001
9 = 1111011011,1101001101,1111011000
A = 1111011011,1101011101,1111001001
B = 1110110111,1110011011,1111010001
C = 1110110111,1111001011,1111010001
D = 1101111011,1111011101,1110110010
E = 1110111111,1111011011,1111010001
F = 1111011011,1101000110,1111010001
G = 1110110111,1110011101,1111010001
H = 1110110111,1111000101,1111001100
I = 1110110111,1111100101,1111001000
J = 1110110111,1110100101,1111010001
K = 1110101111,1111000110,1111001000
L = 1110100111,1111011000,1110100001
M = 1110111111,1101111001,1111100101
N = 1111011011,1101011001,1111001000
O = 1110110111,1110101100,1111010001
P = 1110110111,1111001101,1111010001
Q = 1101011111,1111100110,1110110011
R = 1110110111,1101111001,1111100010
S = 1111011111,1110101100,1111010001
T = 1111011011,1111001010,1111010001
U = 1111011011,1111001010,1111010001
V = 1101110111,1111001101,1111010001
W = 1110111011,1101111001,1111010011
X = 1101101111,1110011101,1111111001
Y = 1111011011,1101011100,1111010001
Z = 1110110111,1111010011,1111001000
a = 1111011011,1111001001,1111001000
b = 1101111011,1111010011,1110011011
c = 1110110111,1111010101,1111010001
d = 1111011011,1111001001,1111000001
e = 1111011011,1111001001,1111001000
f = 1111011011,1111000100,1111001000
g = 1110110111,1111001010,1111001000
h = 1110110111,1111001000,1111001000

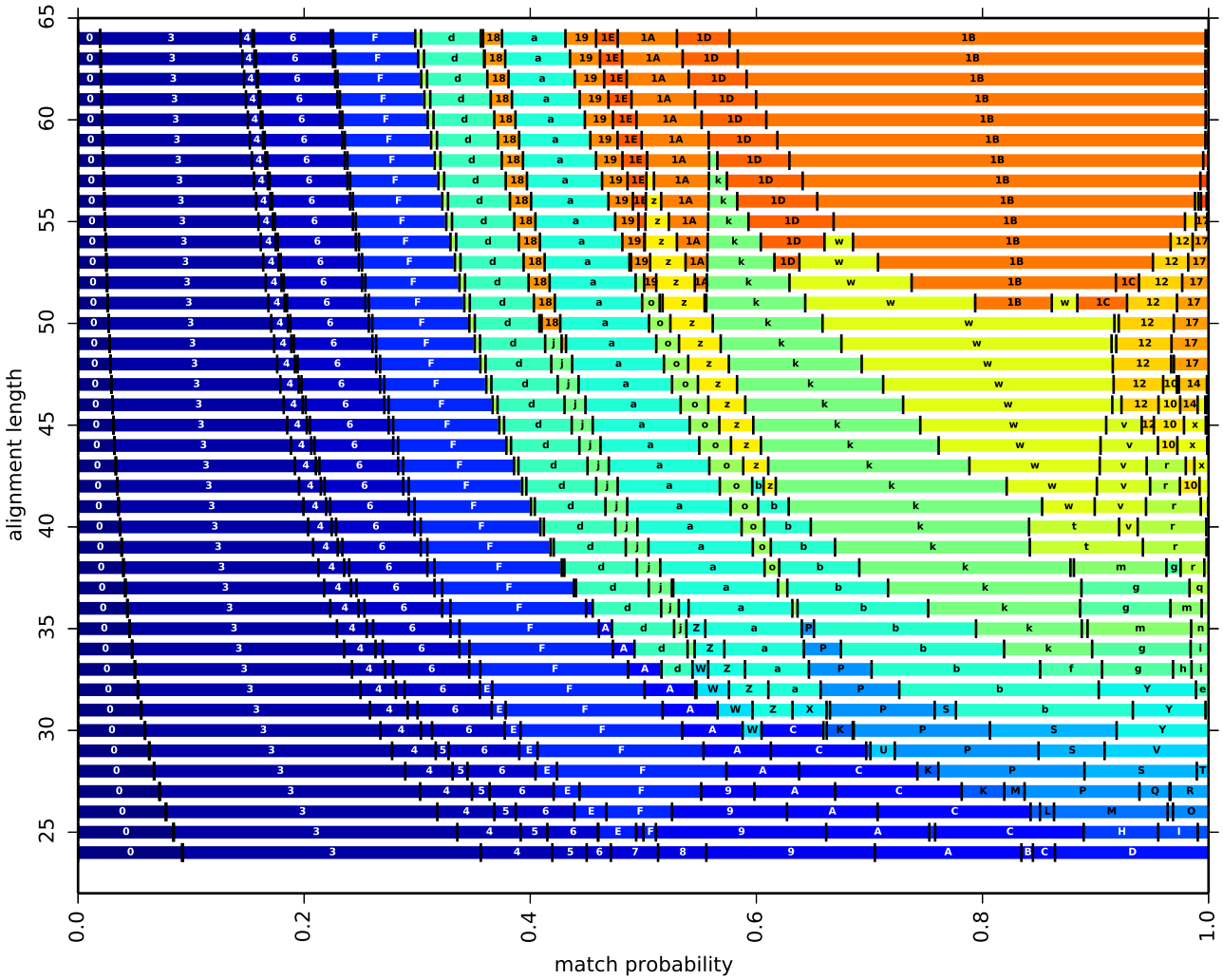
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```

i = 111010110111,1111001000100011,11100010000100100111
j = 111011011011,1111000110101011,11101100010000010011
k = 111101101111,1110100101001011,1110010010000100010111
l = 11110110111,1101100101001011,1111100001000100010111
m = 1110111111,111110110111,110111100111
n = 1011110111,1111011001010011,1110100010001001001111
o = 11110110111,11010110100111,11110100010000100111
p = 11011110111,11101001101011,1110011101001011
q = 110111010111,11010011010111,111001100010001111
r = 11101101111,110100111011,1110110100010111
s = 11011101111,11010011010111,1110011000101011
t = 11101101111,111010100010111,111000100100101011
u = 11110110111,110110010100111,11000011001001010111
v = 11110110111,110110010100111,11100011001000101011
w = 11110110111,1110010110111,111101100100010111
x = 11101101111,11011000110111,1111000111010111
y = 11011101111,1110101101011,11100101000010111
z = 111011010111,111101001101011,1110100100010000101111
10 = 111011011011,1111000100101011,111100001001000101011
11 = 11110110111,111100101001011,11100101000010001011
12 = 11110110111,11101001010011,11001100000110101111
13 = 11110110111,1101100101001011,111011000100100111
14 = 111011011011,1101011000101011,1111001000010010001111
15 = 11110110111,110110010100111,11110010000100010111
16 = 11101101111,111100010101011,110110000010101111
17 = 111011011011,111100010100111,110110000100010010111
18 = 11110110111,1101100101001011,11100101000100010111
19 = 11110110111,1101100101001011,1111010001000101000111
1A = 11110110111,111010010100111,111100010000100010111
1B = 11110110111,1110100101001011,11100001000100100111
1C = 11011101111,11110100101011,11101000100010100111
1D = 111011011011,1101011000101011,1111010000100100010111
1E = 11011110111,1101111001011,1111000101110111
1F = 111011011011,1111000101001011,11010100000100010111
1G = 1101101101011,11110001001001011,111100100010010000111
1H = 11110110111,1101100101001011,11110000010001001111
1I = 111011011011,1110001001001011,111100001000010001111
1J = 110111011011,1110110000100011,111100100010010000111
1K = 11110110111,111010100111,1111000010000100111
1L = 111011011011,110101101001011,1100001100100010101111
1M = 11110110111,11010110001011,11011001000100101111
1N = 11101101111,111101010001011,11110010010000101011
1O = 11101101111,11101110001011,11110100011010111

```

Bernoulli (n:3,w:12)



```

0 = 111111111111,111101111111,111111101111
3 = 110111111111,11111011111011,11111101011111
4 = 111101111111,11011111101111,11111100110111
5 = 111011101111,1101111010111,11111100110111
6 = 110110111111,11110011100111,11111011011011
7 = 111011111111,11111001011111,11111011001111
8 = 111011111111,11111100110111,11100010110111
9 = 110111101111,1111010110111,1110111001001111
A = 111011101111,11110110010111,1110100011011111
B = 111011011111,111100110100111,111101010001110111
C = 111011101111,11111001010111,1111001010001111
D = 111101101111,11101011100111,111110010001010111
E = 110111011111,11110111010111,1111101001101111
F = 110110111111,11110111101011,1110101001101111
H = 111011011111,111100101010111,111101000001011111
I = 111011011111,11110010110111,11101010001000111111
K = 111101101111,11101011100111,11110110000010101111
L = 111101101111,11110010101011,11110100010001011111
M = 111101101111,111100101001011,11110100010001011111
O = 111101101111,111100101001011,11110101000000101111
P = 111101101111,11110010110111,11110010001000101111
Q = 111101101111,111100101001011,11110010100010010111
R = 111101101111,111100101001011,1111010100010010001111
S = 111101101111,111100101001011,1111010001000100011111
T = 111101101111,111100101001011,11110001000100010111
U = 111101101111,111100101101011,11110100010001011111
V = 111101101111,111100101001011,11110001000100010111
W = 111011011111,11110001101011,111101010001010111
X = 111101101111,11110010101011,11110101000100101111
Y = 111101101111,111100101001011,1111000010001000101111
Z = 111011110111,111101001011011,111011001100010111

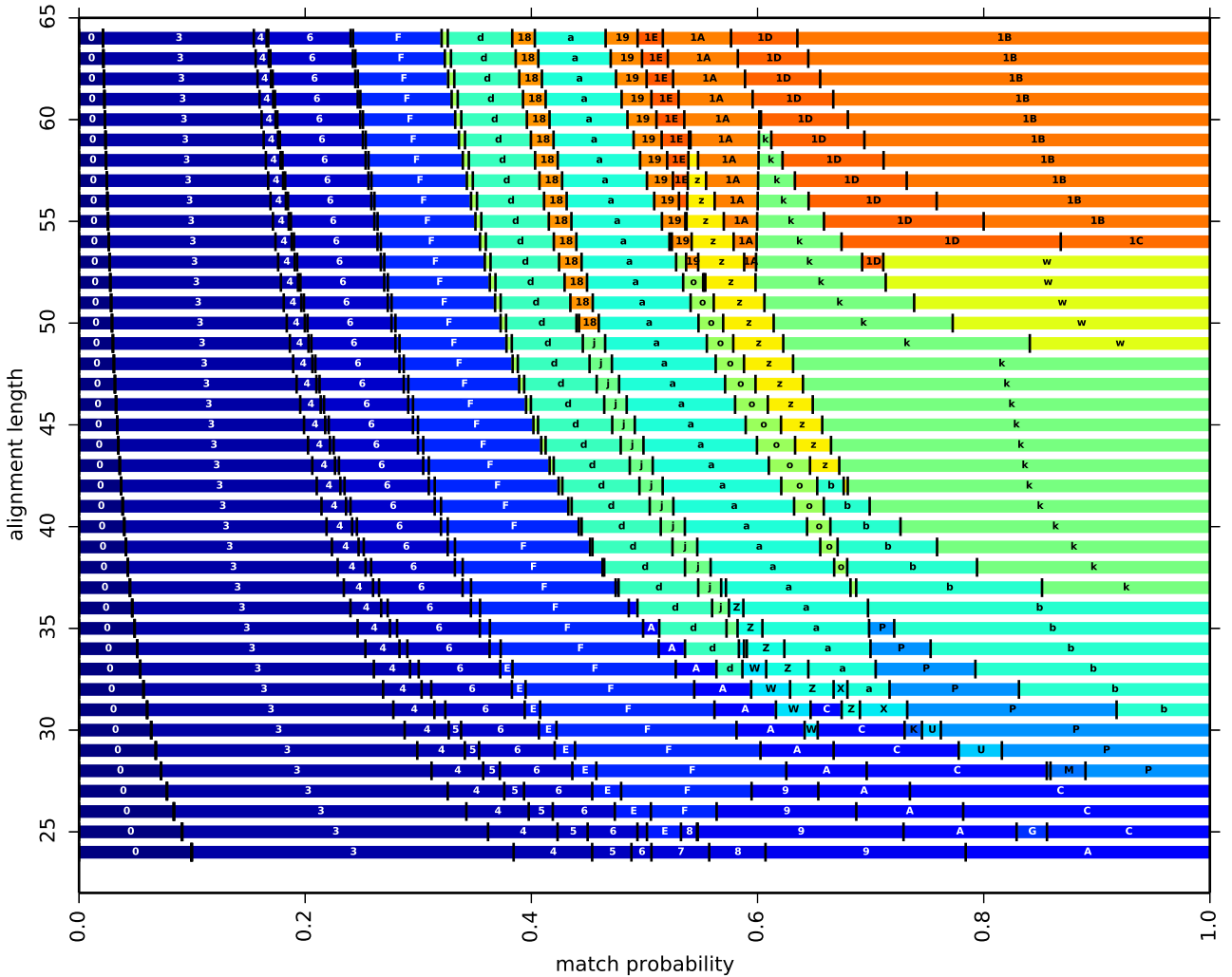
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a = 110101110111,1111011001011011,11110100011001001111
b = 111101101111,11110011010010111,1111010010001000101111
d = 110101111011,111110100111011,111100110010110111
e = 111101101111,111100100101011,1111000010001000101111
f = 111011011011,1111001010010111,11110010001000101001111
g = 111101101111,1111001010010111,111101000010001000101111
h = 111101101111,1111001001010011,111100010010001000011111
i = 111101101111,111101001001001011,111101001000100100001111
j = 110101101111,1111001100101011,111101010000110111
k = 111011011011,11110010010101011,1111000100010010010111
m = 111011101011,11110100101001011,1111010100010000001111
n = 111011101011,1111001001010101,111100010001001000011111
o = 111101101011,1110101110110011,111011001000010101111
q = 111101101111,1111001100101011,111100010001000100011111
r = 111101101111,11110010010101011,11110010001000100101111
t = 111011011011,11110100101001011,111100010001000101001111
v = 111011011011,11110100100101011,111010001001000101001111
w = 111011011011,111100101001001011,111010001001000101001111
x = 111101101111,1111001000101011,111101010001000101001111
z = 111011011011,11110010010101011,1111001100010010010111
10 = 111101101111,1111001000101011,11110010001001010111
12 = 111011011011,1111001001010101,1111001000100010100111
14 = 111101101111,111100101010011,1111010001000101001111
17 = 111101101111,1111001001010101,1110101000100010010111
18 = 111010111011,111110100111011,11110011001010011111
19 = 111011011011,111110000101011,11101000111000101111
1A = 111011011011,1111001001101011,1111000100100010010111
1B = 111011011011,11110100010001011,1111010001000101000111
1C = 111011011011,11110100100101011,111100100010001000110111
1D = 111011011011,1111000100101011,111100100010000100101111
1E = 111011011011,1111001001101011,1110011001000100101111

```


\int_0^x Hit Integration (n:3,w:12)



```

0 = 111111111111,111101111111,111111101111
3 = 110111111111,1111011111011,1111111010111
4 = 111101111111,110111110111,1111111010111
5 = 110111111111,1101111101011,1111110010111
6 = 110111011111,1111011100111,11111011101011
7 = 111011111111,1111100101111,1111011100111
8 = 111011111111,1111100110111,111100101010111
9 = 110111101111,1111010111011,111011100101111
A = 111011011111,11110111001011,1110101000110111
C = 111011101111,11111001011011,11110010100011111
E = 110110111111,11111011101011,111110100110111
F = 110110111111,11110111101011,111010100110111
G = 111011011111,11110111001011,11111010001101011
K = 111101101111,11101011100111,1111011000001010111
M = 111101101111,111101010010111,1111010001100010111
P = 111101110111,11110010110111,1111001000100010111
U = 111101110111,1111001011010111,1111011000100010111
W = 111101101111,1111100011101011,11111011000010111

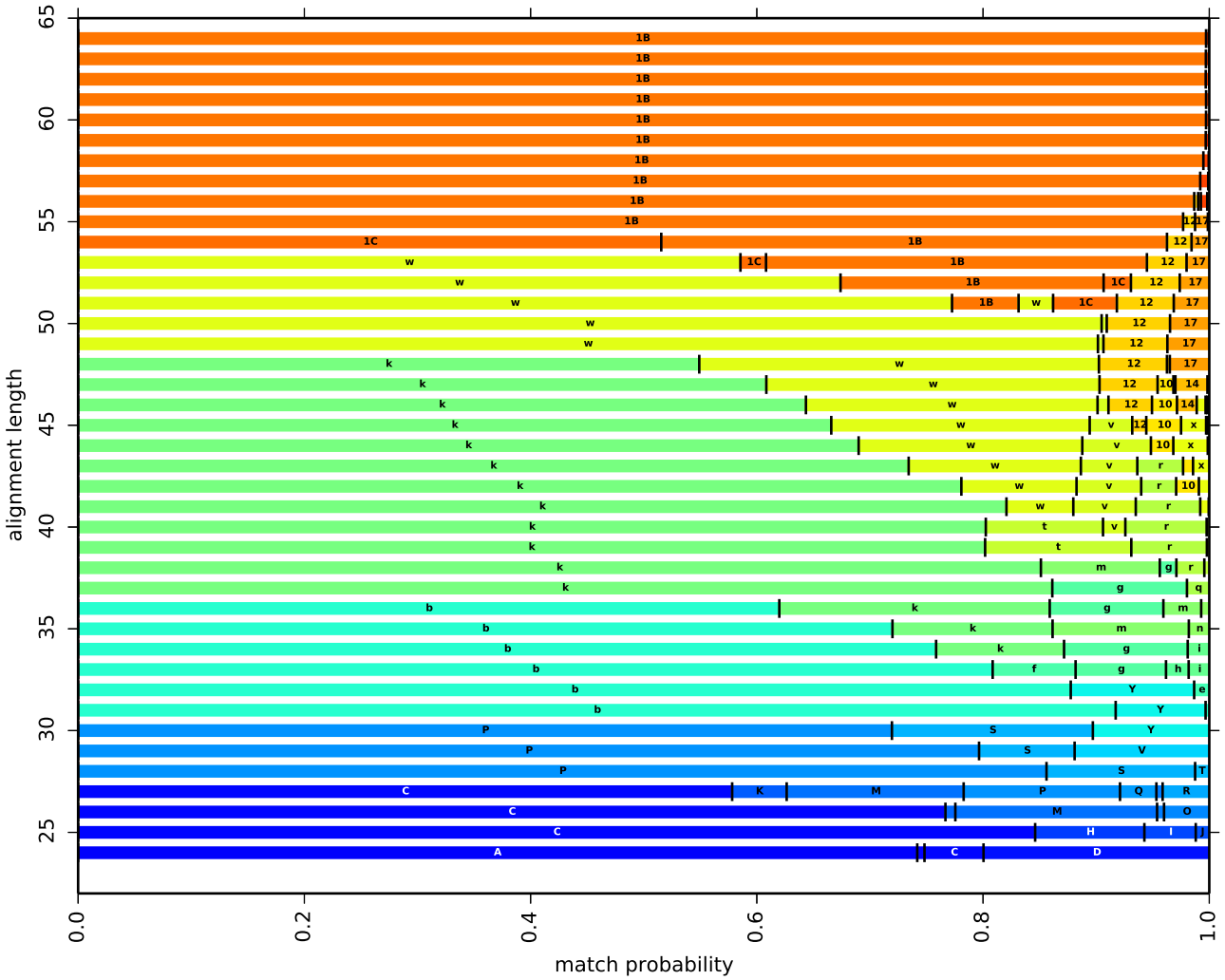
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X = 1111011101111,1111001011010111,11110101000100110111
Z = 1110111110111,11110100101110111,1110110011000101111
a = 11010111101111,1111011001010111,1111010001100101111
b = 1111011101111,11110011010010111,1111010010001000101111
d = 1101011110111,1111110100111011,11110011001010111
j = 1101011011111,1111110011101011,1111011010000110111
k = 11101110110111,111100100101010111,1111000100100100101111
o = 11110110101111,11101011101100111,11101101000010101111
w = 11101101110111,1111001010010010111,111010001001000101001111
z = 11101110110111,111100100101010111,111100110001001010111
18 = 1101011110111,11111101100111011,11110011001001111
19 = 1110110110111,11111001000101011,1110100011100010111
1A = 11101101110111,111100101001101011,11110001001000100101111
1B = 111011011010111,111101010001100010111,111101000100100101000111
1C = 111011011010111,111101001100101011,111100100100001000110111
1D = 111011011010111,111100011001010111,11110010001000010010111
1E = 11101101110111,1111001010011010111,111001100100010010111

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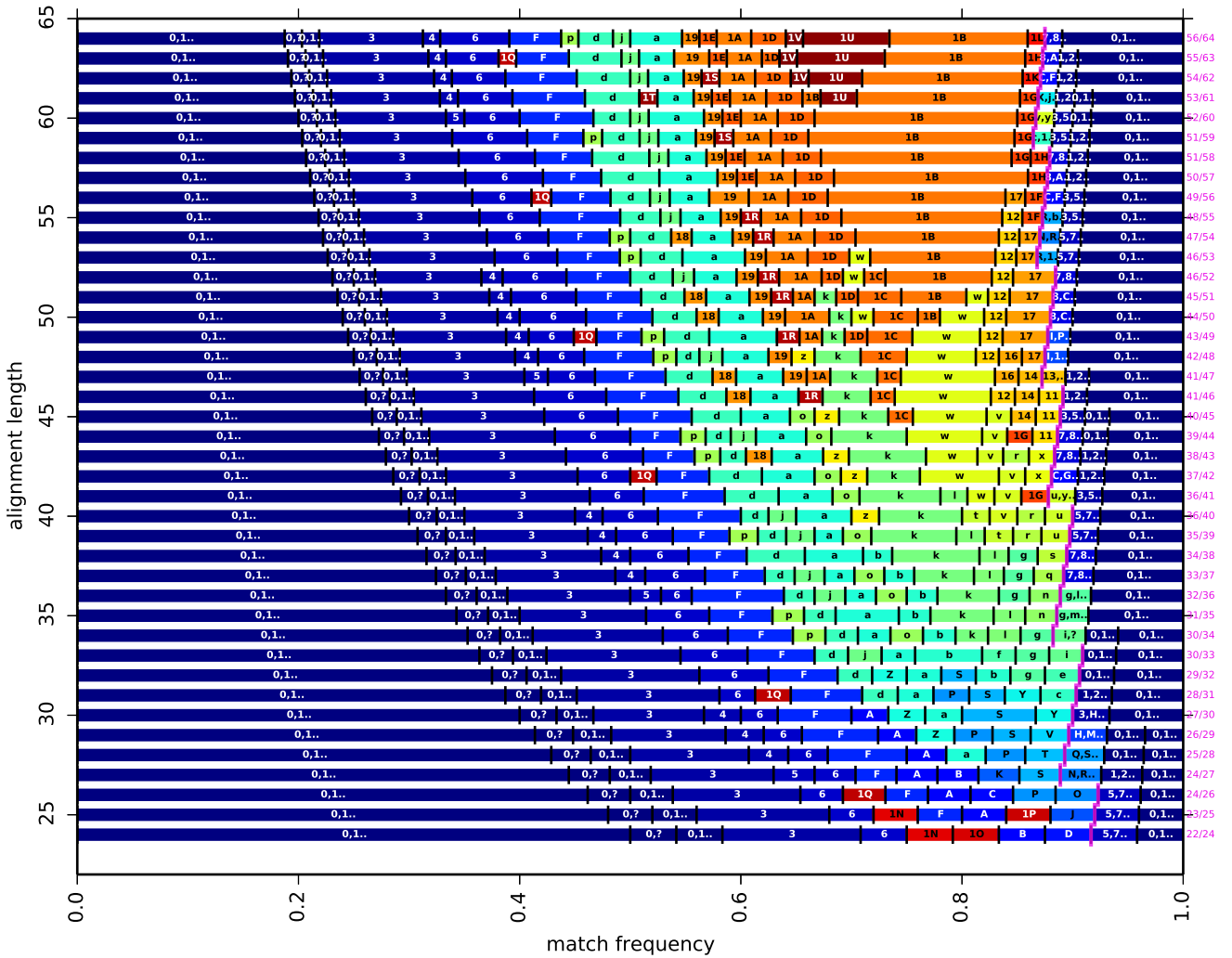
\int_x^1 Hit Integration (n:3,w:12)



A = 111011011111,111101110010111,111010100011101111
 C = 1110111101111,111110010101011,1111001010100011111
 D = 111011011111,1110101011100111,111110010001010111
 H = 111011101111,11110010110100111,111101100000101111
 I = 111011101111,11111001010101011,111010100010001010111
 J = 11101110110111,11110010010111011,111011010100000010111
 K = 111011011111,1110101011100111,11110110000010101111
 M = 111011101111,111011010010111,11110100011000101111
 O = 111011101111,1111001010010111,1111010100000001101111
 P = 111011101111,111100101010111,11110010001000101111
 Q = 111011101111,1111001010010111,1111001010001001001111
 R = 111011101111,1111001010010111,1111010100010010001111
 S = 111011101111,1111001010010111,1111010010001000101111
 T = 111011101111,1111001010010111,111100010001001001111
 V = 111011101111,1111001010010111,111100010001000101111
 Y = 111011101111,1111001010010111,1111000010001000101111
 b = 111011101111,11110011010010111,1111010010001000101111
 e = 111011101111,11111001010010111,1111000010001000101111
 f = 111011101111,111100101001001111,11110010001000101001111

g = 111011101111,11110011010010111,111101000010001000101111
 h = 111011101111,11110010010100111,111100010010001000011111
 i = 111011101111,1111010010010010111,111101001000100100001111
 k = 111011101111,111100100101010111,1111000100010010010111
 m = 111011101111,111101001001010111,111101010001001000001111
 n = 111011101111,1111001001001010111,11110001000100100001111
 q = 111011101111,1111001010010111,111100010010001000101111
 r = 111011101111,1111010010100101011,111100100010001001001111
 t = 111011101111,111101001010010111,11110001000100010100111
 v = 111011101111,1111010010010100111,111010001001000101001111
 w = 111011101111,1111001010010010111,1111010001001000101001111
 x = 111011101111,1111010011000110111,11110101001000100100111
 10 = 111011101111,111101001100010111,11110010100100010010111
 12 = 111011101111,11110010011010111,1111001000100010100111
 14 = 111011101111,11110010110100111,111010001000101001111
 17 = 111011101111,111101001001010111,11101010010001001001111
 1B = 11101110101111,111101010001100010111,11110100010010010000111
 1C = 11101110101111,1111010100110010111,111100100100001000101111

Dirac (n:3,w:12)

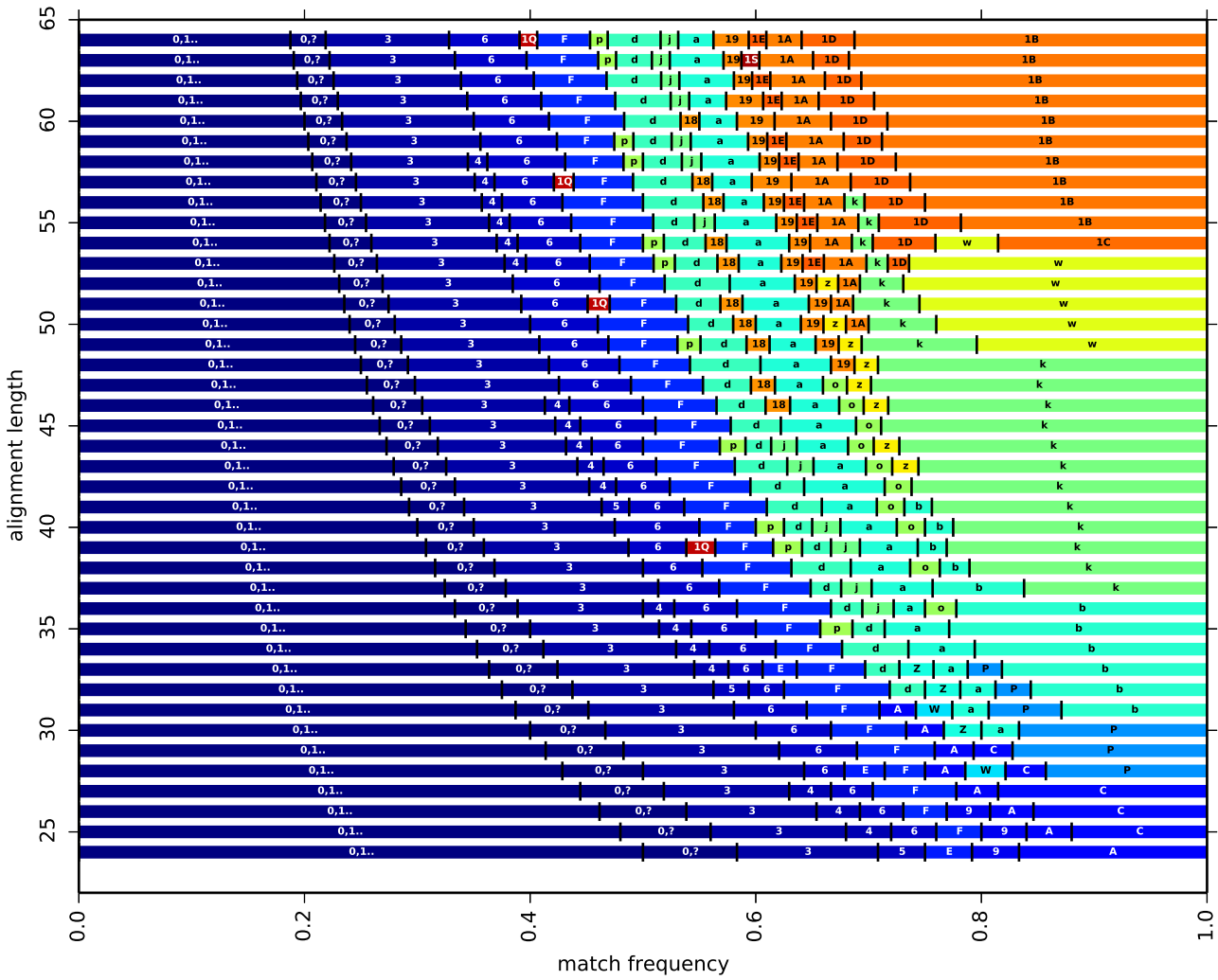


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0 = 111111111111,111101111111,111111101111
1 = 111111111111,111110111111,111011110111
2 = 111111111111,111011111011,111101011111
3 = 110111111111,111101111101,111111010111
4 = 111101111111,110111110111,111111001101
5 = 110101111111,110111010111,111100101011
6 = 110110111111,111011110011,111110101101
7 = 111011111111,111110001011,111110110011
8 = 111011111111,111111001011,111100101010
9 = 110111101111,111101011101,111101001011
A = 111010111111,111101100011,111010100111
B = 111010111111,111100110201,111101000110
C = 111011101111,111110001011,111100101000
D = 111101011111,111010111001,111111001000
E = 110110111111,111101111010,111110100010
F = 110110111111,111101101011,111010100111
G = 111010111111,111101110001,111101000101
H = 111011011111,111100101000,111110100000
I = 111101101111,111100101011,111010000101
J = 111011010111,111100100101,111010100000
K = 111101011111,111010111001,111101000010
L = 111101101111,111100101010,111101000100
M = 111101101111,111101010001,111100010001
N = 111101101111,111100100101,111010000100
O = 111101101111,111100100101,111101000000
P = 111101101111,111100101011,111100100010
Q = 111101101111,111100100101,111100100010
R = 111101101111,111100100101,111101000100
S = 111101101111,111100100101,111100100010
T = 111101101111,111100100101,111100010001
U = 111101101111,111100101011,111101000100
V = 111101101111,111100100010,111100010000
W = 111101101111,111100011010,111101000010
X = 111101101111,111100101011,111101000100
Y = 111101101111,111100100010,111100001000
Z = 111011110111,111100101101,111101000101
a = 110101111111,111100100101,111100010001
b = 111101101111,111100101001,111101000100
c = 111101101111,111100100101,111101000100
d = 110101110111,111100100101,111100100101
e = 111101101111,111100100101,111100010001
f = 111010110111,111100100101,111100010001
g = 111101101111,111100100101,111100001000
h = 111101101111,111100100101,111100010000
i = 111101101111,111100100101,111100010000
j = 110101101111,111110011010,111101010000
k = 111011011011,111100100101,111100010001
l = 111011011011,111100100101,111100010001
m = 111011011011,111100100101,111100010000
n = 111011011011,111100100101,111100010000
o = 111011011011,111100100101,111100010000
p = 111011011011,111100100101,111100100101
q = 111011011011,111100100101,111100010000
r = 111011011011,111100100101,111100010000
s = 110101101111,111101001001,111100010000
t = 111010110111,111100100101,111100010001
u = 111010111111,111101100101,111100100101
v = 111010111011,111100100101,111100010000
w = 111010110111,111100100101,111100010000
x = 111011011111,111100100101,111010100010
y = 111011011111,111100100101,111100100101
z = 111011010111,111100100101,111100100010
1 = 111011010111,111100100010,111100100010
2 = 111011010111,111001001010,111111001000
3 = 111011010111,111001001010,111111001000
4 = 111011010111,111001001010,111111001000
5 = 111011010111,111001001010,111100100010
6 = 111011010111,111001001010,111100100010
7 = 111011010111,111001001010,111100100010
8 = 111011010111,111001001010,111100100010
9 = 111011010111,111001001010,111100100010
1A = 111011010111,111001001010,111100010001
1B = 111011010101,111101000100,111100010001
1C = 111011010101,111101000100,111100010001
1D = 111011010101,111100010010,111100010001
1E = 111011010101,111100010010,111100010001
1F = 111011010111,111100010010,111101000100
1G = 111011010111,111100010010,111100010001
1H = 111101101111,111100010010,111100000100
1I = 111011010111,111100010010,111100000100
1J = 111011010111,111100010010,111100000100
1K = 111011010111,111100010010,111100000100
1L = 111011010111,111100010010,111100000100
1M = 111011010111,111100010010,111100000100
1N = 111011010111,111100010111,111100100010
1O = 111101010111,111000101101,111101000010
1P = 111010111111,111100010101,111101000000
1Q = 110101111111,111110011011,111101000101
1R = 111011010111,111100100101,111101000101
1S = 111011010111,111100101001,111100000101
1T = 110101101111,111101100101,111100010100
1U = 111001010101,111101000100,111100010000
1V = 111010101101,111001000100,111100010001

```

$$\sum_0^x \text{Heaviside}(n:3,w:12)$$

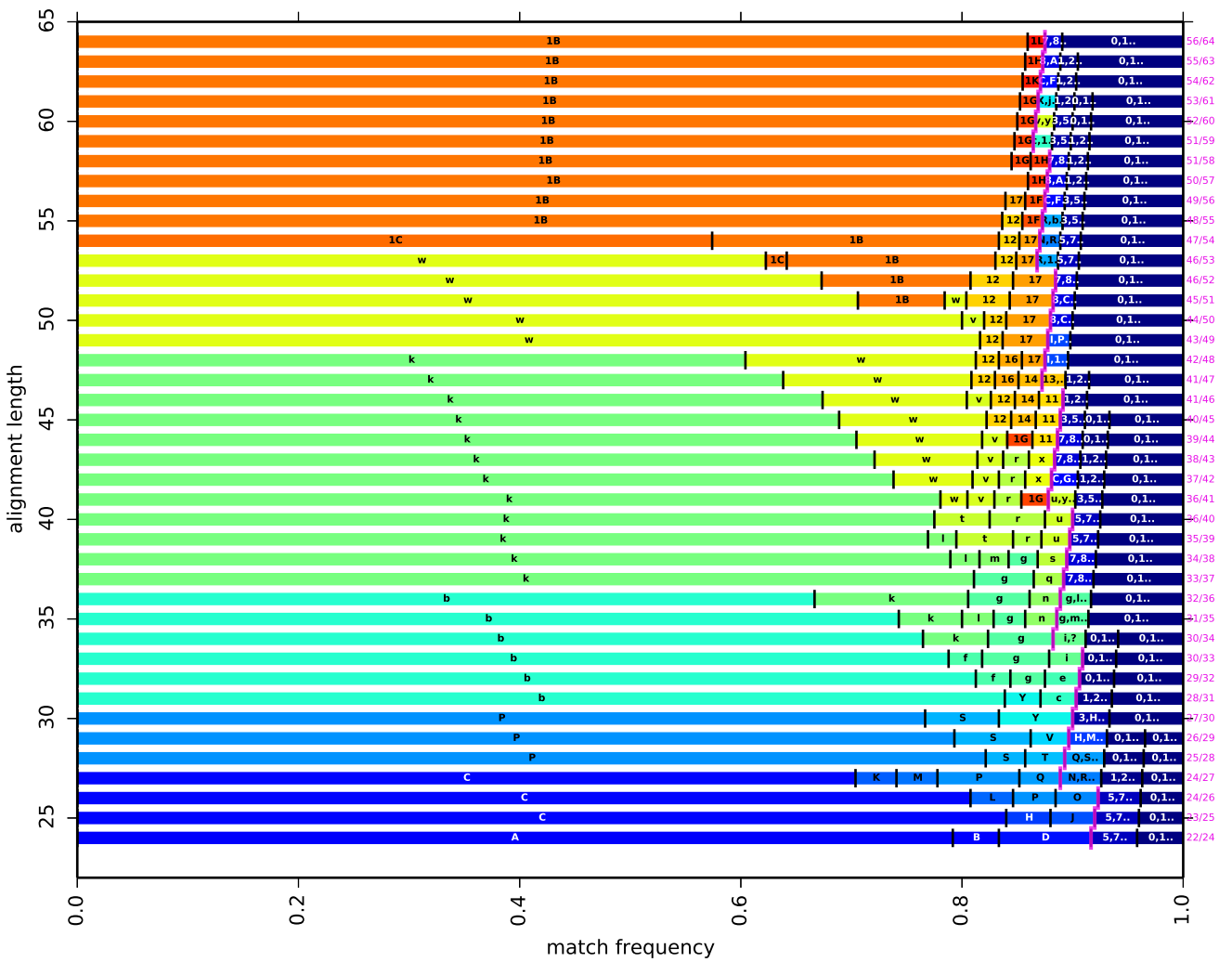


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0 = 111111111111,111101111111,111111101111
1 = 111111111111,111110111111,111011110111
2 = 111111111111,111011110111,111110101111
3 = 110111111111,111101111011,111111010111
4 = 111101111111,110111110111,11111100110111
5 = 111011111111,110111101011,11111100101111
6 = 110111011111,111101110011,11111010110111
7 = 111011111111,111110010111,11111010110011
8 = 111011111111,11111100110111,1111001011010111
9 = 110111101111,11110101110111,1110111001001111
A = 111011011111,11110111001011,1110101000110111
B = 111011011111,11110011101011,11110101000110111
C = 111011101111,11111001010111,1111001010001111
D = 111101101111,11101010110011,111111001000101011
E = 110111011111,11111011101011,1111110100101011
F = 110111011111,11110111010111,1110110100101111
G = 111011011111,11110111001011,1111010001101011
H = 111011011111,1111001010100111,111101100000101111
I = 111101110111,11110010101011,11101010001000101111
J = 111011010111,1111001001011011,111011010100000010111
K = 111101101111,111010101100111,1111011000001010111
L = 111101101111,111100101101011,111101000100010111
M = 111101101111,111101101001011,1111010001100010111
N = 111101101111,1111001001010111,1111010000100010111
O = 111101101111,1111001001010111,1111010000001010111
P = 111101101111,111100101010111,1111001000100010111
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R = 111101101111,1111001001010111,11110100010001000111
S = 111101101111,1111001001010111,11110100010001010111
T = 111101101111,1111001001010111,11110001000100010111
U = 111101101111,111100101010111,111101000100010111
V = 111101101111,1111001001010111,11110001000100010111
W = 111011101111,11110001101011,111101100001010111
X = 111101101111,11110010101011,1111010100010010111
Y = 111101101111,111100100101011,111100001000100010111
Z = 111011110111,111101000101011,111101000100010111
a = 110101110111,111101000101011,111101000100010111
b = 111101101111,111100101001011,111101000100010111
c = 111101101111,111100100101011,1111010000100010010111
d = 110101111011,11111010011011,111100110101010111
e = 111101101111,111100100101011,111100001000100010111
f = 111011011011,1111001001001011,11110100010001010111
g = 111101101111,1111001101001011,11110100001000100010111
h = 111101101111,1111001001010011,11110001001000100001111
i = 111101101111,1111001001001011,1111010001000100001111
j = 110101110111,111110011101011,1111011010000101011
k = 11101110110111,1111001001010111,11110001000100010111
l = 11101110110111,11110010010001111,11110001000100101011
m = 11110111010111,111101001001010111,111101010001001000001111
n = 11101110110111,1111001001001010111,1111100010001000001111
o = 11110110101111,1110101110110011,11101100100001010111
p = 111011011111,111011000110111,1110101110010111
q = 111101101111,1111001010010111,11110001001000100010111
r = 111101101111,111101001001010111,111100100010001001001111
s = 1101011101111,1111011001010011,111100100010001000101111
t = 11101101101111,111101001010010011,111100010001000101001111
u = 111011011111,111110111001011,11110010010110111
v = 1110110110111,1111010010010100111,11110100010010001001111
w = 1110110110111,11110010010010111,111010001001000101001111
x = 111101101111,1110100110001011,1110101001000100100111
y = 111011101111,11111001101011,1111001010100110111
z = 1110110110111,1111001001010111,1111001100010010010111
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11 = 1110110110111,1110010010100111,11111001100010100011
12 = 1110110110111,1111001001010111,11111001000100010100111
13 = 1110110110111,110100101010111,11100010001001101111
14 = 111011101111,111100101010011,1111001000100010100111
15 = 1110110110111,1111001001010111,1110101001000101011
16 = 111101110111,1111001101001011,111010100100010100111
17 = 111101110111,111100100101011,1110101001000100101111
18 = 1101011110111,111110100101011,11110010010100111
19 = 1110110110111,11110110000101011,111010001100010111
1A = 1110110110111,111100100101011,111100010001001010111
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1C = 11101101010111,1110101001010111,11110010010000100010111
1D = 11101101101111,111100010101011,1111001000100001001011
1E = 1110110110111,11110010100101011,111001100100010010111
1F = 111101101111,1111001001001011,1110101001000100010111
1G = 111011101111,11110100100101011,111000100001000101111
1H = 111101101111,11110100100101011,1111010000100010010111
1I = 111101101111,1111001001010111,11101000100010010010111
1J = 111101101111,1111001001010111,1111000010100010010111
1K = 111101101111,1111001001010111,1110100010001000001111
1L = 111101101111,1111001001010111,111010000100010001111
1M = 11101101110111,111010100010111,11110100010010001111
1N = 1101111110111,111100101111,1111010111001011
1O = 111101101111,11110010110111,1111011000100111
1P = 111011011111,11110001101011,11110101000100010111
1Q = 110101111111,1111110011011,1111011010010111
1R = 11101110110111,11110010010101011,1111010100010010010111
1S = 1110110110111,11110010101001011,11111000001001010111
1T = 110101110111,111101100101011,11110010010010100111
1U = 111001101010111,1111010100010010011,111001100100010000101011
1V = 111011010110111,1110100110001001011,1111000100100010010111

```

$$\sum_x \text{Heaviside}(n:3,w:12)$$

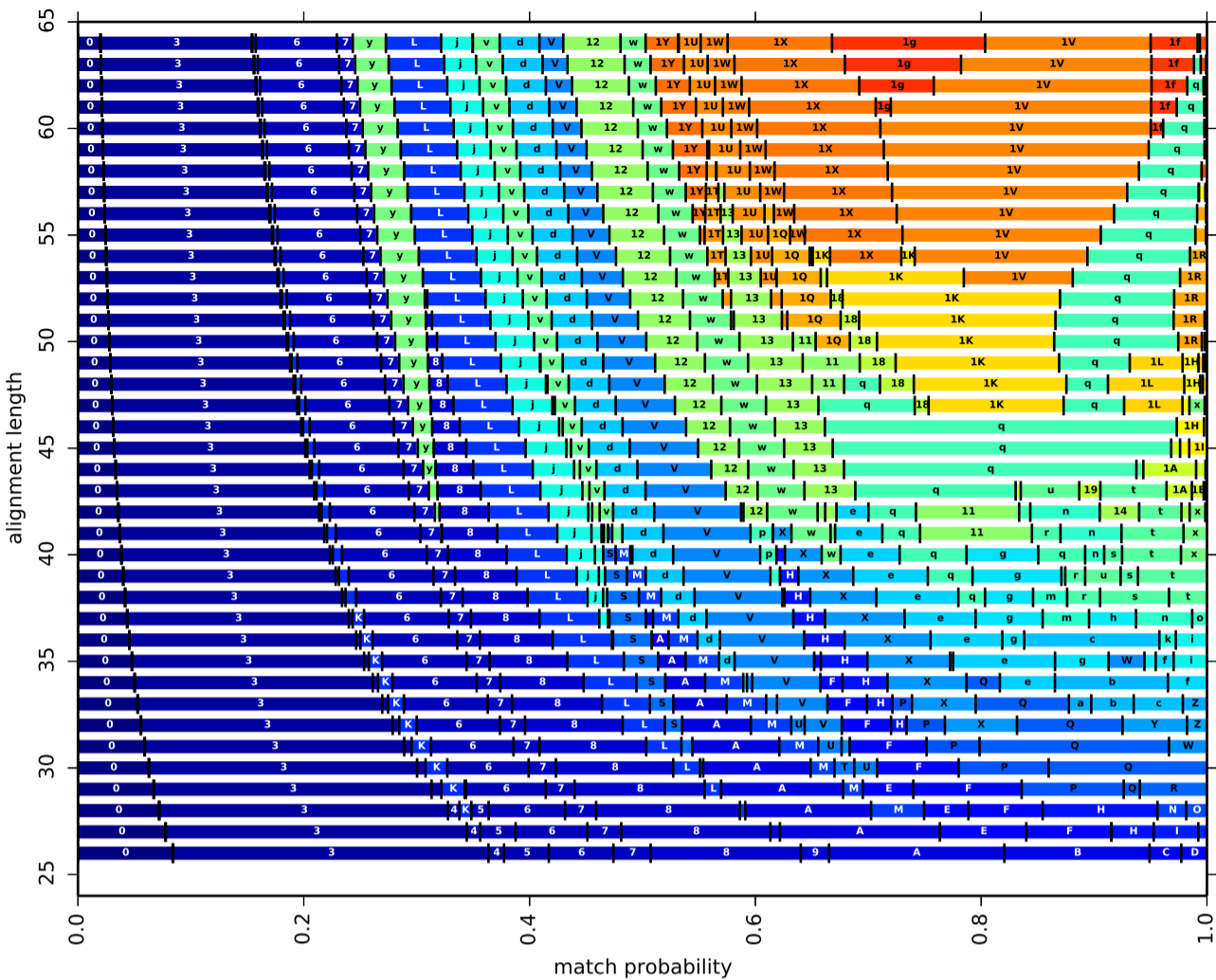


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0 = 111111111111,111011111111,111111101111
1 = 111111111111,111110111111,110111110111
2 = 111111111111,111011111011,111101011111
3 = 110111111111,111101111101,111111010111
4 = 111011111111,110111110111,11111100110111
5 = 110111111111,110111110101,11111001101111
6 = 110111011111,111011110011,11111010111011
7 = 111011111111,111110010111,11110101110011
8 = 111011111111,111111001101,1111001011010111
9 = 110111101111,111101011101,1110110010011111
A = 111011011111,111110010101,1111010001011111
B = 111011011111,11110011010011,1110101000110111
C = 111011101111,111110010101,1111001010001111
D = 111101101111,11101011100111,111111001000101011
E = 110111011111,11111011101011,111110100010111
F = 110111011111,111101110101,11101101010111
G = 111011011111,111011110010,11111010001101011
H = 111011011111,11110010100111,111101100000101111
I = 111101110111,11110010101011,11101010001000101111
J = 111011011011,11110010010101,11101101000000101111
K = 111101101111,11101010110011,111011000001010111
L = 111101101111,11110010101011,111010001000101011
M = 111101101111,11110110010111,111010001100010111
N = 111101101111,11110010010101,1111000010001001111
O = 111101101111,11110010010101,1111010000001010111
P = 111011011111,11110010101011,1111001000100010111
Q = 111101101111,11110010010101,1111001000010001111
R = 111101101111,11110010010101,1110101000100010111
S = 111101101111,11110010010101,11110010000100010111
T = 111101101111,11110010010101,11110001000100010111
U = 111101101111,11110010101011,111011000100010111
V = 111101101111,11110010100101,1111001000100010111
W = 111011011111,11110001101011,11101101000101011
X = 111101101111,11110010101011,1111010100010010111
Y = 111101101111,11110010100101,111100001000100010111
Z = 111011101111,11110100101101,1110101000100010111
a = 110101110111,11110100101011,111101000100010111
b = 111101101111,11100110100101,11101001000100010111
c = 111101101111,11100100101011,1110100001000100010111
d = 110101110111,11111010011011,111100110010110111
e = 111101101111,11110010100101,111100001000100010111
f = 111011011011,11110010100100,111101000100010100111
g = 111101101111,11100110100101,1110100001000100010111
h = 111101101111,11110010010100,1111010001000100001111
i = 111101101111,11110010010101,1110100100010001000111
j = 110101110111,11111001110101,111011010000101011
k = 111011011011,11110010010101,1110001000100010010111
l = 111011011011,1111001001000101,11110001000100010111
m = 111011011011,11110010010101,11110100010000001111
n = 111011011011,1111001001000101,11110100010000001111
o = 111011011011,1110101110110011,11101100100001010111
p = 111011011111,11101100011011,1110101110010111
q = 111101101111,11110010100101,11110001000100010111
r = 111011101111,11101001010010,11110010001000100111
s = 110101110111,11110100100101,1111001000100010001111
t = 111011011011,11110010100101,1111000100010001010111
u = 111011011111,11111011100101,1110010010110111
v = 111011101111,11110010100101,1111000100010001010111
w = 111011011011,11110010010010,1111010001000010100111
x = 111101101111,11101001100010,1110101001000100100111
y = 111011101111,111110011010,111100101010011011
z = 111011011011,11110010010101,1111001100010010010111
1 = 111011101111,11110100110001,1111001001000100010111
11 = 111011011011,11100100101001,111111001100010100011
12 = 111011011011,11110010010101,1111100100010001010011
13 = 111101101111,11010001010101,11100010001001010111
14 = 111011101111,111100101010,111101000100010100111
15 = 111011011011,11110010010101,111010100001000101011
16 = 111101101111,11101001101001,111010100100010100111
17 = 111101101111,11101001010101,111010100100010010111
18 = 110101111011,11110100100101,111100100100100111
19 = 111011011011,11101100001010,111010001100010111
1A = 111011011011,11110010010101,11110001000010010111
1B = 111011011011,1110101000100010,1111010001001001000111
1C = 111011011011,11101010010010,111100100001000101011
1D = 111011011011,11110001010101,111100100010000101011
1E = 111011011011,11110001010101,1111001000100010010111
1F = 111101101111,11101001001001,1110101001000100010111
1G = 111101101111,11101001000101,1110001000010001010111
1H = 111101101111,11101001001001,1110100001000100010111
1I = 111011011011,11110010010101,1110100010001001001111
1J = 111101101111,11100100101011,1110100010001001001111
1K = 111101101111,11110010010101,1110100010001000001111
1L = 111101101111,11101001001010,1111010000100010001111
1M = 111011011011,11101010001011,11101001001000101111
1N = 110111110111,111100101111,11110101110010111
1O = 111101101111,111001011011,1111011000100111
1P = 111011011111,111100011010,11101010001000100111
1Q = 110101111111,111111001101,1111011010010111
1R = 111011011011,11110010010101,111010100010010010111
1S = 111011011011,11110010101001,111101000001001010111
1T = 110101110111,11110110010101,111001001101100111
1U = 111001101010,11110101000100,111001001000100001010111
1V = 111011011011,11101001000100,1111000100100010010111

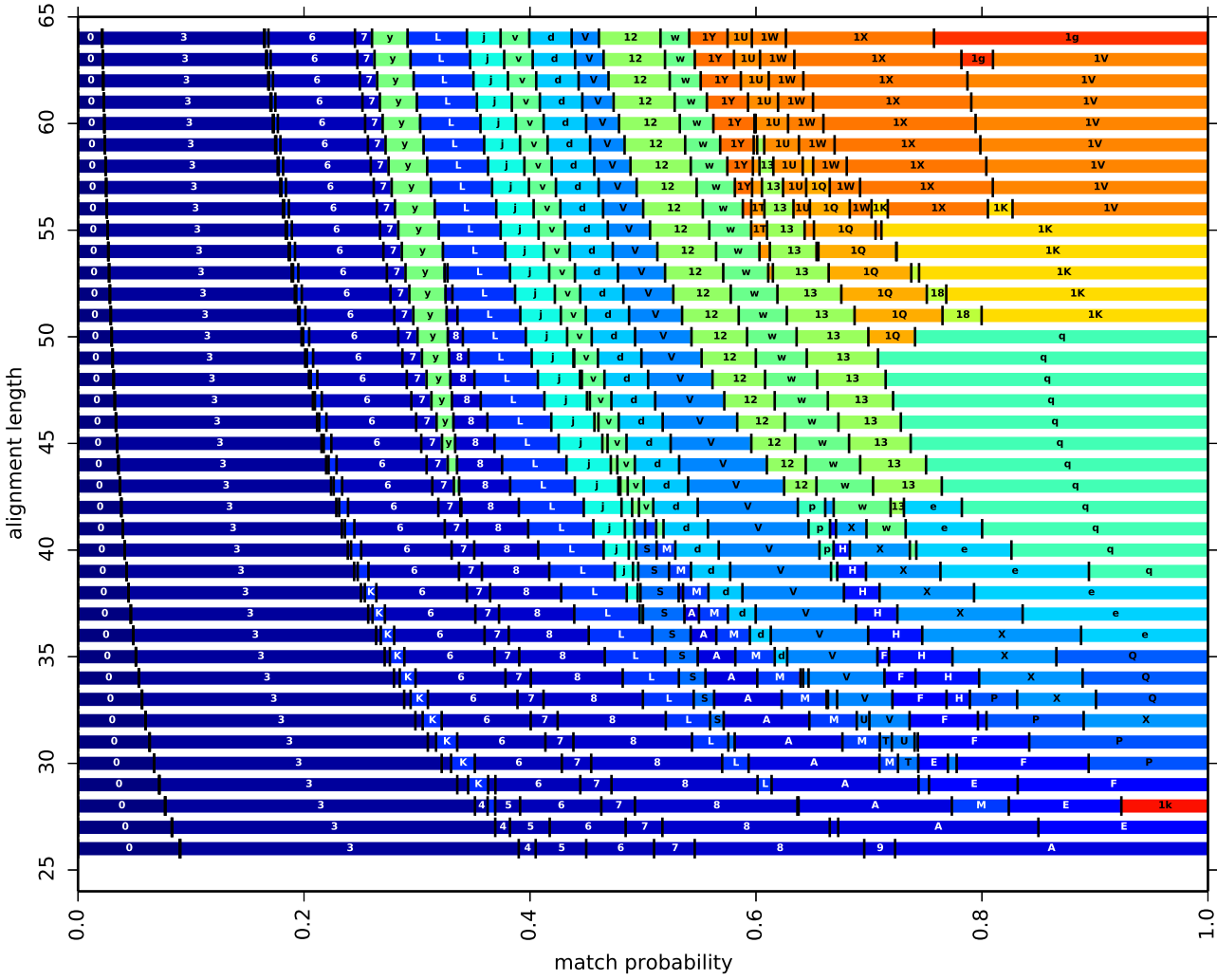
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Bernoulli (n:3,w:13)



0 = 111111111111,111101111111,111111101111
3 = 111101111111,11011111110111,11111101011111
4 = 111011111111,11111101110111,111111010011111
5 = 110111111111,1111101011110111,11111010011111
6 = 11011111101111,1111011101110111,1111100101111111
7 = 11011111101111,11110101111110111,11111010010111111
8 = 11101110111111,1111101111010111,111101101001011111
9 = 11101110111111,11110100111101111,111101110100101111
A = 11011111011111,11111010011110111,1111010110001011111
B = 11110111011111,111010011110101111,1111110100001101111
C = 11110110111111,111011001110101111,111110100100011001111
D = 11110111011111,1111100101101001111,111011100100001101111
E = 11110111011111,1111110101100111,11110100110001011111
F = 11110110111111,11111001011001111,111101001100010110111
H = 11110111011111,1111100101101001111,1111010100010011001111
I = 11110111011111,1111100101101001111,1111100010100011001111
K = 11101111111111,1110111111010111,1111111001101111
L = 11011110111111,11111001111010111,111011101001101111
M = 11011111011111,11111010011110111,11110111001000101111
N = 11110110111111,1111101001010011111,11111010001000101001111
O = 1111010111011111,11101100110100101111,111101000100011000101111
P = 11110111011111,1111101001011001111,1111010011000100101111
Q = 11110111011111,1111100101101001111,11111001010001000101111
R = 11110111011111,1111100101101001111,11111001001000100101111
S = 11011111011111,11111001011101111,1111010110010011111
T = 11101111011111,11111110011010111,11110010101001101111
U = 11110111101111,1111101000101110111,11101101110000101111
V = 111010111101111,111110110010110111,111101010011000101111
W = 111101011101111,1110110011010010111,1111010010001000100011111
X = 11110110111111,11111001011000111,11110010100010001011111
Y = 1111010111011111,1110110011010010111,1111101000010001000101111
Z = 1111011011101111,11110010100100101111,111110001000100010101111
a = 11110111011111,1111101001011001111,111100101000100010011111
b = 1111010111011111,1110110011010010111,111110010100001000101111
c = 1111011101101111,11111001010010010111,1111001010001000100011111
d = 1110110111101111,111101110100110111,11110100001110101111
e = 1111011011101111,1111100100101101011,111100101000100010011111
f = 1111011011101111,11111010010110001111,1111100010001001000011111
g = 1111011011101111,11111001010010010111,1111000100010100010011111
h = 1111011011101111,11111001010010010111,1111010100010000010011111
i = 1110111011011111,11111010010110001111,11111000100010010000110111
j = 11110110111111,11101111110100111,1111010100011101111
k = 1111010111011111,11101100110100101111,1111100001000100010101111
m = 1111011011101111,11111001010010010111,111100010001001000101111
n = 1111011011101111,111110010100100101111,11110010001001000100011111
o = 1111011011101111,11111010100100100111,11111000100010001000011111
p = 1110101111011111,111110110010101111,11110100011001000111111
q = 1111010111011111,1110110011010010111,1111001010001000100101111
r = 1111011011101111,11111001010010010111,11110100010010001000011111
s = 1111011011101111,11111001010010010111,11110010001010001000011111
t = 1111011011101111,11111000101001101011,11111000100100010000101111
u = 1111011011101111,111100101000110010111,11111000100100000100101111
v = 1101011111011111,111110100110111,111100111001001010111
w = 1111011011101111,1111100101001101011,11110011001000100101111
x = 11110110111111,111110010110100111,11110101000100010010001111
y = 11101101111111,1111111110010111,111101010111001111
11 = 1111011011101111,11111001010010010111,1111001000100100010101111
12 = 1111011011101111,11110010101110001111,11101110100001010111
13 = 1111011011101111,1111010100110100111,111100011001000100101111
14 = 1111011011101111,11111001001010010111,1111000100010001000101111
18 = 1111011011101111,11111001010010010111,11101010001001000100101111
19 = 1111011011101111,111101010010010010111,11111000100010001010001111
1A = 1111011011101111,11110101001010010111,11110101000100010001001111
1B = 11110111011111,11111010010010100111,11110001010001000100101111
1H = 11110111011111,1110110011010010111,1111100101000100010010111
1I = 11110111011111,1111101001011001111,1111010100010001001001111
1K = 1110101110110111,11110100110001010111,11110010100010010000101111
1L = 1111010111011111,1110110011010010111,11101001010001000100101111
1Q = 1111011011101111,11111001010010010111,1111001000101000110001111
1R = 1111010111011111,1110110011010010111,1111001010001010001010111
1T = 1111011011101111,1111001010011010111,1111000110010001000101111
1U = 1111011011101111,11111001010010010111,1111010001001000101001111
1V = 11101101011101111,111001010000110010111,111110001001000100100111
1W = 1101101110101111,11110100101001100111,1111001000100010100101111
1X = 11101101011101111,111101001100010010111,1111000100101000100011111
1Y = 1110110111011111,11110101100010010111,11110101001000100011111
1f = 11101110101101111,111010100100110010111,11101001100010100100001111
1g = 111011010111001111,111010011000100110111,11110001001010001000101111

\int_0^x Hit Integration (n:3,w:13)

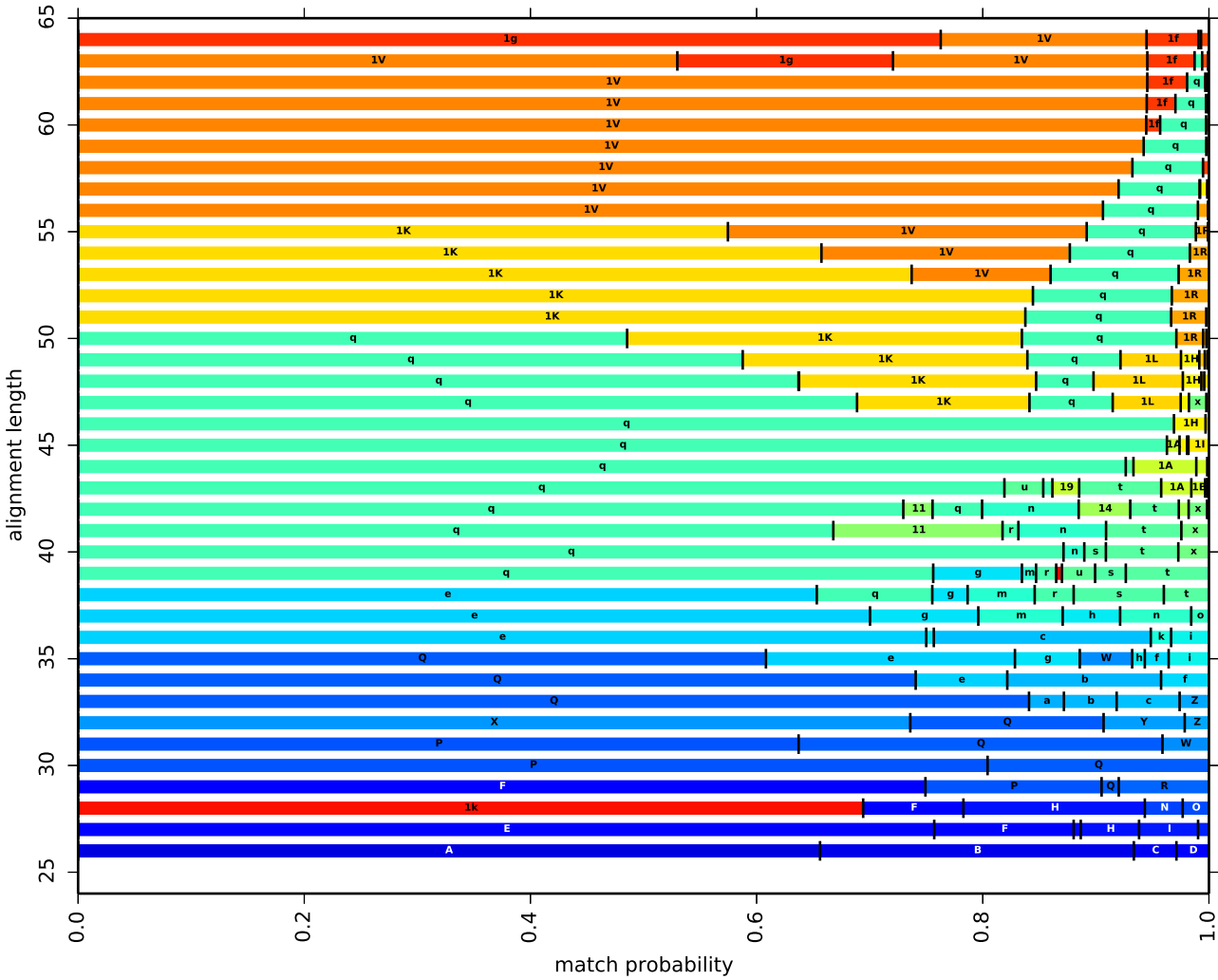


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0 = 111111111111,111101111111,111111101111
3 = 111101111111,11011111110111,11111110101111
4 = 111011111111,11111101111011,11111101001111
5 = 110111111111,11111010111011,11111101001111
6 = 1101111110111,11110111101101,11111001011111
7 = 1101111110111,111101011111011,111110100101111
8 = 1110110111111,111110111101011,1111010100101111
9 = 1110111011111,111101001111011,111101110100110111
A = 1101111101111,1111101001111011,11110101000101111
E = 1111011011111,111111101010011,1111010011000101111
F = 1111011011111,11111010010100111,11110100110001010111
H = 1111011101111,11111001011000111,111101010001001100111
K = 1111011111111,11101111101011,11111100110111
L = 1101110111111,1111100111101011,111011101001101111
M = 1101111101111,1111101001111011,111011100100010111
P = 1111011101111,11111010010100111,11101001100010010111
Q = 1111011101111,11111001011000111,1111100101000100010111
S = 1101111101111,111110010111011,111101011001001111
T = 1110111011111,111111001101011,11110010101001010111
U = 1111011101111,11110100010110111,111011011000010111
V = 1110101110111,1111101100101011,1110101001100010111
X = 1111011101111,11111001011010011,111100101000100010111
d = 1110101110111,1111011101001011,1111010000111010111
e = 1111010111011,111110010010101011,11110010100010001001111
j = 1111010111111,1110111111010011,111101010001110111
p = 1110101110111,1111101100101011,111101000110010001111
q = 1111010111011,111011001101001011,111100101000100010010111
v = 1101011110111,111110100111011,1111001110010010111
w = 1111011011011,1111100101001101011,1111001100100010010111
y = 1110101111111,11111111001011,11110101011100111
12 = 111101101110111,111100101011000111,11101110100001010111
13 = 111101101110111,1111010100110100111,11110001100100010010111
18 = 111101101110111,1111001010010010111,11101010001001000100111
1K = 111010111010111,1111010011000101011,1111001010001001000010111
1Q = 111101101110111,11111001010010010111,111100100010100010001111
1T = 111101101110111,1111001010011010111,11110001100100010010111
1U = 111101101110111,11111001010010010111,11110100010010010100111
1V = 111011010111011,1110011000010010111,111110010010100010010011
1W = 110110111010111,1111010010100110011,111100100010001010010111
1X = 111011010110111,111101001100010010111,1111000100101000100100111
1Y = 11101101110111,11110101100010010111,11110101001000100100111
1g = 111011010110011,11101001100010010111,111100010010100010010111
1k = 1111011011111,11111010111001011,1111100010001010111

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\int_x^1 Hit Integration (n:3,w:13)

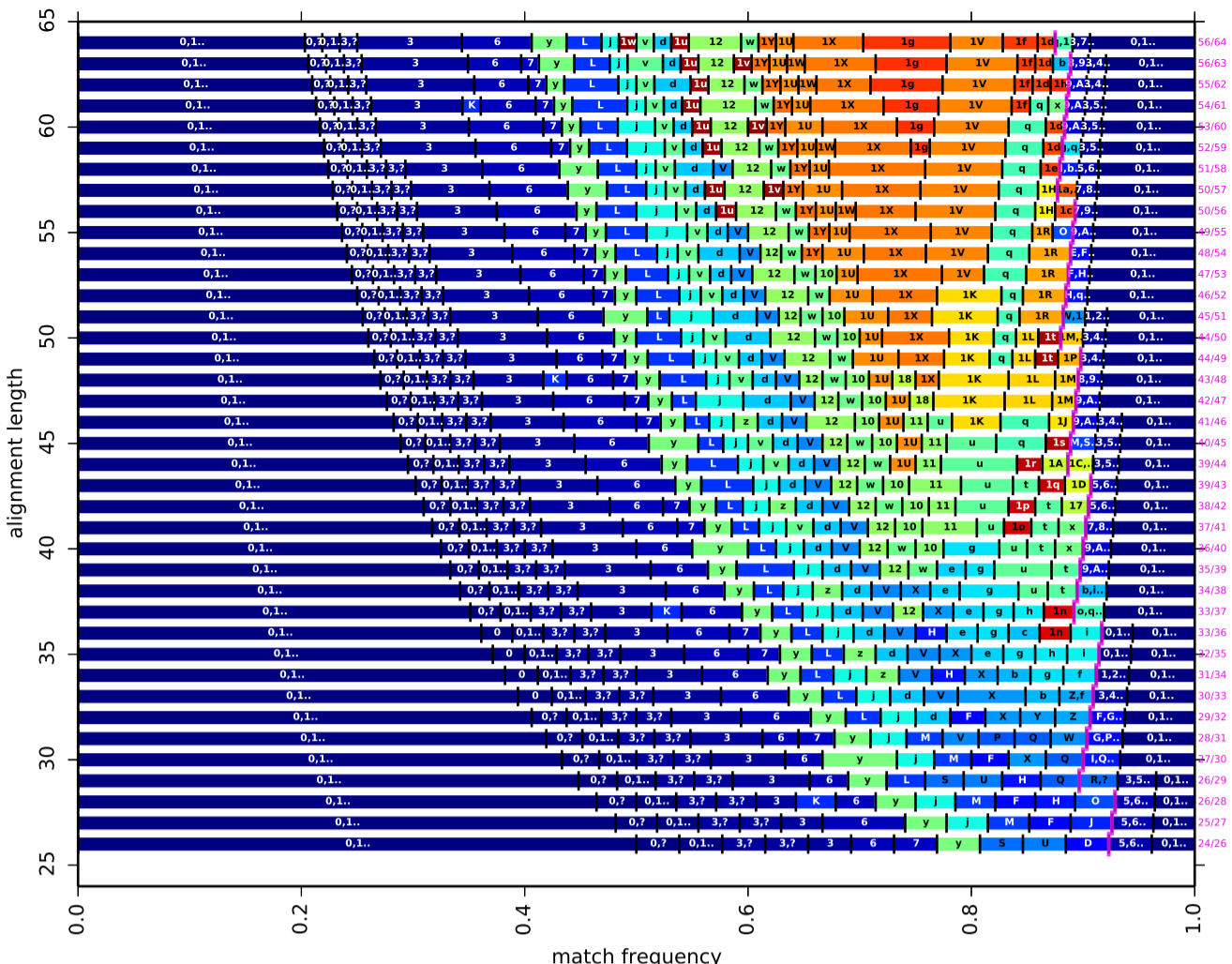


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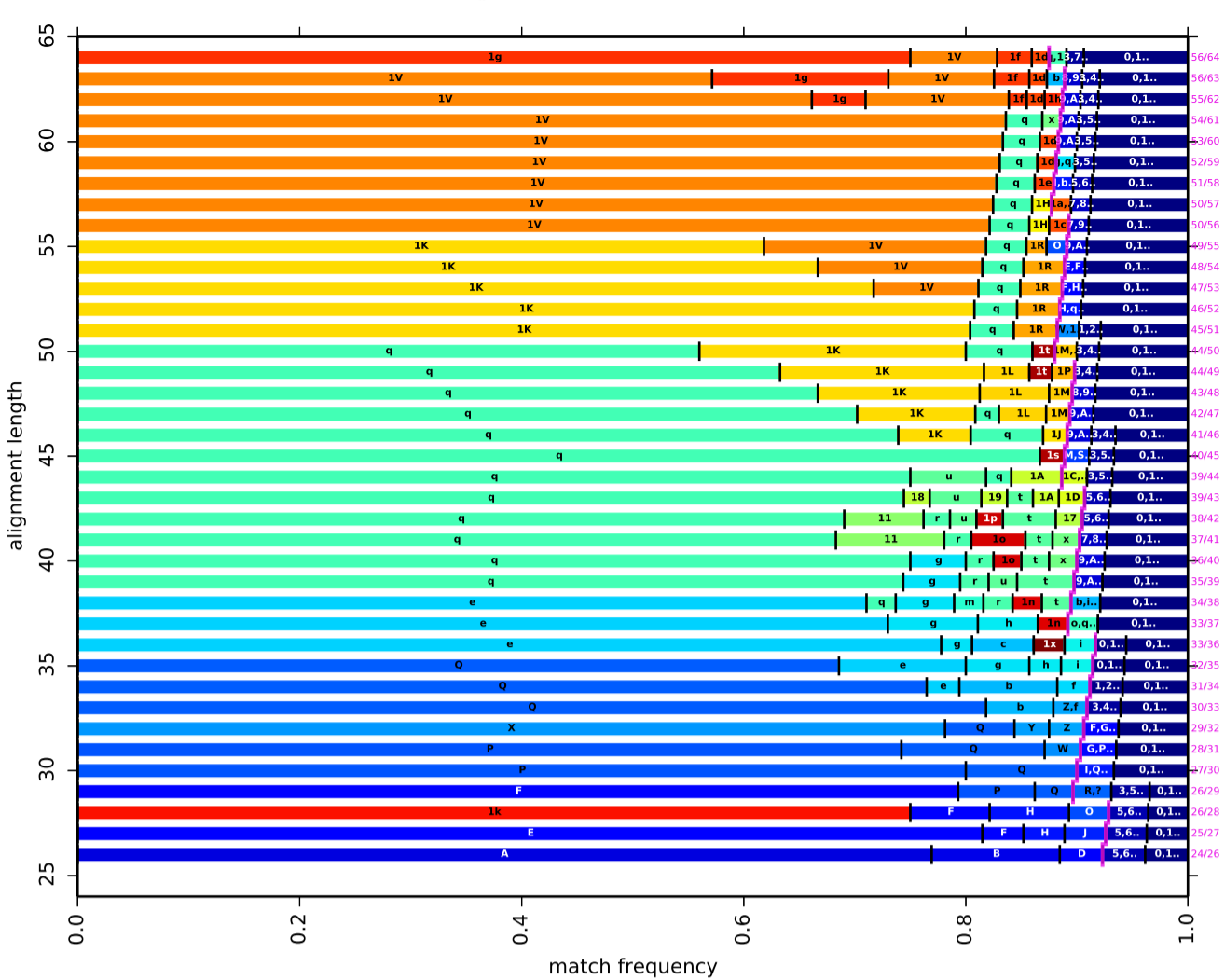
A = 11101111011111,11111010011110111,11110101000101111
B = 11110111011111,11101001111010111,1111110100000110111
C = 11110110111111,11101001110101111,11111010010001100111
D = 11110111011111,111110010101001111,111101100100000110111
E = 11110111011111,1111110101100111,1111010011000101111
F = 11110111011111,111110100101001111,111101001100010110111
H = 11110111011111,111110010110100111,111101010001001100111
I = 11110111011111,111110010110100111,111110001010001100111
N = 11110111011111,111110100101001111,1111101000100010100111
O = 111101011101111,1110110011010010111,11110100010001100010111
P = 11110111011111,111110100101100111,1111010011000100111
Q = 11110111011111,111110010110100111,1111100101000100010111
R = 11110111011111,111110010110100111,1111100100100010010111
W = 111101011101111,1110110011010010111,1111010010000100011111
X = 11110111011111,111110010110100111,1111001010001000101111
Y = 11110111011111,1110110011010010111,111110100001000100010111
Z = 11110111011111,1111001010010010111,111110001000100010010111
a = 11110111011111,111110100101100111,111100101000100010011111
b = 111101011101111,1110110011010010111,11110010100000100011011
c = 111101101110111,11111001010010010111,111100101000100010001111
e = 111101011101111,11111001001011010111,11110010100010001001111
f = 11110111011111,1111101001011000111,111110001000100100001111
g = 111101011101111,11111001010010010111,1111000100010100010011111
h = 11110111011111,11111001010010010111,1111010100010000010011111
i = 111011101101111,1111101001011000111,1111100010001001000011011
k = 111101011101111,1110110011010010111,1111100001000100010010111
m = 11110111011111,11111001010010010111,111100010001001000101111
n = 111101011101111,11111001010010010111,11110010001001000100011111
o = 11110111011111,11111010100100100111,1111100010001000100011111
q = 111101011101111,1110110011010010111,111100101000100010010111
r = 11110111011111,11111001010010010111,11110100010010001000011111
s = 11110111011111,11111001010010010111,111100100010010001000011111
t = 11110111011111,11111000101001101011,11111000100100010000101111
u = 1110110101110111,111100101000110010111,11111000100100000100101111
x = 11110111011111,111110010110100111,11110101000100010010001111
11 = 11110111011111,11111001010010010111,1111001000100100010101111
14 = 11110111011111,11111001001010010111,111100010001000101011111
19 = 11110111011111,111101010010010010111,11111000100010001010001111
1A = 11110111011111,111101010010110010111,1111010100010001000101111
1B = 11110111011111,11111010010010110011,11110001010001000100101111
1H = 111101011101111,1110110011010010111,1111100101000100010010111
1I = 11110111011111,1111101000101100111,111101010001000100011111
1K = 111101011101111,11110100110001010111,11110010100010010000101111
1L = 111101011101111,1110110011010010111,1110100101000100010101111
1R = 111101011101111,1110110011010010111,111100101000101000110111
1V = 1111010101110111,111001101000110010111,11111000100101000100100111
1f = 111011101101111,111010100100110010111,111010011000100100001111
1g = 1110110101100111,11101001100010010111,11110001001010001000101111
1k = 11110111011111,111110101110010111,11110100010001101111

```


Dirac (n:3,w:13)

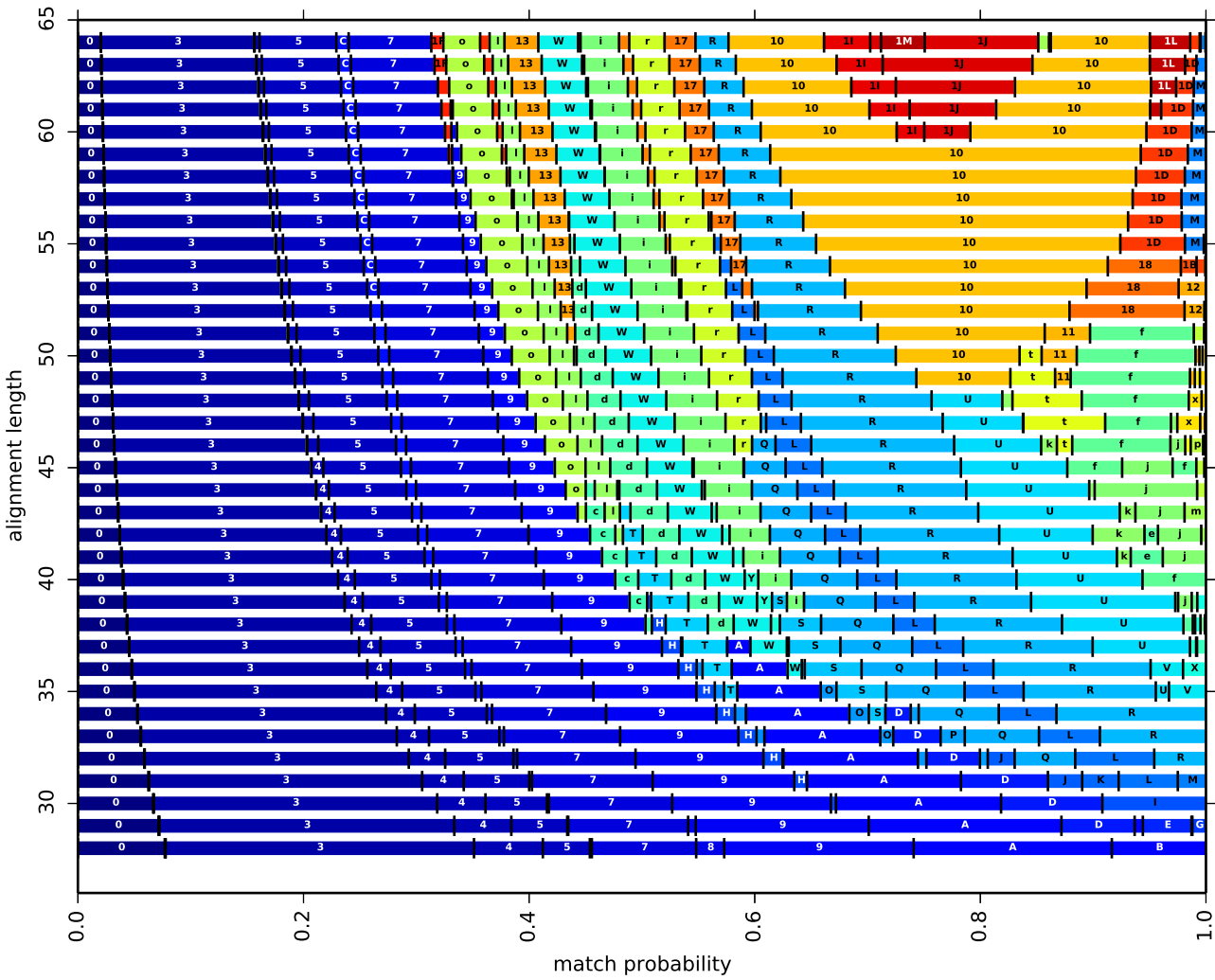


$$\sum_x \text{Heaviside}(n;3,w;13)$$



O	111111111111,111101111111,111111101111
L	111111111111,111101111111,111111010111
2	111111111111,111101111011,111111010111
3	111101111111,110111111011,111111010111
4	111011111111,111111011101,111111010011
5	110111111111,111101011101,111111010011
6	110111110111,111101110110,111100101111
7	110111110111,111101011101,111101001011
8	110111011111,111101110101,111101010011
9	110111011111,111101001101,111101101001
A	110111110111,111101001110,111101010001
B	111101110111,110100111010,111111010000
C	111101101111,110110011010,111111010001
D	111101101111,111100101000,11110110010000
E	111101110111,111111010100,111101001000
F	111101110111,111101001010,111101001000
G	111101101111,111100101000,111101001001
H	111101101111,111100101000,111101000100
I	111101101111,111100101000,111100010100
J	111101011101,111011001001,111100100001
K	111101111111,110111110101,111111001101
L	110111011111,111100111010,111011100101
M	110111110111,111101001110,111011100100
N	111101110111,111101001001,111111010001
O	111101011101,111010011001,111101000100
P	111101110111,111101001010,111101001001
Q	111101101111,111100101000,111100100001
R	111101101111,111100101000,111100100001
S	110111110111,111100101101,111101010001
T	111101110111,111111001010,111100101001
U	111101110111,111101000101,111011011000
V	111010111011,111101001010,111101010001
W	111101011101,111010010100,111111010001
X	111101110111,111100101000,111100100001
Y	111101011101,111010010100,111111010001
Z	111101101101,111100100100,111111000100
a	111101110111,111101001010,111100100001
b	111101011101,111010010100,111111001000
c	111101011011,111100100100,111100100001
d	111010111011,111101101001,111101000011
e	111101011101,111100100101,111100100001
f	111011011011,111101001010,111100010001
g	111101011011,111100100010,111100010001
h	111101011011,111100100010,111101000100
i	111011011011,111101001010,111100010001
j	111101011101,111011110100,111101010001
k	111101011101,111010010100,111100001000
l	111101011111,111011110010,111101010001
m	111101011011,111100100100,111100010001
n	111101011011,111100100100,111100100001
o	111101011011,111101001001,111100010001
p	111010111011,111101001010,111101000100
q	111101011011,111010010100,111100100001
r	111101011011,111100101001,111101000100
s	111101011011,111100101001,111100100001
t	111101011011,111100010001,111100010001
u	111011010101,111100100010,111100010001
v	110101111011,111110100110,111100110010
w	111101011011,111100100101,111100110010
x	111101110111,111100101001,111101010001
y	111010111111,111111100101,111101010011
z	111010111111,111101011100,111101100010
10	111101011011,111100100101,111100010001
11	111101011011,111100100101,111100100001
12	111101011011,111100101000,111101100001
13	111101011011,111101001010,111100010001
14	111101011011,111100100100,111100010001
15	111101011011,111101001010,111101000100
16	111101110111,111101010010,111100010001
17	110101110111,111111001010,111100101001
18	111101011011,111100100100,111101000100
19	111101011011,111101000100,111110001000
1A	111101011011,111101000101,111101000001
1B	111101011111,111101001010,111100010001
1C	110111011111,111110110010,111100010001
1D	110101110111,111111001010,111100101001
1E	111101110111,111100101001,111001000100
1F	111101011111,111101011001,111010010001
1G	111101011111,111100101010,111010100001
1H	111101011101,111010010100,111100100001
1I	111101011111,111101001010,111101000100
1J	111101110111,111100101001,111001000100
1K	111010111011,111101001000,111100100001
1L	111101011101,111010010100,111101000101
1M	111101011101,111010010100,111101000001
1N	111101011101,111010010100,111100100001
1O	111101011111,111101001010,111001000001
1P	111101011011,111100101010,111101100001
1Q	111101011011,111100101001,111100100001
1R	111101011011,111010010100,111100100001
1S	111101011011,111010010100,111100100001
1T	111101011011,111100100101,111100010001
1U	111101011011,111100100100,111101000100
1V	111101011011,111001010001,111100010001
1W	110111011011,111100100100,111100100001
1X	111010101101,111101001000,111100010001
1Y	111101011011,111101001001,111101000100
1Z	111101011011,111010010100,111101000100
1a	111011011011,111100101001,111100100001
1b	111101110111,111100101001,111101000100
1c	111101011011,111010010100,111111000100
1d	111101011011,111101010001,111100100001
1e	111101011011,111010010100,111101000100
1f	111011101011,111010010010,111100100001
1g	111010101100,111101000100,111100010001
1h	111101011011,111100100101,111100100001
1i	110101111011,111111010011,111101001011
1j	111101011011,111100100100,111101010001
1k	111101011111,111101011001,111101000100
1l	111101101111,111100101010,111101100100
1m	111101011011,111100100100,111100010001
1n	111101011011,111100100100,111100100001
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1p	111101011011,111100100100,111100010001
1q	111101011011,111101001010,111100010001
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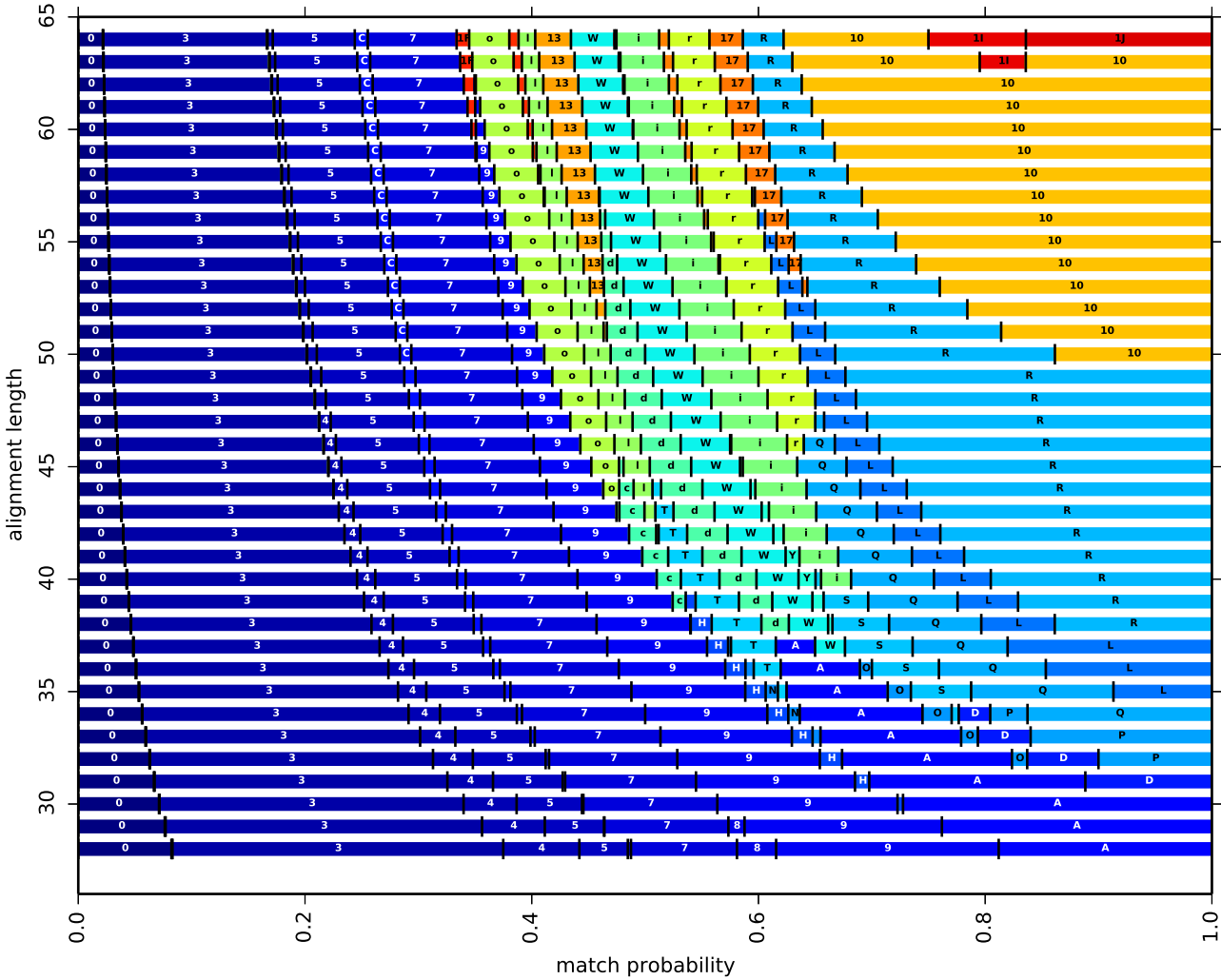
Bernoulli (n:3,w:14)



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\int_0^x Hit Integration (n:3,w:14)

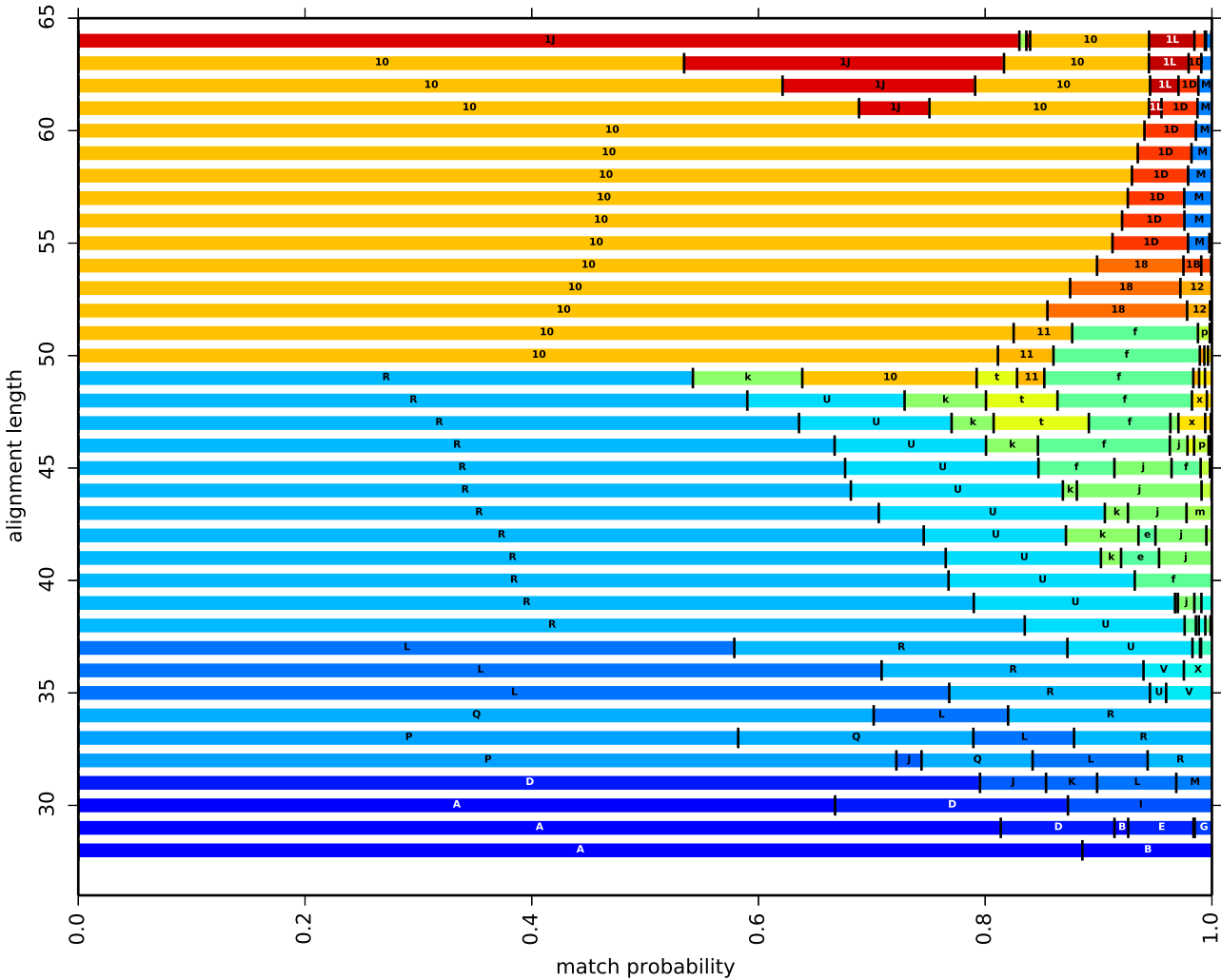


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\int_x^1 Hit Integration (n:3,w:14)

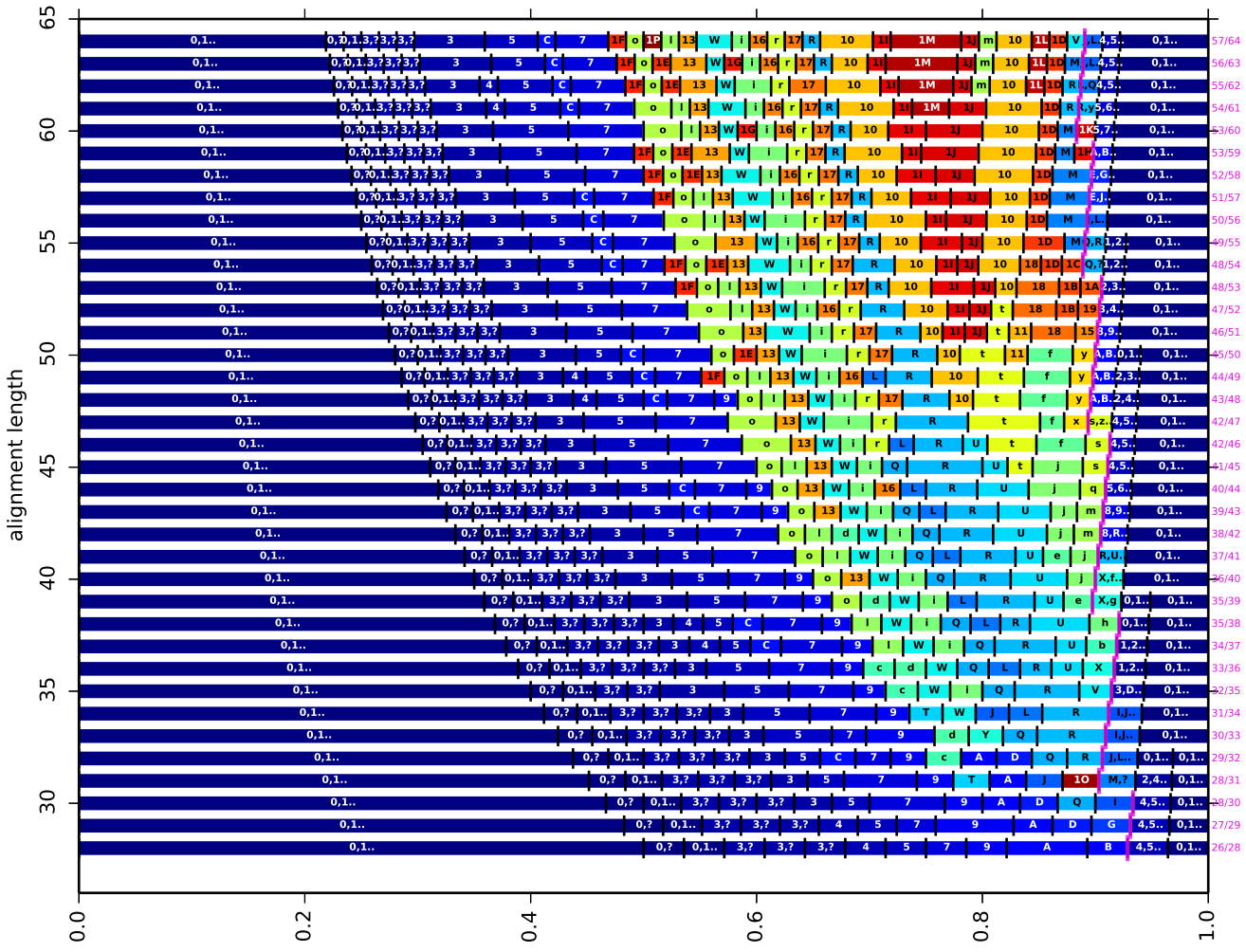


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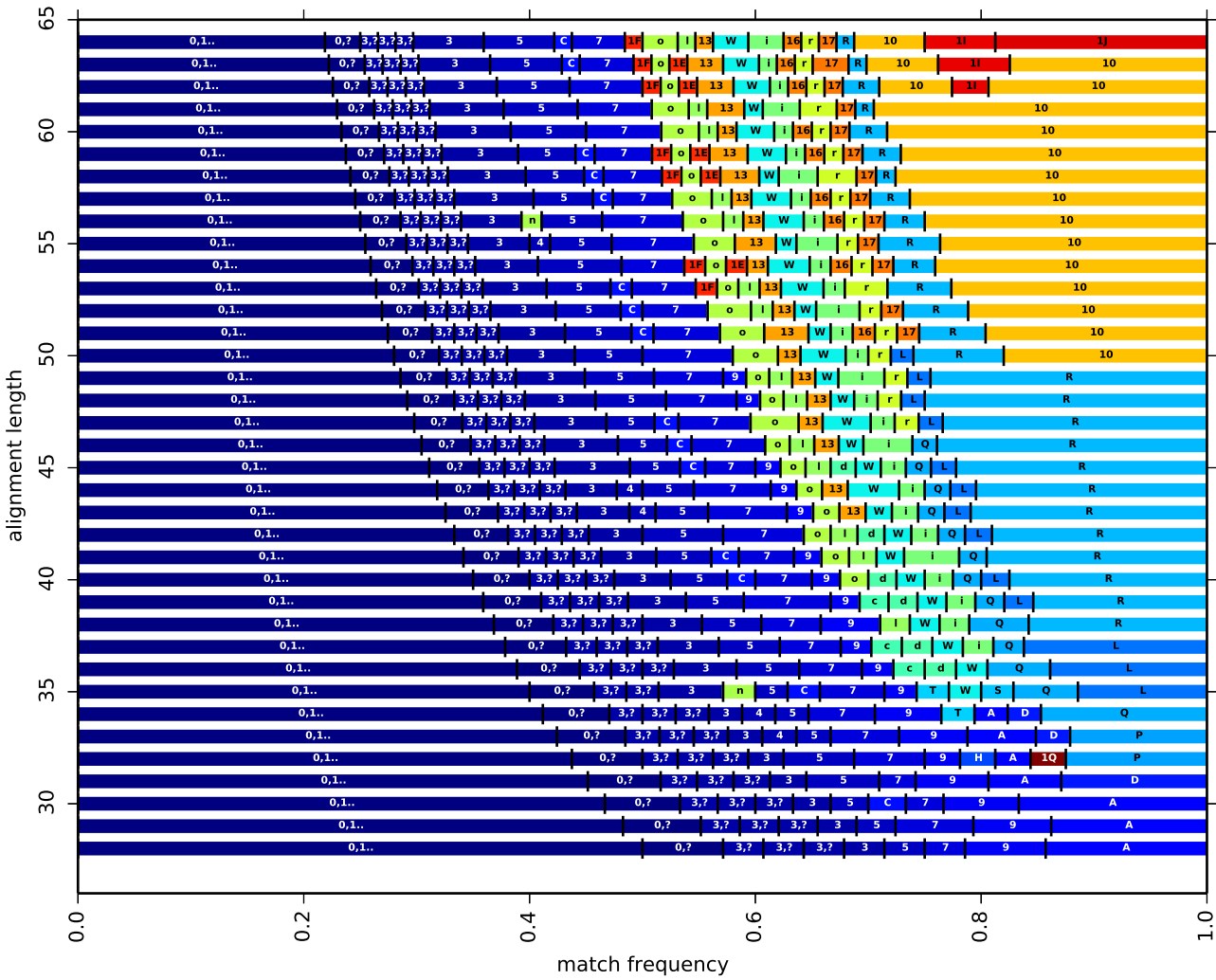
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Dirac (n:3,w:14)



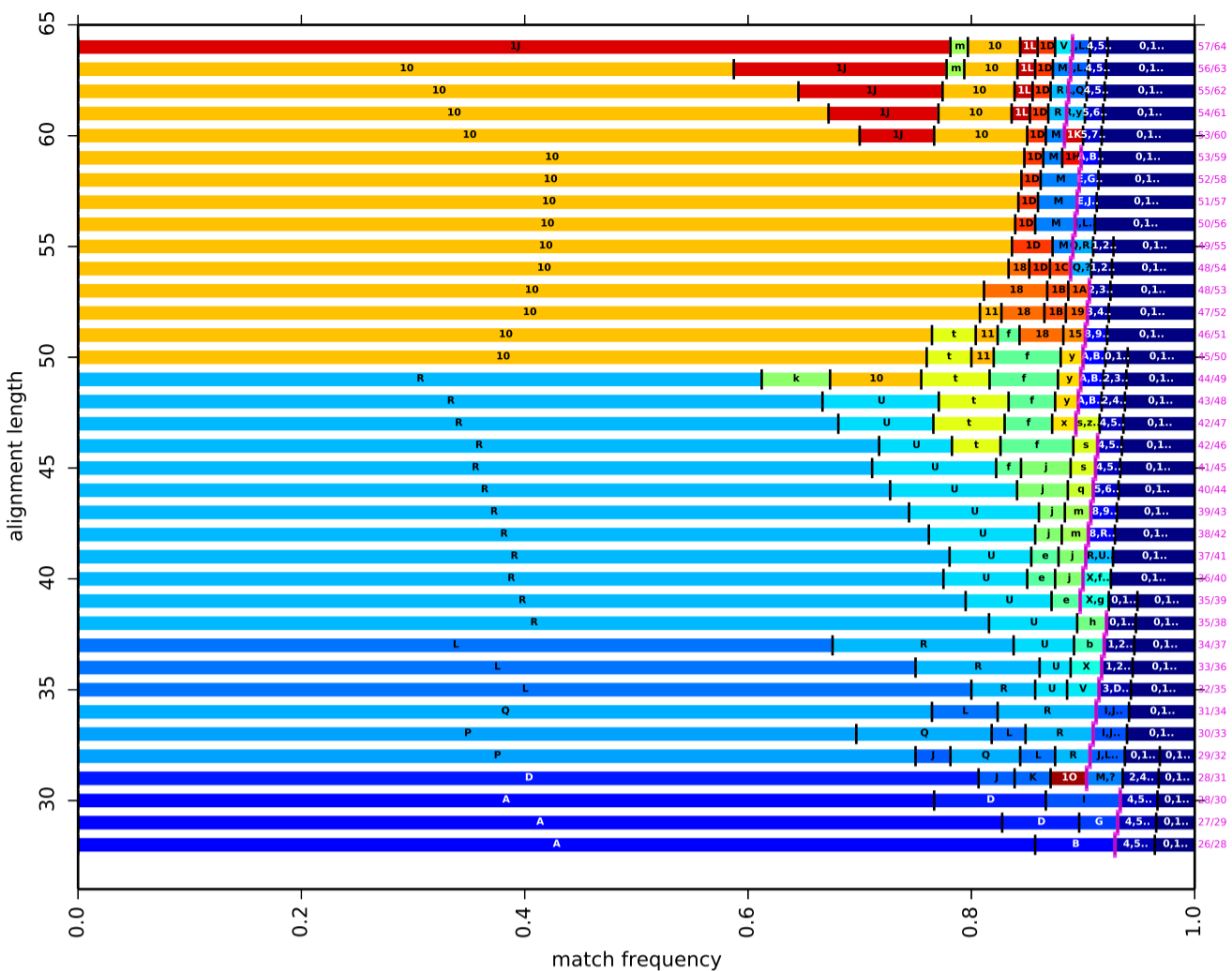
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$$\sum_0^x \text{Heaviside}(n;3,w:14)$$



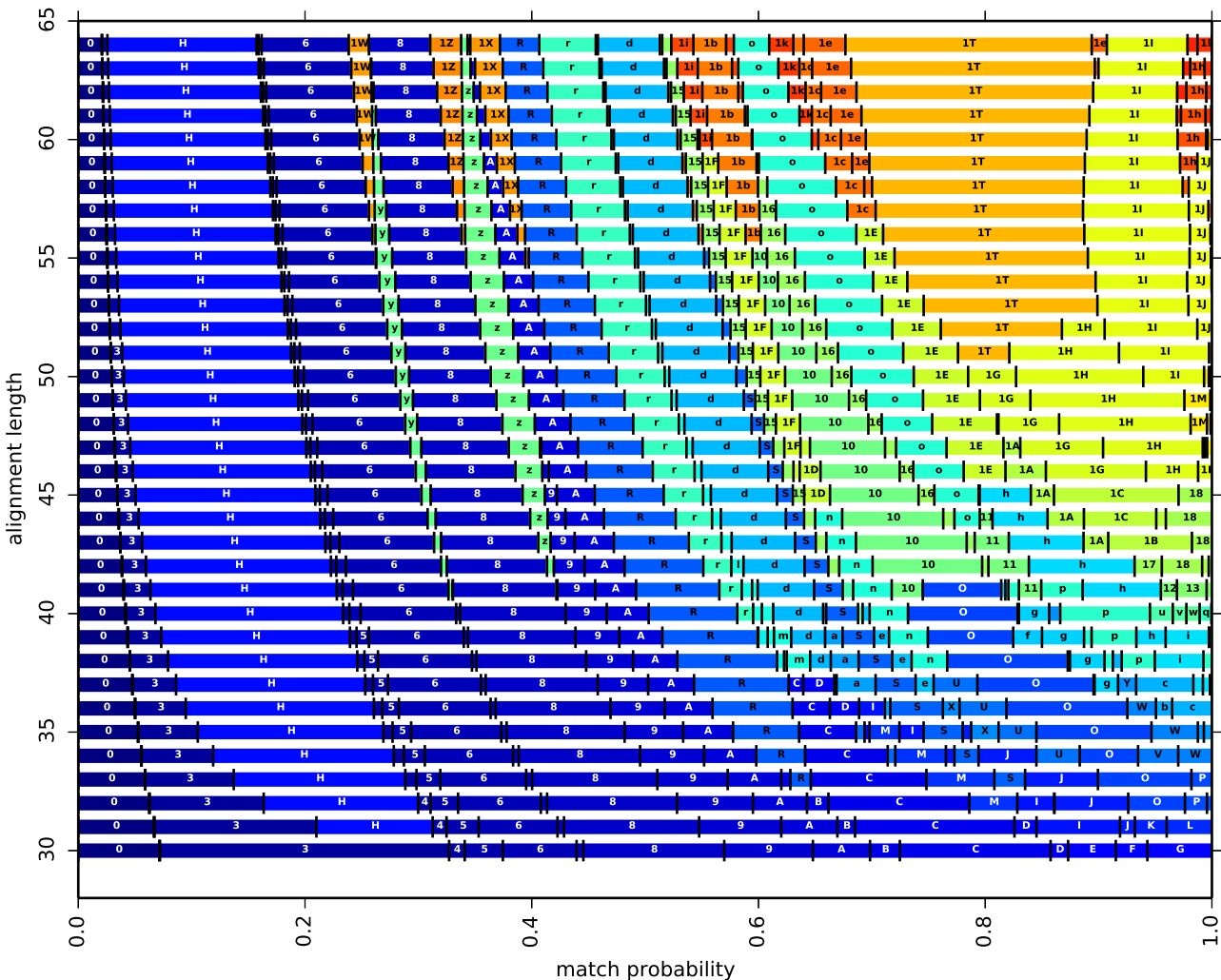
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1P = 110111010111111,1111011111001011,11110100100111010111
1Q = 11110111011111,1111010110110100111,1111011001000011101111

$$\sum_x \text{Heaviside}(n;3,w:14)$$



0 = 11111111111111,11110111111111,11111111011111
1 = 11111111111111,11111101111111,111101111101111
2 = 11111111111111,11110111011111,111110111101111
3 = 11101111111111,11111101110111,1111110111011
4 = 11101111111111,1111110101110111,1111110110011111
5 = 11011111110111,11110111110111011,11111100101111111
6 = 11110111011111,1111111011101011,111101101001111111
7 = 11110110111111,1110111111101011,111101110001101111
8 = 11011110111111,1111101111101011,111110101001101111
9 = 11110110111111,1110111111101011,1111101010001101111
A = 11110110111111,111011101110100111,111110100100011101111
B = 11111011011111,111101100111010111,1111101010010001101111
C = 11011110111111,111111110101011,11111001101110111
D = 11101110111111,111101001101110111,11111100110000100101111
E = 11101110110111,1111100101001100111,11110011010001010101111
F = 11110111011111,111100101101001111,11110111000000001101111
G = 1110111101101111,11111001010001110111,1111100010001001010111
H = 11101111101111,111111001011110111,11111010110010011111
I = 11110111011111,1111100101101001111,111111001000100110001111
J = 1110111101101111,11111001000111010111,11110101011000001101111
K = 1111011011101111,11111001001011010111,111110101001000101001111
L = 1111011011101111,11111001001011010111,111110010100100010100111
M = 1111011011101111,111101100100101001111,1111100010100010001010111
N = 11101111110111,111111100101110111,111110010101001011111
O = 11111011011111,111101011010100111,111101100010001011111
P = 11110111011111,1111110100101100111,11111001100010010101111
Q = 1110111101101111,1111100101010100111,11111001100001001010111
R = 11110110110111,111100110100101001111,1111010010001000101001111
S = 11110111101111,111101111010011011,1111101000011001010111
T = 11011011101111,1111111001101011,11110010101010011111
U = 111101110110111,11110011010010100111,11111000010001000101001111
V = 111101101110111,111100110100101001111,111110010100010001000011111
W = 11101011101111,111101110010100111,11110100011100101111
X = 111101101110111,11111001001011010111,11111000100001000101001111
Y = 111011011110111,1111011100010111011,111110100011010010111
Z = 111101101110111,1111100100101101011,11111000100001000101001111
a = 11110110111111,1111010110100100111,11111001010001000100001111
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e = 11110111011011,11110011010010100111,111110000010001000101001111
f = 11110111011011,11110011010010100111,111101000010001000101001111
g = 11110110111111,1111101001011001011,1111010100010000100011111
h = 11110111011111,11111101001011001011,1111010100000001000011111
i = 11110111011011,1111001010110100111,111011011000011011011
j = 11110110111011,1111001100010100111,1111100010100010000100001111
k = 11110111011011,11110110010010100111,1111100010100010001010111
l = 11011010111111,1111011111001011,1111101001000110111
m = 111010110111011,111110001100010100111,11111000101001000100010001111
n = 11111011111111,111011111110111,1111111110011011
o = 11101111011111,111111001011011,1111000111011010111
p = 11110111011011,11101010010110100111,11111001010001000100010001111
q = 11110111011011,1111010010110100111,111100101000100010001001111
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s = 11101111011111,11111110111010011,11101010010011101111
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11 = 11110111011011,11110011010010100111,1111010010001000100001111
12 = 11110111011011,11110011010010100111,1111100001000100010100111
13 = 11101101111011,111010111100101011,111110100010110111
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15 = 11110111011111,1111010110101100111,1111010100000001100110111
16 = 11110111011011,1110101100001101011,111100101010100001111
17 = 11110111011011,11110011010010100111,11110100100010010100111
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1A = 11110111011111,111110100101100111,111101010001000010001100111
1B = 11110111011011,11110011010010100111,11101101000100010001000111
1C = 11110111011011,1111100101100010111,11110011000100010001010111
1D = 11101110111011,11110011010010100111,11110100101000100010100111
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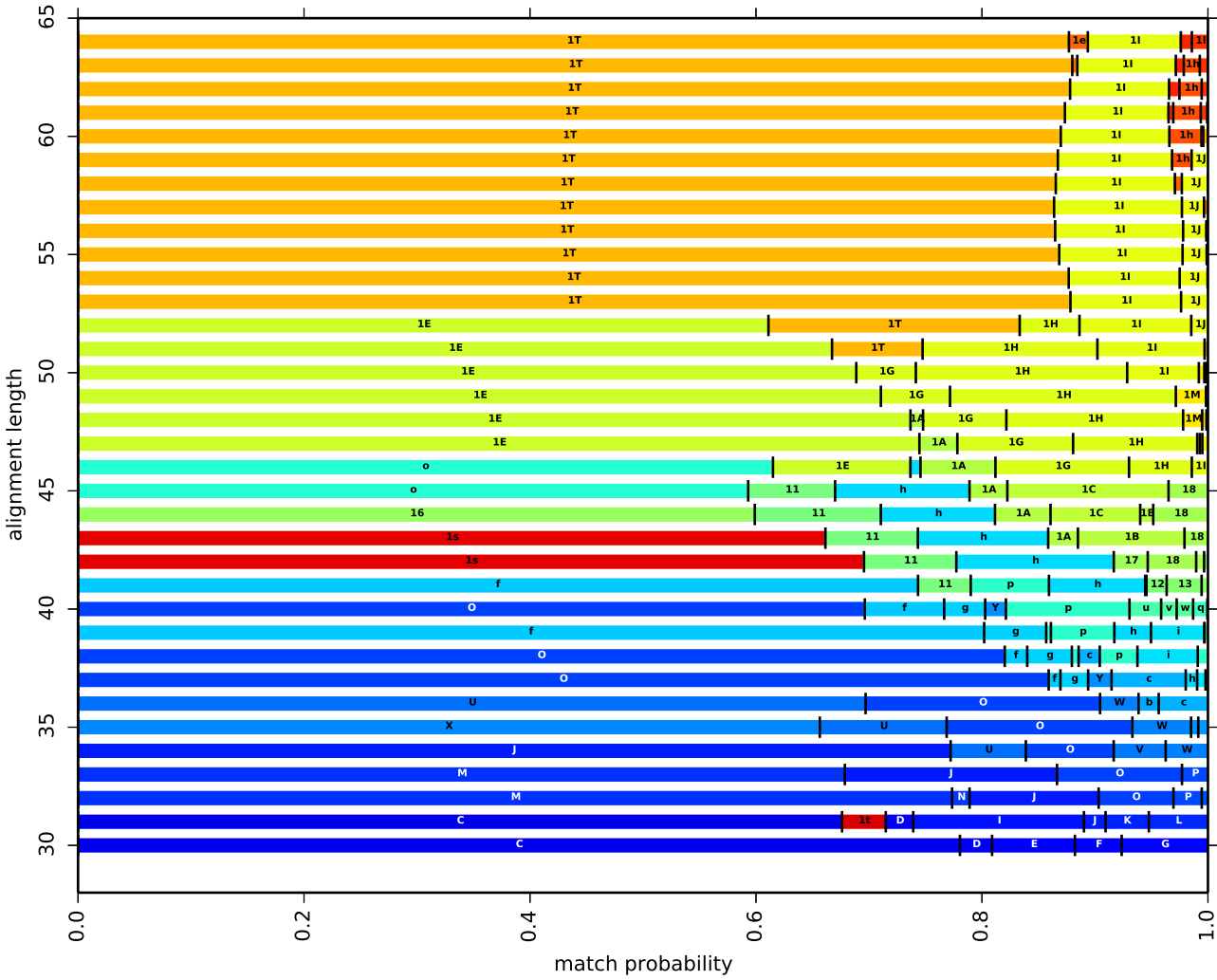
Bernoulli (n:3,w:15)



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0 = 11111111111111,11110111111111,11111111101111
3 = 11101111111111,11111010111111,1111111110110111
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5 = 11110111111111,1110111011101111,11111111010110111
6 = 11011101111111,1111100111110111,1111111010110111
8 = 11110110111111,1110111111010111,1111101011010011111
9 = 11101110111111,1111110111101011,1111011010001011111
A = 11110110111111,1111011111001011,1111100101001101111
B = 11101111011111,1111110011101011,111110010101001101111
C = 11110110111111,111101101110100111,11111010010001101111
D = 1111011011101111,11110100101110010111,1111101101000101101111
E = 1111011011101111,111110110100010110111,111101001011100101111
F = 1111011011101111,111110110100001110111,111100010110100101111
G = 11110110111111,1111011000111010111,11111010100100011001111
H = 11101111111111,111110111011111,1111111011101111
I = 1111011011011111,111110110100001110111,11111010001110100101111
J = 1111011011011111,111110110100001110111,11111000100110100101111
K = 1111011011011111,11111010011001010111,1111100101001011000101111
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M = 11111010111111,111101101110100111,111110101001000110011111
O = 1111011011011111,11111010011001010111,11111001010010000100101111
P = 1111011011011111,11111010011001010111,11111001010010001000101111
R = 1110110111011111,111111110011010111,1111100101010110011111
S = 1111011011011111,111110110100010110111,11111010010011100101111
U = 1111011011011111,11111010011001010111,11111010100100001001101111
V = 1111011011011111,11111010011001010111,11111001010010000101001111
W = 1111011011011111,1111100101001011001111,1111100101000100010011111
X = 1111011011011111,111110110100001110111,11111010001100100101111
Y = 1111011011011111,111110010100101001111,11111001010001000100101111
a = 1110110111011111,1111101011001010111,111110010010100101111
b = 1111011011011111,111110010100101001111,1111100001000100010101111
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f = 1111011011011111,111110101101001100111,11111001010001000100101111
g = 1111011011011111,111110010100101001111,11111001010001000100101111
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i = 1111011011011111,1111100110011001010111,1111101010000000010110011111
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m = 1110110111101111,11111010110011010111,11110011010101001101111
n = 1111011011011111,111110010101010100111,1111100100001000101101111
o = 1111011011011111,111110011001101100111,1111100110001000010010101111
p = 1111011011011111,1111100101001011001111,111110100100010000100101111
q = 1111011011011111,11111000110011001010111,111101010100000001010011111
r = 1110110111011111,11110101110110100111,111101100010101110111
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v = 1111011011011111,1111100110011001010111,1111100010000100001001001111
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1M = 11101101101110111,111110010101001100111,11111000100100100001000101111
1T = 111011011010110111,1111101001100010100111,11111001000100010100100011111
1W = 1101110111111111,1111111110101011,111110010111101111
1X = 1101101110111111,111111111001101011,11111001011110110111
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1b = 11110111010110111,111101001100110100111,1111100110001010010010111
1c = 1110110110110111,1111101001100110010111,111110001000101000100011111
1e = 1111011101010111,1111101001100010100111,111110011001000101001000011111
1h = 1111011101010111,1111101001100110100111,1111101010010000100010001111
1i = 1111011101101111,1111101011000010110111,11111010001011000010111
1k = 111011011010110111,1111101001100110010111,1111100100100101000100011111
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\int_x^1 Hit Integration (n:3,w:15)

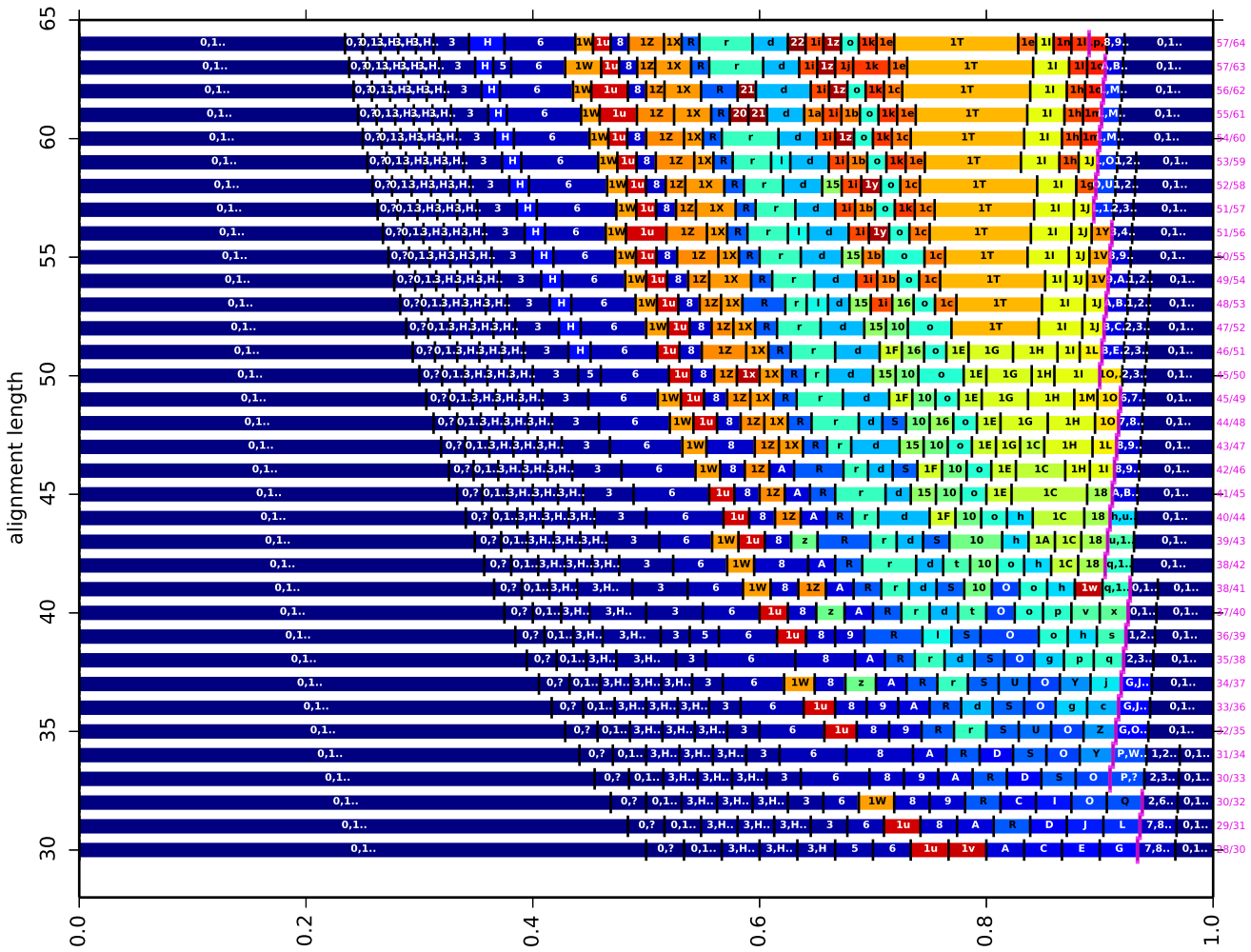


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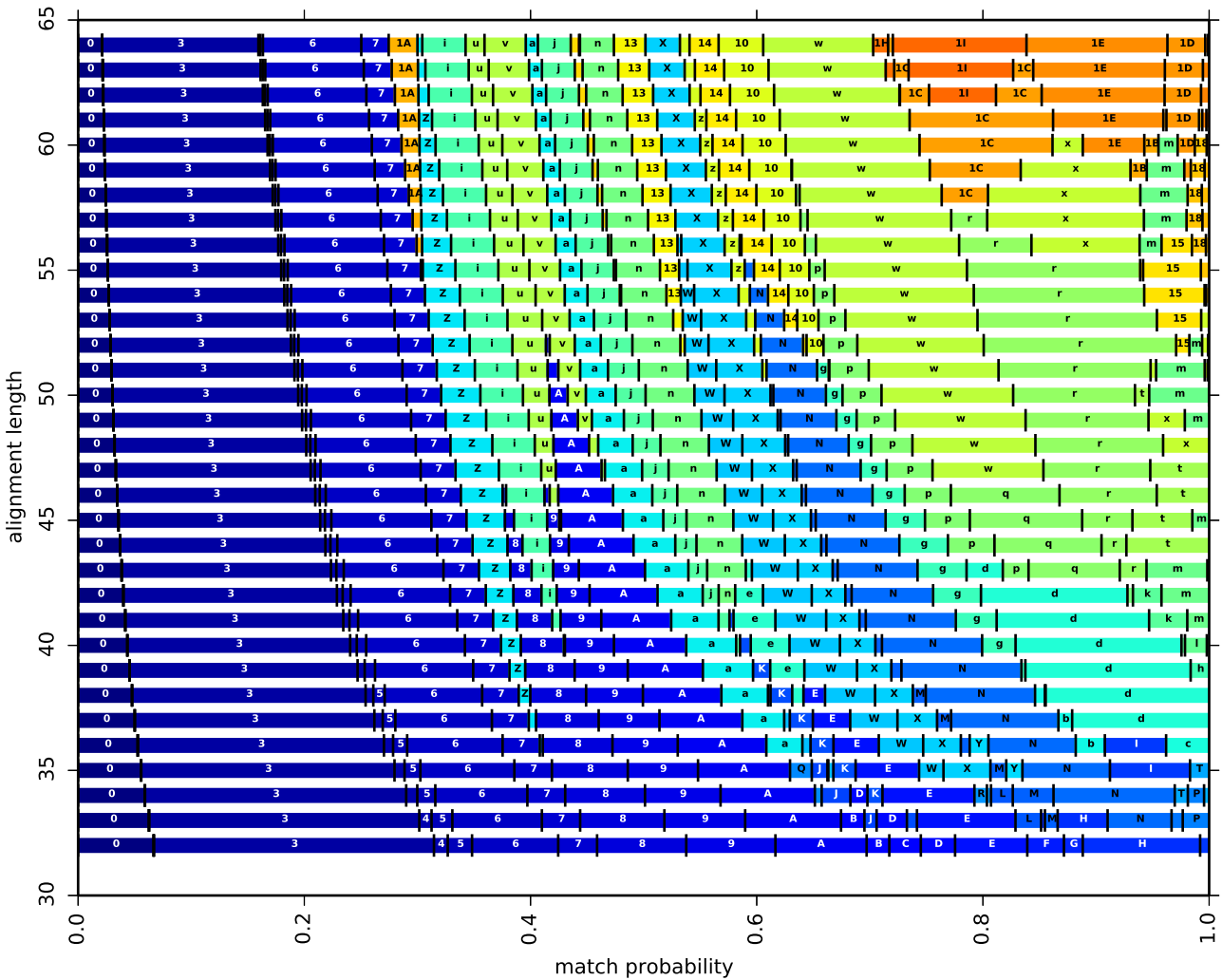
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E = 11110111011101111,1111011101000101101111,1111010010111100101011
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G = 11111011011111111,11110110001110101111,111111010100100011001111
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O = 11110111011101111,1111101001100101101111,11111001010001000100101111
P = 11110111011101111,1111101001100101101111,11111001010001000010101111
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W = 11110111011101111,1111100101001011001111,111110001000100010001011111
X = 11110111011101111,1111101101000011101111,1111010100011001001011111
Y = 11110111011101111,1111100101001011001111,11111001010001000100101111
b = 11110111011101111,1111100101001011001111,111110010100010001001011111
c = 11110111011101111,1111100101001011001111,111110000100010001010011111
f = 11110111011101111,1111101011010011001111,111110010100010001001011111
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1l = 11110101110101111,111101001100101001111,11110100100001100010001001011
1s = 11110111011101111,1111100101101011001111,111110010100010001001011111
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Dirac (n:3,w:15)



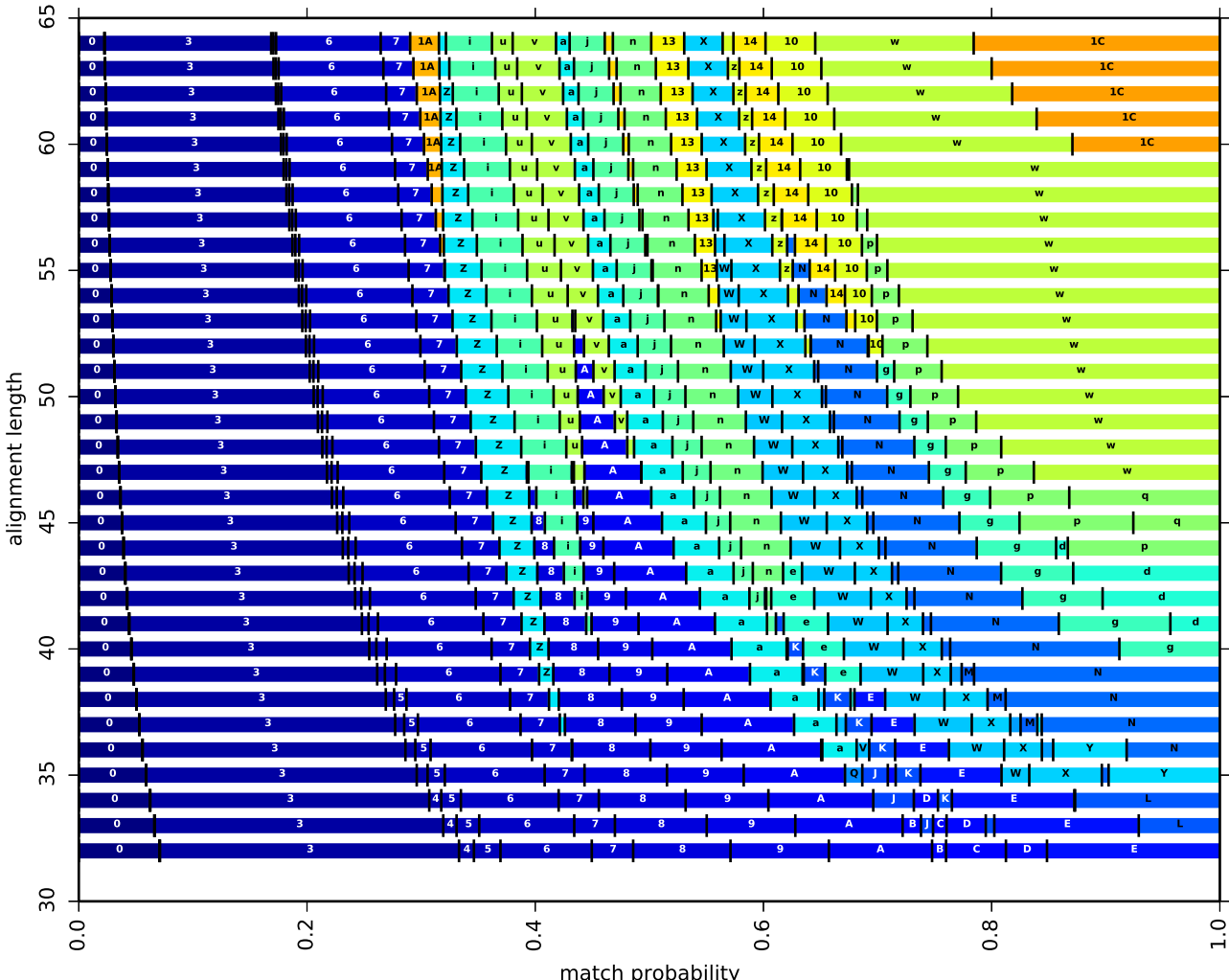
Bernoulli (n:3,w:16)



match probability

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5 = 1110111111111111,1111110111101101111,111111101011101111
6 = 1101110111111111,111110111110101111,11111101101111101111
7 = 1101110111111111,111110111110101111,11111110100111101111
8 = 1111101101111111,111011111101011111,111110101110011101111
9 = 1110111011111111,1111101111101101111,111110110010011101111
A = 1110111011111111,1111101111100101111,111101110100011101111
B = 1111011011111111,1111011111100101111,111110010100101101111
C = 1110111101111111,11111110011110101111,1111101101010001101111
D = 1111101110111111,111101111011101001111,1111110010110001101111
E = 1111011011101111,1111001011101101001111,1111110100100011101111
F = 1111011011101111,1111101001111010100111,11111010110000101101111
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H = 1111011011101111,111110100110010110111,11111001010010110100011111
I = 1111011011101111,111110100110010110111,111110101001000010100011111
J = 1110111101111111,111111001111010111,11111001011001011111
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P = 1111011011101111,1111101000100101101111,1111100101100001010001101111
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T = 1111011101101111,111110100110010110111,111111001010000101000111111
W = 1111011101101111,1111101000101110110111,11111001101001010011111
X = 1111011011101111,111110010110110100111,1111101011000010011110111
Y = 1111011011101111,111110100110010110111,11111010010100110001011111
Z = 1111011101111111,111011111110110111,111111001011011011111
a = 1110111101101111,1111101001111110111,1111101101010001101111
b = 1111011101101111,111110100110010110111,1111011010001010001011111
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e = 1110110111101111,11111011101001100111,1111001010011101010111111
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j = 1110110111110111,1111110110010110111,1111001010111100111111
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l = 1111011101101111,111110100110010110111,111110010101000011101111
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n = 1111011101101111,111011111100101101011,111110100010111001011111
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u = 1111101101111111,111101111111001011,111101011010011101111
v = 1110110111110111,111111101001110111,111101011011100110111
w = 1111011011101111,11110110011010010100111,11111001010010001000101001111
x = 1111011011101111,111101010010110001100111,11111100010001010001000011111
z = 1111011101101111,1111100111101101100111,111110100100001011101111
10 = 1111011101101111,1111010011010110010111,11110011001000010100101111
13 = 1111011101101111,111110100010110110111,1111001111001010010111
14 = 1111011101101111,1111010010110110100111,11111010101000001100101111
15 = 1111011011101111,1111010100100110001010111,11111001000101000010100011111
18 = 1111011101101111,111110100110010110111,1111101001000100010011001111
1A = 1101111111011111,1111100101111111011,11111110110011101111
1B = 1111011011101111,111110100010010110100111,1111101001000100010001110111
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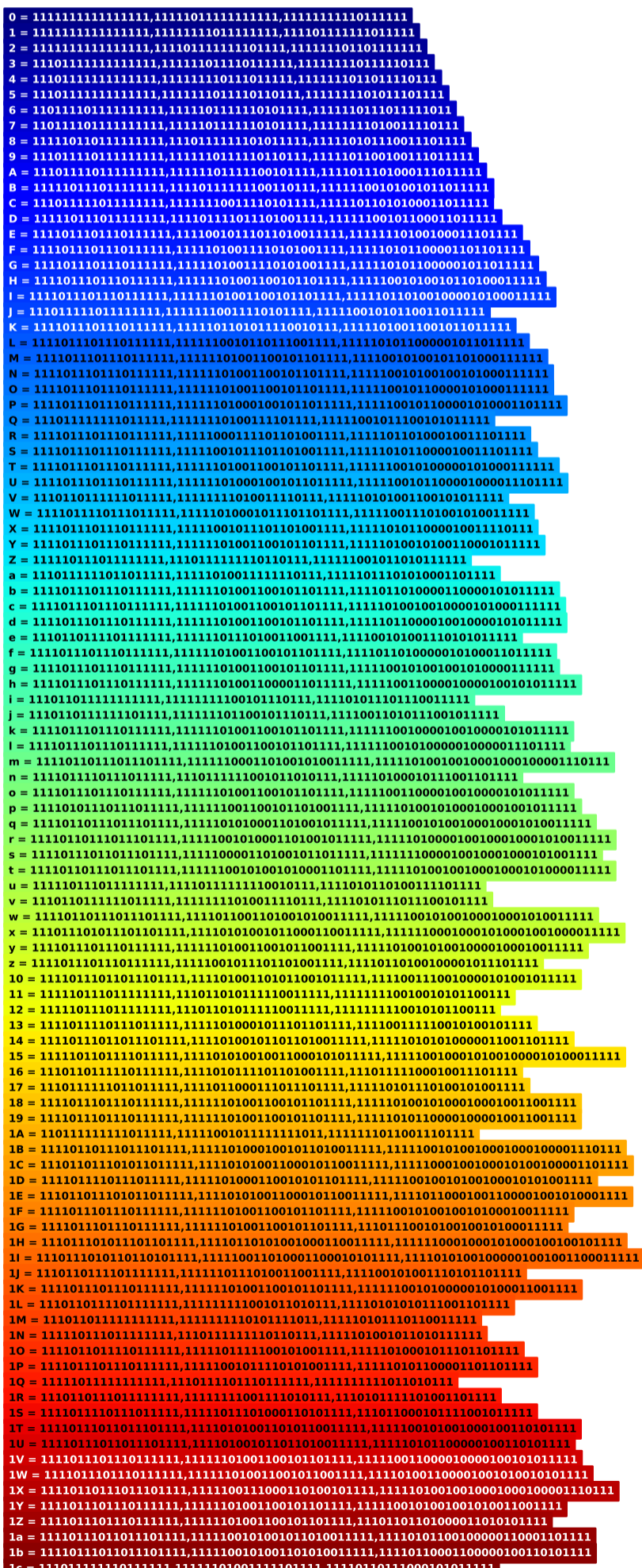
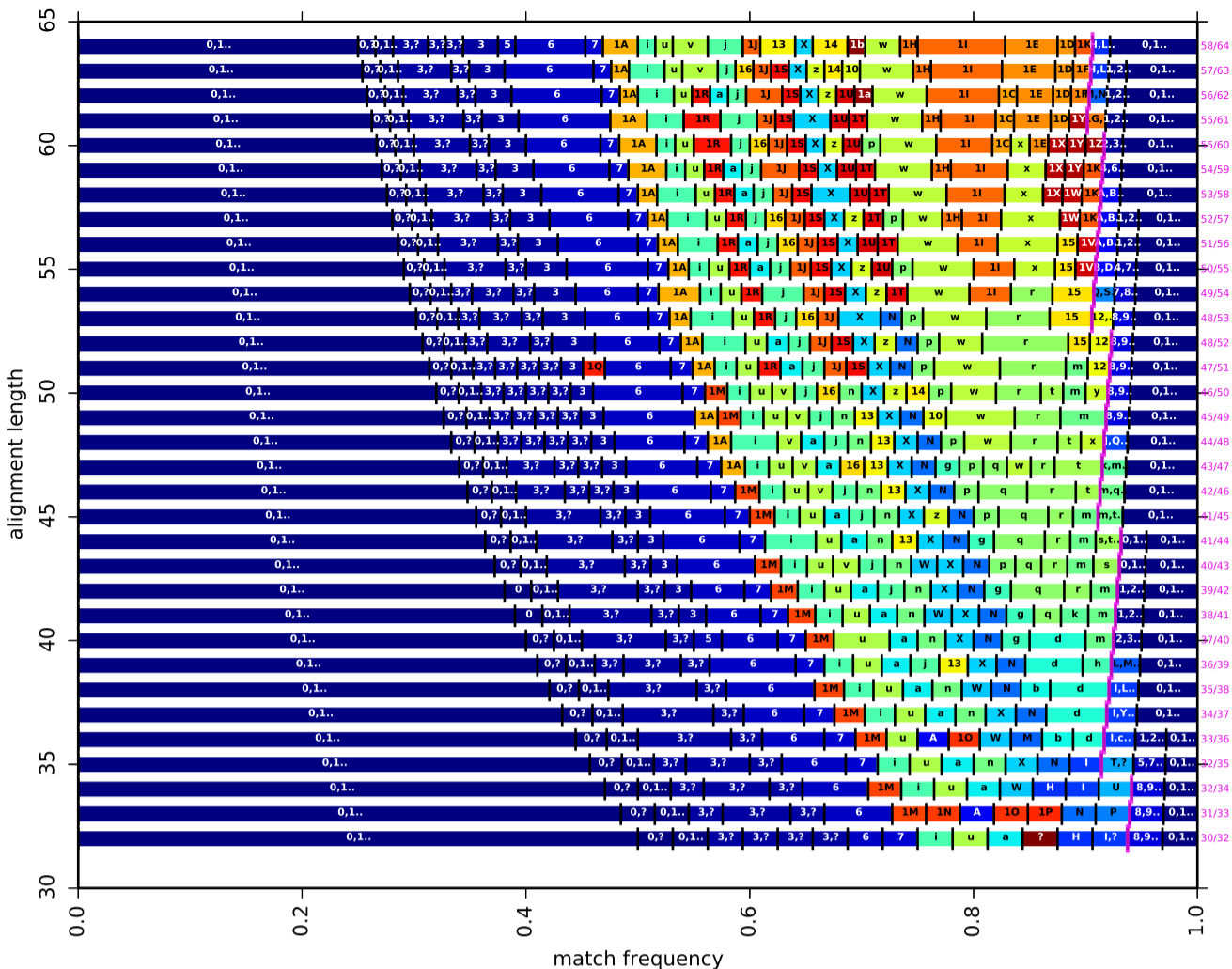
\int_0^x Hit Integration (n:3,w:16)



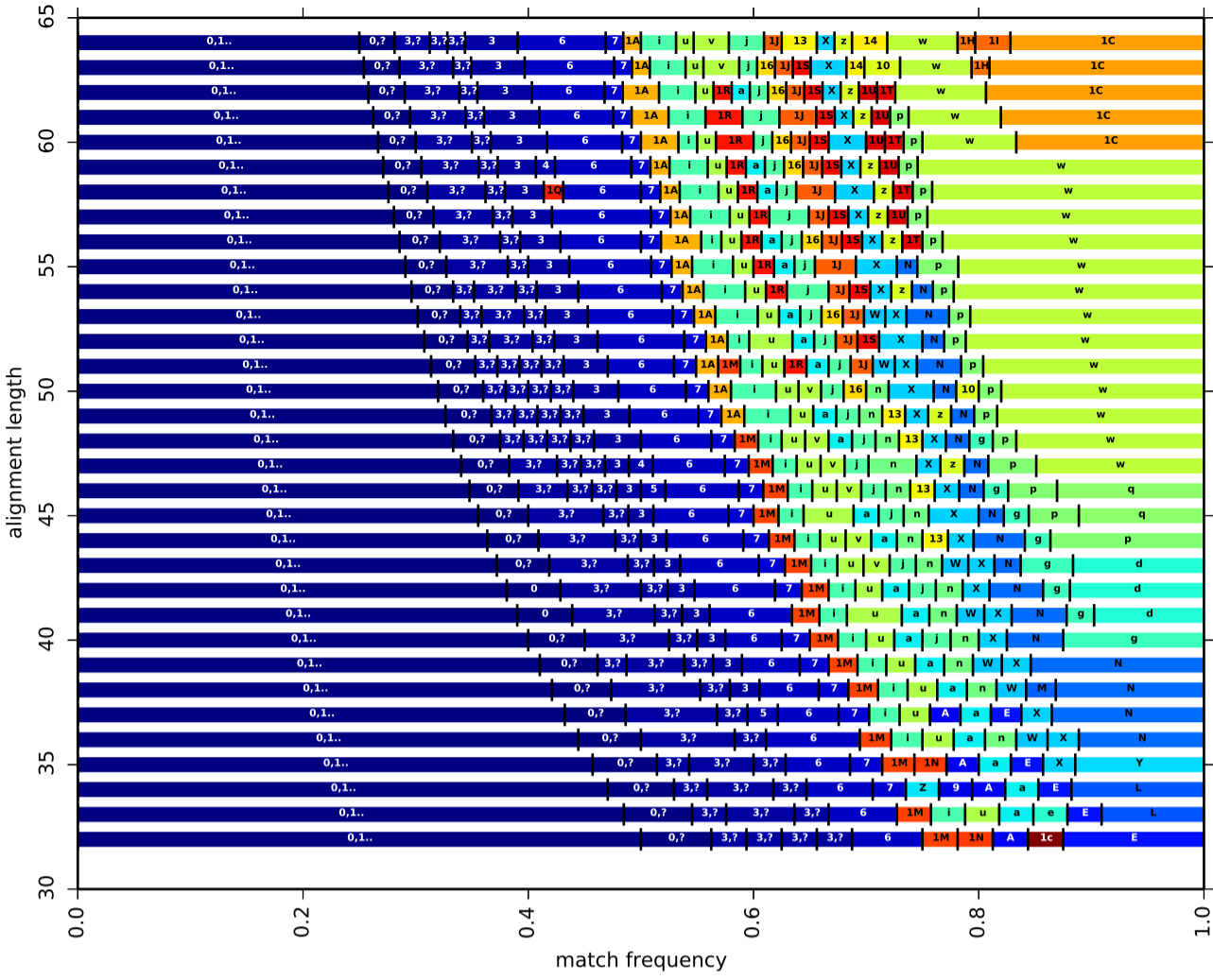
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7 = 1101110111111111,111110111111010111,11111111010011101111
8 = 1111101101111111,111011111110101111,1111101011100111011111
9 = 1110111101111111,1111110111110110111,1111101100100011011111
A = 1110111101111111,11111101111100101111,1111011101000110111111
B = 1111101101111111,11110111111100101111,1111100101001011011111
C = 1110111101111111,1111110011110101111,11111011010100011011111
D = 1111101101111111,111110111011101001111,11111100101100011011111
E = 111101110111011111,1111001011101101001111,111111101001000111011111
j = 1110111101111111,11111110011110101111,1111100101010011011111
K = 111101110111011111,111110110101110010111,1111101001100101011111
L = 111101110111011111,1111110010110111001111,111110101100000101101111
M = 111101110111011111,11111101001100101101111,11110010100101010000111111
N = 111101110111011111,11111101001100101101111,111110010100100101000111111
O = 111011111111011111,1111110100111101111,111110010111001010111111
V = 111011011111011111,1111111010011110111,111110101001100101011111
W = 111101111011101111,11111101001011101101111,1111100111010010100111111
X = 111101110111011111,11111001011101101001111,11111010110000100111101111
Y = 111101110111011111,11111101001100101101111,11111010010100110001011111
Z = 111110111011111111,1110111111110110111,1111110010110101111111
a = 111011111101101111,11111101001111110111,111110111010100011011111
d = 111101110111011111,1111110100110010110111,11111011000010010000101011111
e = 111011011101111111,1111110111010011001111,111100101001110101011111
g = 111101110111011111,1111110100110010110111,1111100101001001010000111111
i = 111011011111111111,1111111100101110111,11110101101110011111111111
j = 111011011111101111,11111110110010110111,11110011010111110010111111
n = 111101111011101111,1110111111001011010111,111110100010111001011111
p = 1111010111011101111,111111001100101101001111,111110100101000100101011111
q = 11110110111011101111,111110101000110100101111,111110010100100010001010011111
u = 111110111011111111,1111011111110010111,1111010110100111101111111
v = 111011011111101111,1111111010011110111,11110101110110010111111111
w = 11110110111011101111,111101100110100101001111,111110010100100010001010011111
z = 11111011101110111111,1111001011101101001111,111101101001000010111011111
10 = 11110111011011101111,111101001101100101111,1111001110010000101001011111
13 = 111101110111011111,1111101000101110110111,11110011110010100101111111
14 = 11110111011011101111,11110100101101101001111,1111101010100000110011011111
1A = 110111111110111111,11111001011111110111,111111101100111011111111
1C = 11101101110101101111,1111010100110001011001111,11111000100100010100100011011111
    
```


Dirac (n:3,w:16)

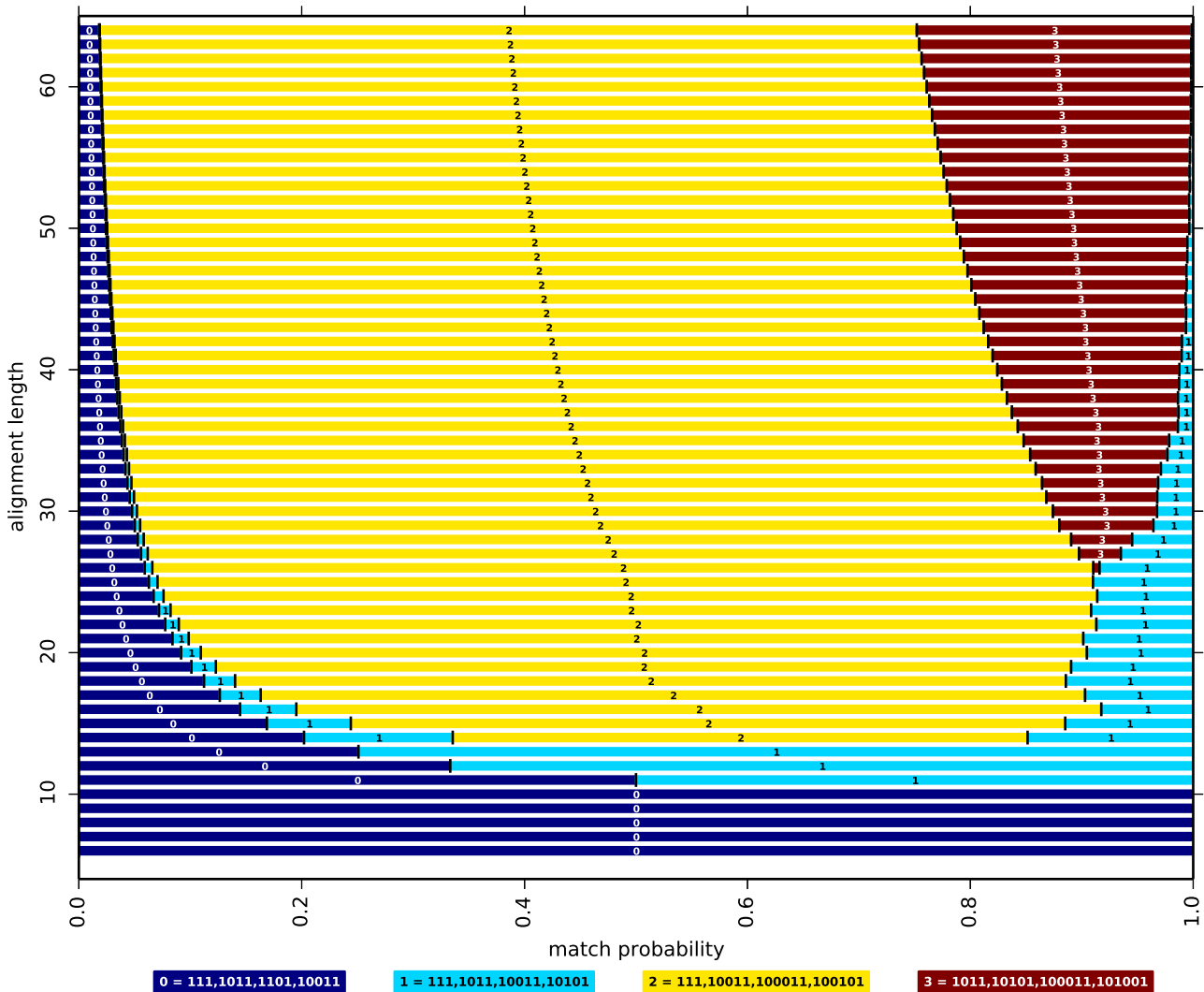


$$\sum_0^x \text{Heaviside}(n:3,w:16)$$

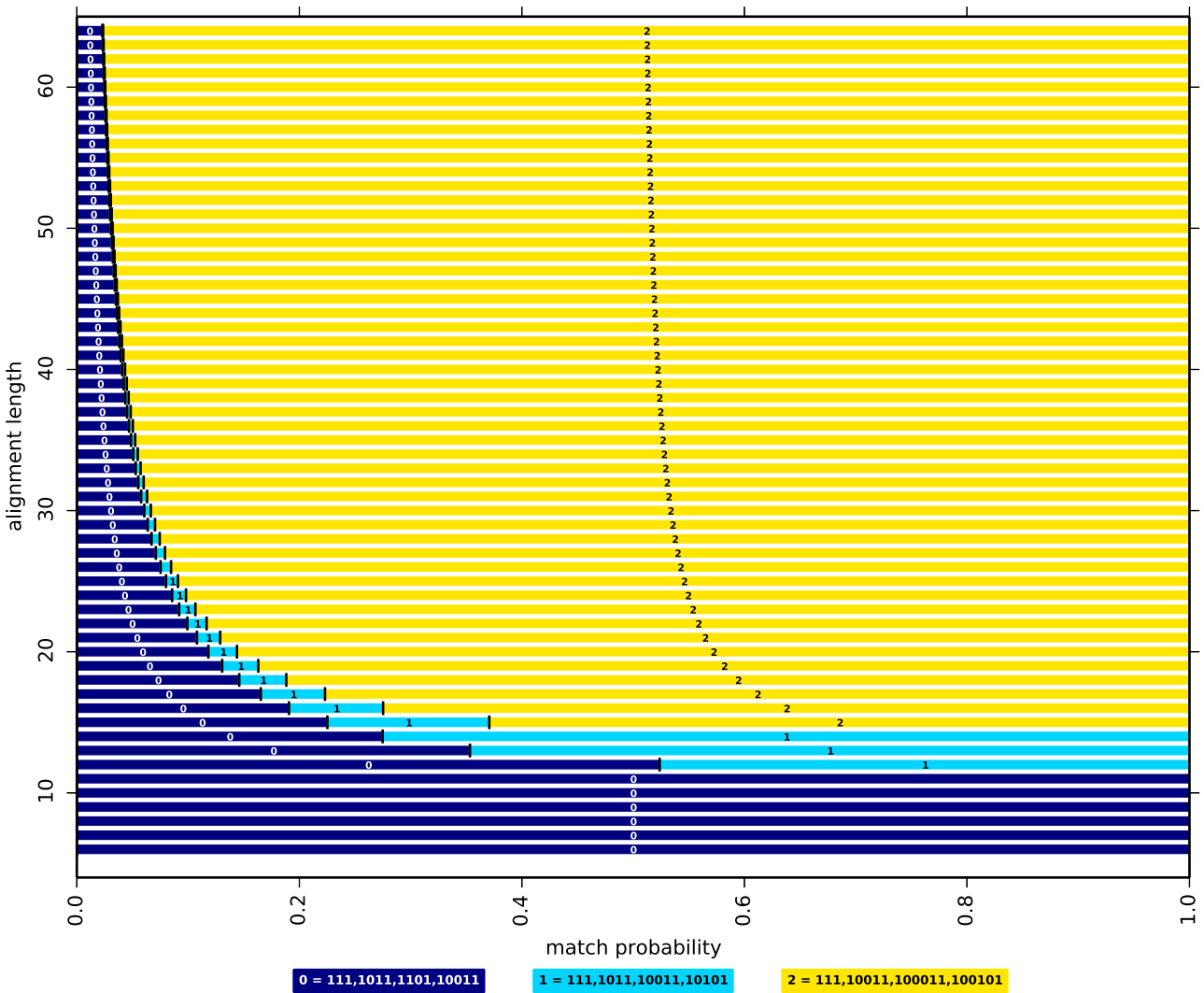


0 = 1111111111111111,1111011111111111,1111111110111111
1 = 1111111111111111,1111111011111111,111101111110111111
2 = 1111111111111111,1110111111101111,111111011011111111
3 = 1110111111111111,1111101111011111,111111101111101111
4 = 1110111111111111,1111111011101111,111111101101110111
5 = 1110111111111111,111111101110110111,111111101011101111
6 = 1101110111111111,111110111110101111,1111101101110111011
7 = 1101110111111111,111101111110101111,111111101001110111
8 = 1111011011111111,111011111110101111,1111101011000110111
9 = 1110111011111111,111110111110110111,11111011001001101111
A = 1110111011111111,111110111110010111,1111011101000111011111
B = 1111011101111111,111101111110010111,111110010100011011111
C = 1110111101111111,111111001111010111,111101101010001011111
D = 1111011101111111,111011110110100111,111110010110001011111
E = 1110111011101111,11110010111010100111,1111110100100011101111
F = 1110111011101111,11110100111101001111,1111010101000010101111
G = 1110111011101111,11110100111101001111,11110101000010101111
H = 1110111011101111,11111010010010101111,111100101001010100011111
I = 1110111011101111,11111010010010101111,11110110100100010100011111
J = 1110111101111111,111111001111010111,111100101010010101111
K = 1110111011101111,11111011010111001011,11110100110010101111
L = 1110111011101111,11111001010111001111,111101010000101011111
M = 1110111011101111,11111010011001010111,1111001010010110100011111
N = 1110111011101111,11111010011001010111,11110010100101000111111
O = 1110111011101111,11111010011001010111,1111100101100001010011111
P = 1110111011101111,11111010011001010111,11110010100001010001101111
Q = 1110111111101111,111111010011101111,11110010110010101111
R = 1110111011101111,1111000111010100111,11110110100010011010111
S = 1110111011101111,11110010111010100111,111101010100001001101111
T = 1110111011101111,11111010011001010111,1111100101000010100011111
U = 1110111011101111,11111010001001010111,111100101100001000011101111
V = 1110110111101111,111111101001110111,1111010100110010101111
W = 1110111011101111,1111010001011010111,11110011101001010011111
X = 1110111011101111,11110010111010100111,1111010100001011110111
Y = 1110111011101111,11111010011001010111,111101001010010001011111
Z = 1111011101111111,11101111111010111,1111100101101011111
a = 1110111101101111,111110100111110111,1111011101010001101111
b = 1110111011101111,11111010011001010111,11101101000011000010101111
c = 1110111011101111,11111010011001010111,111101001001000010100011111
d = 1110111011101111,11111010011001010111,11110100001001000010101111
e = 1110110111011111,11111011101001100111,1110010100111010101111
f = 1110111011101111,11111010011001010111,11101101000010100101111
g = 1110111011101111,11111010011001010111,11110110100001010001011111
h = 1110111011101111,11111010011001010111,111100100001000010010101111
i = 1110110111101111,11111110010110111,1110101110110001111
j = 1110110111110111,1111110110010110111,11100101011100101111
k = 1110111011101111,111111010011001010111,1111100100001001000010101111
l = 1110111011101111,11111010011001010111,1111100101000001000011101111
m = 1110110111011011,1111100011010010100111,1111101001001000100001110111
n = 1110111011011011,1110111110010101011,1111010001011001010111
o = 1110111011101111,11111010011001010111,1111001100001001000010101111
p = 11101011101110111,111110011001010100111,1111010010010001000100101111
q = 11101101110110111,111101000110010100111,1111001010001000101001111
r = 11101101110110111,1111001010001010010111,11110100001001000101001111
s = 1110110110110111,111100001101001010111,111110000100100010001010111
t = 1110110111011011,111110010010100010111,11110100100100010001010001111
u = 1111011101111111,11110111111001011,11110101101001110111
v = 1110110111101111,111111101001110111,1110101110110010111
w = 11101101110110111,1110110011010010100111,1111001010010001000101001111
x = 11101101110110111,11101010010110001100111,11111000100100010001000011111
y = 1110111011101111,111110100110010100111,11110100101001000010001001111
z = 1110111011101111,11110010111010100111,111011010010000101101111
10 = 1110111011101111,11101001101010010111,11100110010000100010101111
11 = 1111011101111111,111011010111001111,111111001001010100111
12 = 1111011101111111,1110110101111001111,111111110010110100111
13 = 1110111011101111,1111010001011010111,1110011111001010010111
14 = 1110111011101111,11101001010101001111,1111010101000001001010111
15 = 1110110111101111,11101010010010001010111,111100100010100001010001111
16 = 1110110111101111,1110101111010100111,1110111100010011101111
17 = 1110111110101111,111011000110110111,1111010111010010001111
18 = 1110111011101111,11111010011001010111,111101001010001000101001111
19 = 1110111011101111,11111010011001010111,111101010000100001001001111
1A = 1111111111011111,11110010111111011,111111011001110111
1B = 1110111011101111,1111010001001010100111,111100101001000100010000111011
1C = 111011101110101111,1110101001100010100111,1111000100100010100100001010111
1D = 1110111101101111,1111010001100101010111,1111001001001000101000111
1E = 111011101110101111,1110101001100010100111,111011000100100001010001111
1F = 1110111011101111,1111010011001010111,1111001001001000100101111
1G = 1110111011101111,11111010011001010111,111011001010010010001111
1H = 11101110111010111,1110110101001000100111,11111000100010100010010111
1I = 11101110111010111,11100110100010001010111,11101010010000010010010001111
1J = 1110110111011111,1111101101001100111,11100101001101010111
1K = 1110111011101111,11111010011001010111,11110010100001010001001111
1L = 1110111110111111,111111100101010111,11101010101110010111
1M = 1110110111111111,1111111010111011,111101011101001111
1N = 1110111011111111,11101111111010111,11110100101010101111
1O = 1110110111101111,1111011110010100111,11110100010111010111
1P = 1110111011101111,11110010111010100111,11110101000011010111
1Q = 1110111111111111,11101111011101111,11111111101010111
1R = 1110111011111111,111111100111101011,111011111010010111
1S = 1110111011101111,1111011110100011010111,1110100010111010010111
1T = 1110111011101111,11101010011010100111,1111001010010001001010111
1U = 1110111011101111,111100101010100111,111101010100000101010111
1V = 1110111011101111,11111010011001010111,11110010000100001001010111
1W = 1110111011101111,111110100110010100111,1110100100001001001010111
1X = 1110111011101111,11110011000110010111,111101001001000100001010111
1Y = 1110111011101111,11111010011001010111,11110010100100101001100111
1Z = 1110111011101111,11111010011001010111,111011011010000101010111
1a = 1110111011101111,11110010001010100111,111010101001000010001010111
1b = 1110111011101111,11110010001010100111,111010001000001001010111
1c = 1110111110111111,11111010011110111,1110110110001010111

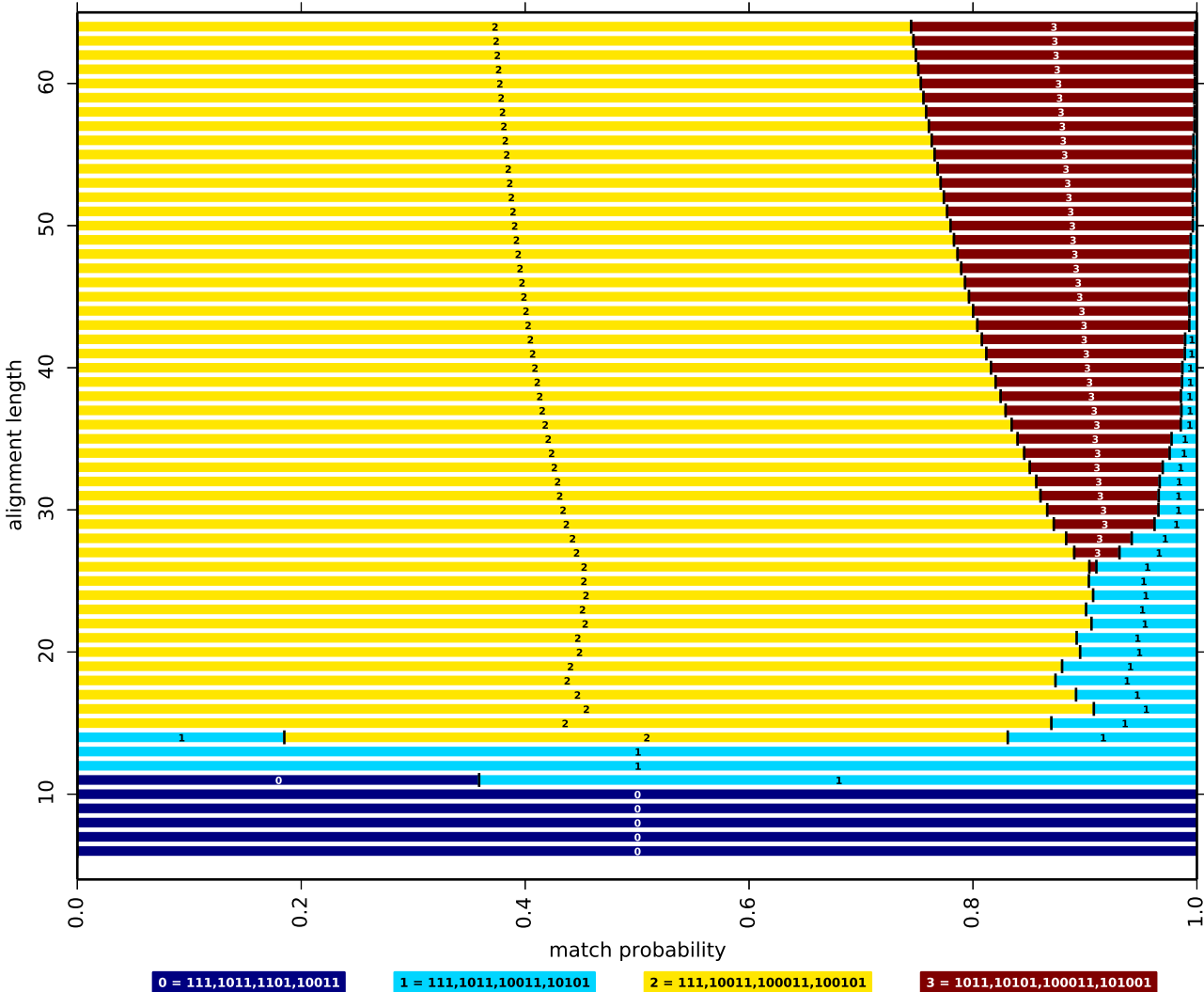
Bernoulli (n:4,w:3)



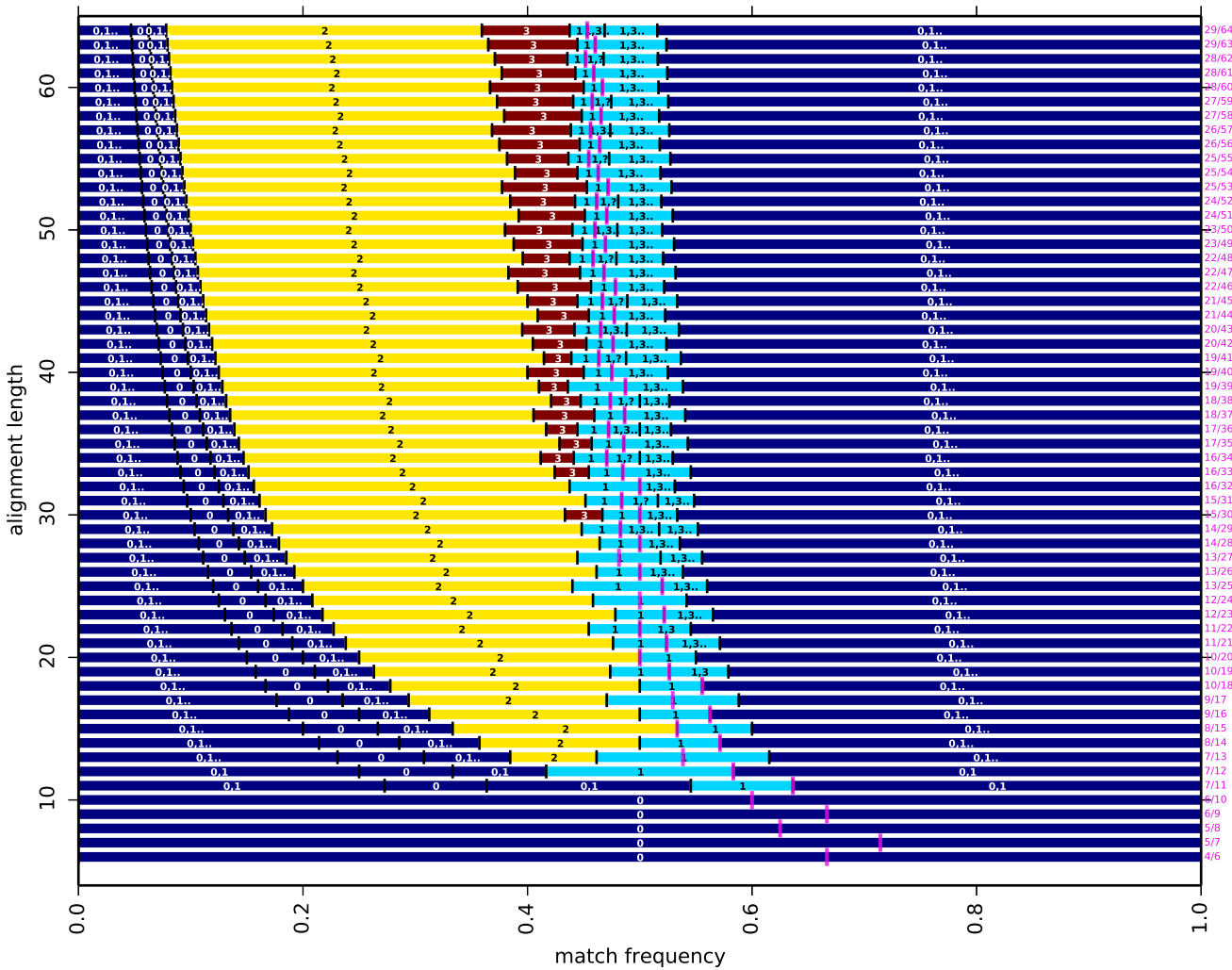
\int_0^x Hit Integration (n:4,w:3)



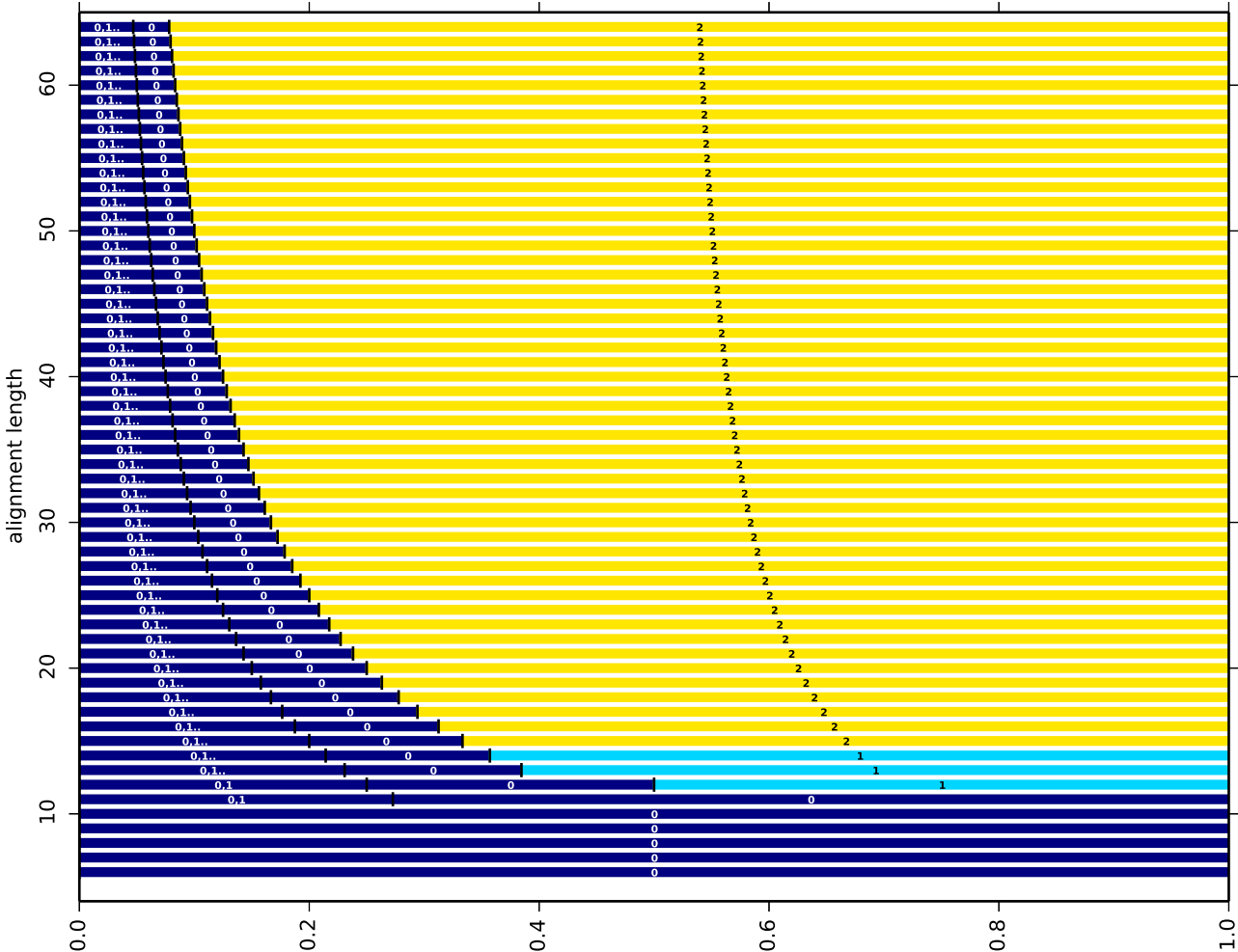
\int_x^1 Hit Integration (n:4,w:3)



Dirac (n:4,w:3)



$$\sum_0^x \text{Heaviside}(n:4,w:3)$$



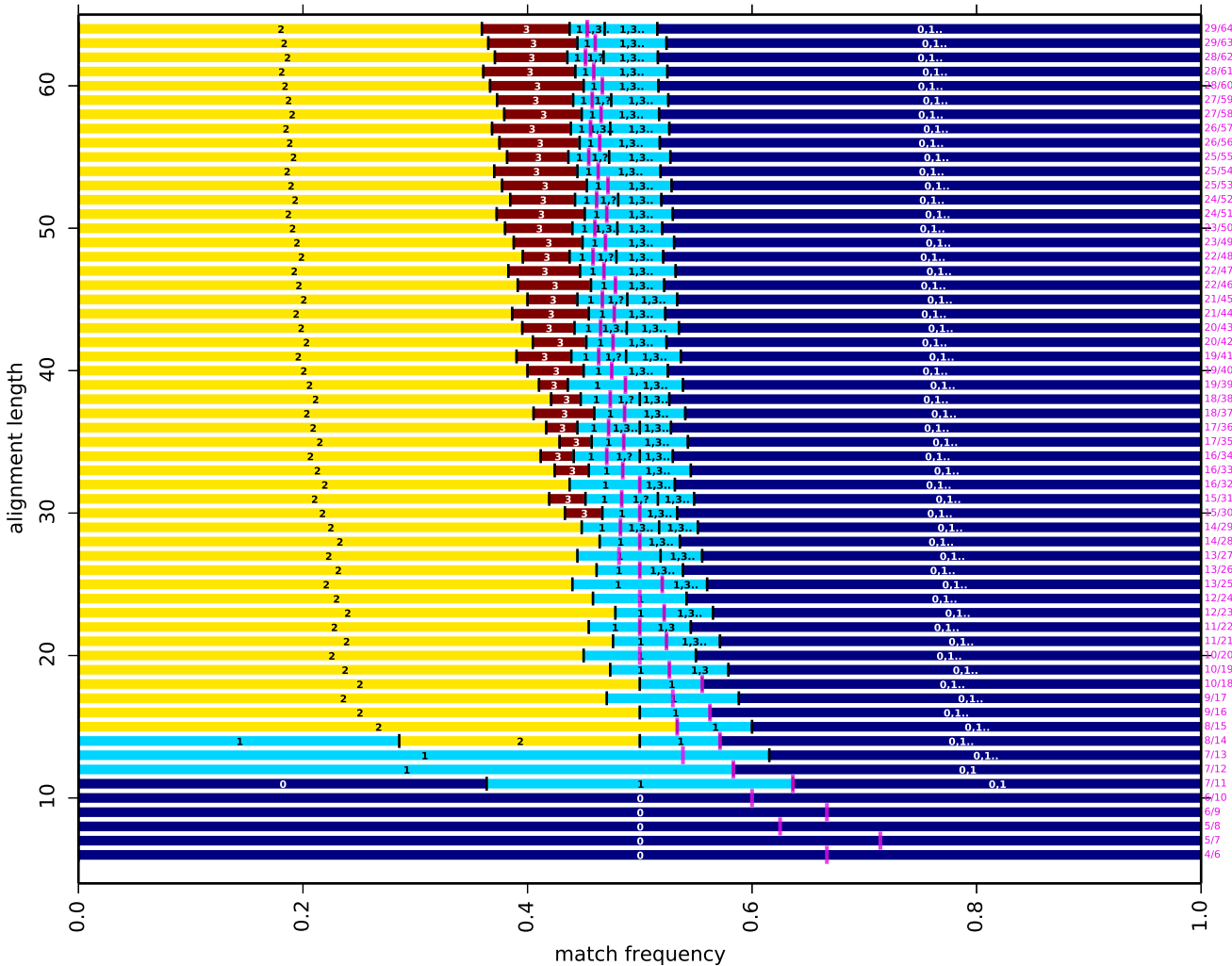
0 = 111,1011,1101,10011

1 = 111,1011,10011,10101

2 = 111,10011,100011,100101

3 = 1011,10101,100011,101001

$$\sum_x^1 \text{Heaviside}(n:4,w:3)$$



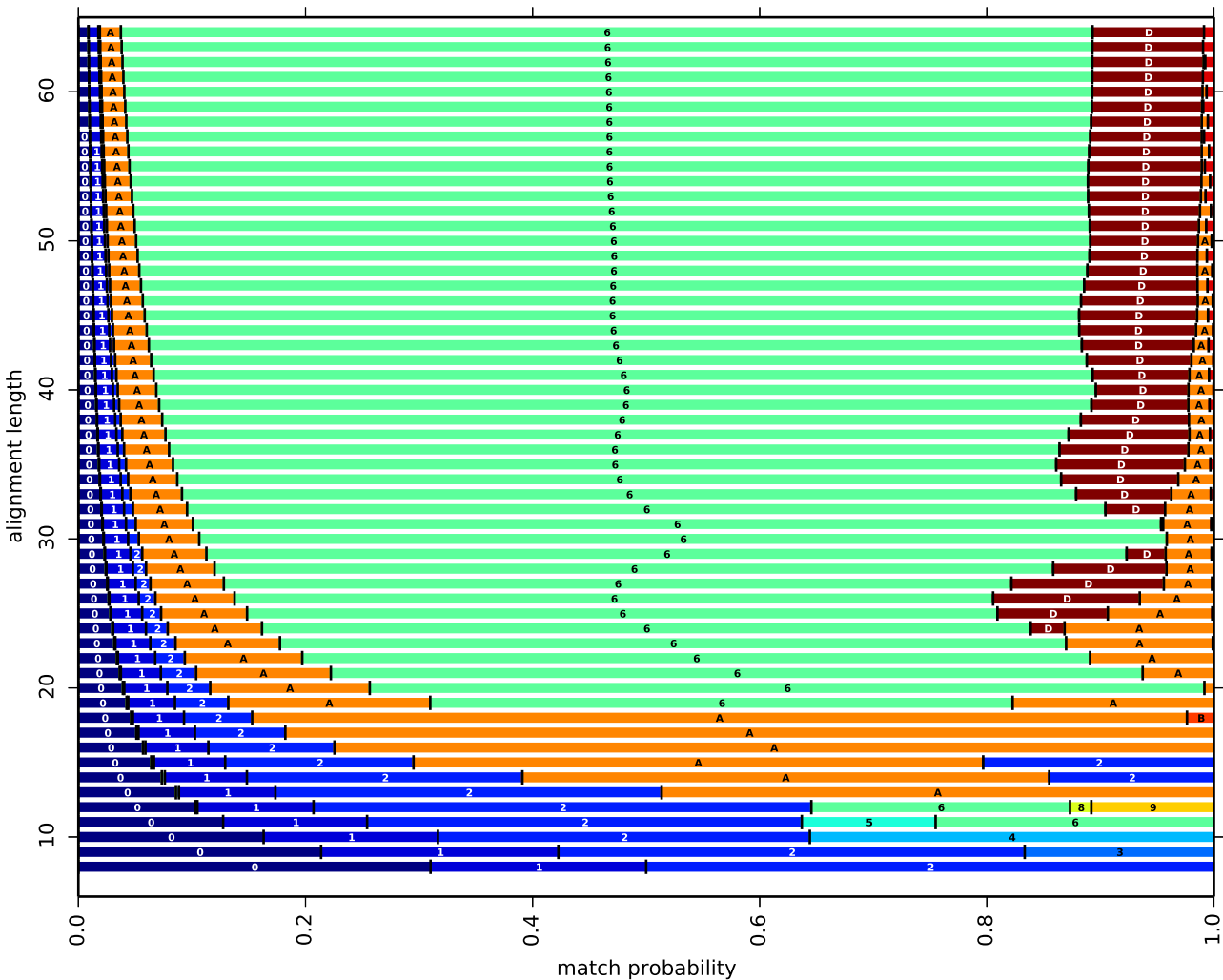
0 = 111,1011,1101,10011

1 = 111,1011,10011,10101

2 = 111,10011,100011,100101

3 = 1011,10101,100011,101001

Bernoulli (n:4,w:4)

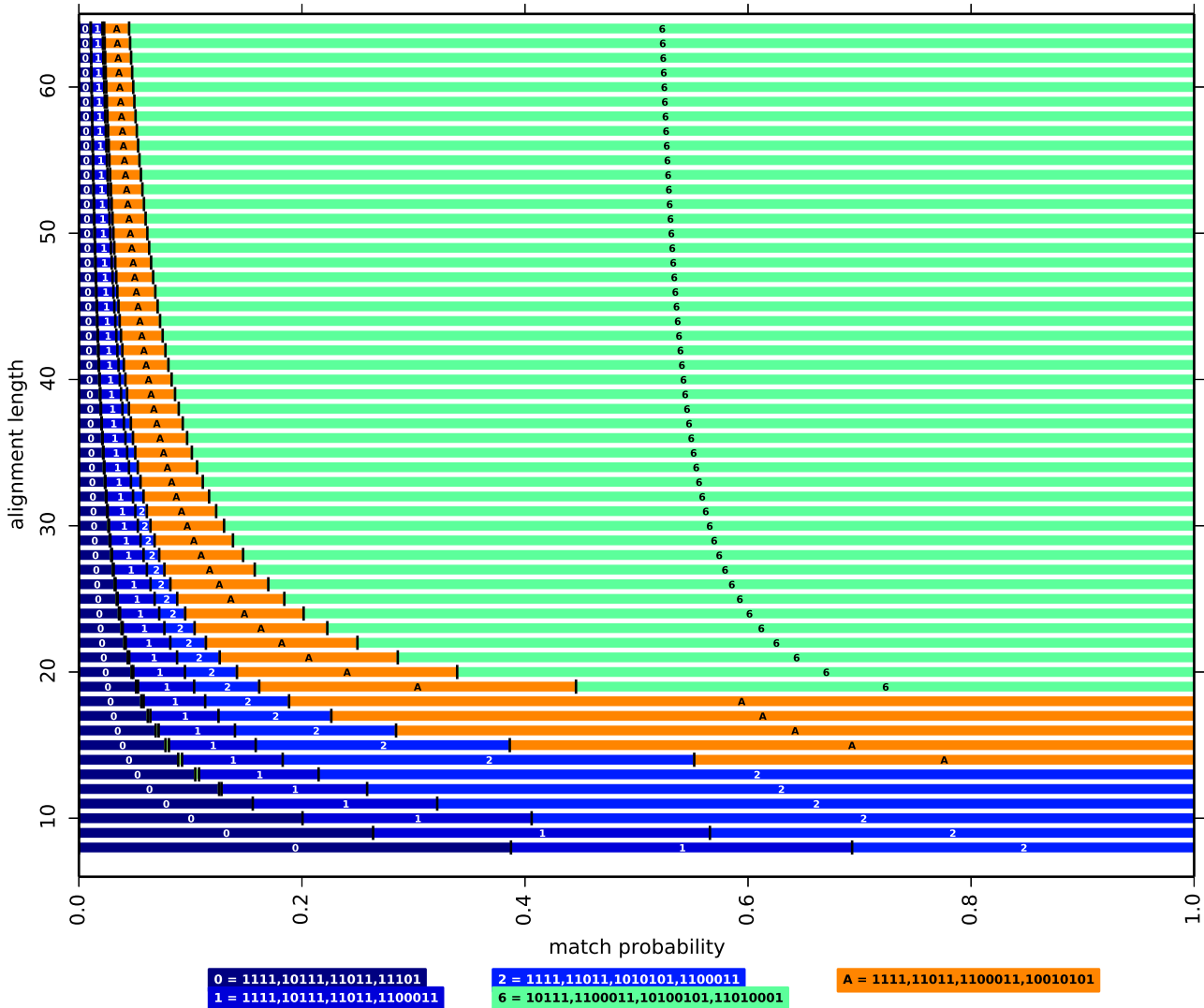


0 = 1111,10111,11011,11101
 1 = 1111,10111,11011,1100011
 2 = 1111,11011,1010101,1100011
 3 = 1111,101011,110011,1100101

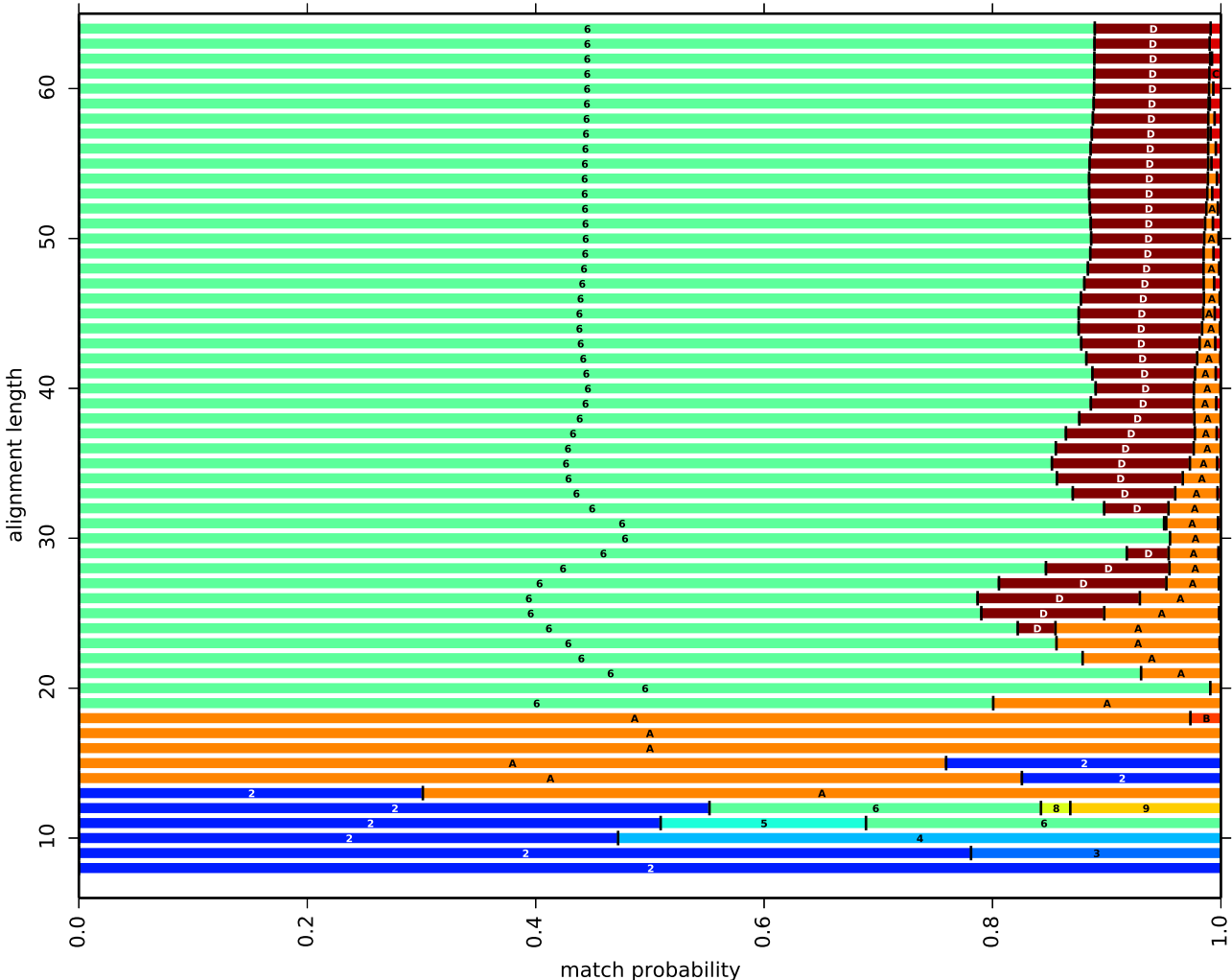
4 = 1111,110011,1010011,1100101
 5 = 10111,110011,110101,11000011
 6 = 10111,1100011,10100101,11010001
 8 = 1111,110011,1010011,10010101

9 = 1111,100111,101011,11001001
 A = 1111,11011,1100011,10010101
 B = 1111,110011,1001011,10101001
 D = 11011,1000111,1101001,10010101

\int_0^x Hit Integration (n:4,w:4)



\int_x^1 Hit Integration (n:4,w:4)

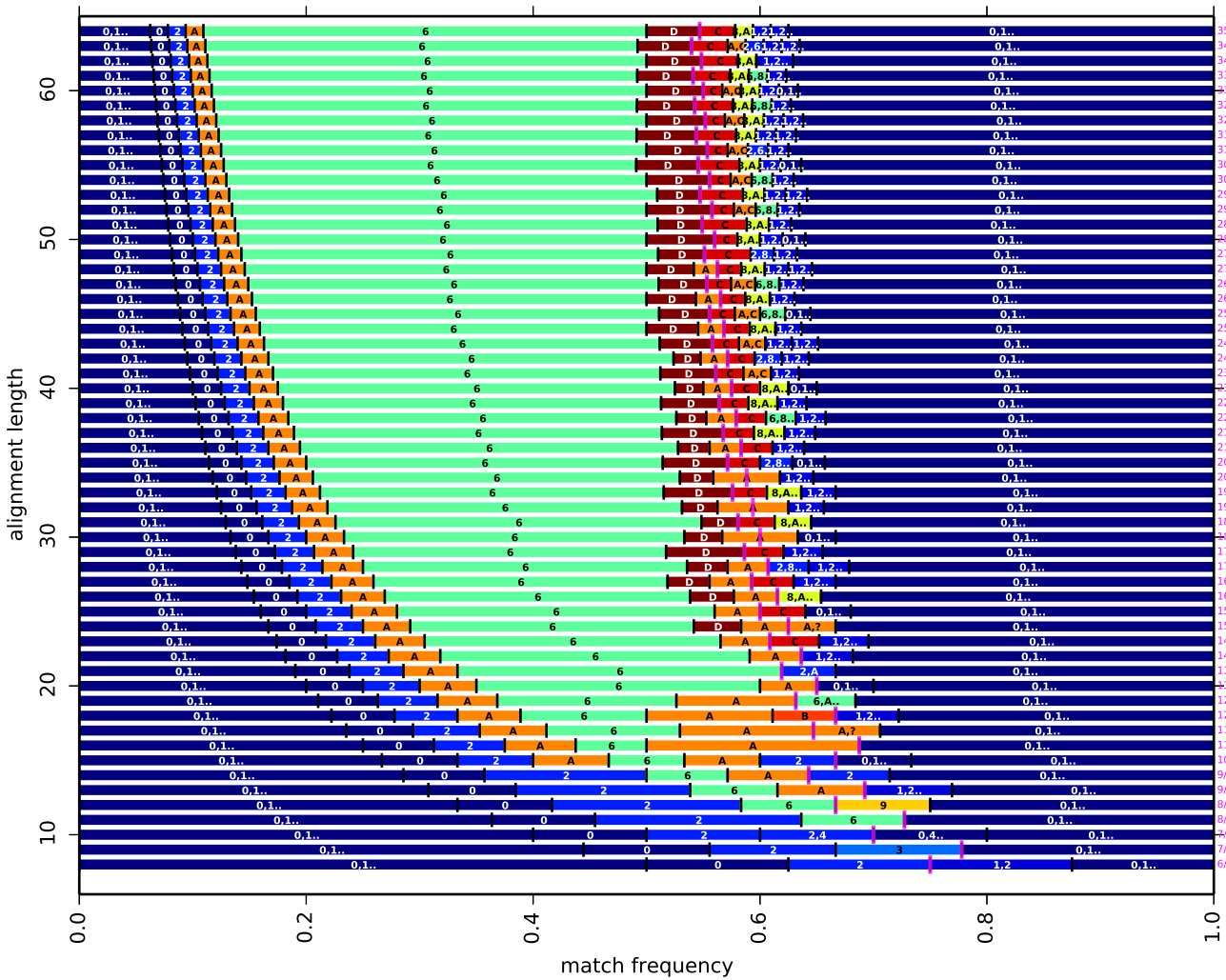


2 = 1111,11011,1010101,1100011
 3 = 1111,101011,110011,1100101
 4 = 1111,110011,1010011,1100101
 5 = 10111,110011,110101,11000011

6 = 10111,1100011,10100101,11010001
 8 = 1111,110011,1010011,10010101
 9 = 1111,100111,101011,11001001
 A = 1111,11011,1100011,10010101

B = 1111,110011,1001011,10101001
 C = 10111,100111,101101,11000101
 D = 11011,1000111,1101001,10010101

Dirac (n:4,w:4)

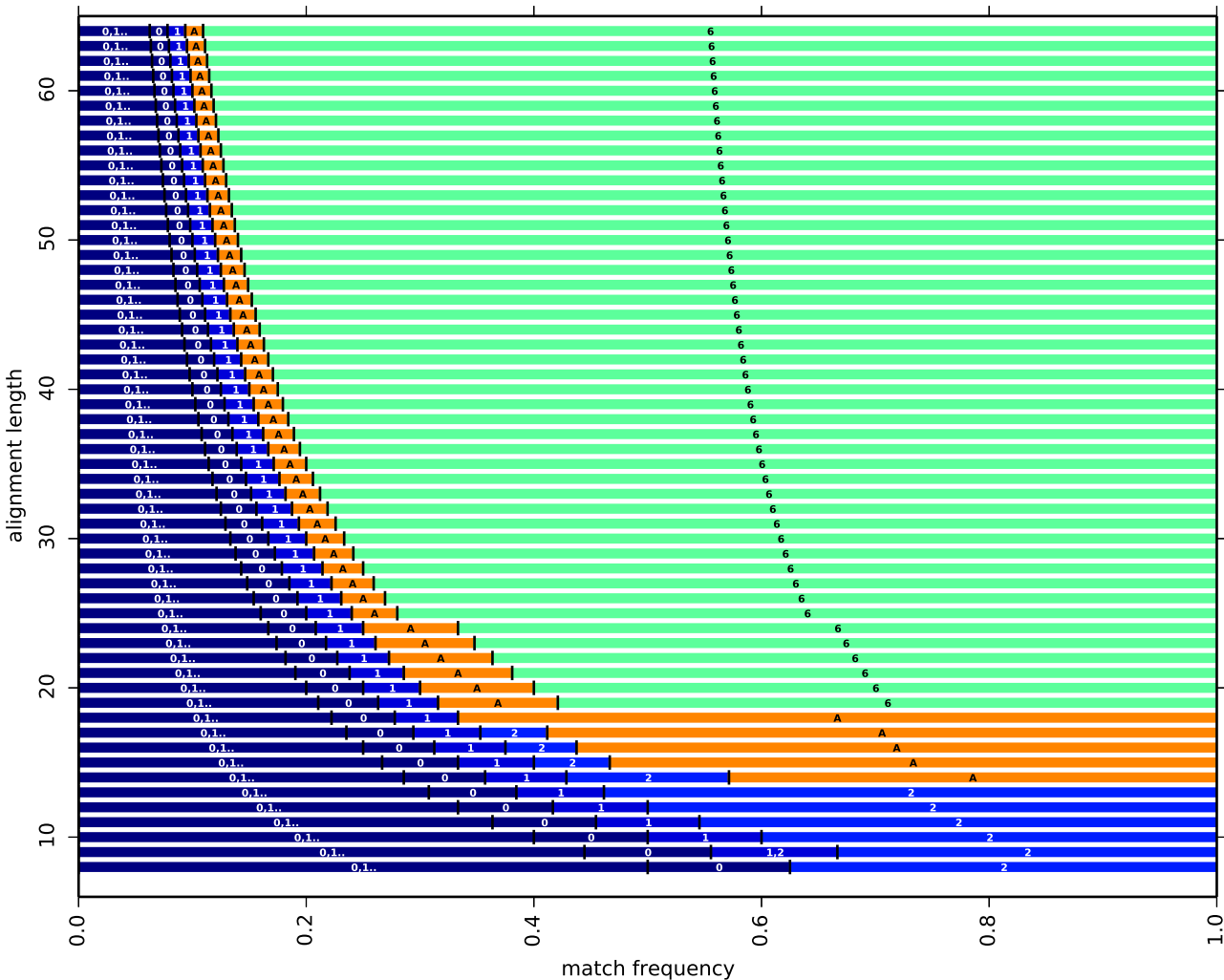


0 = 1111,10111,11011,11101
 1 = 1111,10111,11011,1100011
 2 = 1111,11011,1010101,1100011
 3 = 1111,101011,110011,1100101
 4 = 1111,110011,1010011,1100101

5 = 10111,110011,110101,11000011
 6 = 10111,1100011,10100101,11010001
 7 = 1111,11011,110101,110101
 8 = 1111,110011,1010011,10010101
 9 = 1111,100111,101011,11001001

A = 1111,11011,1100011,10010101
 B = 1111,110011,1001011,10101001
 C = 10111,100111,101101,11000101
 D = 11011,1000111,1101001,10010101

$$\sum_0^x \text{Heaviside}(n:4,w:4)$$

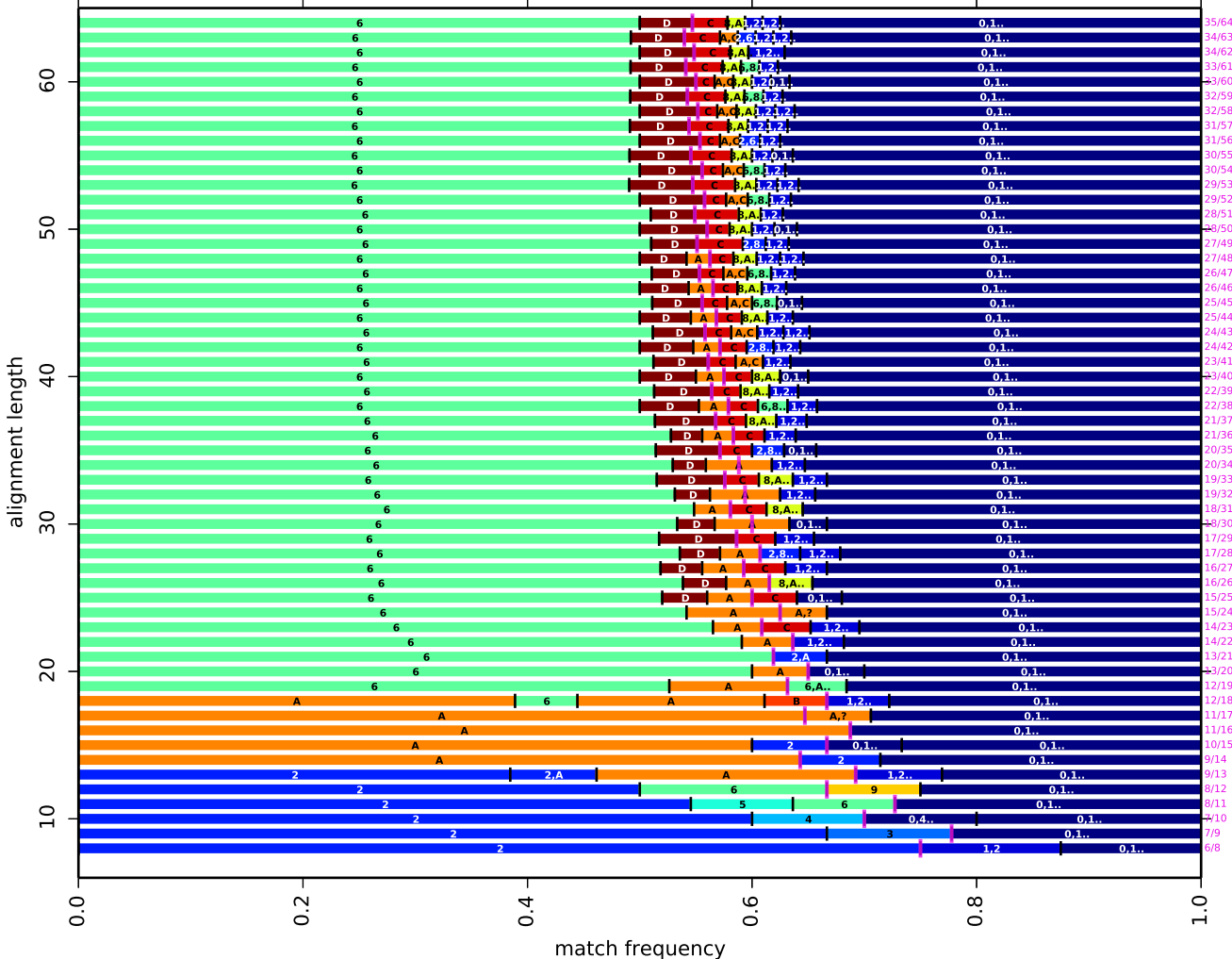


0 = 1111,10111,11011,11101
 1 = 1111,10111,11011,1100011
 2 = 1111,10111,1010101,1100011
 3 = 1111,101011,110011,1100101
 4 = 1111,110011,1010011,1100101

5 = 10111,110011,110101,11000011
 6 = 10111,1100011,10100101,11010001
 7 = 1111,10111,11011,110101
 8 = 1111,110011,1010011,10010101
 9 = 1111,100111,101011,11001001

A = 1111,11011,1100011,10010101
 B = 1111,110011,1001011,10101001
 C = 10111,100111,101101,11000101
 D = 11011,1000111,1101001,10010101

$$\sum_x^1 \text{Heaviside}(n:4,w:4)$$

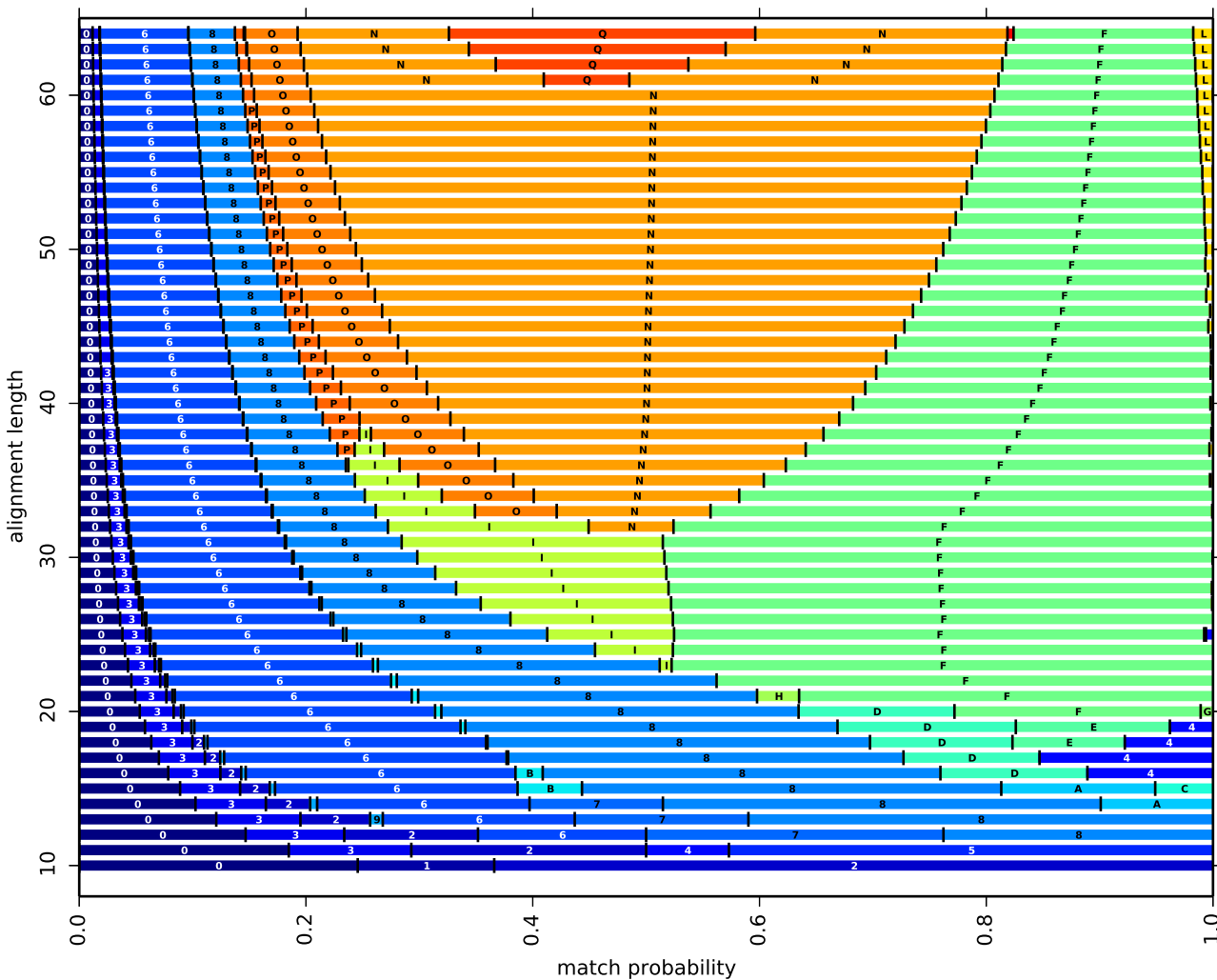


0 = 1111,10111,11011,11101
 1 = 1111,10111,11011,1100011
 2 = 1111,11011,1010101,1100011
 3 = 1111,101011,110011,1100101
 4 = 1111,110011,1010011,1100101

5 = 10111,110011,110101,11000011
 6 = 10111,1100011,10100101,11010001
 7 = 1111,10111,11011,110101
 8 = 1111,110011,1010011,10010101
 9 = 1111,100111,101011,11001001

A = 1111,11011,1100011,10010101
 B = 1111,110011,1001011,10101001
 C = 10111,100111,101101,11000101
 D = 11011,1000111,1101001,10010101

Bernoulli (n:4,w:5)

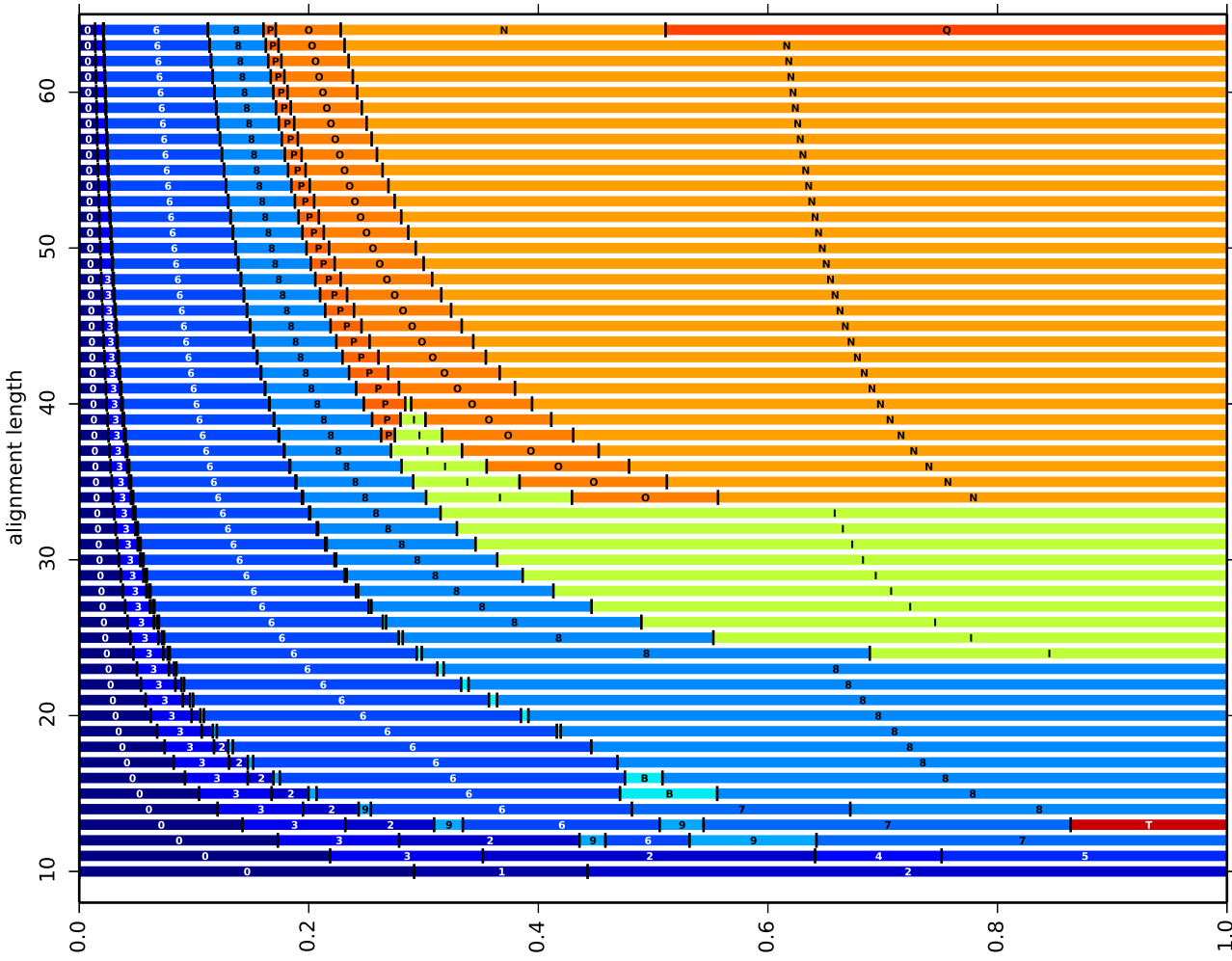


0 = 11111,101111,110111,111011
 1 = 11111,110111,111011,11000111
 2 = 11111,110111,110101,11100101
 3 = 11111,101111,111011,11001011
 4 = 11111,101101,110011,11010101
 5 = 11111,110011,110101,110010011
 6 = 101111,1110011,11001011,11010101
 7 = 101111,1110101,11000111,110010011

8 = 110111,1111001,11001011,1101000011
 9 = 11111,1100111,10101011,11010011
 A = 110111,11001011,111000101,1101000011
 B = 110111,1111001,11001011,110100011
 C = 110111,11101001,100001111,1101000101
 D = 101111,1110101,11001101,1101000011
 E = 11111,1100111,10101101,110010011
 F = 110111,11001011,110100101,1101000101

G = 101111,10110011,111000101,1001010011
 H = 101111,11000111,11011001,110101001
 I = 110111,11001011,110100101,1010100011
 L = 101111,10110011,101010011,1011000011
 N = 10010111,11100101,1100010011,1101000101
 O = 1101011,10100111,1100010011,1101000101
 P = 110111,11010011,110010101,1101000011
 Q = 10010111,110101001,1100011001,1101000101

\int_0^x Hit Integration (n:4,w:5)

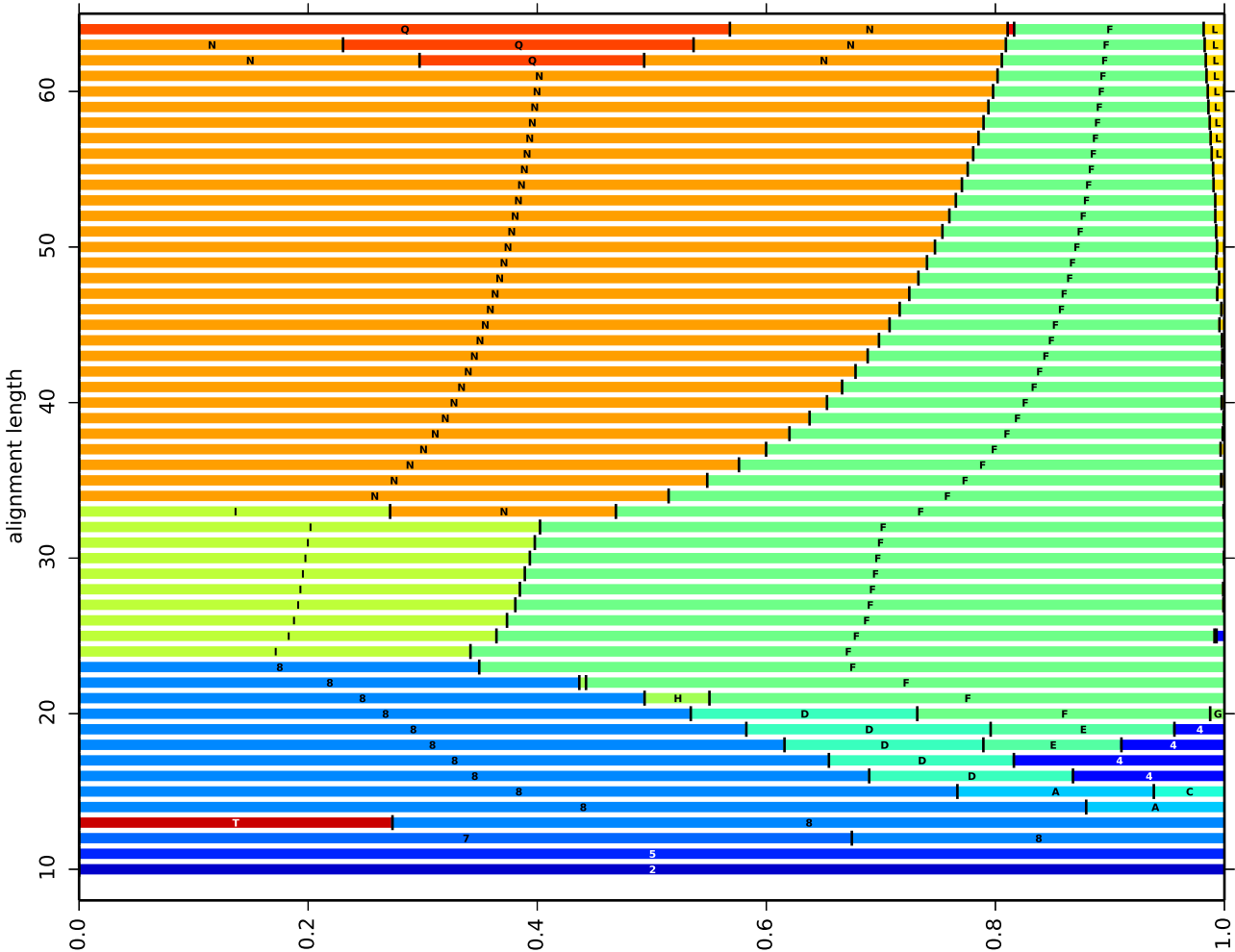


0 = 11111,10111,110111,111011
 1 = 11111,110111,111011,11000111
 2 = 11111,10111,1101011,11100101
 3 = 11111,101111,111011,11001011
 4 = 11111,1011011,1100111,11010101
 5 = 11111,1100111,1101011,110010011

6 = 101111,1110011,11001011,11010101
 7 = 101111,1110101,11000111,110010011
 8 = 110111,1111001,11001011,1101000011
 9 = 11111,1100111,10101011,11010011
 B = 110111,1111001,11001011,110100011
 I = 110111,11001011,110100101,1010100011

N = 1001011,11100101,1100010011,1101000101
 O = 1101011,10100111,1100010011,1101000101
 P = 110111,11010011,110010101,1101000011
 Q = 1001011,110101001,1100011001,1101000101
 T = 101111,1110011,11001011,110100011

\int_x^1 Hit Integration (n:4,w:5)

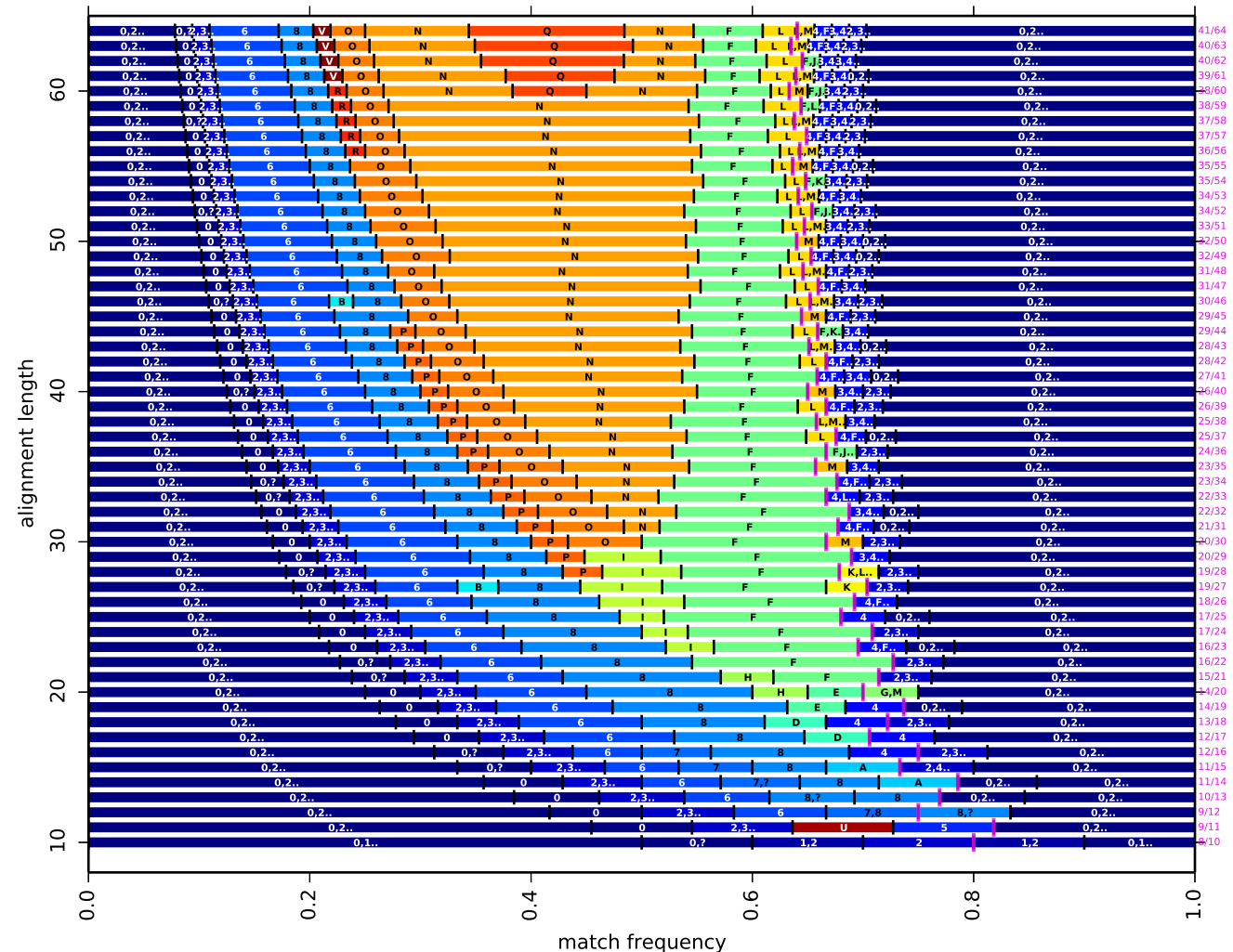


2 = 11111,110111,1101011,11100101
 4 = 11111,1011011,1100111,11010101
 5 = 11111,1100111,1101011,110010011
 7 = 101111,1110101,11000111,110010011
 8 = 110111,1111001,11001011,1101000011
 A = 110111,11001011,111000101,1101000011

C = 110111,11101001,100001111,1101000101
 D = 101111,1110101,11001101,1101000011
 E = 11111,1100111,10101101,110010011
 F = 110111,11001011,110100101,1101000101
 G = 101111,10110011,111000101,1001010011
 H = 101111,11000111,11011001,110101001

I = 110111,11001011,110100101,1010100011
 L = 101111,10110011,101010011,1011000011
 N = 10010111,11100101,1100010011,1101000101
 Q = 10010111,110101001,1100011001,1101000101
 T = 101111,1110011,11001011,110100011

Dirac (n:4,w:5)

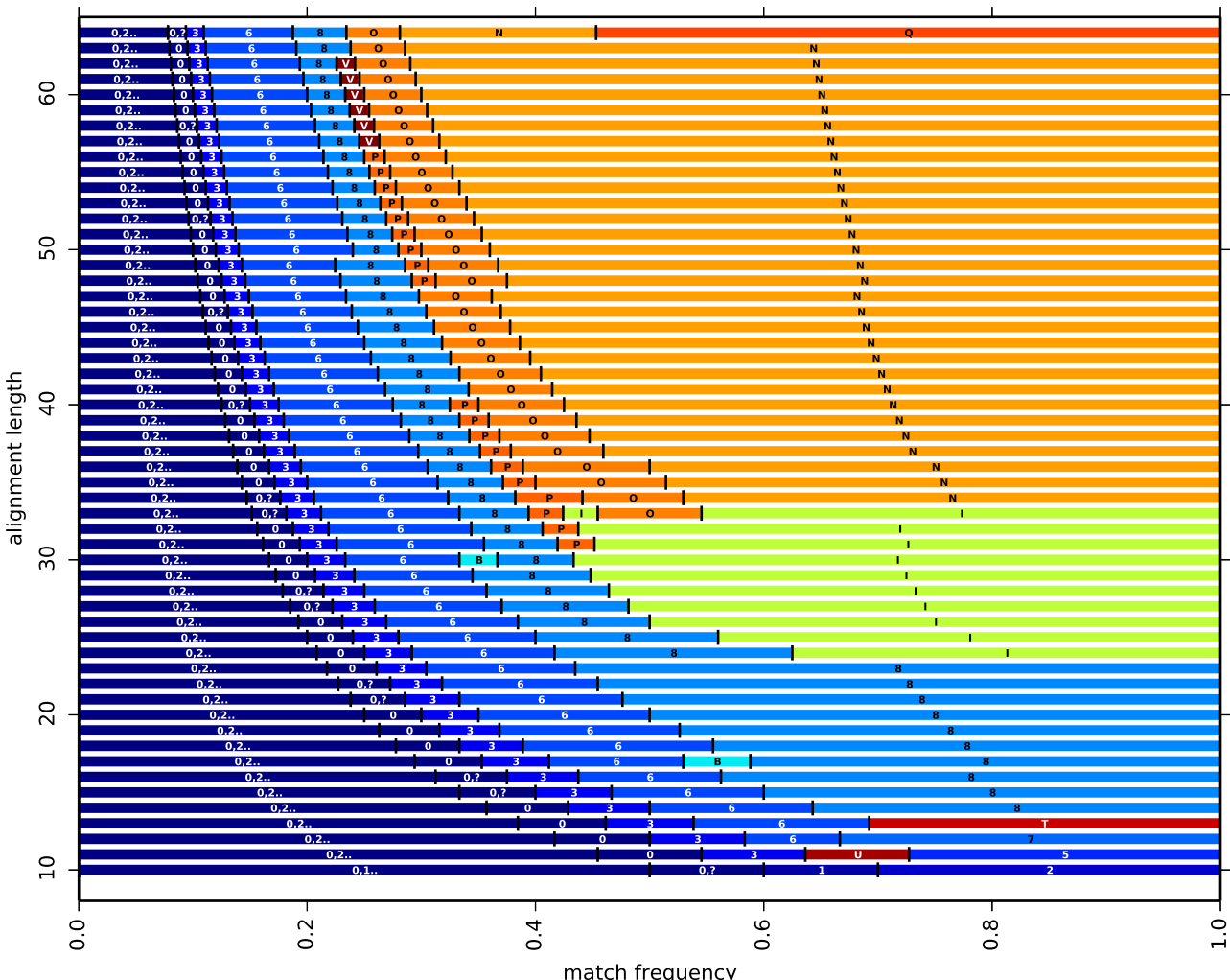


0 = 11111,110111,110111,111011
 1 = 11111,110111,111011,11000111
 2 = 11111,110111,1101011,11100101
 3 = 11111,101111,111011,11001011
 4 = 11111,1011011,1100111,111010101
 5 = 11111,1100111,1101011,110010011
 6 = 101111,1110011,11001011,11010101
 7 = 101111,1110101,11000111,110010011
 8 = 110111,111001,11001011,1101000011
 9 = 11111,1100111,10101011,11010011
 A = 110111,11001011,111000101,1101000011

B = 110111,1111001,11001011,110100011
 C = 110111,11101001,100001111,1101000101
 D = 101111,1110101,11001101,1101000011
 E = 11111,1100111,1101101,110010011
 F = 110111,11001011,110100101,1101000011
 G = 101111,10110011,111000101,1001010011
 H = 101111,11000111,11011001,110101001
 I = 101111,11001011,110100101,1101000011
 J = 110111,11010011,101000111,1100001011
 K = 11111,1010111,1011011,100100111
 L = 101111,10110011,101010011,1011000011

M = 11111,1010111,101001101,101011001
 N = 10010111,11100101,1100010011,1101000101
 O = 1101011,10100111,1100010011,1101000101
 P = 110111,11010011,110010101,1101000011
 Q = 1001011,110101001,1100011001,11010000101
 R = 1100111,10101101,110010011,1101000101
 S = 1100111,10111001,110100101,1101000101
 T = 101111,1110011,11001011,110100011
 U = 101111,1110101,11001101,11010011
 V = 101111,1110011,110010011,1100001011

$$\sum_0^x \text{Heaviside}(n:4,w:5)$$



```

0 = 11111,101111,110111,111011
1 = 11111,110111,111011,11000111
2 = 11111,110111,1101011,11100101
3 = 11111,101111,111011,11001011
4 = 11111,1011011,1100111,11010101
5 = 11111,1100111,1101011,110010011
6 = 101111,1110011,11001011,11010101
7 = 101111,1110101,11000111,110010011
8 = 110111,1111001,11001011,1101000011
9 = 11111,1100111,10101011,11010011
A = 110111,11001011,111000101,1101000011

```

```

B = 110111,1111001,11001011,1101000011
C = 110111,11101001,100001111,1101000101
D = 101111,1110101,11001101,1101000011
E = 11111,1100111,1010111,110010011
F = 110111,11001011,110100101,1101000101
G = 101111,10110011,111000101,1001010011
H = 101111,11000111,11011001,110101001
I = 110111,11001011,110100101,1010100011
J = 110111,11010011,101000111,1100001011
K = 11111,1010111,1011011,100100111
L = 101111,10110011,101010011,1011000011

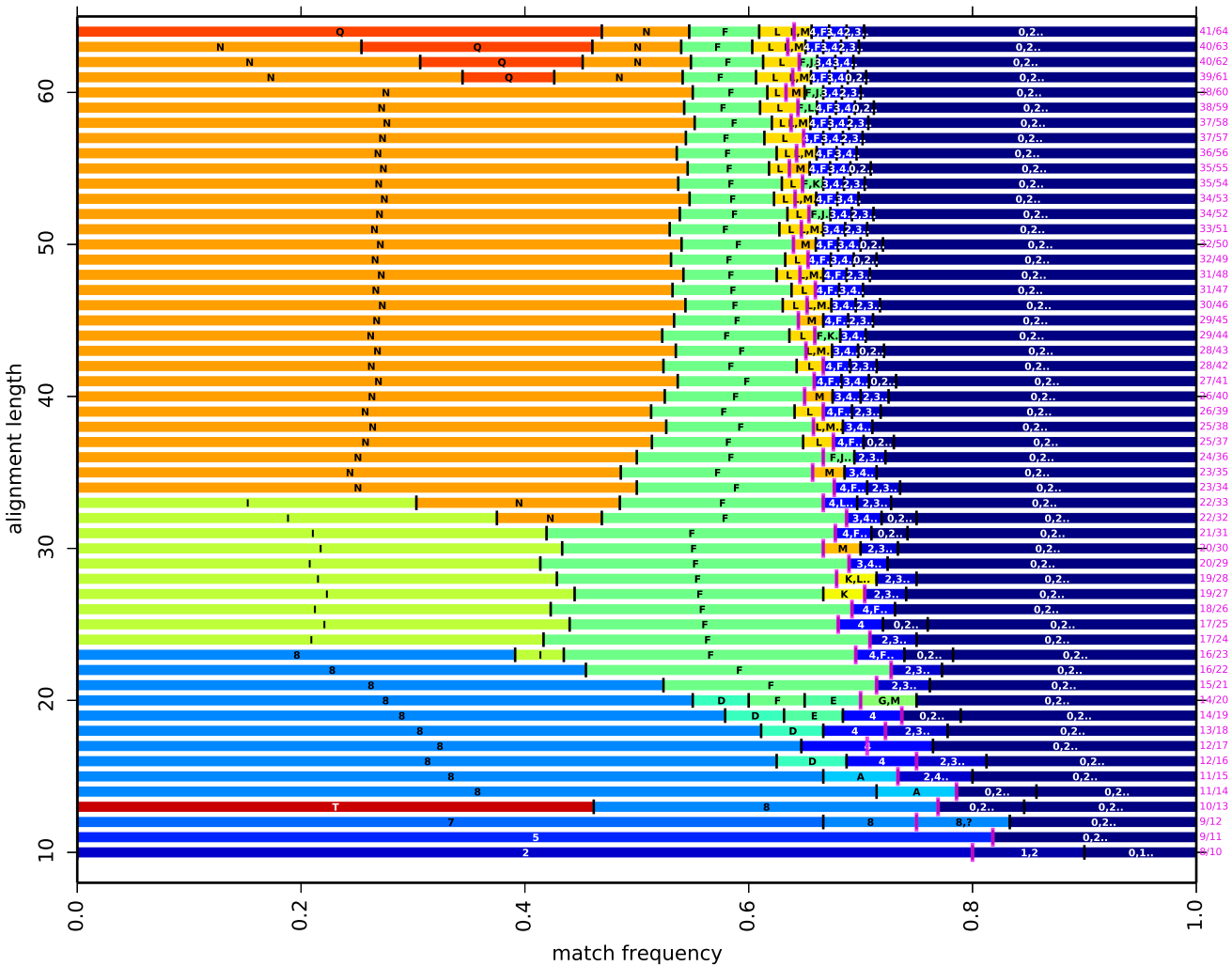
```

```

M = 11111,1010111,101001101,101011001
N = 10010111,11100101,1100010011,1101000101
O = 1101011,10100111,1100010011,1101000101
P = 110111,11010011,110010101,1101000011
Q = 1001011,110101001,1100011001,1101000101
R = 1100111,10101101,110010011,1101000101
S = 1100111,10111001,110100101,1101000101
T = 101111,1110011,11001011,110100011
U = 101111,1110101,11001101,11010011
V = 101111,1110011,110010011,1100001011

```

$$\sum_x \text{Heaviside}(n:4, w:5)$$



```

0 = 11111,101111,110111,111011
1 = 11111,110111,111011,11000111
2 = 11111,101111,1101011,11100101
3 = 11111,101111,111011,11001011
4 = 11111,1011011,1100111,11010101
5 = 11111,1100111,1101011,110010011
6 = 101111,1110011,11001011,11010101
7 = 101111,1110101,11000111,110010011
8 = 110111,1111001,11001011,1101000011
9 = 11111,1100111,10101011,11010011
A = 110111,11001011,111000101,1101000011

```

```

B = 110111,1111001,11001011,110100011
C = 110111,11101001,100001111,1101000101
D = 101111,1110101,11001101,1101000011
E = 11111,1100111,10101101,11001011
F = 110111,1100101,110100101,1101000101
G = 101111,10110011,111000101,1001010011
H = 101111,11000111,11011001,110101001
I = 110111,11001011,110100101,1010100011
J = 110111,11010011,101000111,1100001011
K = 11111,1010111,1011011,100100111
L = 101111,10110011,101010011,1011000011

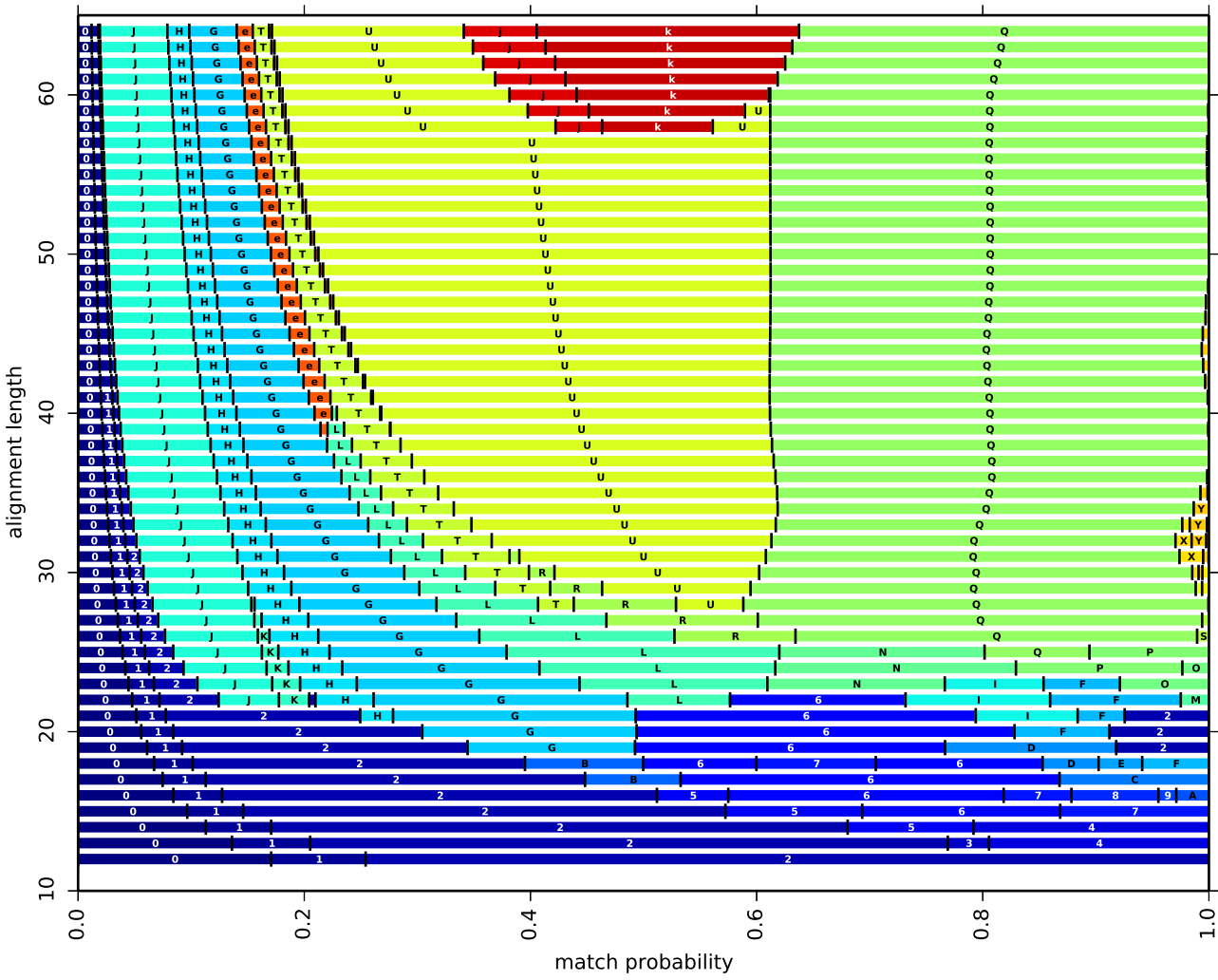
```

```

M = 11111,1010111,101001101,101011001
N = 10010111,11100101,1100010011,1101000101
O = 1101011,10100111,1100010011,1101000101
P = 110111,11010011,110010101,1101000011
Q = 10010111,110101001,1100011001,1101000101
R = 1101111,10101101,110010011,1101000101
S = 1100111,10111001,110100101,1101000101
T = 101111,1110011,11001011,110100011
U = 101111,1101011,11001011,11010011
V = 101111,1110011,110010011,1100001011

```

Bernoulli (n:4,w:6)



```

0 = 111111,1011111,1101011,1111011
1 = 111111,1101111,1111011,110101011
2 = 111111,11011011,11100111,110101011
3 = 1110111,11011011,1100010111,1110100011
4 = 1110111,11011011,1101000111,11100001011
5 = 1110111,11110011,110101011,11010000111
6 = 1110111,11110011,110101011,110100000111
7 = 1101111,111010011,1110001011,110010000111
8 = 1101111,111010011,1100010111,111001000011
9 = 1110111,110010111,1111001001,110100001011
A = 1101111,1110100011,10110001011,111001000011
B = 1011111,11101011,110011011,11010000111
C = 11010111,11010011,11100001011,110100000111
D = 1101111,111010011,101100001011,110001000111
E = 11010111,110110011,11100101001,110100000111
F = 1101111,110101011,111100101,110010000111
G = 1011111,11100111,110101011,11010010011
H = 1011111,11100111,101101011,110011011

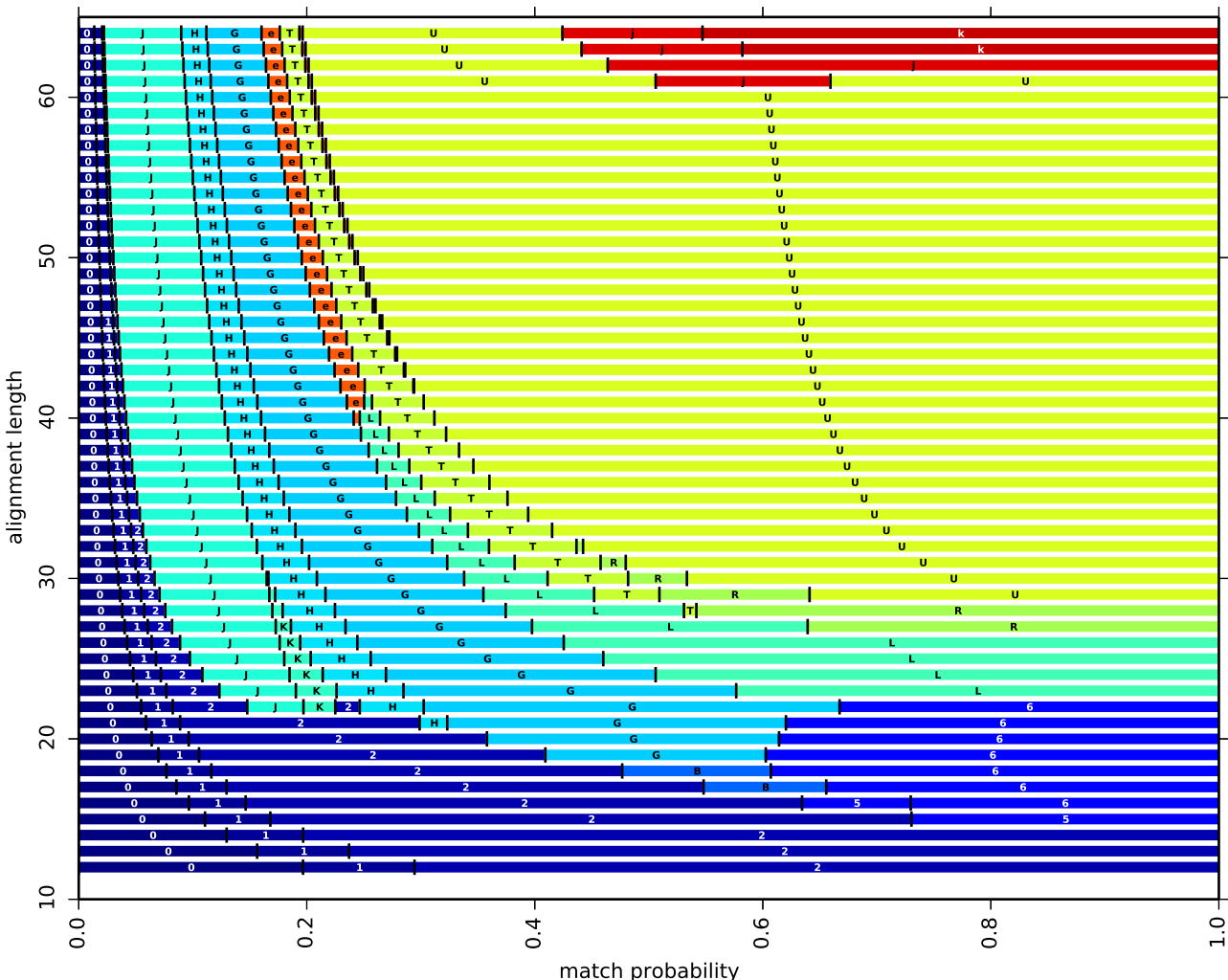
```

```

I = 1101111,11110011,110101011,110010000111
J = 1110111,10111101,11011011,111000111
K = 1101111,10111011,11110101,110100111
L = 11100111,101101101,110101011,110100000111
M = 1110111,10011111,101011011,1111000101
N = 1110111,110010111,1101001011,110100010011
O = 1110111,11011011,1010010111,1110100011
P = 1110111,110011011,1101000111,10101001011
Q = 100110111,1101011001,11110000101,110001010011
R = 11010111,111011001,11100001011,110010100011
S = 1110111,1101101011,1100100111,11010001011
T = 10111011,111000111,1101001011,110100010011
U = 10111011,1101001011,10001000111,110100010011
X = 1110111,1010010111,101100100101,110010001011
Y = 1110111,1101001011,100100010111,101001001011
e = 1101111,111010011,1110001011,111001000011
j = 110011011,11010100011,101001001011,111000010101
k = 110011011,101100101001,110101000011,111000010101

```

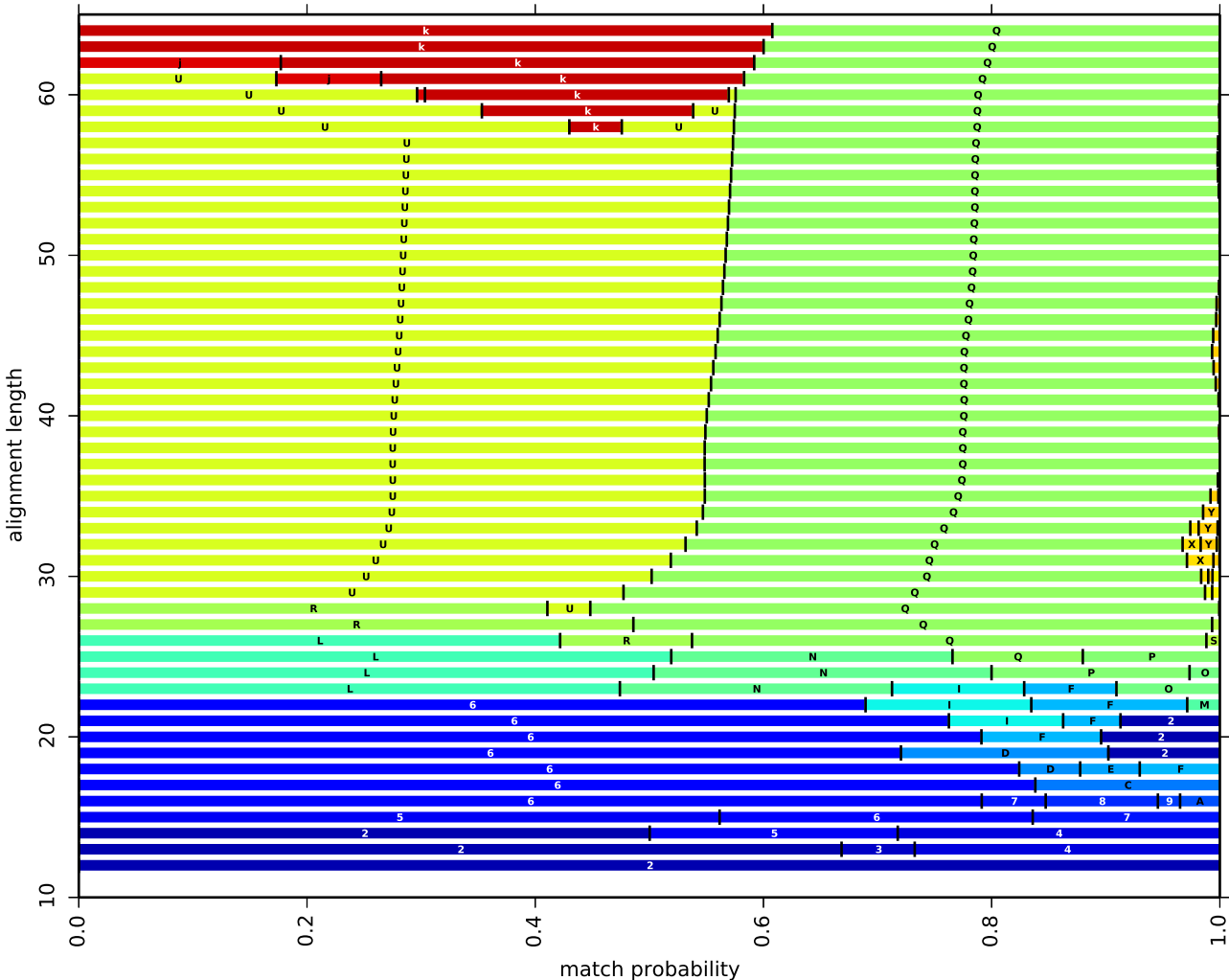

\int_0^x Hit Integration (n:4,w:6)



0 = 111111,1011111,1110111,1111011
 1 = 111111,1101111,1111011,110101011
 2 = 111111,1101011,1110011,110101011
 5 = 1101111,11110011,110101011,11010000111
 6 = 1101111,11110011,110101011,11010000111
 B = 1011111,11101011,110011011,11010000111
 G = 1011111,11100111,110101011,11010010011
 H = 1011111,11100111,110101011,110011011
 j = 1110111,10111101,11011011,111000111

K = 1101111,101111011,11110101,110100111
 L = 11100111,101101101,110101011,11010000111
 R = 11010111,111011001,11100001011,110010100011
 T = 10111011,111000111,1101001011,110100010011
 U = 10111011,1101001011,100011000111,110100010011
 e = 1101111,111010011,1110001011,111001000011
 j = 110011011,11010100011,101001001011,111000010101
 k = 110011011,101100101001,110101000011,111000010101

\int_x^1 Hit Integration (n:4,w:6)



```

2 = 111111,11011011,11100111,110101011
3 = 1110111,11011011,1100010111,1110100011
4 = 1110111,11011011,1101000111,11100001011
5 = 1101111,11110011,110101011,11010000111
6 = 1101111,11110011,110101011,11010000111
7 = 1101111,111010011,1110001011,110010000111
8 = 1101111,111010011,1100010111,111001000011
9 = 1110111,110010111,1111001001,110100001011
A = 1101111,1110100011,10110001011,111001000011
C = 11010111,110110011,11100001011,11010000111
D = 1101111,111010011,101100001011,110001000111
E = 11010111,110110011,11100101001,11010000111
F = 1101111,110101011,111100101,110010000111
I = 1101111,11110011,110101011,110010000111

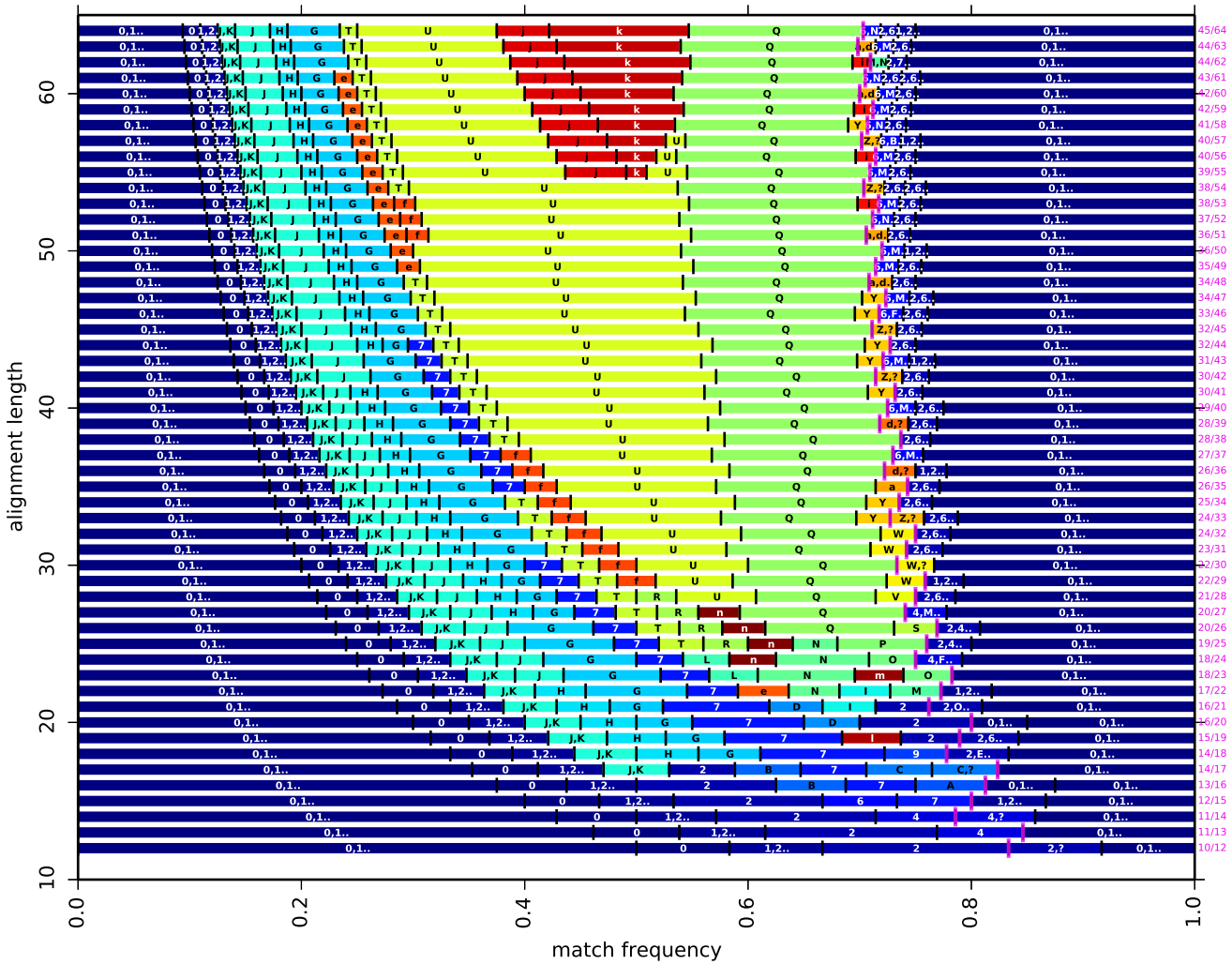
```

```

L = 11100111,101101101,110101011,110100000111
M = 1110111,10011111,101011011,1111000101
N = 1110111,110010111,1101001011,110100001011
O = 1110111,11011011,1010010111,1110100011
P = 1110111,110011011,1101000111,10101001011
Q = 100110111,1101011001,11110000101,110001010011
R = 11010111,111011001,11100001011,110010100011
S = 1110111,101101011,1100100111,11010001011
U = 10111011,1101001011,100011000111,110100010011
X = 1110111,1010010111,101100100101,110010001011
Y = 1110111,1010010111,100100010111,101001001011
j = 110011011,11010100011,101001001011,111000010101
k = 110011011,101100101001,110101000011,111000010101

```

Dirac (n:4,w:6)



```

0 = 111111,1011111,1110111,1111011
1 = 111111,101111,1111011,110101011
2 = 111111,11011011,1110011,110101011
3 = 110111,11011011,110001011,1110100011
4 = 110111,11011011,110100011,11100001011
5 = 110111,11110011,110101011,11010000111
6 = 110111,11110011,110101011,110100000111
7 = 110111,111010011,1110001011,110010000111
8 = 110111,111010011,110001011,111001000011
9 = 110111,11001011,1111001001,110100001011
A = 110111,1110100011,10110001011,111001000011
B = 101111,11101011,110011011,1101000011
C = 1101011,110110011,11100001011,110100000111
D = 110111,111010011,101100001011,110001000111
E = 1101011,110110011,11100101001,110100000111
F = 101111,110101011,111100101,110010000111
G = 101111,1110011,11010101,11010010011
H = 101111,1110011,101101011,110011011
I = 110111,11110011,110101011,110010000111
J = 110111,10111101,1101101,111000111
K = 110111,1011101,11110101,110100111
L = 11100111,10110101,110101011,110100000111
M = 1110111,10011111,101011011,1111000101
N = 1110111,11001011,1101001011,110100010011
O = 1110111,11011011,101001011,1110100011

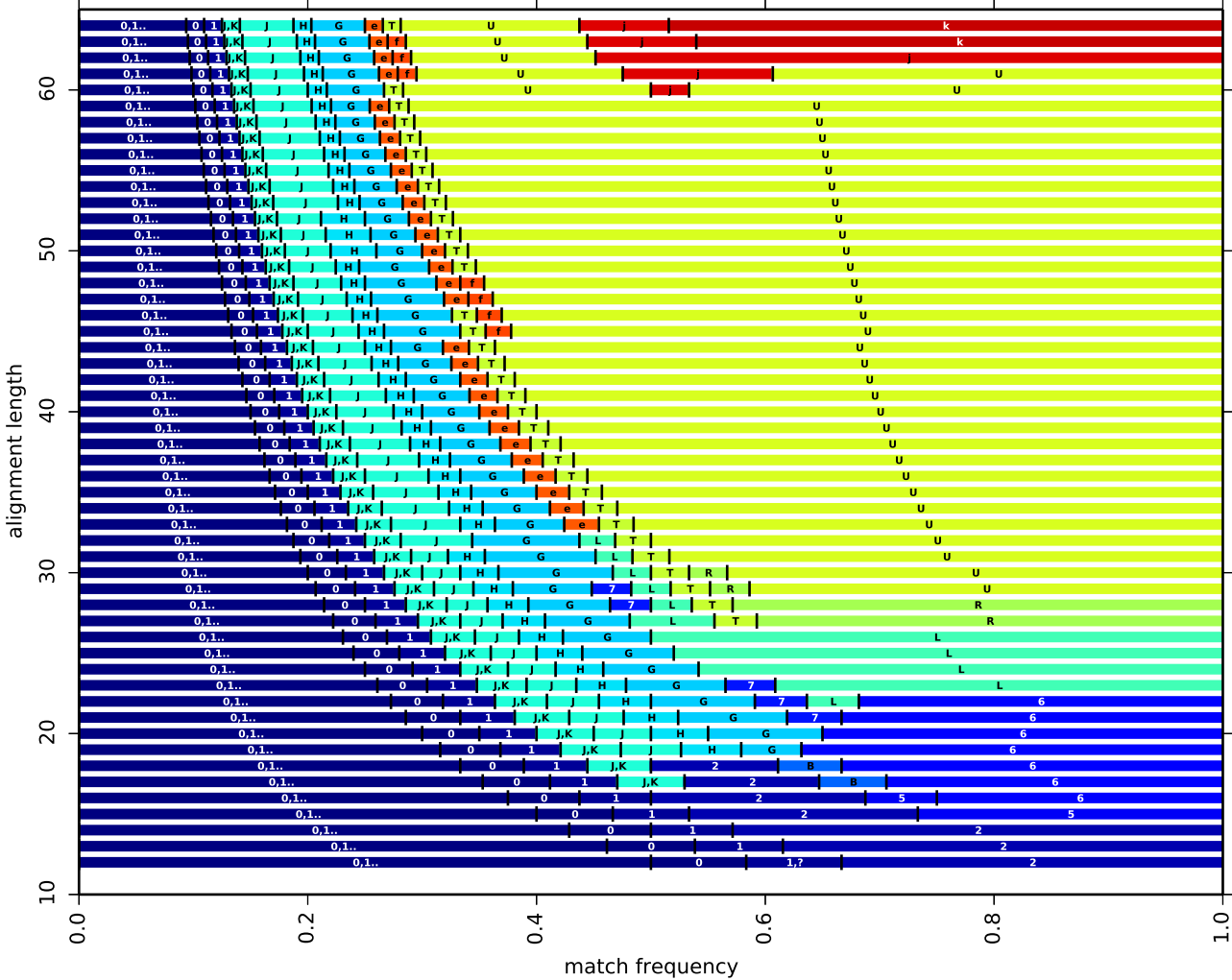
```

```

P = 1110111,110011011,110100011,10101001011
Q = 100110111,1101011001,11110000101,110001010011
R = 11010111,111011001,11100001011,110010100011
S = 1110111,101101011,110010011,11010001011
T = 10111011,111000111,110100011,11010001011
U = 10111011,1101001011,10001100011,110100010011
V = 11010111,111011001,11100001011,100101000111
W = 110111,110001011,11100101001,111010001001
X = 1110111,101001011,101100100101,110010001011
Y = 1110111,101001011,10010001011,10100001011
Z = 1101011,110011011,11110100001,100000101111
a = 1110111,100010111,101001011,11011001001
b = 1110111,101001011,1110100011,1101000101011
c = 11111,101100111,101100011,10100010111
d = 110111,11001011,110100111,10101001011
e = 110111,111010011,1110001011,111001000011
f = 1011011,111001011,1100100011,110100010011
g = 1011011,1101100101,1110010011,110101000011
h = 1110111,101001011,100011001011,110100010101
i = 1110111,100010111,101001011,10101001001
j = 110011011,11010100011,101001001011,111000010101
k = 110011011,101100101001,110101000011,1110000010101
l = 1110111,1011001011,11000101011,110100001101
m = 111111,1110011,110101011,11001001011
n = 1110111,1101001011,10100010011,110010001011

```

$$\sum_0^x \text{Heaviside}(n:4,w:6)$$



```

0 = 111111,1011111,1101011,1111011
1 = 111111,1101111,111011,110101011
2 = 111111,11011011,11100011,110101011
3 = 1110111,11011011,1100010111,1110100011
4 = 1110111,11011011,1101000111,11100001011
5 = 1101111,11110011,110101011,11010000111
6 = 1101111,11110011,110101011,110100000111
7 = 1101111,111010011,1110001011,110010000111
8 = 1101111,111010011,1100010111,111001000011
9 = 1110111,110010111,1111001001,110100001011
A = 1101111,1110100011,10110001011,111001000011
B = 1011111,11101011,110011011,11010000111
C = 11010111,110110011,11100001011,110100000111
D = 1101111,111010011,101100001011,110001000111
E = 11010111,110110011,11100101001,110100000111
F = 1101111,110101011,111100101,110010000111
G = 1011111,11100111,110101011,11010010011
H = 1011111,11100111,101101011,110011011
I = 1101111,11110011,110101011,110010000111
J = 1110111,10111101,11011011,111000111
K = 1101111,10111011,11110101,110100111
L = 11100111,10110101,110101011,110100000111
M = 1110111,10011111,101011011,1111000101
N = 1110111,110010111,1101001011,110100010011
O = 1110111,11011011,1010010111,1110100011

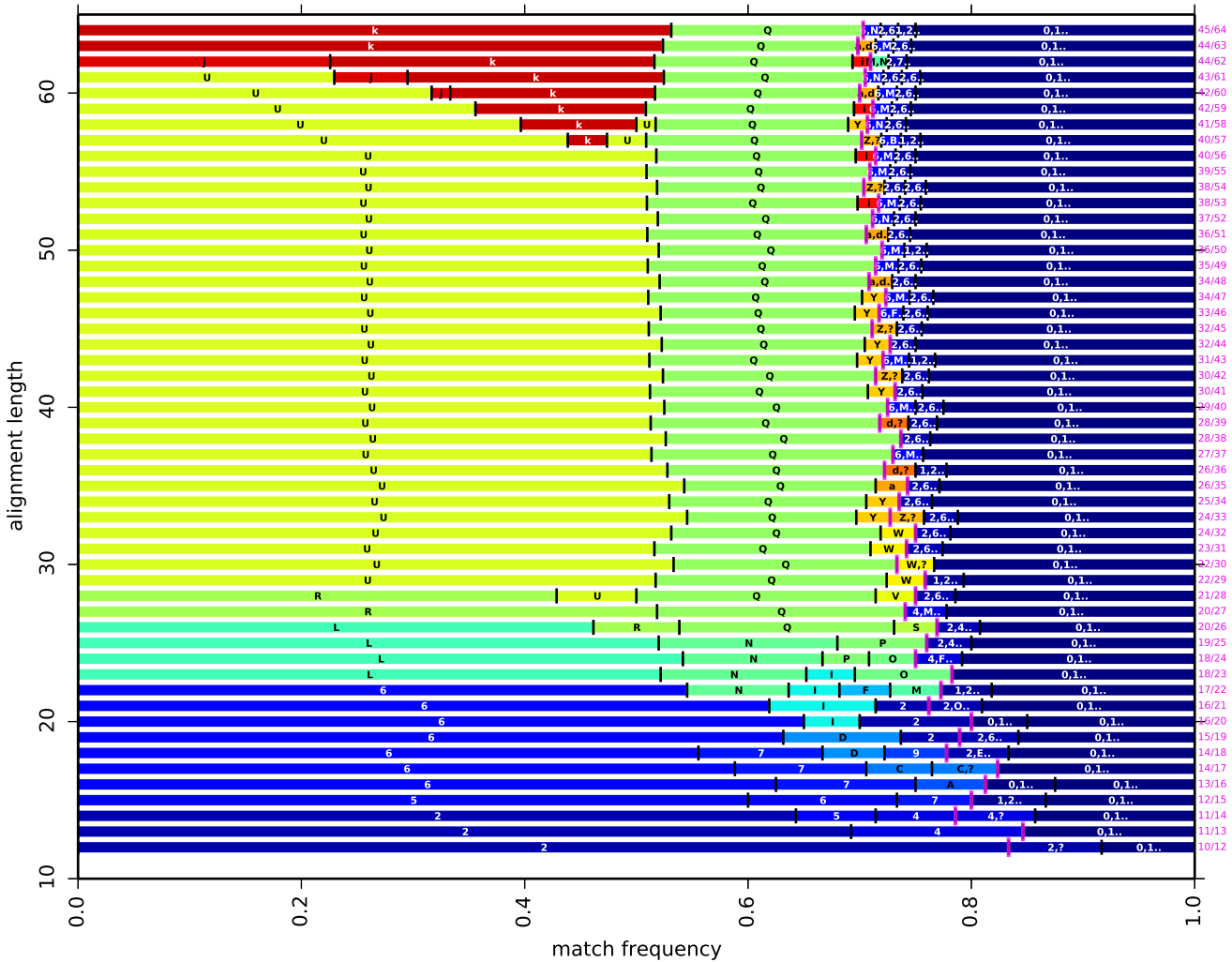
```

```

P = 1110111,110011011,1101000111,10101001011
Q = 100110111,1101011001,111110000101,110001010011
R = 11010111,111011001,11100001011,110010100011
S = 1110111,101101011,1100100111,11010001011
T = 10111011,111000111,1101001011,110100010011
U = 10111011,1101001011,100010000111,110100010011
V = 11010111,111011001,11100001011,100101000111
W = 1101111,1100010111,11100101001,111010001001
X = 1110111,1010010111,101100100101,110010001011
Y = 1110111,1010010111,100100010111,101001001011
Z = 11010111,110011011,11110100001,100000101111
a = 1110111,1000101111,1010010111,111011001001
b = 1110111,1010010111,1110100011,100100101011
c = 111111,101100111,10110010011,101001010011
d = 110111,110010111,1101000111,10101001011
e = 1101111,111010011,1110001011,111001000011
f = 10110111,111001011,11001000111,110100010011
g = 1010111,101100101,1110010011,110101000011
h = 1110111,1010010111,100011001011,110100010101
i = 1110111,1000101111,1100010111,101011001001
j = 110011011,11010100011,101001001011,111000010101
k = 110011011,101100101001,110101000011,111000010101
l = 1110111,10110010011,11000101011,110100001101
m = 111111,11100111,110101011,11001001011
n = 1110111,1101001011,101000100111,110010001011

```

$$\sum_x \text{Heaviside}(n;4,w;6)$$



```

0 = 111111,1011111,1110111,1111011
1 = 111111,101111,111011,110101011
2 = 111111,11011011,1100011,110101011
3 = 1110111,11011011,110001011,1110100011
4 = 1110111,11011011,110100011,11100001011
5 = 1101111,11110011,11010101,11010000111
6 = 1101111,11110011,110101011,11010000111
7 = 1101111,111010011,1110001011,110010000111
8 = 1101111,111010011,1100010111,111001000011
9 = 1110111,110010111,1111001001,110100001011
A = 1101111,1110100011,10110001011,111001000011
B = 1011111,11101011,110011011,11010000111
C = 11010111,110110011,11100001011,110100000111
D = 1101111,111010011,101100001011,1100010000111
E = 11010111,110110011,11100101001,110100000111
F = 1101111,110101011,111100101,110010000111
G = 1011111,11100111,11010101,11010010011
H = 1011111,11100111,101010111,110011011
I = 1101111,11110011,110101011,110010000111
J = 1110111,10111101,11011011,1110000111
K = 1101111,10111011,11110101,110100111
L = 11100111,101101101,110101011,110100000111
M = 1110111,10011111,10101011,1111000101
N = 1110111,110010111,1101001011,110100010011
O = 1110111,11011011,1010010111,1110100011

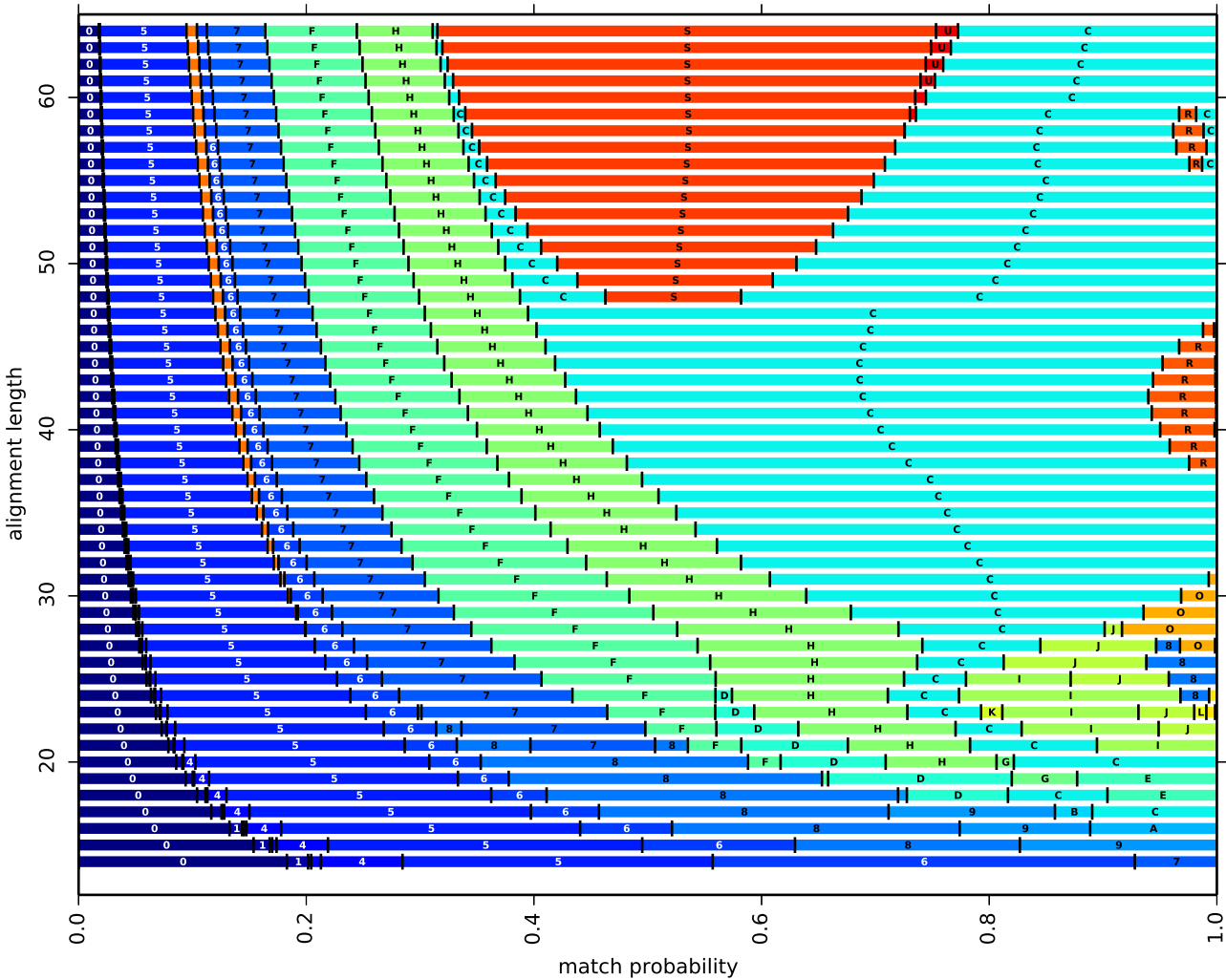
```

```

P = 1110111,110011011,110100011,10101001011
Q = 100110111,1101011001,11110000101,110001010011
R = 11010111,111011001,11100001011,110010100011
S = 1110111,101101011,1100100111,11010001011
T = 10111011,111000111,110100011,110100010011
U = 10111011,1101001011,100011000111,110100010011
V = 11010111,11011001,11100001011,100101000111
W = 1101111,1100010111,11100101001,111010001001
X = 1110111,1010010111,101100100101,110010001011
Y = 1110111,1010010111,10010001011,101001001011
Z = 11010111,110011011,11110100001,100000101111
a = 1110111,100010111,1010010111,11011001001
b = 1110111,101001011,1110100011,100100101011
c = 111111,101100111,10110010011,10100010011
d = 1101111,110010111,110100011,10101001011
e = 1101111,111010011,1110001011,111001000011
f = 10110111,111001011,1100100011,110100010011
g = 10101111,110100101,1110010011,110101000011
h = 1110111,101001011,100011001011,110100010101
i = 1110111,1000101111,1010001011,101011001001
j = 110011011,11010100011,101001001011,111000010101
k = 110011011,101100101001,110101000011,111000010101
l = 1110111,10110010011,1000101011,110100001101
m = 111111,11100111,110101011,11001001011
n = 1110111,1101001011,101000100111,110010001011

```

Bernoulli (n:4,w:7)



```

0 = 1111111,10111111,11101111,11111011
1 = 1111111,11011111,11110111,111101011
4 = 1111111,110110111,11001111,1110101011
5 = 10111111,111011011,11100111,1110101011
6 = 11011111,111101011,1101001111,1100110011
7 = 11011111,111101011,1100110011,111010001011
8 = 11101111,110110111,1110101011,110100001111
9 = 11101111,1101100111,11100010111,110101001011
A = 101110111,1110011011,11101000111,110100101011
B = 110110111,10110001111,11101010011,1110000101011
C = 110101111,11101100101,1110001001101,11001010000111
D = 110101111,11011001011,11100110011,11101000000111

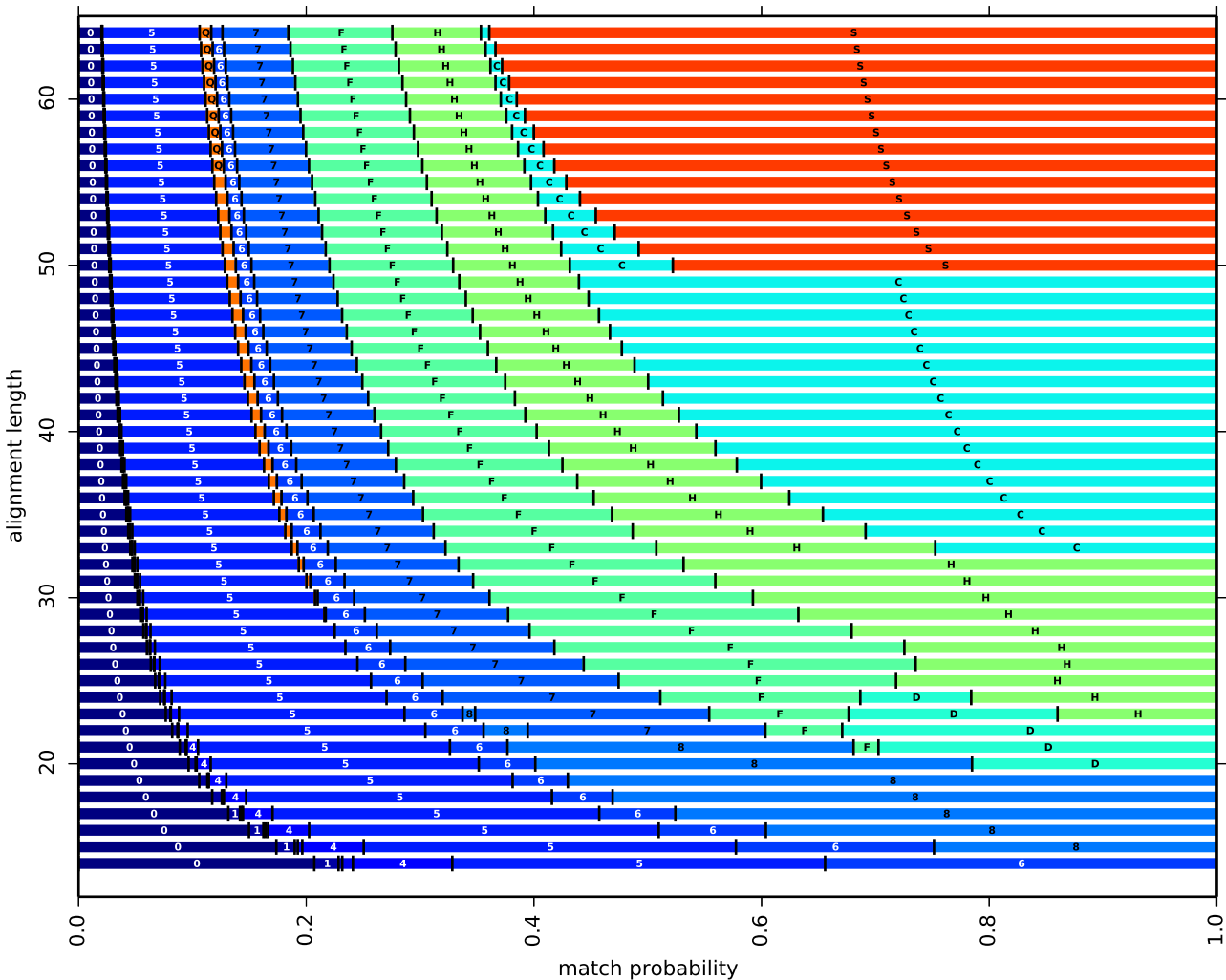
```

```

E = 110101111,11101100101,11001010000111,11100001001101
F = 110101111,11011001011,11100110011,1101010000111
G = 110101111,11101100101,111100010011,11001010000111
H = 110101111,11100110011,111010001011,11001010000111
I = 11101111,11010010111,11000100010111,11101000100101
J = 11101111,1110110011,110100010111,11000010010111
K = 11101111,1110110011,110100010111,11100001001011
L = 11011111,111101011,10100110111,1110010001011
O = 110101111,11101100101,111100010011,1010000111011
R = 110101111,11101100101,10110001001101,11001010000111
S = 1101010111,111001001011,11001010100011,11010010001101
U = 1100101111,111010100011,10100001011011,11100100100011

```

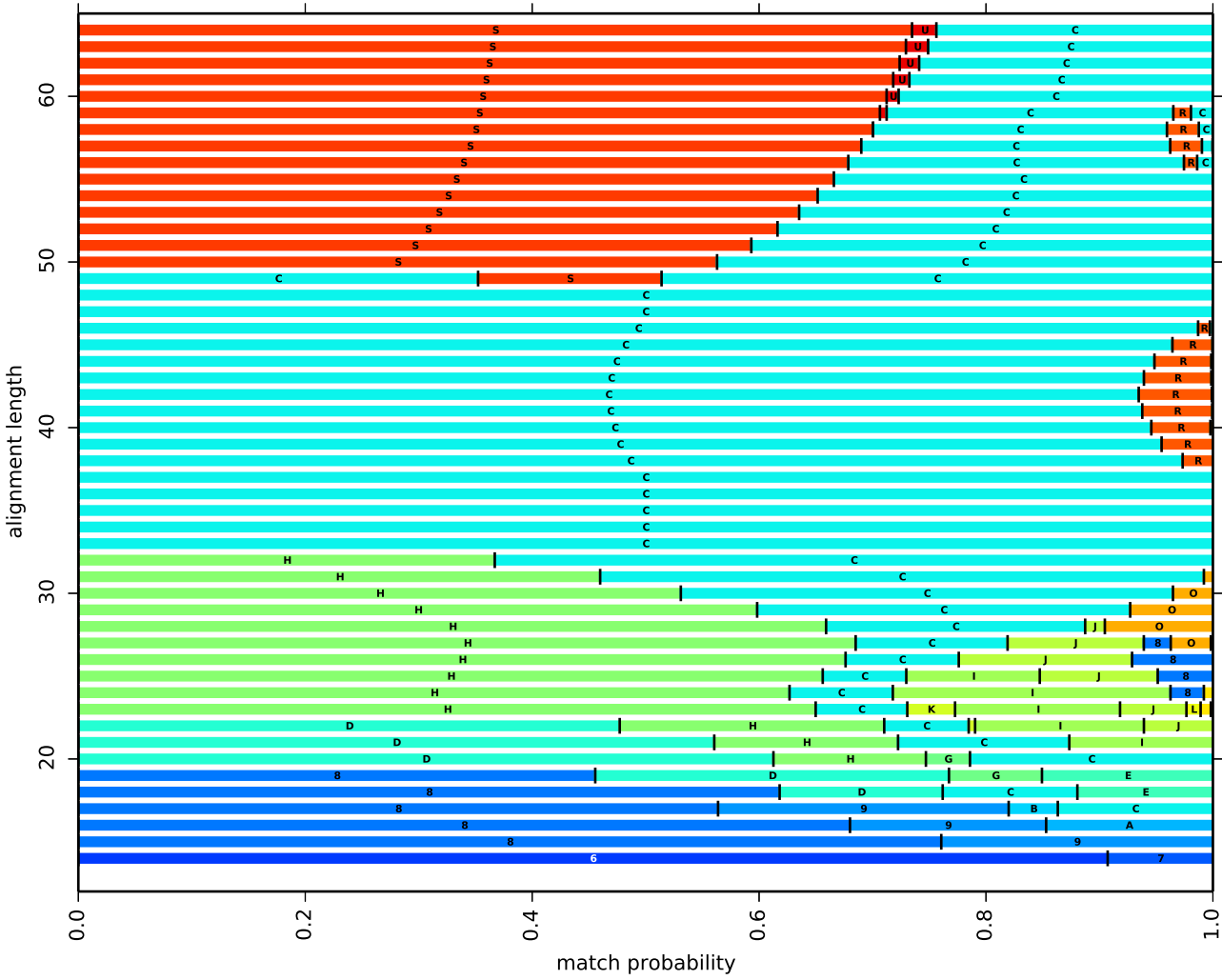
\int_0^x Hit Integration (n:4,w:7)



0 = 1111111,10111111,11101111,11111011
 1 = 1111111,10111111,11101111,11101011
 4 = 1111111,110110111,11100111,1110101011
 5 = 10111111,111011011,111100111,1110101011
 6 = 11011111,111101011,1101001111,11100110011
 7 = 11011111,111101011,11100110011,111010001011
 8 = 11101111,110110111,1110101011,110100001111

C = 110101111,11101100101,1110001001101,11001010000111
 D = 110101111,11011001011,11100110011,11101000000111
 F = 110101111,11011001011,11100110011,1101010000111
 H = 110101111,11100110011,111010001011,11001010000111
 Q = 10111111,111010111,111101101,11001100111
 S = 1101010111,1110011001011,11001010100011,110100110001101

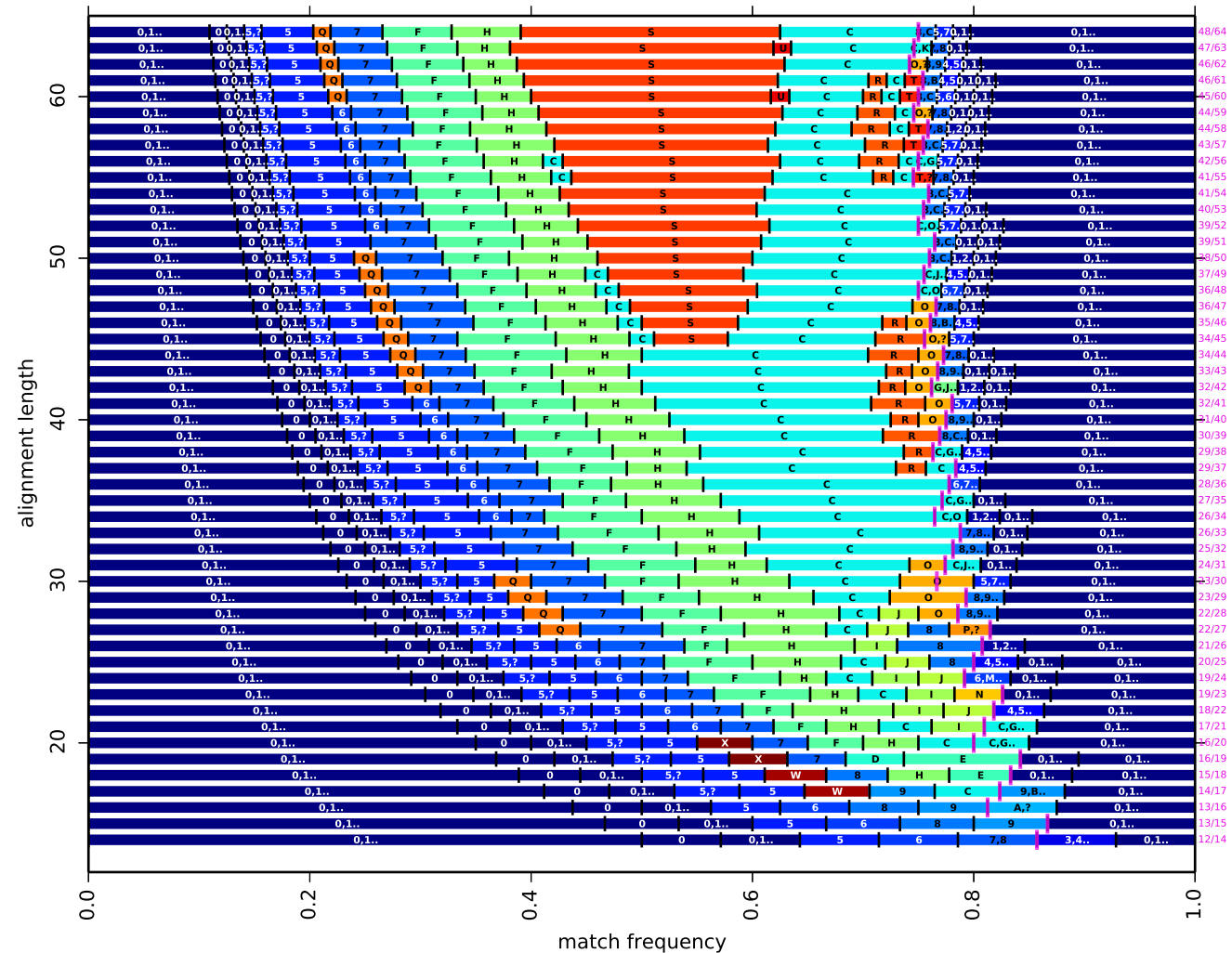
\int_x^1 Hit Integration (n:4,w:7)



6 = 11011111,111101011,1101001111,11100110011
 7 = 11011111,111101011,11100110011,111010001011
 8 = 11101111,110110111,1110101011,1110100001111
 9 = 11101111,1101100111,11100010111,110101001011
 A = 101110111,1110011011,11101000111,110100101011
 B = 110110111,10110001111,111101010011,1110000101011
 C = 110101111,11101100101,1110001001101,11001010000111
 D = 110101111,11011001011,11100110011,11101000000111
 E = 110101111,11101100101,11001010000111,11100001001101
 G = 110101111,11101100101,111100010011,11001010000111

H = 110101111,11100110011,111010001011,11001010000111
 I = 11101111,11010010111,11000100010111,11101000100101
 J = 11101111,1110110011,1110100010111,111000010010111
 K = 11101111,1110110011,110100010111,111000010010111
 L = 11011111,111101011,10100110111,1110010001011
 O = 110101111,11101100101,111100010011,1010000111011
 R = 110101111,11101100101,10110001001101,11001010000111
 S = 110101011,111001001011,11001010100011,11010010001101
 U = 1100101111,111010100011,10100001011011,11100100100011

Dirac (n:4,w:7)



```

0 = 1111111,1011111,1110111,1111101
1 = 1111111,1101111,1111011,1111010
2 = 1111111,1110111,1101101,1111010
3 = 1111111,1101011,1110101,1111001
4 = 1111111,1101011,1100111,1111010
5 = 1011111,1110101,1111001,1111010
6 = 1101111,1111010,1101001,1111001
7 = 1101111,1111010,1100100,1111000
8 = 1110111,1101011,1110101,1101000
9 = 1110111,1101001,1110001,1101001
A = 1011011,1110010,1110100,1111010
B = 1101011,1011000,1111,1101001,1110001
C = 1101011,1110100,1111000,1101,1100100
D = 1101011,1101001,1110010,1111010
E = 1101011,1110100,1100100,1111000
F = 1101011,1101001,1110010,1101,1101000
G = 1101011,1110100,1111000,1101,1100100

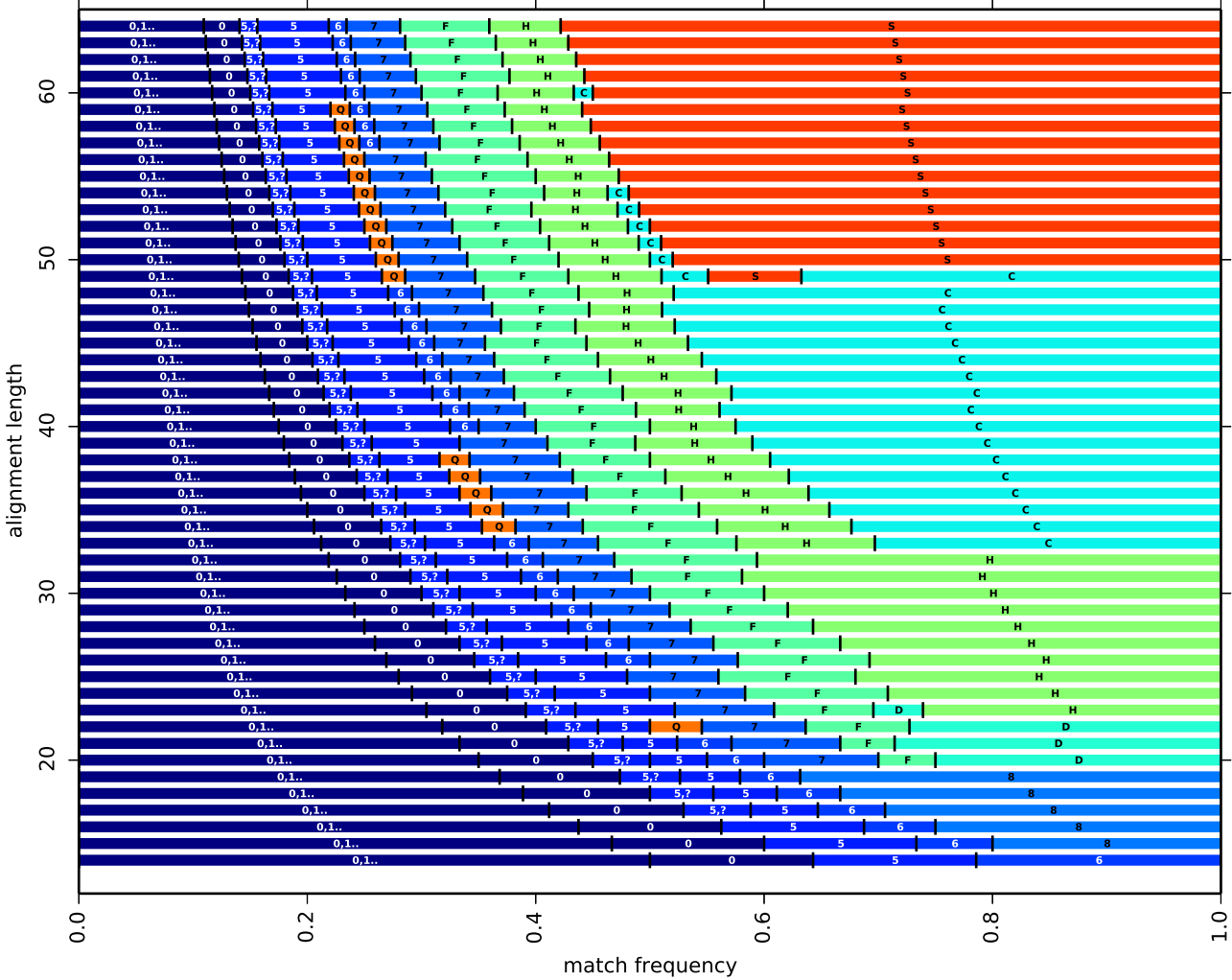
```

```

H = 1101011,1110010,1111000,1111000,1100100
I = 1110111,1101001,1100010,1111010,1000100
J = 1110111,1101001,1101001,1100010,1111000
K = 1110111,1101001,1101001,1110000,1001011
L = 1101111,1111010,1101001,1111000,1001011
M = 1011111,1111010,1110010,1111000,1001011
N = 1101111,1111010,1101001,1110001,1110001
O = 1101011,1101001,1111000,1001,1010001
P = 1110111,1101001,1001001,1111010,1000011
Q = 1011111,1101011,1111010,1100100
R = 1101011,1110100,1011000,100101,1100100
S = 1101011,1100100,1101001,1100100,1101101
T = 1101011,1101001,1010001,1101,1110001
U = 1100101,1111010,100001,1101,1110010
V = 1111111,1111011,1111011,1100101
W = 1101111,1110101,1100100,1101000,1111
X = 1101111,1110101,1101000,1111,1100100

```

$$\sum_0^x \text{Heaviside}(n:4,w:7)$$



```

0 = 1111111,1011111,1110111,11111011
1 = 1111111,1101111,1110111,111101011
2 = 1111111,1110111,11011011,111101011
3 = 1111111,11011011,111011011,111100111
4 = 1111111,11011011,111001111,1110101011
5 = 1011111,111011011,111100111,1110101011
6 = 1101111,111101011,110100111,11100110011
7 = 1101111,111101011,11100110011,111010001011
8 = 1110111,11011011,1110101011,110100001111
9 = 1110111,110110011,1110001011,110101001011
A = 10111011,111001101,1110100011,110100101011
B = 11011011,111000111,11101010011,1110000101011
C = 11010111,11101100101,1110001001101,11001010000111
D = 11010111,1101100101,11100110011,1110100000111
E = 11010111,11101100101,11001010000111,11100001001101
F = 11010111,1101100101,11100110011,1101010000111
G = 11010111,11101100101,11100010011,11001010000111

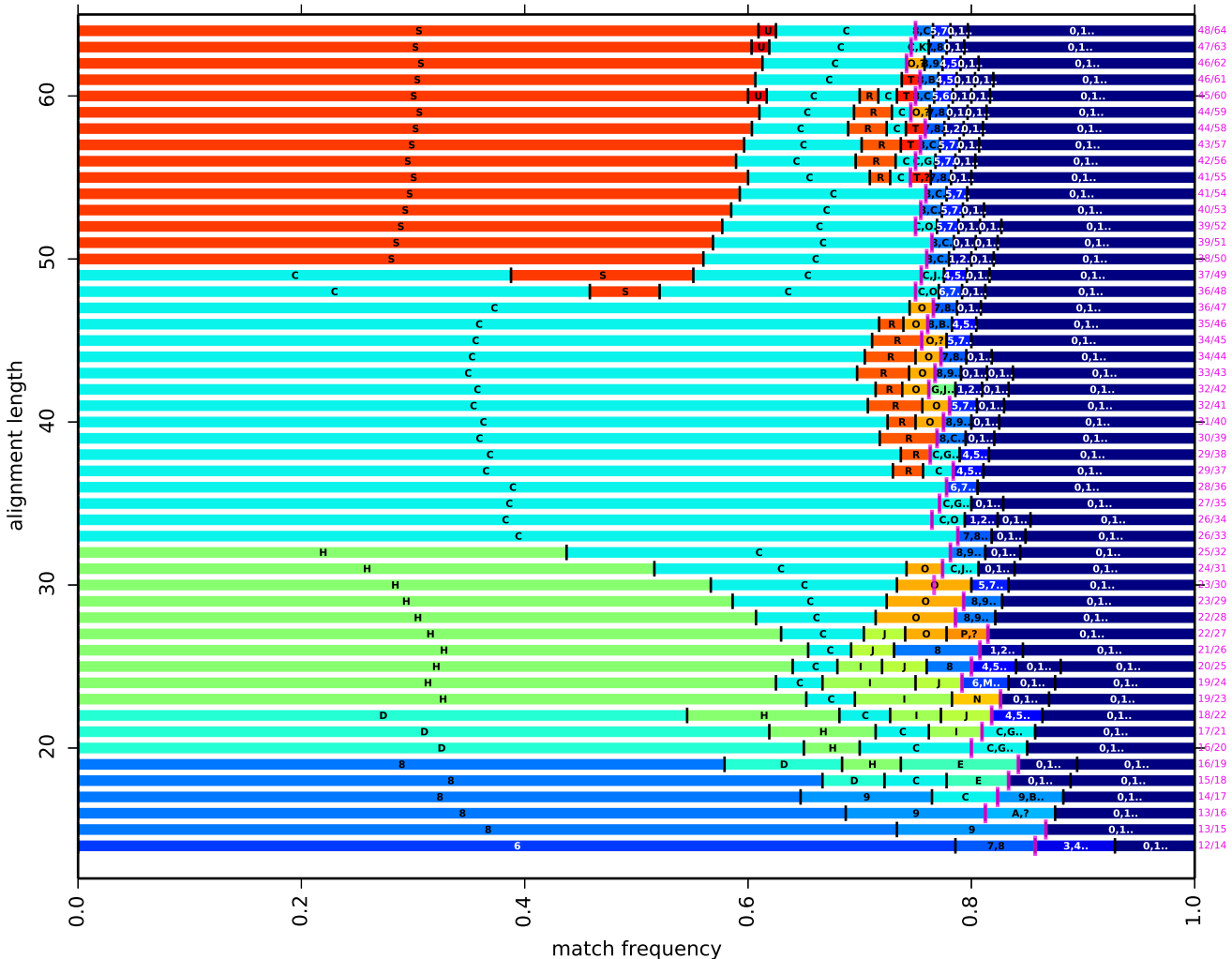
```

```

H = 11010111,11100110011,111010001011,11001010000111
I = 11101111,1101001011,1100010001011,11101000100101
J = 11101111,1110110011,110100010111,11000010010111
K = 11101111,1110110011,110100010111,11100001001011
L = 11101111,111101011,10100110111,1110010001011
M = 10111111,111101011,11100110011,111010001011
N = 11011111,111101011,10101100111,1110001011
O = 11010111,11101100101,111100010011,1010000111011
P = 11101111,1110110011,100100101111,1101010000111
Q = 10111111,11101011,111101101,11001100111
R = 11010111,11101100101,10110001001101,11001010000111
S = 110101011,111001001011,11001010100011,11010010001101
T = 11010111,11101100101,1010000111011,11100001001101
U = 110010111,111010100011,1010000101101,11100100100011
V = 11111111,11011111,11110111,1110010111
W = 11011111,111101011,11100110011,110100001111
X = 11011111,111101011,11010001111,11100110011

```

$$\sum_x \text{Heaviside}(n:4,w:7)$$



```

0 = 1111111,1011111,1110111,11111011
1 = 1111111,1101111,1111011,111001011
2 = 1111111,1110111,1101011,111101011
3 = 1111111,1101011,1110101,111100111
4 = 1111111,1101011,1100111,111010101
5 = 1011111,1110101,11110011,1110101011
6 = 1101111,1111001,11010011,110010011
7 = 1101111,1111001,11001001,111010001011
8 = 1110111,1101011,111010101,110100001111
9 = 1110111,1101001,1110001011,11010010011
A = 1011011,11100101,111010001,11010010101
B = 1101011,101100011,111010101,111000010101
C = 1101011,1110100101,1110001001101,11001010000111
D = 1101011,110100101,1110010011,11101000000111
E = 1101011,1110100101,1100101000011,11100001001101
F = 1101011,110100101,111001001,11010100000111
G = 1101011,1110100101,11110001001,11001010000111

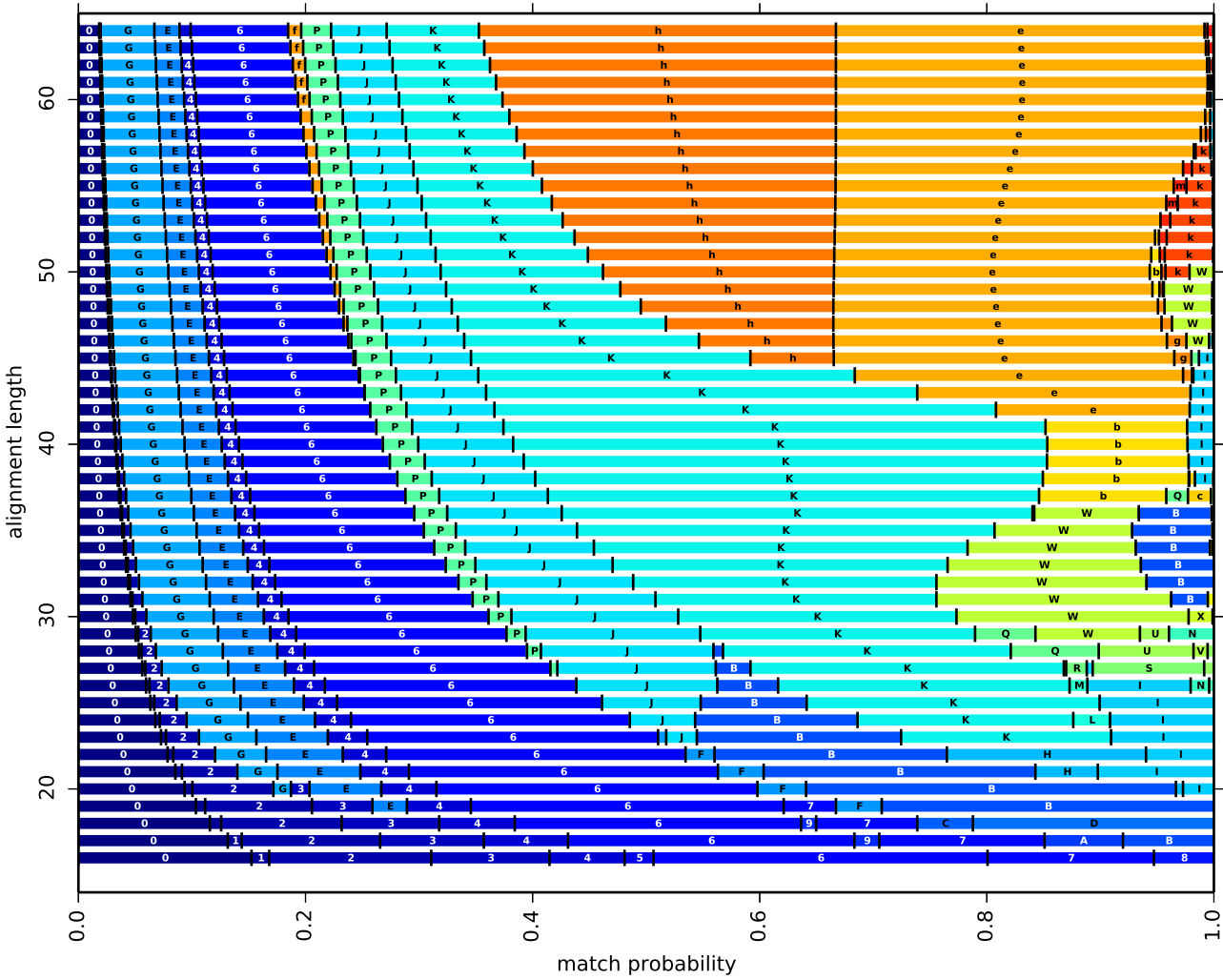
```

```

H = 1101011,111001001,11101000101,11001010000111
I = 1110111,110100101,11000100101,11101000100101
J = 1110111,1101001,1101000101,11000010010111
K = 1110111,1101001,1101000101,11100001001011
L = 1101111,1110101,10100101,11100100101,1110010001011
M = 1011111,1110101,111001001,111010001011
N = 1101111,1110101,10101001,1110001011
O = 1101011,110100101,11110001001,1010000111011
P = 1110111,1101001,100100101,1101010000111
Q = 1011111,1110101,1111011,11100101,1100100111
R = 1101011,1110100101,1011000100101,11001010000111
S = 11010101,11100101,110010100001,11010010001101
T = 1101011,1110100101,10100001101,11100001001101
U = 1100101,11101010001,101000010101,11100100100011
V = 1111111,1110111,1111011,111001011
W = 1101111,1110101,111001001,110100001111
X = 1101111,1110101,1101000111,11100110011

```

Bernoulli (n:4,w:8)



```

0 = 11111111,11011111,11110111,111111011
1 = 11111111,11011111,11110111,111101011
2 = 11111111,110110111,1110111011,111101011
3 = 10111111,111011011,111100111,11110101011
4 = 11011111,111101011,111100111,11100101011
5 = 11101111,111110101,110100111,11100110011
6 = 11011111,111110101,11100110011,11101001101
7 = 11110111,110110111,111010011,1111001000111
8 = 11010111,11011010011,11100110011,11110000101011
9 = 11011111,111110101,11010100111,111100110011
A = 11110111,1110011011,110100101011,1111010001011
B = 110110111,1111001101,111010100011,1110000101011
C = 11110111,110110111,1110001011,1111000100111
D = 11110111,110110111,1110001011,1110100001011
E = 11011111,111110101,111100111,1110101011
F = 11110111,110110111,11101001011,11101000100011
G = 10111111,111010111,111011101,11110101011
H = 111010111,11100101011,11101000101,111010000010011
I = 101110111,11010010111,1110011000101,111101000100011
J = 110101111,11101100101,11110011001,1110010100011

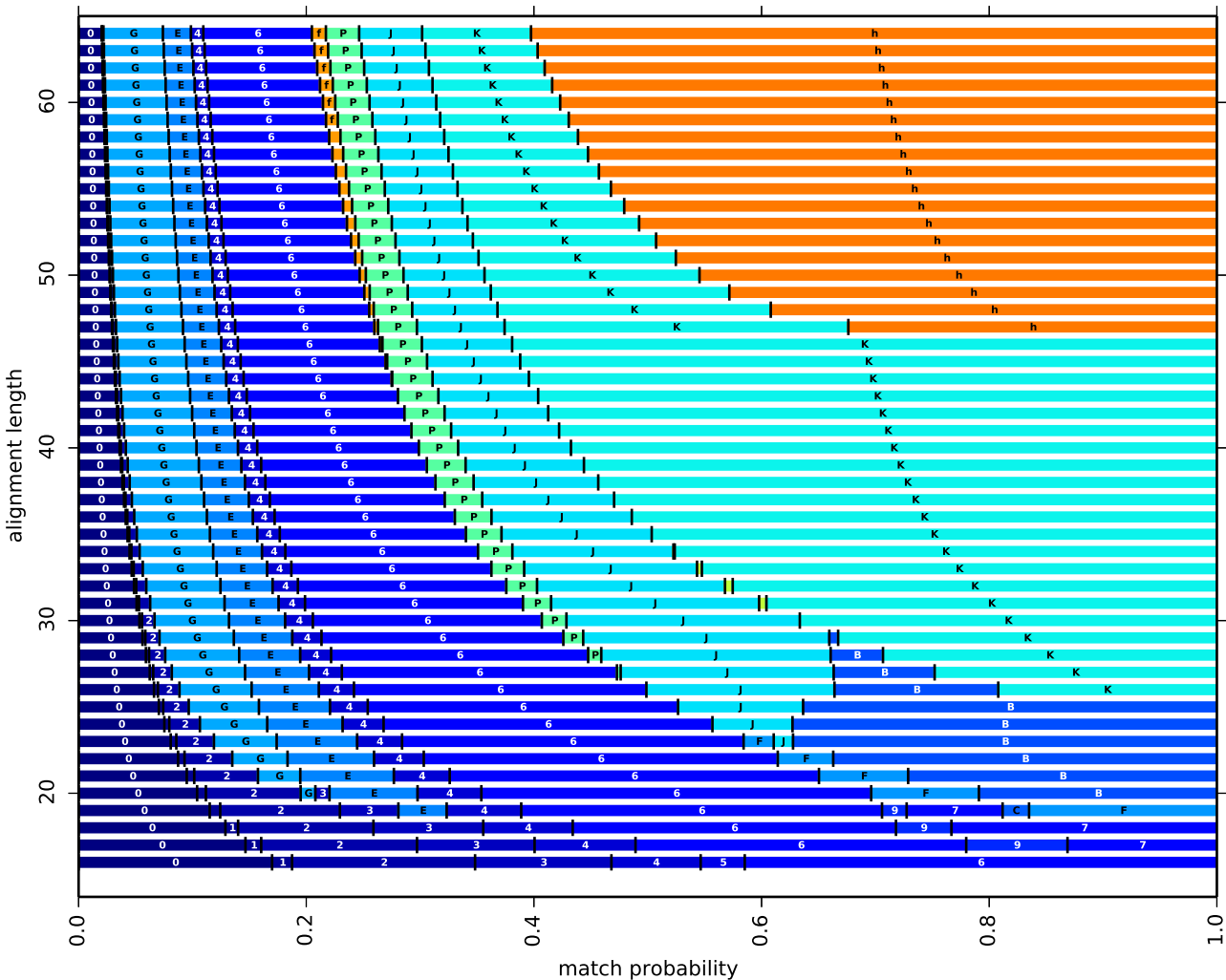
```

```

K = 110110111,111000101011,1101010001011,111001001000011
L = 111011011,111000101011,110110100001011,111000100100011
M = 110110111,110100101011,11100110001011,111010001000011
N = 101110111,11110110011,1110010101011,1100100100000111
P = 101111011,1110100111,11011010101,1110001001011
Q = 110110111,110100101011,1110011001101,111010001000011
R = 110110111,1101001000111,110101000101011,1111000100100011
S = 11101111,1110110011,1110100101011,11010010000001111
U = 11110111,1110011011,110100101011,111010001001011
V = 11110111,110111011,111101001011,110010001010111
W = 11011111,111001101011,1110100011011,111001010001011
X = 111010111,110100101011,1111011000101,100010001101111
b = 110110111,1110011001011,11101000101011,1101001010000111
c = 110101111,11100110011,111010010001011,1110100001001011
e = 110101111,11110001010011,110010000101011,1100101000010111
f = 101111011,1110100111,110110101011,1110001100111
g = 110101111,1110011001011,11011000100101011,1110010100000111
h = 110101011,11110001010011,1101000110010011,1110010000101011
i = 110110111,101100010101011,1110101000011,1101001001010011
m = 110110111,1110101010011,110001101000011,1101100000101011

```

\int_0^x Hit Integration (n:4,w:8)



```

0 = 11111111,11011111,11110111,11111101
1 = 11111111,11011111,11110101,11110101
2 = 11111111,11011011,11101011,11110101
3 = 10111111,11101011,11110011,11110101
4 = 11011111,11110101,11110011,11100101
5 = 11011111,11110101,11010011,11100101
6 = 11011111,11110101,11001001,11100101
7 = 11110111,11011011,11100101,11110010
9 = 11011111,11110101,11010011,11110010
B = 11011011,11110010,11101000,11110100

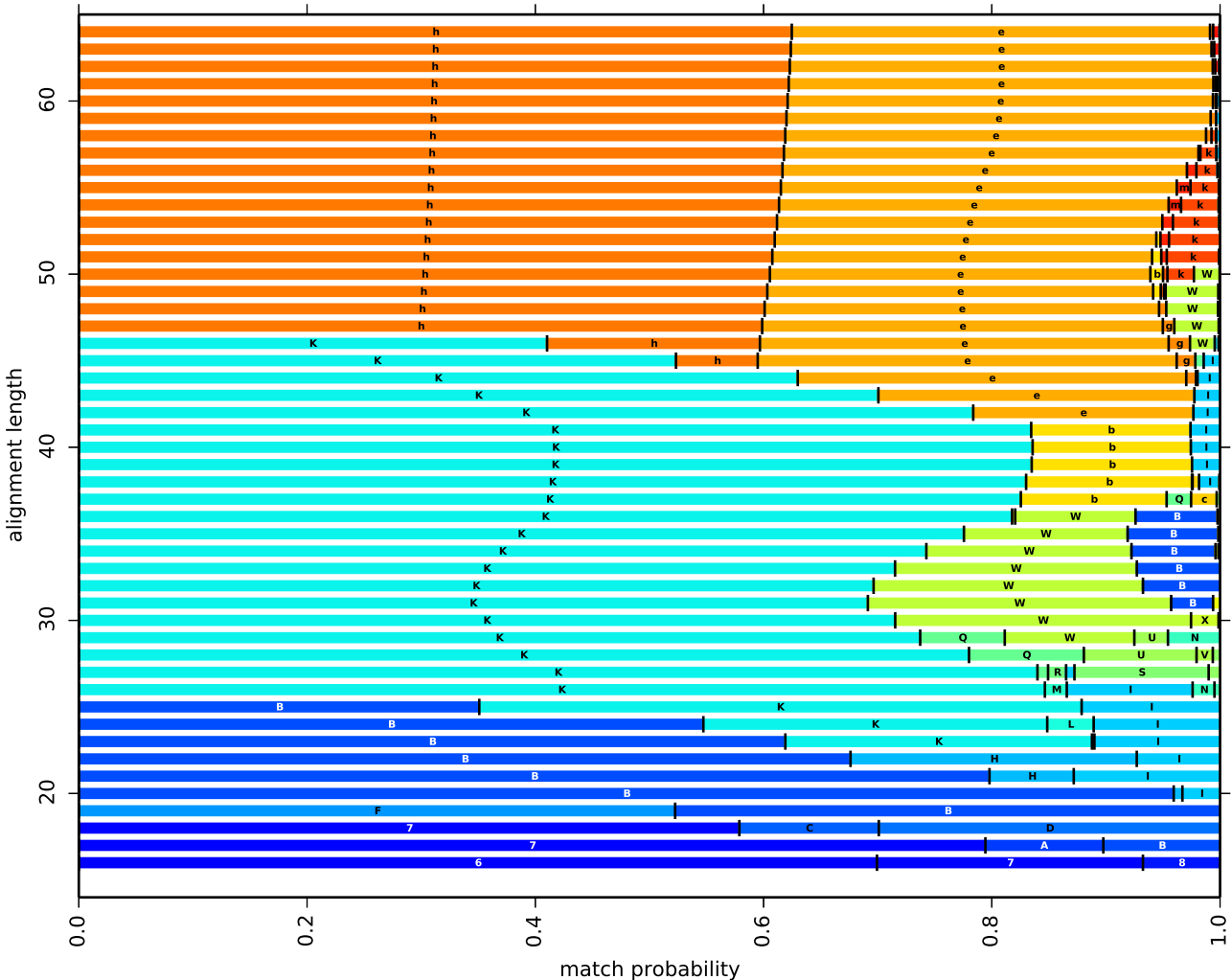
```

```

C = 11110111,11011011,11101001,11110001
E = 11011111,11011011,11111001,11101011
F = 11110111,11011011,11101001,11101000
G = 10111111,11011011,11110110,11110101
J = 11010111,11101001,11110011,11100100
K = 11011011,11100010,11101000,11100100
P = 10111101,11101001,11011010,11100010
f = 10111101,11101001,11011010,11100010
h = 11011011,11100010,11100010,11100100

```

\int_x^1 Hit Integration (n:4,w:8)



```

6 = 11011111,111101011,11100100111,11010011011
7 = 111101111,1101110111,111010011011,1111001000111
8 = 110101111,110111010011,111001100111,11110000101011
A = 111101111,11100110111,110100101011,11111010001011
B = 110110111,11110011011,111010100011,110100001010111
C = 111101111,1101110111,111010011011,11110001001011
D = 111101111,1101110111,111010010111,111010000010111
F = 111101111,1101110111,11101001011,111010001000111
H = 111010111,11010011011,1110110001011,111010000100111
I = 101110111,11010010111,11100110001011,1111010001000011
K = 110110111,111000101011,1101010001011,1110010010000111
L = 111011011,1111000101011,110110100001011,1110001001000111
M = 110110111,110100101011,11100110001011,1110100010000111
N = 101110111,11110110011,1110010101011,1100100100001111

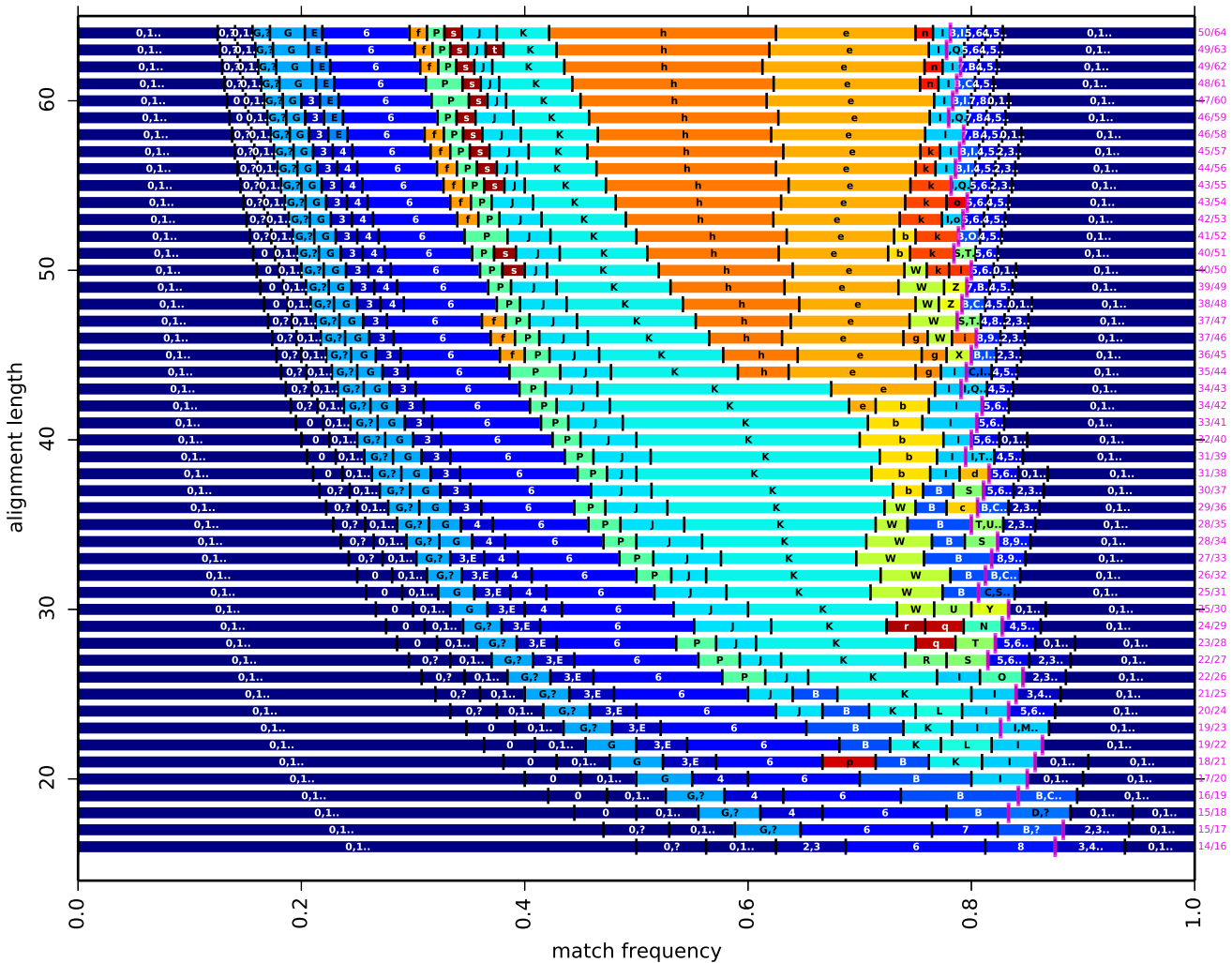
```

```

Q = 110110111,110100101011,1110011001101,1110100010000111
R = 111011011,1101001000111,1101010001010011,1111000100100011
S = 11101111,11101100111,11101010001011,1101001000001111
U = 11110111,11100110111,110100101011,111010001001011
V = 11110111,110111011,111101001011,110010001010111
W = 110101111,111001101011,1110100011011,111001010001011
X = 111010111,11010011011,1111011000101,100010001101111
b = 110111011,1110011001011,11101000101011,1101001010000111
c = 110101111,11100110011,11101010001011,1110100001001011
e = 1101011011,11110001010011,1100100011001011,1100101000010111
g = 110101111,1110011001011,1101100010010101,1110010100000111
h = 1101011011,11110001010011,1101000110010011,1110010000101011
k = 110110111,1011000101011,11101010000111,1101001001010011
m = 110110111,1110101010011,110001010000111,1101100000101011

```

Dirac (n:4,w:8)



```

0 = 11111111,11011111,11101111,111111011
1 = 11111111,11011111,111110111,111101011
2 = 11111111,110110111,110110111,111010111
3 = 10111111,110110111,111100111,111101011
4 = 11011111,111101011,111110011,1110010111
5 = 11101111,111101011,110100111,11100110011
6 = 11011111,111101011,1110010111,111001011
7 = 11110111,110110111,1101001011,11100100111
8 = 11010111,11011010011,11100110011,11110000101011
9 = 11011111,111101011,110100111,11100110011
A = 11101111,111001011,11010010111,111010001011
B = 11011011,111001011,11010000111,11010000101011
C = 11110111,110110111,1101001011,111000100111
D = 11110111,110110111,1101001011,1101000010111
E = 11011111,111101011,1111100111,1110101011
F = 11110111,111011011,1101001011,111010001000111
G = 10111111,111010111,111101101,1111101011
H = 111010111,1101001011,110110001011,111010000100111
I = 101110111,1101001011,11100110001011,1111010001000011
J = 110101111,11101001011,11100110011,1110010000111
K = 111010111,111000101011,1101010001011,1110010010000111
L = 111010111,111000101011,11010100001011,1110001001000111
M = 110110111,1101001011,11100110001011,1110100010000111
N = 110110111,1111010011,1110010101011,1100100100001111
O = 11111111,110101111,1101001011,110111001101
P = 111111011,11101001111,11010101011,11100010010111
Q = 110110111,110100101011,1110011001101,1110100010000111
R = 111010111,11010010001111,1101010001010011,1111000100100011

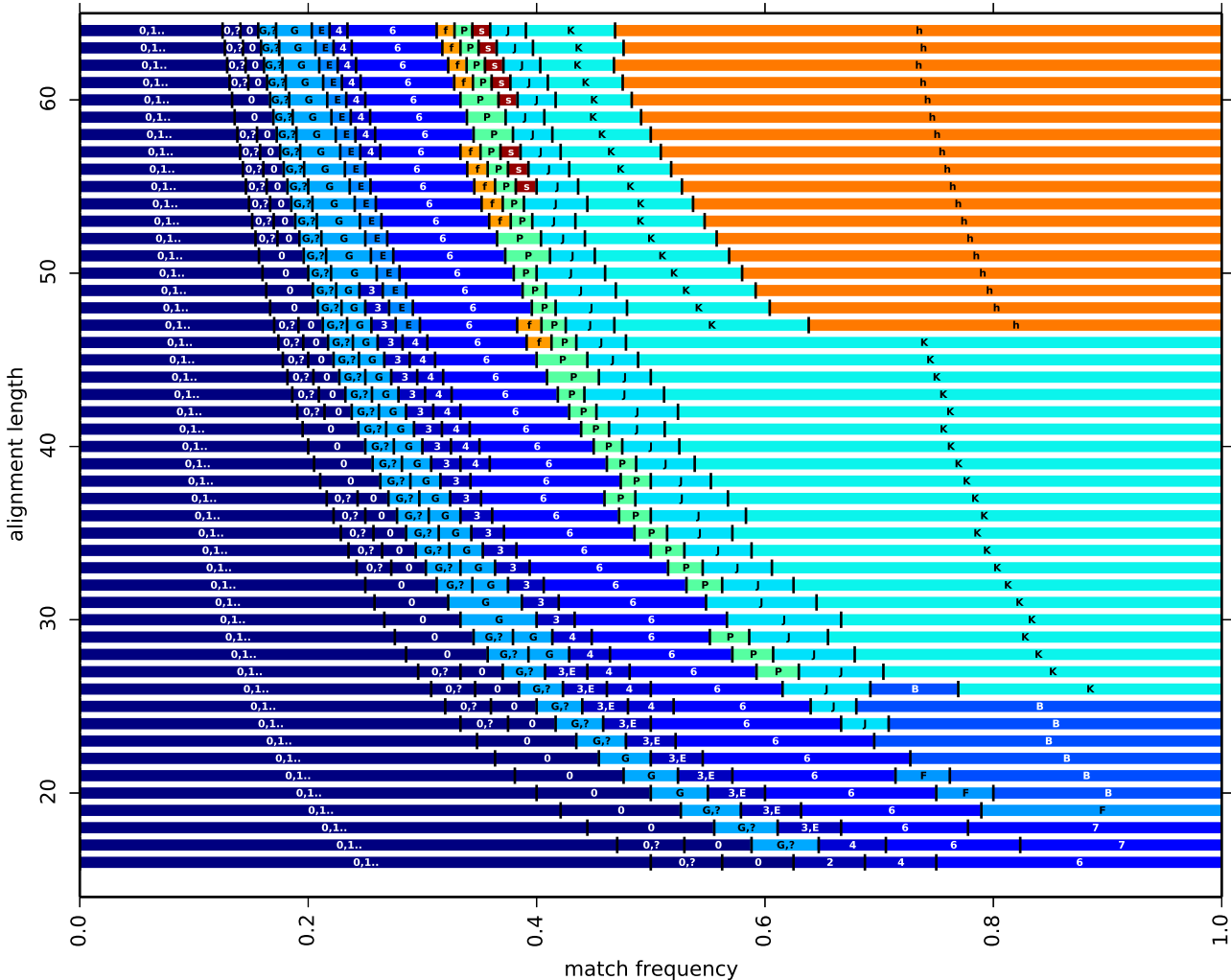
```

```

S = 11101111,1110110011,1110101001011,1101001000001111
T = 11101111,11011110011,1101010001011,11101100101011
U = 11110111,11100110111,110100101011,111010001001011
V = 11110111,110110111,111101001011,11001000101011
W = 110101111,111001101011,111010001011,111001100001011
X = 111010111,11100101011,111011000101,11001000101111
Y = 101110111,1110001011,11101001011,111010001001101
Z = 111010111,11010010111,111011000101,11010000100111
a = 110110111,11110011011,11010100011,110100001010011
b = 110110111,1110011001011,1110100010101,1101001100001011
c = 110101111,11100110011,11101000100101,111010000101011
d = 11101111,11010011011,11101001011,11101000000111
e = 1101101011,111000100011,110010001001011,110101000010111
f = 101111011,1110100111,110110101011,1110001100111
g = 11011111,1110011001011,11011000100101,1110010100000111
h = 1101101011,1110001010011,11010001000101,1110010000101011
i = 110101111,11010011011,111011001011,1110010100000111
j = 110101111,11100110011,1101001010011,1110101000001011
k = 111010111,1101000101011,1110101000011,1101001001010011
l = 11011111,1101110011,111010001011,10101010010011
m = 110101111,11101010011,11000110000101,1110100000101011
n = 1100110111,11010011011,11101010001011,11010000101001111
o = 110110111,110100011101,111000101011,111000100100101
p = 111010111,11011110011,110100001011,1111001001011
q = 11110111,1110011011,110010101011,111010001001011
r = 110110111,111000101011,1110010101011,111001000000111
s = 110101111,110111001011,111100110011,111010000010111
t = 111011011,110010100111,1111000101011,1110001001000111

```

$$\sum_0^x \text{Heaviside}(n:4,w:8)$$



```

0 = 11111111,11011111,11110111,111111011
1 = 11111111,11011111,111110111,111101011
2 = 11111111,110110111,11011011,111101011
3 = 10111111,110110111,111100111,111101011
4 = 11011111,111101011,111110011,111001011
5 = 11101111,111101011,110100111,1110010011
6 = 11011111,111101011,1110010011,1101001011
7 = 11110111,110110111,1101001011,1110001011
8 = 11010111,1101101011,1110010011,111100001011
9 = 11011111,111101011,1101001011,11110010011
A = 11110111,111001011,1101001011,1111010001011
B = 11011011,1111001011,111010001011,1101000010111
C = 11110111,110110111,1101001011,111100001011
D = 11110111,110110111,11101001011,1110100001011
E = 11011111,111101011,1111100111,1111010111
F = 11110111,111101011,1110010111,1110001000111
G = 10111111,110110111,111101101,111101011
H = 11010111,1101001011,111010001011,111010000100111
I = 101110111,1101001011,1110010001011,1111010001000011
J = 11010111,11101001011,1110010011,11100100000111
K = 110110111,111000101011,110100001011,111001000000111
L = 11101011,111000101011,11010100001011,11100010000111
M = 110110111,110100101011,1110010001011,11100010000111
N = 101110111,1111010011,1110010101011,11100100000111
O = 11111111,111010111,1101001011,110111001101
P = 101111011,11100010111,11010101011,11100010010111
Q = 110110111,110100101011,111001000101,1110100010000111
R = 111010111,1101001000111,110101000101011,1111000100100011

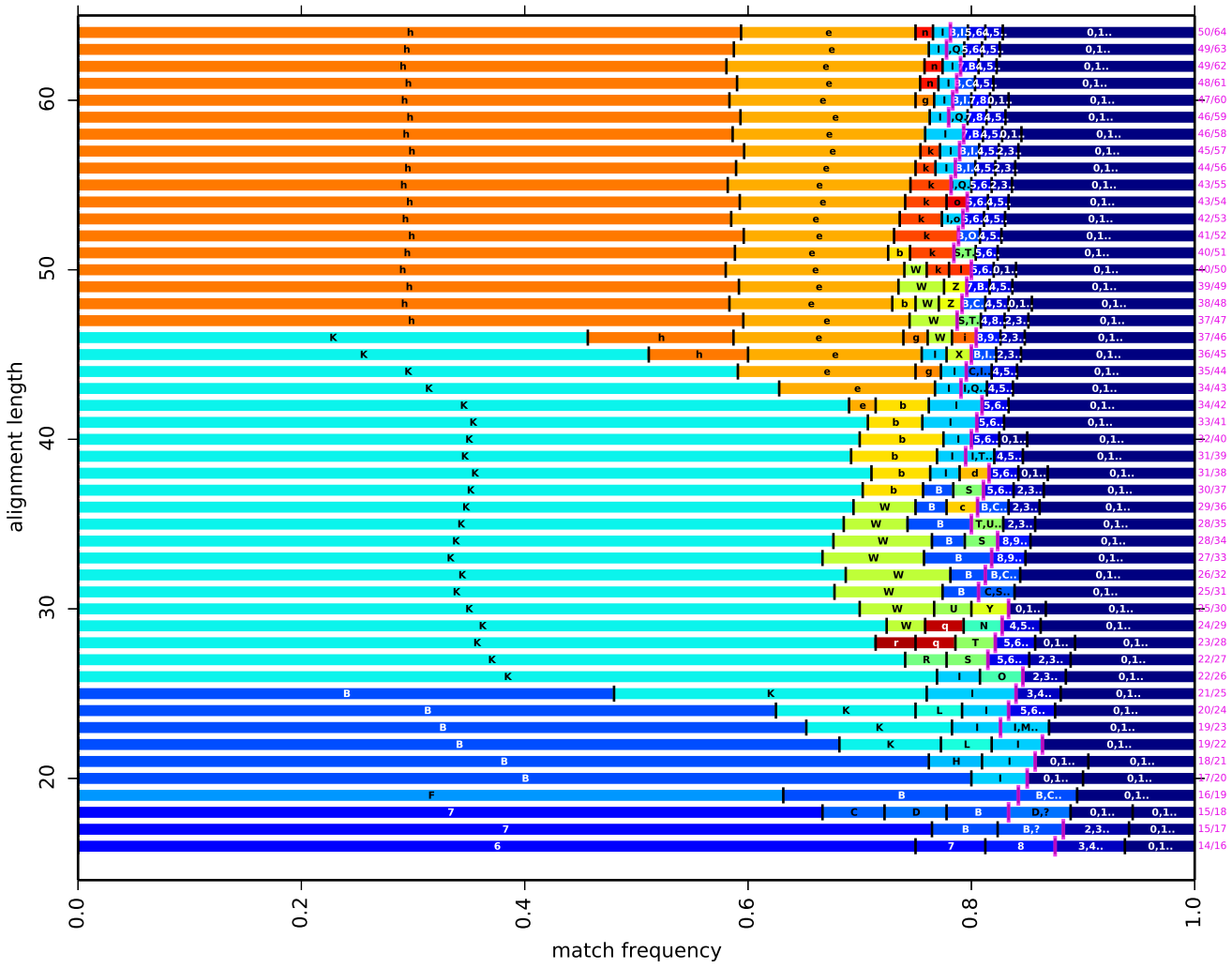
```

```

S = 11101111,11101100111,1110101001011,1101001000001111
T = 11101111,11011110011,1101010010111,1101100101011
U = 11110111,11100110111,11010010111,1111010001001011
V = 11110111,1101110111,111101001011,110010001010111
W = 11010111,111001101011,111010001011,1111001010001011
X = 111010111,11010010111,111011000101,10001000101111
Y = 101110111,11100011111,111011001011,1110100001011
Z = 111010111,11100010111,111011000101,110100001000111
a = 110110111,11110011011,1110101000111,1101000010100111
b = 110110111,1110011001011,11101000101011,1101001010000111
c = 110101111,1110010111,111010010001011,111010000100111
d = 11101111,11010010111,11101001011,1110101000000111
e = 110110111,11110001010011,11001000101011,110101000010111
f = 101111011,1110100111,110110101011,1110001100111
g = 110101111,111001100111,110110001001011,1110010100000111
h = 110101011,111100001010011,1101000110010011,1110010000101011
i = 110101111,10100111011,111101001011,11100100000111
j = 110101111,11100110111,1101001010011,1101010000010111
k = 110110111,10110001011011,1110101000011,110100101010011
l = 11011111,1101110011,111010001011,1011010100100111
m = 110110111,11101001010011,110001010000111,1101100000101011
n = 1100110111,110100111011,11101010001011,1010000101001111
o = 110110111,110101001101,111000101011,1111000100100101
p = 111010111,11011110011,111010001011,1111001001011
q = 111010111,1110011011,110010101011,111010001001011
r = 110110111,110100010111,1110010101011,1110010010000111
s = 110101111,110111001011,11110010011,11101000010111
t = 111010111,110010100111,1111000101011,1110001001000111

```


$$\sum_x \text{Heaviside}(n;4,w:8)$$



```

O = 11111111,11011111,11110111,111111011
1 = 11111111,11011111,11111011,111101011
2 = 11111111,11011011,11011011,111101011
3 = 10111111,11011011,11110011,111101011
4 = 11011111,11110101,11111001,111001011
5 = 11101111,11110101,11010011,111001011
6 = 11011111,11110101,11100101,111001011
7 = 11110111,11011011,11010011,111000011
8 = 11010111,11011001,11100101,111100001011
9 = 11011111,11110101,11010011,1111001011
A = 11110111,11001011,1101001011,111100001011
B = 11011011,11110010,1110100001,110100001011
C = 11110111,11011011,11100101,111100001011
D = 11110111,11011011,11101001,1110100001011
E = 11011111,11110101,11111001,1110101011
F = 11110111,11011011,11100101,1110100001011
G = 10111111,11010111,11110110,111101011
H = 11010111,11010011,1110100010,11110100001011
I = 10110111,11010010,1110010001,111101000100011
J = 11010111,1111000101,1110010011,111001000011
K = 11010111,1110001011,1101000010,111001001000011
L = 11101011,1110001011,1101010001,111000100100011
M = 11010111,11010010,1110010001,111010000100011
N = 10110111,11110101,1110101011,11001001000111
O = 11111111,11010111,11010101,11011100101
P = 10111101,11010011,11010101,1110001001011
Q = 11010111,11010010,1110010010,111010001000011
R = 11101011,1101001001,110100010101,1111000100100011

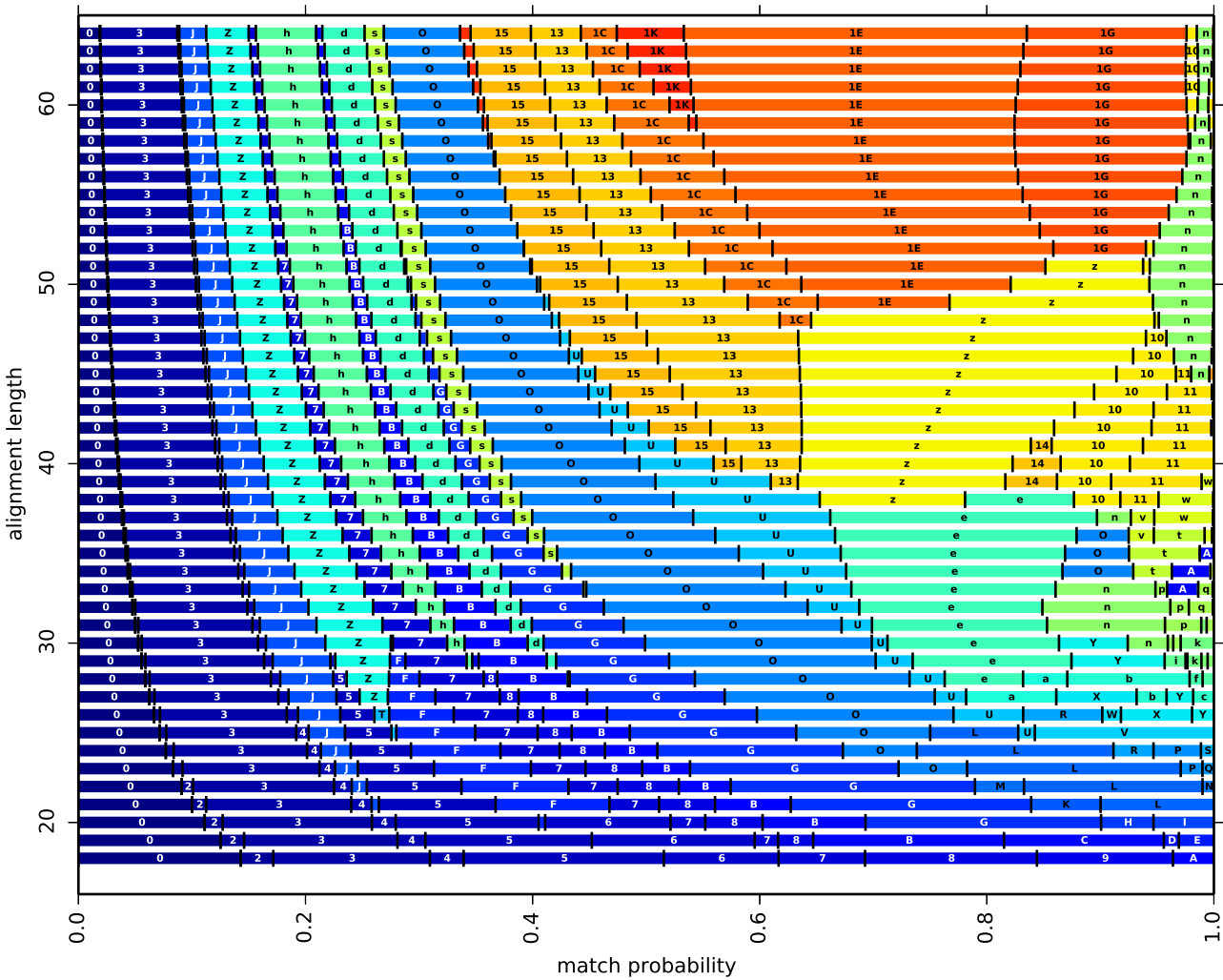
```

```

S = 11101111,11101100,1110101001,110100100001111
T = 11101111,11011100,1101010001,110100101011
U = 11110111,11001101,1101001011,11010001001011
V = 11110111,11011011,11110100,11001000101011
W = 11010111,11100110,11101000,111100100001011
X = 11101011,11010010,1111011000,11001000010111
Y = 10111011,11100011,11010010,1110100001101
Z = 11101011,11010010,1111011000,11010000101011
a = 11010111,11110010,1110101000,1110100001010011
b = 11011011,11100100,1111010000,1101001010000111
c = 11010111,11100100,1110100001,110100001001011
d = 11101111,11010010,11110100,111010100000011
e = 11010111,11100010,11001000100101,1100101000010111
f = 10111101,11100101,11010101,111000110011
g = 11010111,11100101,1101000101,11100100000111
h = 11010111,11100010,1101000100,1110010000101011
i = 11010111,11010010,11101001,11100100000111
j = 11010111,11100101,11010010,111001000001011
k = 11101011,11100010,1110101000,11101001010011
l = 11101111,11011101,11101000,11010100001011
m = 11010111,11101010,1100010000,1110100000101011
n = 11001011,11010010,1110101000,1101000010010111
o = 11010111,11010011,11100010,11110001011,1111000100100101
p = 11101011,11011100,11010000,11111001001011
q = 11101011,11001011,11001010,111010000101011
r = 11010111,11010001,1110010101,11100100000111
s = 11010111,11011001,1111001001,1101000001011
t = 11101011,11001010,1111000101,1110001001000111

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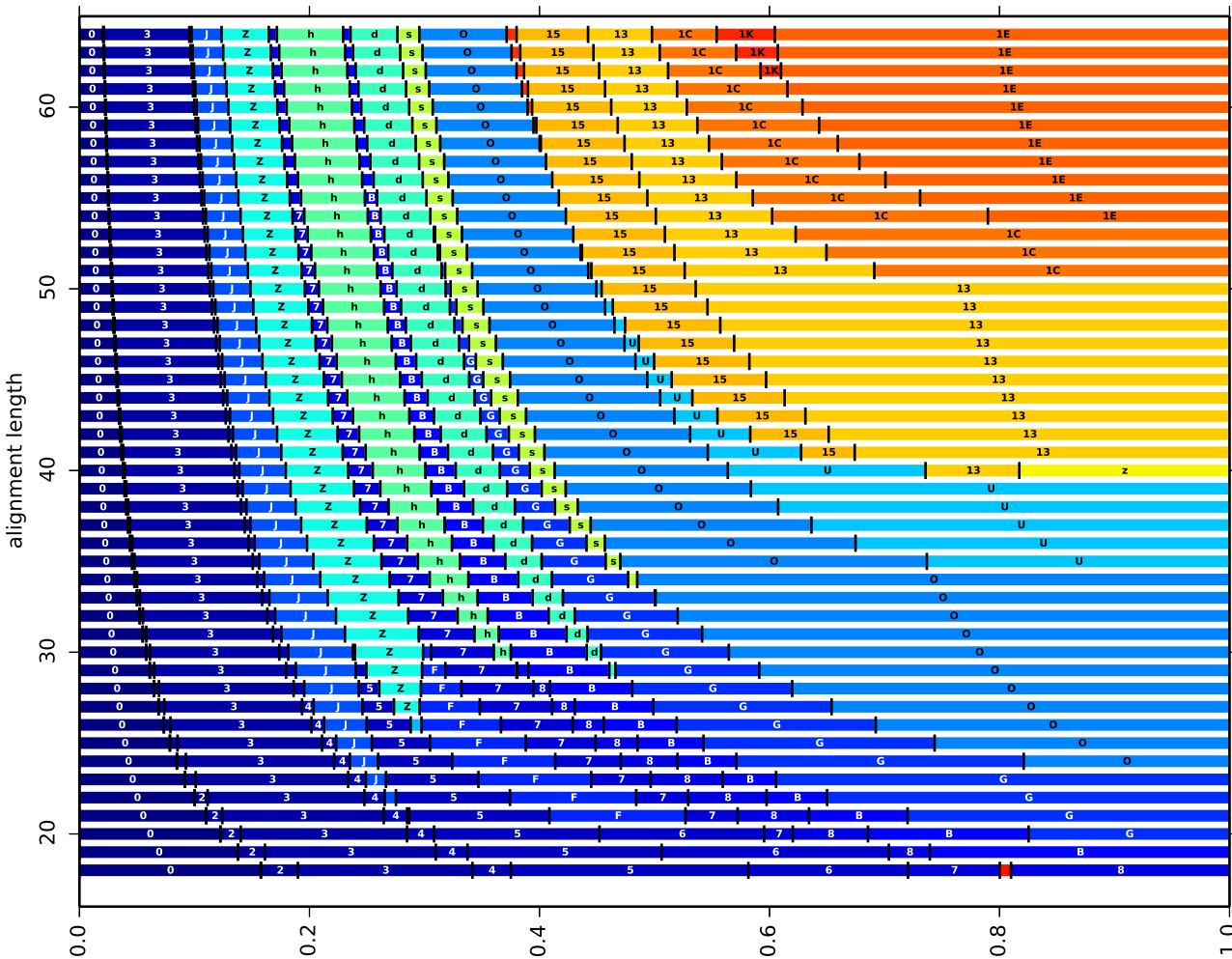
Bernoulli (n:4,w:9)



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3 = 101111111,111011011,111101101,111101011
4 = 110111111,111101101,111110011,111010110
5 = 111101111,110111011,111111001,111101001
6 = 111011111,111111011,110110011,111100011
7 = 110111111,111110011,111001101,111010110
8 = 110111111,111110011,111001011,111010100
9 = 111101111,111011101,111101001,111010001
A = 111010111,110100110,111101001,111010001
B = 101110111,111101001,111010101,111100001
C = 111011111,111011001,110100011,111010011
D = 111011011,111001100,111101000,111001001
E = 111011111,110111011,111001011,111101000
F = 111011111,111111011,111001001,111010011
G = 111101111,110011101,111011001,111010000
H = 111101111,110111011,111101001,111100010
I = 111010111,110100101,111100100,111001000
J = 111011111,110111011,111110011,111010011
K = 111010111,110100110,111101001,111010000
L = 111010111,111100010,111010000,111001000
M = 110110111,111100110,111010000,111010000
N = 111010111,111100101,111010000,111001001
O = 110101111,111101001,111000011,111001000
P = 111010111,111001010,111101000,111100010
Q = 111010111,111011001,111010010,111010010
R = 111010111,111001010,111101000,111001000
S = 111010111,111001011,110100010,111100010
T = 110111111,111101011,111001101,111011000
U = 111010111,111010100,111010001,111001000
V = 111010111,111000101,111110100,111000100
W = 110110111,111010010,111100101,111001000
X = 111010111,111001010,111010000,111110000
Y = 111010111,111010001,110010000,111100010
Z = 110111111,111101011,111010100,111011001
a = 110110111,111001011,111001010,111001000
b = 110110111,111001011,111001010,111001000
c = 110110111,111001011,111010001,111001000
d = 111010111,111011001,111010010,111000010
e = 111010111,111000101,111010001,111001000
f = 111101111,110100100,111110100,111000100
g = 111010111,110111001,111001010,111100101
h = 111010111,110111001,111001010,111100101
i = 110110111,111001010,111101001,111001000
k = 111011111,111011001,110101001,111001000
n = 110111011,111001011,111001000,111001001
p = 111010111,111011001,111001010,111001001
q = 111011111,111011011,111001011,111010001
s = 110111011,111001011,111010100,111010001
t = 110101111,111001011,111010010,111010000
v = 110101111,111010010,111001001,111001000
w = 111010111,111000101,111010001,111000101
z = 111010111,111010001,111001000,111010010
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11 = 111010111,111010001,111010001,111000010
13 = 101110101,111001001,111001001,111000010
14 = 110101101,111101001,111001001,111001001
15 = 110101011,111010001,111000101,111001000
1C = 111010101,111001001,111010001,111001000
1E = 111010101,111001001,111010001,111001000
1G = 110101101,111101001,111010001,111000010
1K = 111010101,111001001,111000101,111010000
    
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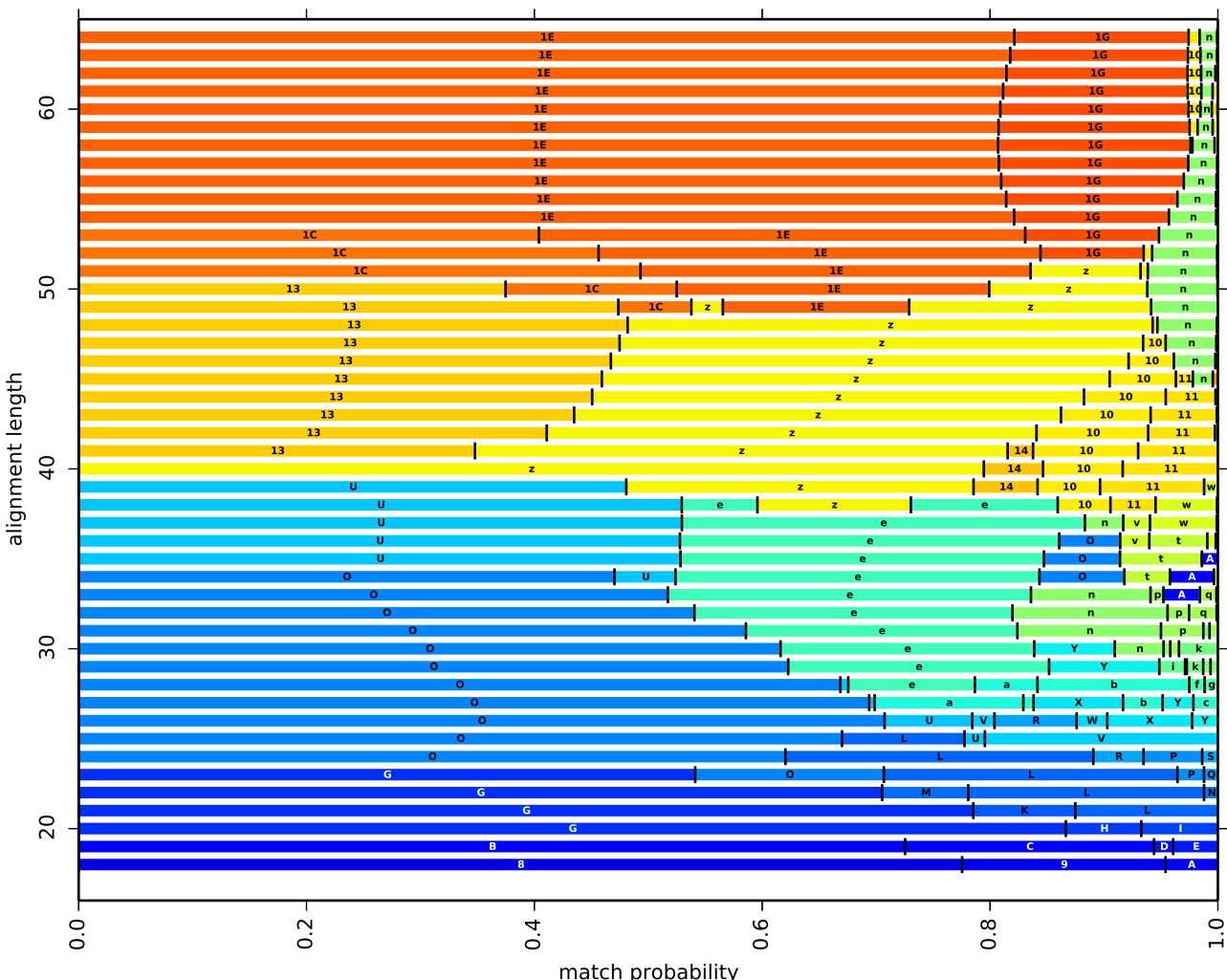
\int_0^x Hit Integration (n:4,w:9)



```

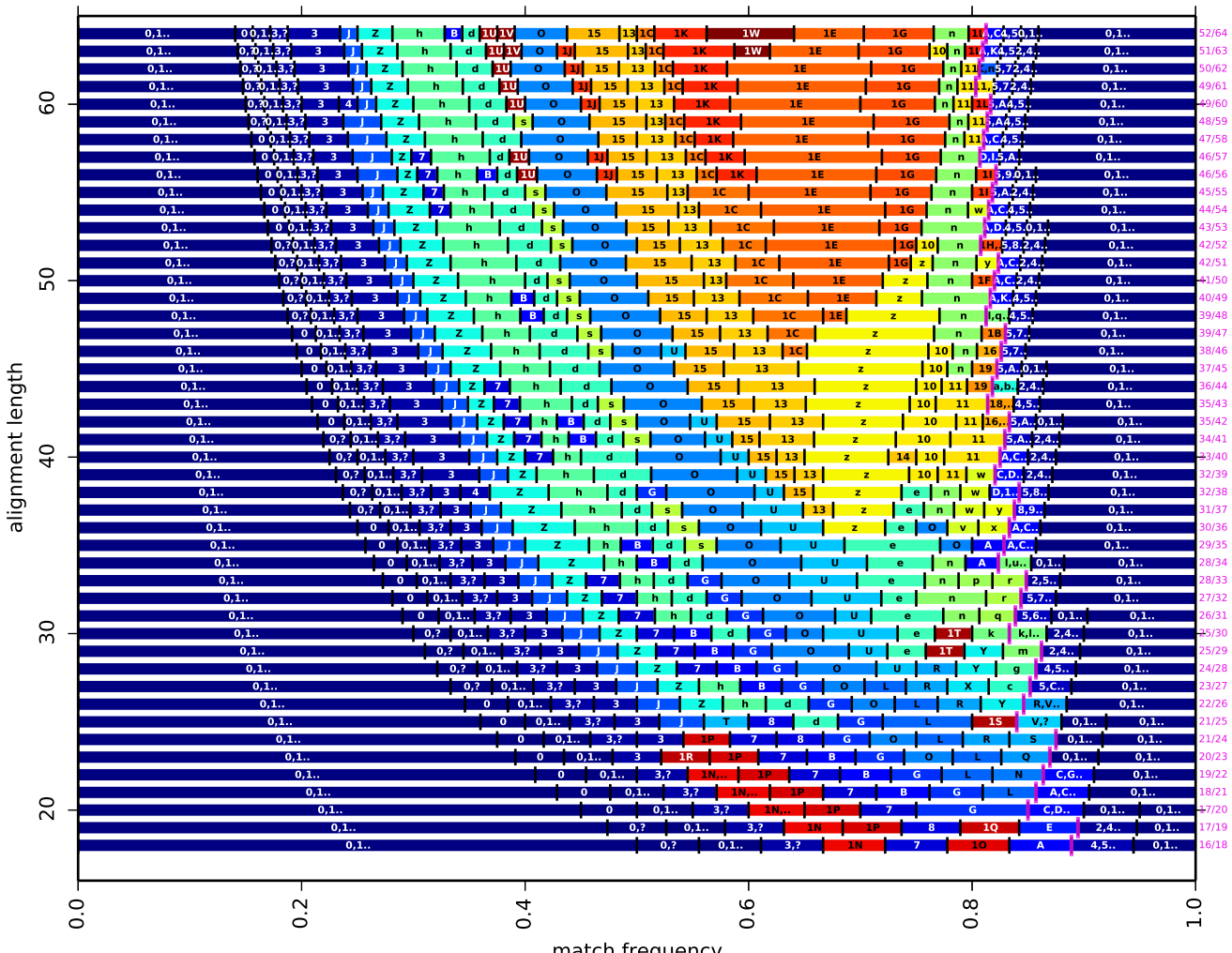
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5 = 111101111,110110111,111111001,111101001
6 = 111011111,111110101,110110101,111100011
7 = 110111111,111100101,111001100,111101011
8 = 110111111,111100101,111001010,111101010
B = 101101111,111101001,111010101,111100001
F = 111011111,111110101,111001100,111101001
G = 111101111,110011101,111010011,111010000
j = 111011111,110111101,111110011,111010011
O = 110101111,111101001,111010001,111001010
U = 111011011,111010100,111101000,111110100
Z = 110111111,111101011,111010100,111101001
d = 111010111,110111001,111010011,111100001
h = 111010111,110111001,111001010,111110010
s = 110111101,111100101,110101001,111010010
z = 111010111,111010100,111100100,111101000
13 = 101101011,110100100,111100100,111101000
15 = 110101011,110100010,111100010,111001000
1C = 111010111,111001001,111010001,111010000
1E = 111010111,111001001,111010000,111101000
1K = 111010111,110100100,111101000,111101000
    
```

\int_x^1 Hit Integration (n:4,w:9)



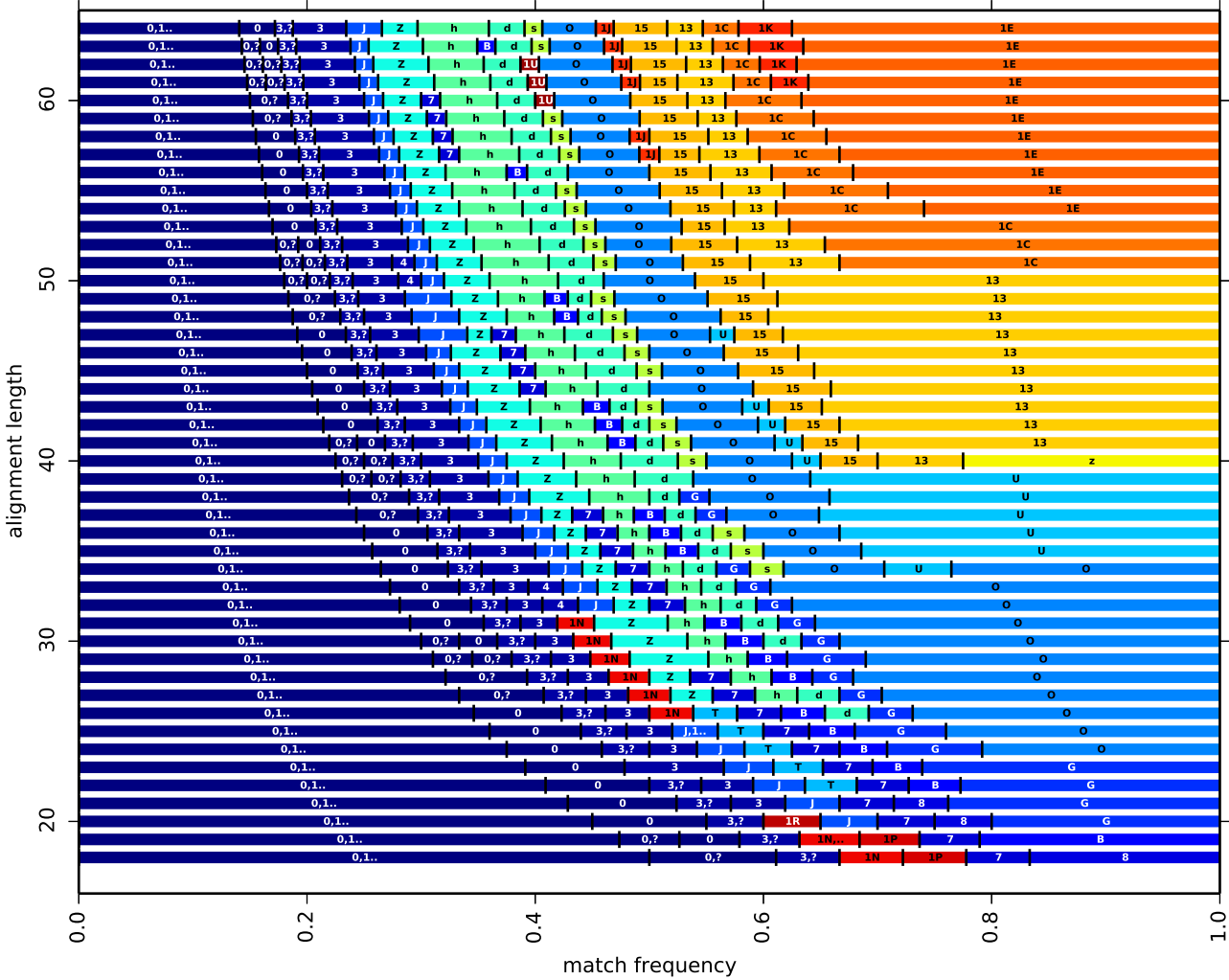
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- 9 = 111101111,11101110111,1111010010111,111010001001111
- A = 11101011111,1101001110111,1111011001011,11101000010010111
- B = 10111011111,111101100111,1110110101011,11110000110111
- C = 111101111,111011100111,11011000101111,111010010010111
- D = 11101101111,1110011110011,11110100010111,1100100101001111
- E = 111011111,11011110101,1110100110111,11110100000100111
- G = 11110101111,110011110111,1110110011011,1110100000101111
- H = 111101111,1101110111,1111010010111,1111000100010111
- I = 1110101111,1101100110111,111100101001011,11100100001100111
- K = 1110101111,1101001110111,1111011001011,1110100001001111
- L = 1110110111,1111000101011,111010100011011,11100100100001111
- M = 1101101111,111100111011,11101010001111,11101000010010111
- N = 1110101111,111100110011,111011010001011,1110001000010010111
- O = 1101011111,1111011001011,111010001100111,11100101000010111
- P = 1110110111,1110010101011,111010000110111,111100010010000111
- Q = 11101111,111011100101,11101001010111,111010010000001111
- R = 1110110111,1110010101011,1111010000011011,111000100100001111
- S = 1111010111,111010011011,11011000100001111,111100101000100011
- V = 1110110111,1110001101011,111110100010011,111000100100001111
- W = 1101101111,1110100100111,111100101010011,111001000100001111
- X = 1110110111,1110010101011,1101010000011011,111100010010000111
- Y = 1110110111,111101010001011,11001100000101011,111100010010000111
- a = 1101110111,111010011011,111100101001011,111001000100001111
- b = 1101110111,111010011011,111100101001011,111100100010000111
- c = 1101110111,1111001010011,1110101000010101,111001001000001111
- e = 1110110111,1110001101011,111010100011011,11100101000010111
- f = 111101111,1101100110011,11111010010101,111000100000101111
- g = 1101011111,111111001101,1110011010111,111100010001001101
- i = 1101110111,111100101010011,111101001001101,111001000100001111
- k = 111101111,11101110011,1101101001011,11001001000101111
- n = 1101110111,111010011011,11101001010001011,1110100100001010111
- p = 111101111,11101110011,1110100101011,111100100100010111
- q = 111011111,111101101011,1110100110111,11101010001001011
- t = 1101101111,1111001101011,11101010011011,11101001000010111
- v = 1101011111,11101100101011,11110011001011,11100101000100111
- w = 1110110111,1011000111011,111010110001011,11100010010010111
- z = 1110110111,111010100010111,11100100100011011,110100100010100111
- 10 = 1110110111,111010100010111,1101100011010011,110100010010100111
- 11 = 1110110111,111101010001011,1101100001100111,1100011000010111
- 13 = 10111011011,11010010100111,1110011000101011,111010001001000111
- 14 = 11010111011,11110100101011,1100100110001111,111001010001001011
- 1C = 11101011011,111001100100111,11101000101001011,11010001000101011
- 1E = 11101011011,111001100100111,11010010000101011,111010001010010011
- 1G = 11010110111,11110100101011,11010100010011011,11100001100101011

Dirac (n:4,w:9)



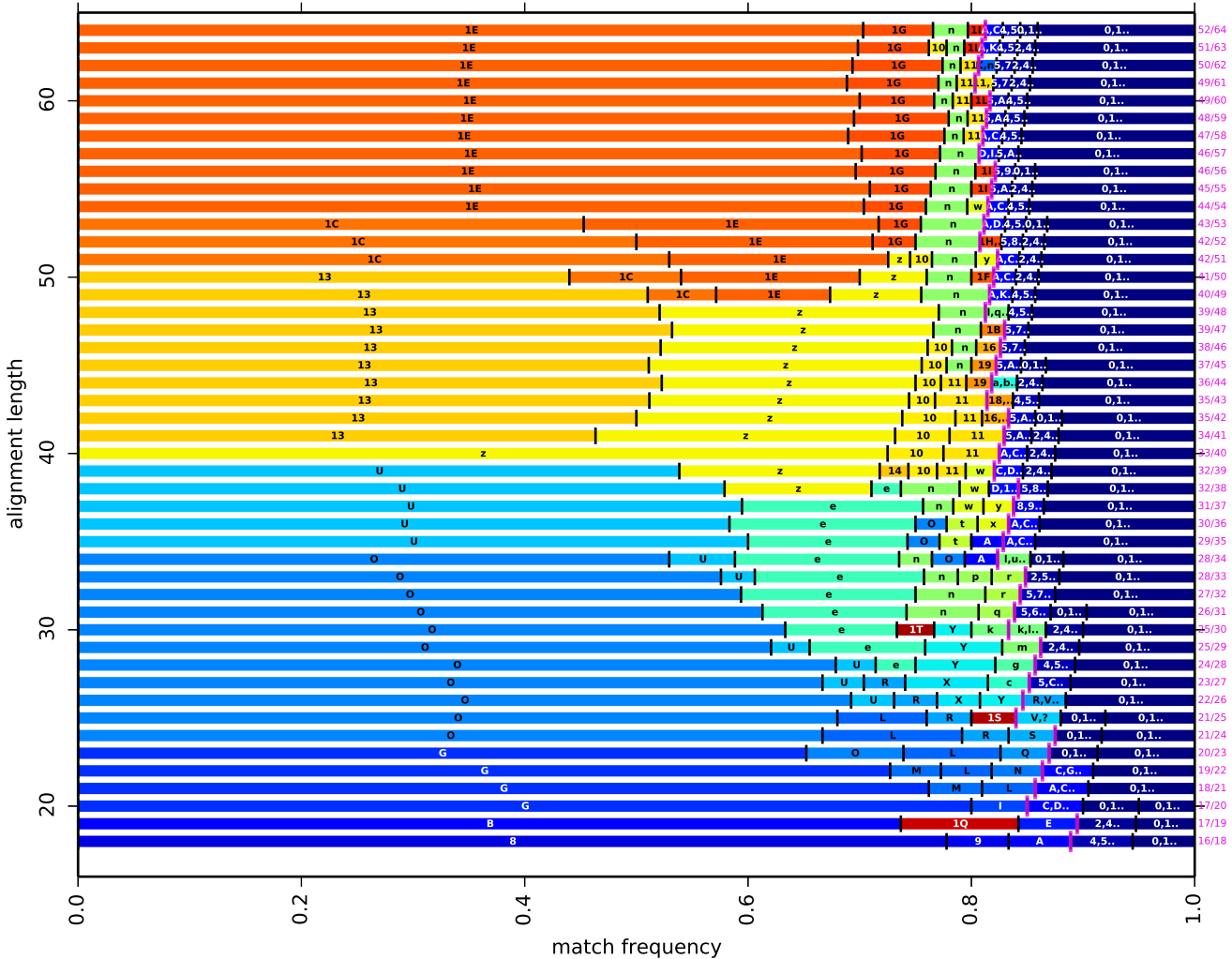
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4 = 1101111111,1111011011,1111100111,1110101101
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9 = 1110111111,1110110111,1111010011,11101000111
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C = 1111011111,1110110011,1101100010111,111010010011
D = 1110110111,111001110011,1111010001011,110010010011
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F = 1110111111,1111110111,11100110011,111010011011
G = 1111010111,11001111011,1110110011011,11101000001011
H = 1111011111,1101110111,1111010011,1111000100011
I = 1110101111,110110011011,11110010001011,111001000110011
J = 1110111111,1101111011,1111110011,111010011011
K = 1110111111,11010011011,1111011001011,1110100010011
L = 1110110111,1111000101011,11101010001011,11100100000111
M = 1101101111,11110011011,1110101000111,1110100010011
N = 1110101111,111100110011,111011010001011,111001000010011
O = 1101011111,11110110011,11101000110011,1110010100001011
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R = 1110110111,11100101011,11110100001011,111000101000011
S = 1110101111,111010011011,11011000100011,1111001010001001
T = 1111111111,1111101101,111010011011,11101100011
U = 1110110111,1110101100011,1101100001011,11100100010001011
V = 1110110111,1110001101011,111110100010011,111000100100011
W = 1110110111,111010010011,111001010011,111001000100011
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Y = 1110110111,11110100001011,1100110000101011,1111000100100011
Z = 1101101111,111101011,111010110011,111011001101
a = 1101101111,111010011011,11110010001011,1110010001000011
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c = 1101101111,111001010011,1110100001011,1110010010000011
d = 1110101111,1101110011,1110110011011,11110000101011
e = 1110101111,111000101011,11101010001011,11100100100001011
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h = 1110101111,1101110011,111001101011,111110010101
i = 1101101111,1111001010011,1110100100101,1110010000100011
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l = 1011110111,1110010111,11101100101,1110100010001101
m = 1011110111,1110010111,11101100101,111100010001001
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p = 1111011111,1110110011,11101001011,1110010010001011
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1M = 1110101111,1111101011,1101001011,1110100111
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1O = 1110101111,1101110011,11111001011,1110010011011
1P = 1111111111,1111101011,111001011,1110111001011
1Q = 1111010111,1100111011,11101001011,111101000001011
1R = 1110111111,111011011,111110101,1101001111
1S = 1110101111,111101010001011,11110000101011,11110001001000011
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1U = 1101110111,1111001011,1110011010011,11001010001111
1V = 1101110111,1111000101011,1101010000111,1110010010101011
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$$\sum_0^{\infty} \text{Heaviside}(n;4,w:9)$$



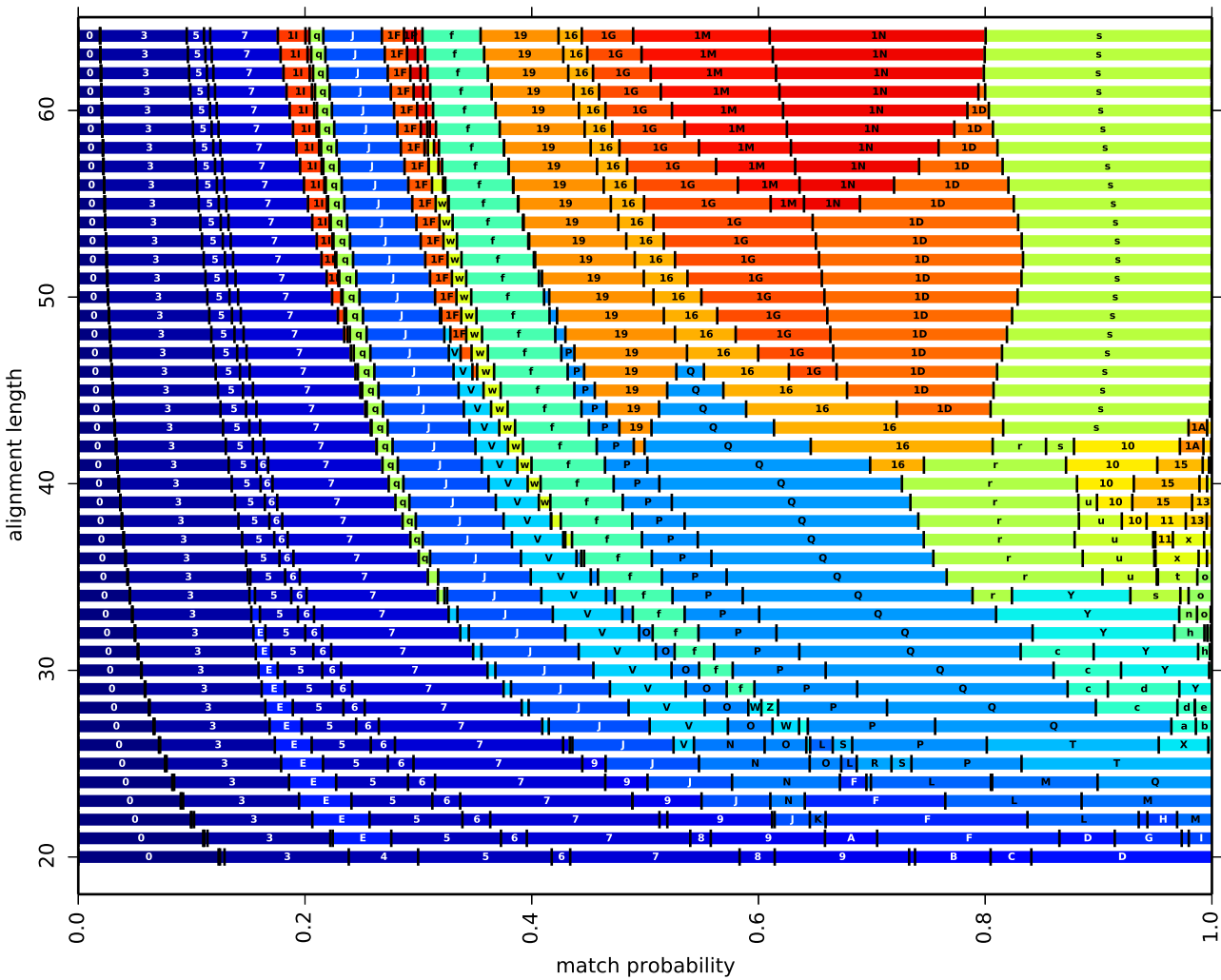
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5 = 1111011111,11011101111,11111110011,1111010010111
6 = 1110111111,11111101011,1101101001111,1111000110111
7 = 1101111111,111110010111,1110011100111,1110101011011
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9 = 1111011111,11101110111,1111010010111,111010001001111
A = 1110101111,1101001110111,1111011001011,11101000010010111
B = 10111011111,111101100111,1110110101011,11110000110111
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k = 1111011111,111011100111,1101101001011,1100100100010111
l = 1011110111,11100101111,1110111001011,11101000100011011
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s = 1101111011,11110010111,11010101100111,1110100100010111
t = 1101011111,1111001101011,11101010011011,11101001000010111
u = 1110101111,1101001110111,1111011001011,11110100000010111
v = 1101011111,1110100101011,11110011001011,11100101000100111
w = 1110110111,10110001110111,111010110001011,11100010010010111
x = 1110111111,1110111001101,1110100101011,1110100100010111
y = 1111011111,1110111001101,1110100101011,111010010010000111
z = 1110101111,111010100010111,11100100100011011,11010010010100111
10 = 1110101111,11101010001011,1110100011010011,110100010010100111
11 = 1110101111,111101010001011,1110100001100111,110001101000010111
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1C = 1110101111,11100110010011,11101000101001011,110100100001010111
1D = 1110101111,1110010101011,111101100001011,110100010010010111
1E = 11101010111,11100110010011,11010010000101011,111100001010010011
1F = 1111011111,1110101100111,11101100011011,1010100100001011011
1G = 11010110111,111101001010011,11010100010011011,1110000100101011
1H = 1111011111,1110111001101,11101001010111,1100101100110011
1I = 1110101111,110110011011,110101101001011,11010100001010111
1J = 11010110111,110011011000111,111100001011011,11100101000010111
1K = 11101010111,11010011000111,11010001010010011,111011000000101011
1L = 1110101111,111010100011011,11010100110000111,110010010001100111
1M = 1110111111,11111101011,1101100110111,1110101001111
1N = 1110111111,11011111011,11111100111,1111001010111
1O = 1110101111,110111100111,1111100101011,11100100110111
1P = 1101111111,11111010111,1110100110111,1110111001011
1Q = 1111010111,110011110111,1110110011011,1111010000010111
1R = 1111011111,11101110111,11111101011,110100111111
1S = 1110101111,111101010001011,1101100001010111,111100010010000111
1T = 1110101111,111100010101011,110110001000010111,111000100100100111
1U = 1101110111,1111100101011,11100110110011,110010100011111
1V = 1101111011,111100010101011,110101100001111,1110010010101011
1W = 1101001100111,1101010010110011,110110000100101011,111000101010001011

$$\sum_x \text{Heaviside}(n;4,w;9)$$



0 = 11111111,11011111,11110111,11111011
1 = 11111111,11011111,11110111,11101101
2 = 11111111,11011011,11101011,11110101
3 = 10111111,11101011,11110110,11111010
4 = 11011111,11101101,11110011,11101011
5 = 11101111,11011011,11111100,11110100
6 = 11101111,11111010,11011010,11110001
7 = 11011111,11110010,11100110,11101010
8 = 11011111,11110010,11001010,11101010
9 = 11101111,11011011,11101001,11101001
A = 11101111,11010011,11110101,11101000
B = 10110111,11101100,11101010,11110000
C = 11101111,11011001,11010001,11101001
D = 11101011,11100110,11110100,11001001
E = 11101111,11011101,11101001,11110100
F = 11101111,11111010,11100100,11101001
G = 11101011,11001110,11101001,11101000
H = 11101111,11011011,11101001,11110001
I = 11101011,11010011,11100100,11100100
J = 11101111,11011101,11111100,11101001
K = 11101111,11010011,11110100,11101000
L = 11101011,11100010,11101000,11110010
M = 11101011,11100110,11101000,11110100
N = 11101011,11100100,11101001,11100100
O = 11101011,11101001,11101001,11100100
P = 11101011,11100101,11101001,11100100
Q = 11101011,11100101,11101001,11100100
R = 11101011,11100101,11101001,11100100
S = 11101011,11100101,11101001,11100100
T = 11101011,11101011,11101001,11101001
U = 11101011,11101010,11101000,11101001
V = 11101011,11100010,11110100,11100010
W = 11101011,11100100,11110010,11100100
X = 11101011,11100101,11101000,11100101
Y = 11101011,11101000,11100100,11100010
Z = 11101011,11110101,11101001,11101001
a = 11101011,11100101,11100101,11100100
b = 11101011,11100101,11100101,11100100
c = 11101011,11100101,11101000,11100010
d = 11101011,11011100,11101100,11100010
e = 11101011,11100010,11101000,11100101
f = 11101011,11010010,11110100,11100010
g = 11101011,11111001,11100101,11100010
h = 11101011,11011100,11100101,11110010
i = 11101011,11100101,11101001,11100100
j = 11101011,11101100,11100101,11100100
k = 11101011,11101100,11101001,11100100
l = 10111101,11100101,11101100,11101001
m = 10111101,11100101,11101100,11110001
n = 11101011,11100101,11100101,11100100
o = 11101011,11101100,11101001,11100100
p = 11101011,11101100,11101001,11100100
q = 11101011,11101010,11101001,11101000
r = 11101011,11111001,11100101,11100010
s = 11101011,11100101,11101010,11100100
t = 11101011,11100101,11101001,11100100
u = 11101011,11010011,11101100,11101000
v = 11101011,11101001,11100100,11100100
w = 11101011,10110001,11101010,11100010
x = 11101011,11101100,11101001,11100100
y = 11101011,11101100,11101001,11100100
z = 11101011,11101000,11101001,11100100
10 = 11101011,11101000,11101001,11100010
11 = 11101011,11101000,11101001,11100010
12 = 11101011,11100101,11100101,11100100
13 = 10110101,11100101,11100100,11100100
14 = 11101011,11100101,11100100,11100100
15 = 11101011,11100101,11100100,11100100
16 = 11101011,11100101,11101000,11101001
17 = 11101011,11100101,11101000,11101001
18 = 10111101,11100101,11101100,11100100
19 = 11101011,11100101,11101000,11100100
1A = 11101011,11111000,11100001,11100101
1B = 10111101,11100101,11101100,11100100
1C = 11101011,11100100,11101000,11101001
1D = 11101011,11100101,11101000,11101001
1E = 11101011,11100100,11101000,11101001
1F = 11101011,11101001,11101001,11101000
1G = 11101011,11101001,11101001,11100001
1H = 11101011,11101100,11101001,11100100
1I = 11101011,11100101,11101001,11101000
1J = 11101011,11100101,11100001,11101001
1K = 11101011,11100100,11101001,11101000
1L = 11101011,11101000,11101001,11100100
1M = 11101011,11111010,11101001,11101001
1N = 11101011,11101101,11111001,11100100
1O = 11101011,11101100,11111001,11100100
1P = 11101011,11111010,11100101,11101100
1Q = 11101011,11101110,11101001,11101000
1R = 11101011,11101101,11111010,11100101
1S = 11101011,11101000,11101001,11100001
1T = 11101011,11100010,11101000,11100010
1U = 11101011,11110010,11100101,11100100
1V = 11101011,11100010,11101000,11100100
1W = 11100100,11101001,11101000,11100100

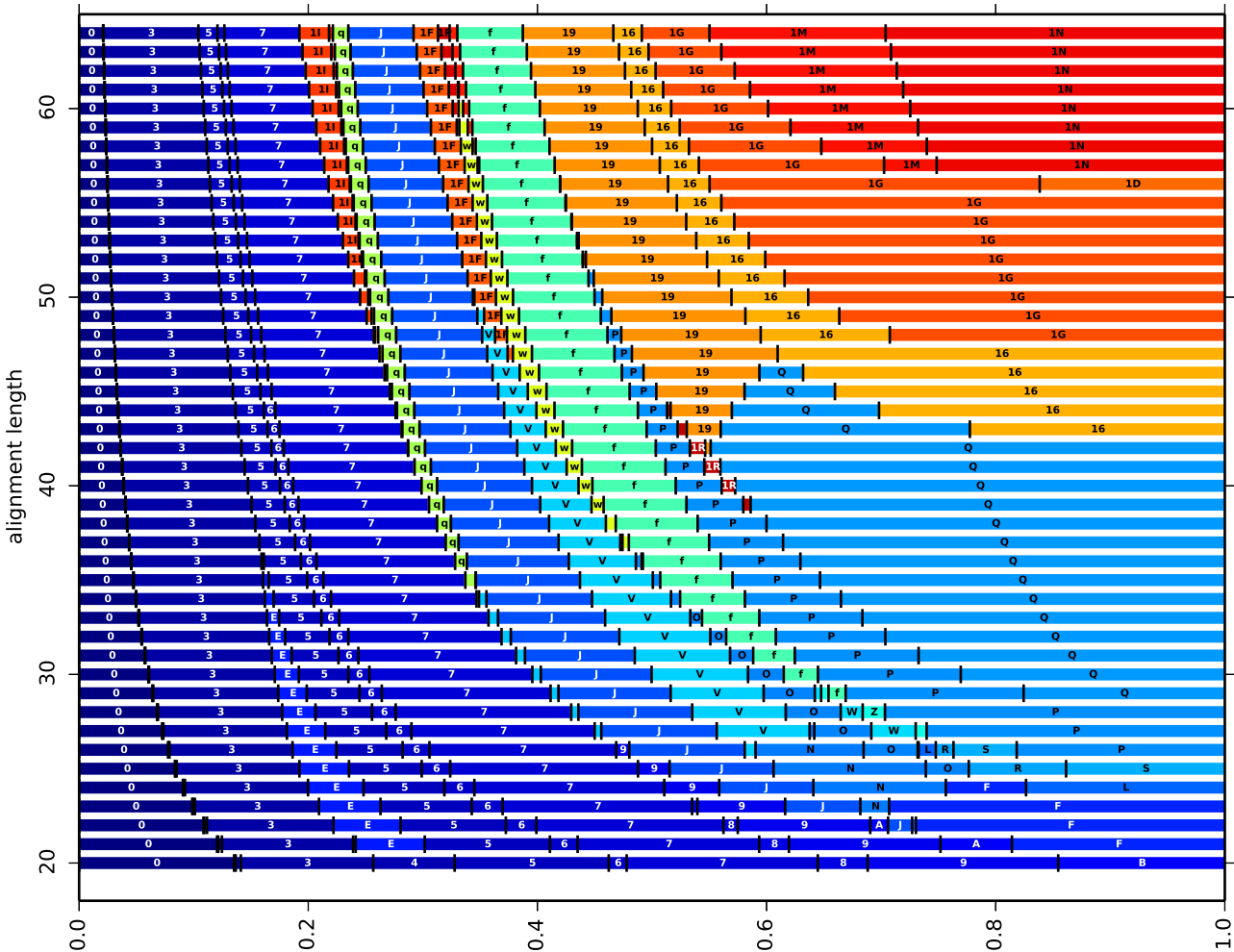
Bernoulli (n:4,w:10)



```

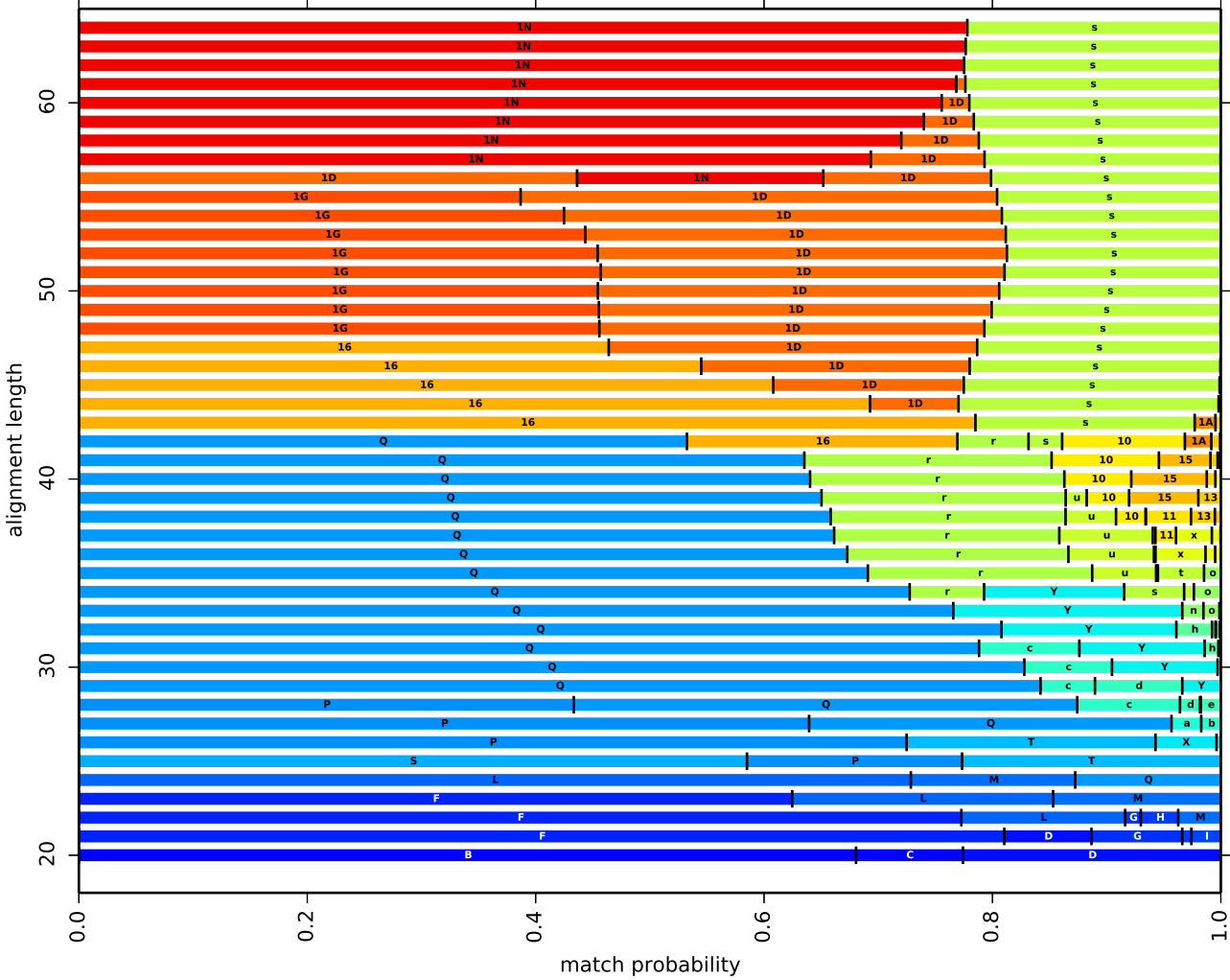
0 = 1111111111,1101111111,1111101111,1111111011
3 = 1111101111,1101011111,1110111011,1111111011
4 = 1101111111,1111011101,1111001111,1111111011
5 = 1111011111,1101110111,1111111011,1111001101
6 = 1110111111,1101111011,1111110011,1110101101
7 = 1110111111,1101111001,1111110011,1111001011
8 = 1110111111,1111110101,1110010101,1111010011
9 = 1101111111,1111010111,1111001101,1110110011
A = 1110111111,1111110101,1110110100,1111,1111000101
B = 1111011111,1101111011,1110100110,1111,1111000010
C = 1111011111,1101111011,1110100010,1111,1111001010
D = 1011110111,1111010110,1110011001,1111,1110100001
E = 1101111111,1111011101,1111101011,1111111011
F = 1111101111,1110111011,1111100010,1111,1110100100
G = 1110111011,1110110010,1111,1110010110,1111010001
H = 1011111011,1111001011,1110110001,1111,1110010001
I = 1110101111,1101100110,1111001100,1111,1111010000
J = 1101111011,1111010011,1110011101,1110100010
K = 1101111011,1111100110,1110001011,1110110100
L = 1110110111,1111001101,1110010101,1110110000
M = 1111011011,1110100110,1111010100,1111,1110100001
N = 1101111011,1111010011,1110011101,1111010001
O = 1101101111,1111011101,1110110010,1111,11100010
P = 1110110111,1110100101,1110110100,1111,1110100001
Q = 1110110111,1110110001,1111000010,1111,1110010000
R = 1101110111,1111100101,1110010101,1111,1110100001
S = 1110110111,1110101100,1111,1110100010,1111010010
T = 1110110111,1110100101,1110100100,1111,1110001001
V = 1101111011,1111010011,1110011101,1111001001
W = 1101110111,1111010110,1110110010,1111,1110010001
X = 1110110111,1111010010,1111,1110010000,1111,1111000010
Y = 1110110111,1110010100,1111,1110100010,1111,1110001000
Z = 1110110111,1110011101,1110100010,1111,1110001001
a = 1110110111,1110001100,1111,1110100001,1111,1110010000
b = 1110110111,1101010001,1111,1110001100,1111,1111001000
c = 1110110111,1111010010,1111,1110001100,1111,1110010000
d = 1110110111,1110101100,1111,1110010000,1111,1111000100
e = 1110110111,1110100010,1111,1110000100,1111,1110100001
f = 1101111011,1101110010,1111,1110001010,1111,1110010001
g = 1110110111,1110100100,1111,1110010001,1111,1110100010
h = 1110110111,1110101100,1111,1110000101,1111,1110100100
i = 1110110111,1110101100,1111,1111010010,1111,1110100100
j = 1110110111,1111100101,1110110101,1111,1110010011
k = 1110110111,1111100101,1110110101,1111,1110010011
l = 1110110111,1111100101,1110110101,1111,1110010011
m = 1110110111,1110100101,1110011010,1111,1110010001
n = 1110110111,1111010001,1110100001,1111,1110100010
o = 1110110111,1110100110,1111,1111010010,1111,1110100110
p = 1110110111,1111110010,1110110101,1111,1110010011
q = 1110110111,1110100101,1110011010,1111,1110010001
r = 1110110111,1110100101,1110011010,1111,1110010001
s = 1110110111,1111010001,1110100010,1111,1110100010
t = 1110110111,1111011001,1110100100,1111,1110100100
u = 1110110111,1110100101,1110100100,1111,1110100001
v = 1110110111,1110100100,1111,1110001010,1111,1110100101
w = 1110110111,1110100100,1111,1110001010,1111,1110100101
x = 1110110111,1110011101,1111,1110100010,1111,1110010000
10 = 1110110111,1111010010,1111,1110001100,1111,1110001001
11 = 1110110111,1110011101,1111,1110100010,1111,1110010000
13 = 1101101111,1111001101,1111,1110100010,1111,1110010001
15 = 1110110111,1110100101,1111,1110100010,1111,1110001001
16 = 1110110111,1110001101,1111,1110100000,1111,1110001001
19 = 1110110111,1101010001,1111,1110000110,1111,1110010010
1A = 1110110111,1110100101,1110100010,1111,1110001001
1D = 1110110111,1110010100,1111,1110100100,1111,1111001001
1F = 1110110111,1111101010,1110101000,1111,1110000100
1G = 1110110111,1110010100,1111,1111000100,1111,1110001001
1I = 1011101111,1110011101,1111,1111100101,1110110101
1M = 1110110111,1110010100,1111,1110110000,1111,1110001001
1N = 1110110111,1110010100,1111,1110110000,1111,1110001001
1P = 1110111011,1111000101,1110100110,1110110100
    
```


\int_0^x Hit Integration (n:4,w:10)



- 0 = 1111111111,1101111111,1111011111,1111111011
- 3 = 1111011111,1101011111,1101111011,1111111011
- 4 = 1101111111,1110111011,1111001111,1111111011
- 5 = 1111011111,1101110111,1111110101,1111010011
- 6 = 1110111111,1101111011,1111110011,1110101011
- 7 = 1110111111,1101111001,1111110011,1111001011
- 8 = 1110111111,1111110101,1110010101,1111010011
- 9 = 1101111111,1111010111,1111001101,1110110011
- A = 1110111111,1111110101,1110110100,1111,1111000101
- B = 1111011111,1110111011,1110100110,1111,1110100011
- E = 1101111111,1111011011,1111010111,1111110101
- F = 1111011111,1110111011,1111010001,1111,1110100101
- J = 1101111011,1111010011,1110011011,1110100011
- L = 1101110111,1111100110,1111001010,1111,1110100001
- N = 1101110111,1111010011,1110011011,1111010001
- O = 1101011111,1111011011,1110100010,1111,1110001000
- P = 1110110111,1110100101,1101101000,1111,1110100001
- Q = 1110110111,1110110001,1111000010,1111,1110001000
- R = 1101110111,1111001011,1110010101,1111,1110100001
- S = 1110110111,1110101100,1111010001,1111,1110100000
- V = 1101110111,1111010011,1110011011,1111001001
- W = 1101110111,1111010110,1110100100,1111,1110010000
- Z = 1110110111,1110011011,1110100010,1111,1110010010
- f = 1101111011,1101110010,1111000101,1110100100
- q = 1101011111,1111110011,1101101101,1111001010
- w = 1101110111,1110110010,1111000101,1110101001
- 16 = 1110110101,1110001010,1101101000,1111,1111000100
- 19 = 1110110101,1101010001,1110100011,1110001001
- 1D = 1110110101,1110010100,1111,1010100100,1111,1110001001
- 1F = 1101101111,1111011011,1101010000,1111,1111000101
- 1G = 1110110101,1110010100,1111,1101100010,1111,1110001001
- 1I = 1011101111,1110011101,1111110011,1101101011
- 1M = 1110110101,1110010100,1111,1101100001,1111,1110001001
- 1N = 1110110101,1110010100,1111,1101010000,1111,1110001001
- 1P = 1101111011,1111000101,1011001001,1110110101
- 1R = 1110111011,1110100101,1101101000,1111,1110001001

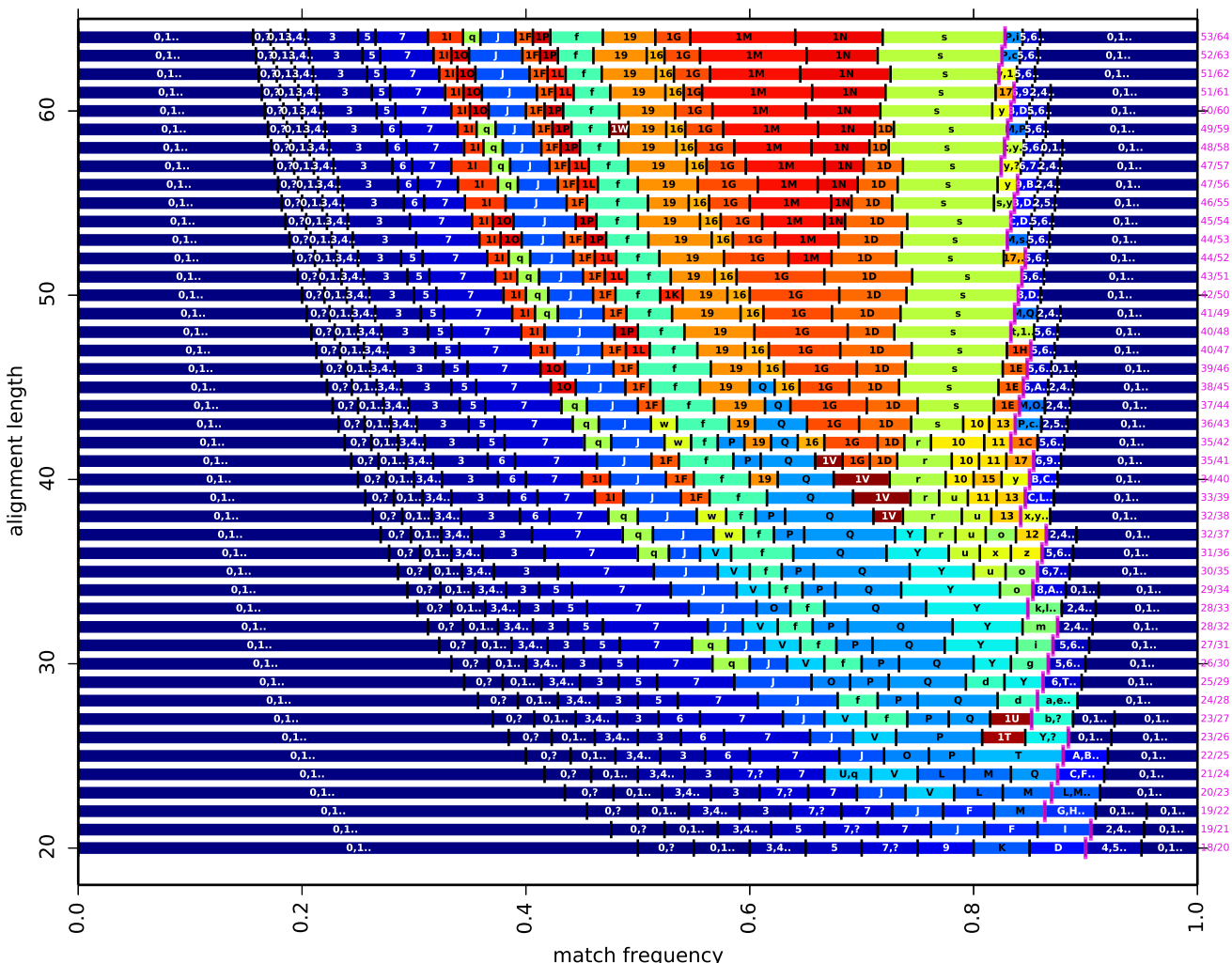
\int_x^1 Hit Integration (n:4,w:10)



```

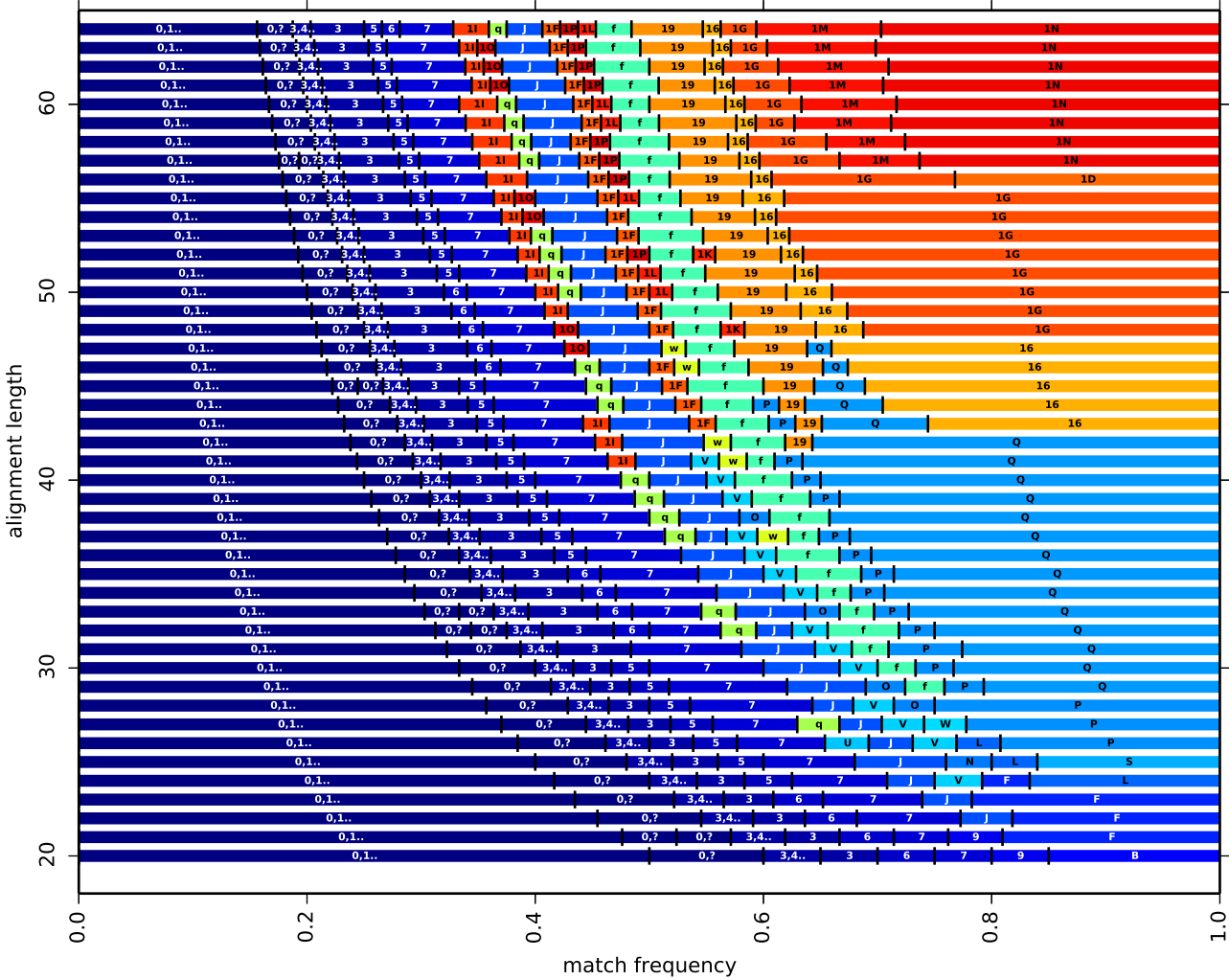
B = 11111011111,111011110111,111010011010111,111101000110111
C = 11111011111,111011110111,111010001011111,1111001010010111
D = 101111101111,11110101110111,111001100101111,11101101000010111
F = 11111011111,111011110111,111101000101111,11101001010010111
G = 110111101111,1110110010111,11110010111011,111101000010001111
H = 101111110111,11110010110111,111011100010111,1111001000100001111
I = 111010111111,11011001110111,111100110010111,1111010000010010111
L = 110111101111,1111100110111,111001010101111,111011000010010111
M = 111101101111,11101001110111,1111010100010111,1110110000010010111
P = 111011101111,111010010110111,11011011000010111,1111010000010010111
Q = 111011101111,1110110100011011,1111000011010111,11110010001000010111
S = 111011011111,11101011100111,111011000110111,11101001000001111
T = 111011101111,111010001010111,11101001100001111,1111000100010010111
X = 111011101111,111101001010111,11101001100001111,11110000100010010111
Y = 1110110110111,11100101010001111,11010100010000110111,1111000100010001000111
a = 111011010111,1111000110010111,111010100001100111,1111001000100010111
b = 111011011011,110101100010111,1110100011100111,11111001000000010111
c = 111011011111,111101001010111,11101000110010111,11110010000010010111
d = 111011011111,1110101100100111,1110010010000110111,11110001000100001111
e = 111101101111,110110001010111,1111000010001010111,11101010000100100111
h = 111011101111,1110100101001111,11010010001100010111,11110100010001001011
n = 111011101111,11101101100011,11101000010110111,1110100100000001111
o = 111010111111,11010011110111,11111011001011,111010100100011011
r = 111011101111,111010010110111,11100110100011011,11110010000100010111
s = 111011101111,11110100100010111,11010001100101001011,11010100010010010111
t = 111011011111,1111101110011,1110100100101111,11101010010001001111
u = 111011011111,111010010110111,11101001100101011,11101001000010001111
x = 111101101111,110011110111,1111010100011011,11100100100001010111
10 = 111011101111,111101001010111,11101000110010111,11100010010010010111
1A = 111101101111,101100111010111,1111010100011011,1111001001000010111
13 = 110111011111,1111001110111,11110100100010111,1110010001001010111
15 = 111011101111,111010010110111,1101101100010111,1110001000100101111
16 = 1110110110111,1110001101010111,110110100000110111,11110001001001000111
1A = 111011011111,111101001010111,11101000110010111,1110010010010010111
1D = 111011011111,11100101010001111,1010110010000110111,111100010010001000111
1G = 1110110110111,11100101010001111,101110001000011011,11110001001001000111
1N = 1110110110111,11100101010001111,11010110000100110011,11110001001001000111
    
```

Dirac (n:4,w:10)



0 = 1111111111,1101111111,1111101111,1111110111
 1 = 1111111111,1101111111,1111101111,1111101011
 2 = 1111111111,1101101111,1111011011,1111101011
 3 = 1111011111,1101011111,1110111011,1111110101
 4 = 1101111111,1110110111,1111001111,1111110101
 5 = 1111011111,1101101111,1111110101,1111010011
 6 = 1101111111,1101111011,1111100101,1110101101
 7 = 1111111111,1101111001,1111110010,1111001011
 8 = 1101111111,1111101011,1110010101,1111010011
 9 = 1101111111,1111010111,1111001101,1110110001
 A = 1101111111,1111101011,1110110001,1111000101
 B = 1111101111,1110111011,1110100101,1111010001
 C = 1111011111,1110111011,1110100010,1111100101
 D = 1011110111,1111010101,1110010010,1111010100
 E = 1111111111,1110110111,1111101111,1111101101
 F = 1111101111,1110111011,1111010001,1111010010
 G = 1101110111,1110100101,1111001011,1111010000
 H = 1011110111,1110010101,1110110001,1111001000
 I = 1110101111,1101100110,1111001101,1111010000
 J = 1101110111,1111010011,1110011011,1110100010
 K = 1101110111,1111001101,1110001011,1110101000
 L = 1101110111,1111001011,1110010101,1110100001
 M = 1110101111,1110011011,1110101000,1110100000
 N = 1101110111,1111001111,1110011011,1111010000
 O = 1101101111,1111011011,1110100010,1111000100
 P = 1110110111,1110010101,1110101000,1111010000
 Q = 1110110111,1110101000,1111000010,1111001000
 R = 1101110111,1111001011,1110010101,1111010000
 S = 1110101111,1110101001,1110100010,1111010000
 T = 1110110111,1111010010,1110100100,1111000100
 U = 1110110111,1111101001,1101100111,1111000101
 V = 1101110111,1111010011,1110011011,1111001001
 W = 1110110111,1110101101,1110100101,1111001000
 X = 1110110111,1111001011,1110011000,1111000010
 Y = 1110110111,1110010100,1110100010,1111000010
 Z = 1110101111,1110011011,1110100010,1111000010
 a = 1110101011,1111000101,1110100001,1111001000
 b = 1110101011,1110100010,1111000011,1111001000
 c = 1110110111,1110100101,1110100010,1111001000
 d = 1110101011,1110101000,1110010000,1111000100
 e = 1110101011,1110100010,1111000010,1110100000
 f = 1101110111,1101100101,1111000101,1110100100
 g = 1110101011,1110100100,1110001000,1111,1110100001
 h = 1110110111,1110010100,1110100010,1111001000
 i = 1110111111,1111101011,1110100101,1110100100
 j = 1110111111,1101110101,1111010010,1111000010
 k = 1101101111,1111110011,1110010110,1110100110
 l = 1110111111,1111101011,1101000101,1110101001
 m = 1110111111,1111101011,1110011001,1111001010
 n = 1110110111,1111010100,1110100010,1110100100
 o = 1110101111,1101001101,1111101001,1110100100
 p = 1110111111,1111101011,1110100100,1111010000
 q = 1101011111,1111100101,1101101010,1111001001
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 s = 1110110111,1110100100,1110100010,1110100010
 t = 1110110111,1111011001,1110100100,1111,1110100100
 u = 1110110111,1110010101,1110011001,1110100000
 v = 1110101111,1110011010,1110100100,1110010000
 w = 1110110111,1110100101,1111000110,1110100101
 x = 1110101111,1100111011,1110100010,1110010000
 y = 1110101111,1111011001,1110010010,1111001000
 z = 1110101111,1101001110,1111101001,1110100000
 10 = 1110110111,1110100101,1110100010,1111000100
 11 = 1110101111,1101001101,1111010001,1110010000
 12 = 1111011111,1110111011,1110100101,1110100101
 13 = 1101101111,1110011011,1110100101,1110010001
 14 = 1110101111,1111001010,1110101001,1110010001
 15 = 1110110111,1110100101,1101101000,1111000100
 16 = 1110110111,1110001010,1110101000,1111,1110001000
 17 = 1110101111,1111011001,1110100100,1111,1110100000
 18 = 1110101111,1101110011,1110011011,1111100101
 19 = 1110101011,1101010001,1111010001,1110001000
 1A = 1110110111,1110100101,1110100010,1111001000
 1B = 1110110111,1110101000,1110100001,1110100100
 1C = 1110101111,1111011001,1110100100,1111,1110100000
 1D = 1110101011,1110010100,1110101000,1111,1110000100
 1E = 1110101111,1110101100,1111010001,1110100000
 1F = 1110101111,1111101011,1101010000,1111,1110001001
 1G = 1110101011,1110010100,111011000100,1111,1110001001
 1H = 1110101111,1110101100,1110100010,1110100010
 1I = 1011011111,1110011101,1111110010,1101010101
 1J = 1110101111,1101110101,1110100110,1111101001
 1K = 1110110111,1101100100,1111,1110001010,1110010000
 1L = 1101110111,1101100100,1111,1110001010,1101001000
 1M = 1110101011,1110010100,1111,1101010001,1111000010
 1N = 1110101011,1110010100,1111,1101010001,1110001000
 1O = 1101011111,1111101001,1100101101,1111001101
 1P = 1110110111,1111000101,1010011001,1110101000
 1Q = 1110101111,1110101100,1110100100,1110101000
 1R = 1110101111,1110100101,1110101000,1111,1110001001
 1S = 1101110111,1110100010,1110101100,1110010001
 1T = 1110101011,1110100101,1110001000,1111,1110001000
 1U = 1110101111,1110100101,1110100100,1111,1110001000
 1V = 1110101011,1110001010,1110100001,1111000100
 1W = 1110110111,1101100100,1111,1110001010,1110100010

$$\sum_0^x \text{Heaviside}(n:4,w:10)$$

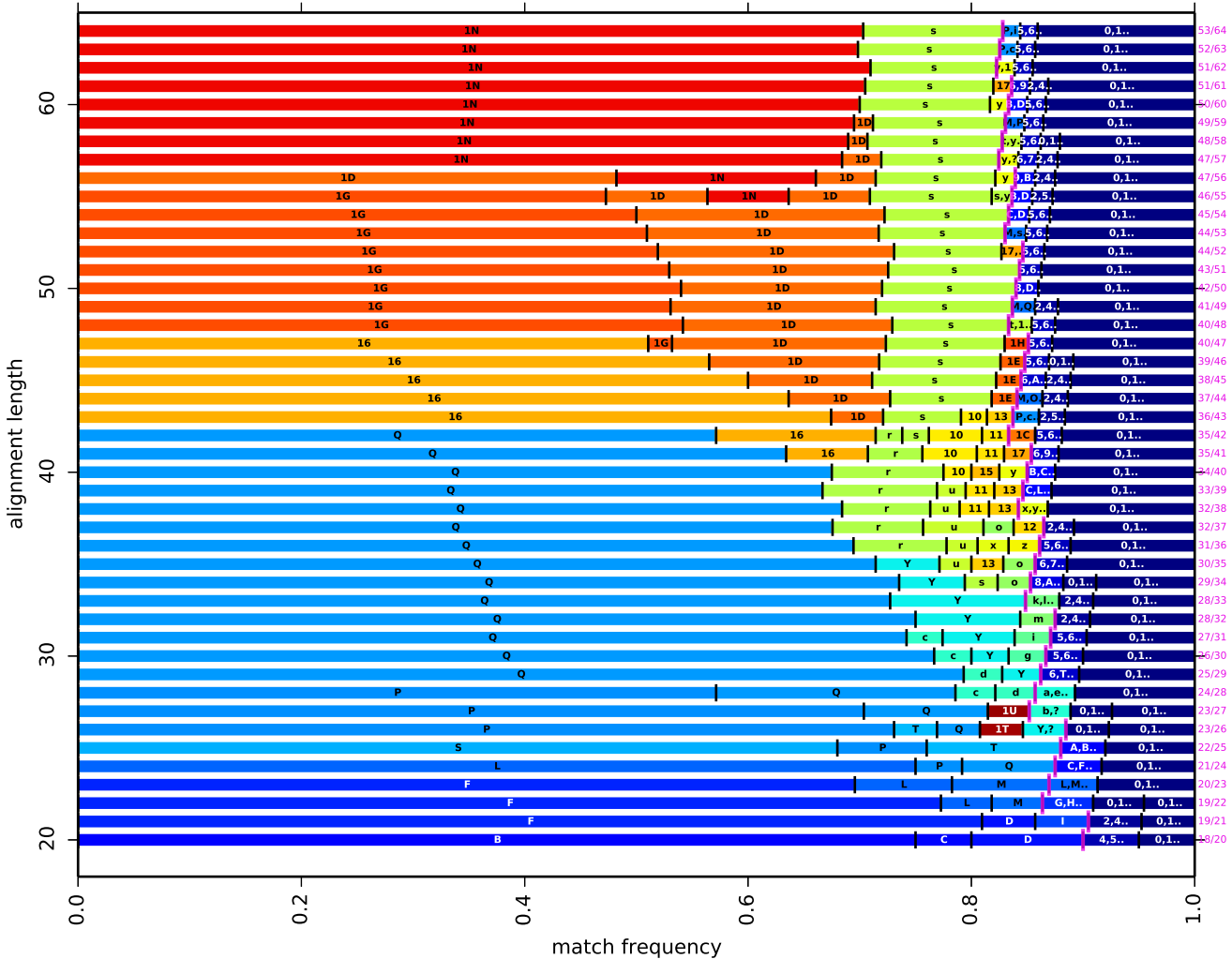


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3 = 1111011111,1101011111,1110111011,1111110101
4 = 1101111111,1110111011,1111001111,1111110101
5 = 1111011111,1101110111,1111110101,1111010011
6 = 1110111111,1101111011,1111100110,1110101011
7 = 1110111111,1101111001,1111100110,1111001011
8 = 1110111111,1111101011,1110011011,1111010011
9 = 1101111111,1111010111,1111001011,1110110011
A = 1110111111,1111101011,1110110100,1111100011
B = 1111101111,1101111011,1110100110,1111100011
C = 1111011111,1101111011,1110100010,1111100101
D = 1011110111,1111010111,1110011011,1110100011
E = 1101111111,1111011011,1111101011,1111101011
F = 1111101111,1101111011,1111010010,1111101001
G = 1101111011,1110110011,1111001011,1111010001
H = 1011111011,1111001011,1110110001,1111001000
I = 1110111111,1101001101,1111001101,1111010000
J = 1101111011,1111010011,1110011011,1110100010
K = 1101110111,1111100110,1110001011,1110110001
L = 1101110111,1111100110,1110010101,1110110000
M = 1110110111,1110100110,1111010100,1111101000
N = 1011110111,1111010011,1110011011,1111010001
O = 1101101111,1111011011,1110100010,1111000010
P = 1110110111,1110100101,1101101000,1111101000
Q = 1110110111,1110101000,1111100001,1111000010
R = 1101110111,1111100101,1110010101,1111010000
S = 1110101111,1110101100,1110110001,1111010000
T = 1110110111,1110100101,1110100100,1111100010
U = 1110110111,1111101001,1101101001,1111000101
V = 1110110111,1111010011,1110011011,1111001001
W = 1101110111,1111010101,1110100100,1111100100
X = 1110110111,1110100101,1110100100,1111100001
Y = 1110110111,1110010100,1111101000,1111100010
Z = 1111010111,1110011011,1110100010,1111100010
a = 1110101011,1111000110,1110101000,1111100100
b = 1110110111,1101010001,1110100011,1111001000
c = 1110110111,1110100101,1110100010,1111001000
d = 1110110111,1110101001,1110010000,1111100010
e = 1110110111,1101100010,1111100001,1110101000
f = 1101110111,1111100101,1110001010,1110100100
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h = 1110110111,1110100100,1110100100,1111101000
i = 1110111111,1111101011,1110001001,1110100100
j = 1110111111,1101110101,1111010010,1110100010
k = 1101101111,1111110011,1110010110,1110100110
l = 1110111111,1111101011,1101000110,1110101001
m = 1110111111,1111101011,1110100110,1111001010
n = 1110110111,1110101100,1110100010,1110100010
o = 1110101111,1101001110,1111101001,1110101000
p = 1110111111,1111101011,1110100101,1110100010
q = 1101011111,1111100110,1101101010,1111001001
r = 1110110111,1110100101,1110011000,1111101000
s = 1110110111,1110100100,1110100010,1111001000
t = 1110101111,1111011001,1110100101,1110101000
u = 1110110111,1110100101,1110100100,1111010100
v = 1110101111,1111001101,1110100100,1111001000
w = 1110110111,1110100101,1111000101,1110100100
x = 1110110111,1100111011,1110100010,1111001000
y = 1110101111,1111101100,1110100100,1111001000
z = 1110101111,1101001110,1111101001,1101010001
10 = 1110110111,1111010010,1110100010,1110001000
11 = 1110101011,1110011010,1111010001,1111001000
12 = 1111011111,1110111011,1110100101,1110101000
13 = 1101101111,1111001101,1110100100,1111001000
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15 = 1110110111,1110100101,1110101000,1111000010
16 = 1110101011,1110001010,1110101000,1111100010
17 = 1110101111,1111011001,1110100101,1110101000
18 = 1110101111,1101110011,1110011011,1111100101
19 = 1110101011,1101010001,1110100011,1110001001
1A = 1110110111,1110100101,1110100010,1111001000
1B = 1110110111,1110101000,1110100001,1110100100
1C = 1110101111,1111011001,1110100101,1110101000
1D = 1110101011,1110010100,1110101000,1111100100
1E = 1110101111,1110101000,1110100010,1111001000
1F = 1110101111,1111011011,1110100011,1110001001
1G = 1110101011,1110010100,1110110001,1110001000
1H = 1110101111,1110101100,1110100010,1110101000
1I = 1011011111,1110011101,1111110010,1101010101
1J = 1110101111,1101110101,1110100110,1111010010
1K = 1110111011,1110100101,1111000101,1110100010
1L = 1110111011,1111001001,1110001010,1110101100
1M = 1110101011,1110010100,1110101000,1111100010
1N = 1110101011,1110010100,1110101000,1111100010
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1P = 1110111011,1111000101,1110010011,1110101000
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1T = 1110110111,1110100101,1110001000,1111100010
1U = 1110101111,1110100101,1111001000,1111000100
1V = 1110101011,1110001010,1110100001,1111000100
1W = 1110111011,1111100101,1111000101,1110100010

```

$$\sum_x \text{Heaviside}(n;4,w:10)$$

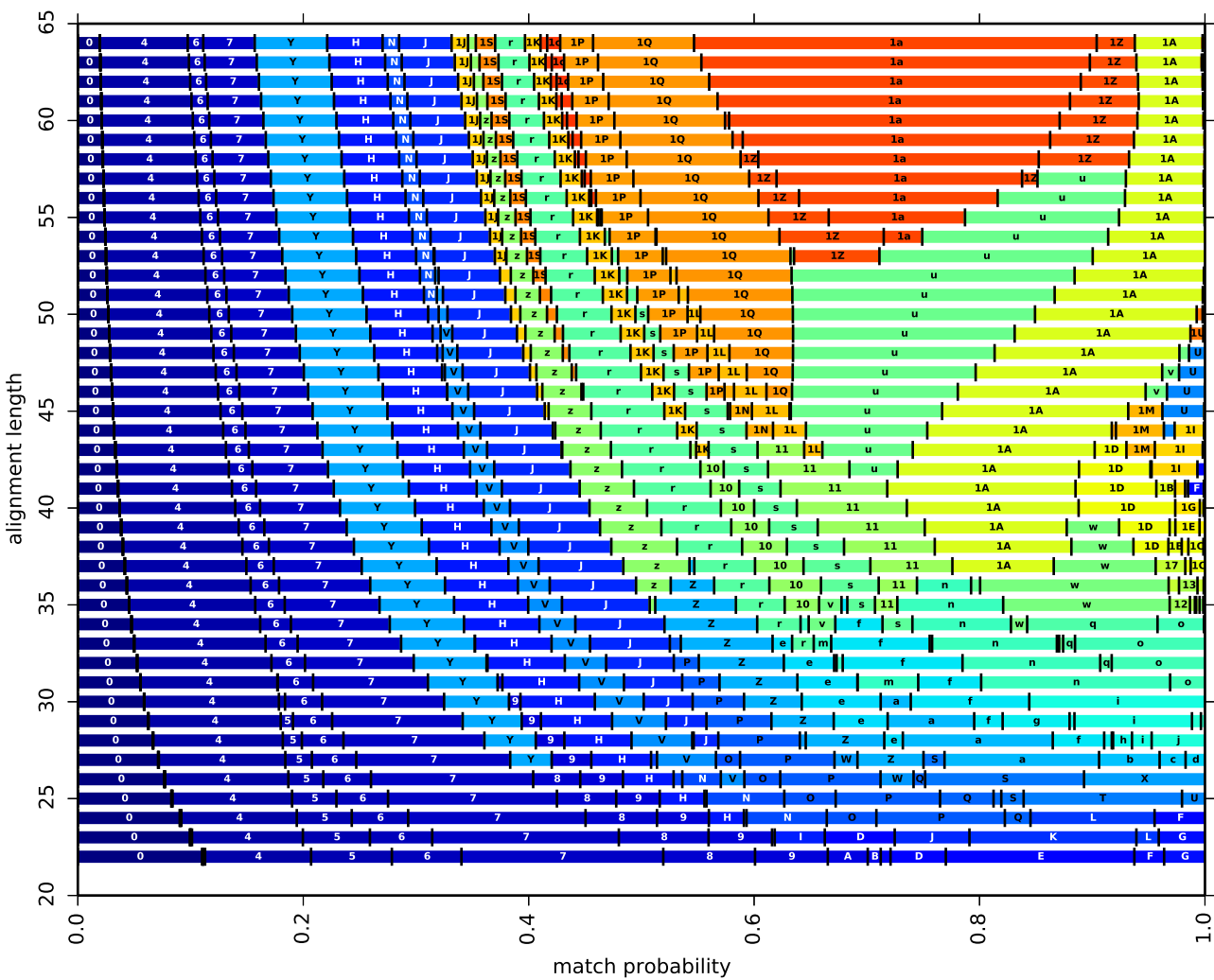


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3 = 1111101111,1101011111,111011110111,11111101011
4 = 1101111111,111101110111,111100111111,11111101011
5 = 1111011111,1101101111,11111101011,11110100110111
6 = 1110111111,11011110111,111110011011,11101011010111
7 = 1110111111,110111100111,111110011011,11110010101111
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A = 1110111111,1111101011,11101101000111,111100010110111
B = 1111101111,11101111011,11101001101011,111101000110111
C = 1111011111,11101111011,11101000101111,111100101001111
D = 1011110111,111101011011,11100110010111,1110110100010111
E = 1101111111,11110111011,11111010111,11111101011
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M = 1111010111,111010011011,11101010001011,111011000010010111
N = 1101111011,111101001111,11100111011011,11110100010001111
O = 1101101111,111101110101,11101100011011,11110001010001111
P = 1110111011,1110100101011,110110110001011,111101000010010111
Q = 1110110111,1110110100011011,111100001101011,11110010001000010111
R = 1101110111,111110011011,11100101010111,111101000010010111
S = 1110110111,111010110011,11101100011011,111101001000001111
T = 1110110111,11110100101011,1110100110000111,1111000100010010111
U = 1110111011,111110110011,1101101001111,111100011010111
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W = 1101111011,111101011011,11101100100111,111100100001010111
X = 1110110111,11110100101011,111011000110000111,11110000100010010111
Y = 1110110111,111001010000111,1101010001000011011,111100010010001000111
Z = 1110110111,1110011101011,111010100010111,111100010010010111
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f = 1110110111,11011100100111,1111000101011011,111010010010001111
g = 1110110111,111101001100101,1100010100010001111,11101100001001000111
h = 1110110111,11101001000111,1101001000110001011,11110100010001001011
i = 1110111111,1111101011,11101001100111,111010010100100111
j = 1110111111,110111101011,111101001001011,1110100010010100111
k = 1110111111,111111001011,111001010111011,111010011100111
l = 1110111111,1111101011,11011000110111,111010110011011
m = 1110111111,1111101011,11101001100111,111100101011011
n = 1110111011,11110101100011,111010001011011,11101001001000001111
o = 1110111111,11010011101011,11111011001011,1110101001000101011
p = 1110111111,1111101011,11101001001011,1110100010010100111
q = 1101011111,111111001011,1101101101011,111100101001111
r = 1110111011,1110100101011,11100110100011011,11110010000100010111
s = 1110111011,1111010010001011,11010001100101001011,111010100010010010111
t = 1110110111,1111101110011,111010010010111,11101010010001001111
u = 1110110111,1110100101011,11101001100101011,11101001000010001111
v = 1110110111,11110011101011,111010100110011,11100100100000101111
w = 1101111011,11101100100111,11110001011011,111010100010100111
x = 1110110111,11001111011,1111010100011011,11100100100001010111
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14 = 1110110111,11111001010011,1110101100101011,1110011001000101101
15 = 1110111011,11101001011011,110110110001011,1110001000100101111
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17 = 1110111111,111101110011,111010010010111,1110110100000010111
18 = 1110101111,110111100111,1110011011011,11111100101011
19 = 1110110111,11010110001011,11101000110011,1110001001001010111
1A = 1110110111,11110100101011,1110100011001011,1110010010010010111
1B = 1110110111,1111011000011,111010000101011,1110100100100001111
1C = 1110110111,111101110011,111010010010111,11101101000000100111
1D = 1110110111,1110010101000111,10101100100001011,11110001001001000111
1E = 1110110111,11101110001011,1110110001101011,1110100100000110111
1F = 1110110111,111101101011,11010100001111,1111000101000111
1G = 1110110111,111001010000111,111110001000011011,11110001001001000111
1H = 1110110111,1110101110001011,1110110001101011,11101001000001001111
1I = 1011011111,111001111011,111111001011,11011010101111
1J = 1110111111,110111101011,11101100111011,11111011001011
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1L = 1101111011,11011100100111,111100010101011,11101001010001111
1M = 1110110111,111001010000111,11010110000100011011,11110001001001000111
1N = 1110110111,111001010000111,1101011000010010011,11110001001001000111
1O = 1101011111,111110100111,1100101111011,11110011101011
1P = 1101111011,11111000101011,101100110011011,111010110000111
1Q = 1110110111,111011100101,1110110010100111,1111010100000011111
1R = 1110110111,1110100101011,1101101100001011,1111000100010010111
1S = 1110111011,11110100011011,1110101101001011,1110010001010001111
1T = 1110110111,11110100101011,1110100110000111,111100010001000111
1U = 1110110111,1110100101011,1111010010001011,11110001000100001111
1V = 1110110111,111000110101011,1110110000100111,11110001001001000111
1W = 1110111011,11011100100111,1111000101101011,1110101000100010111

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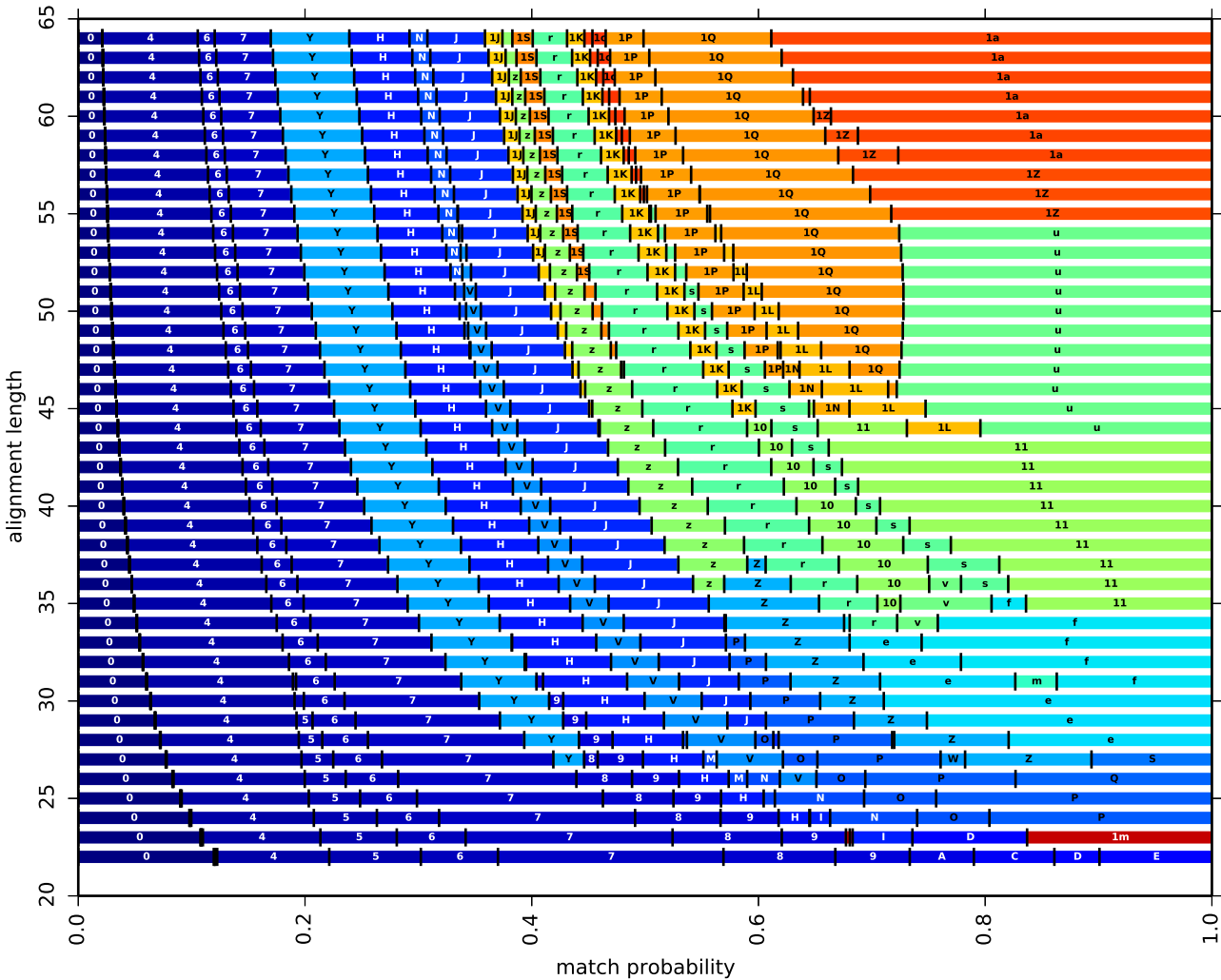
Bernoulli (n:4,w:11)



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6 = 1110111111,1101111011,1111101101,1111000101
7 = 1110111111,1111101101,1101111001,1111010010
8 = 1110111111,1111101101,1101111001,1111010010
9 = 1101111111,1111001011,1110101100,1110011001
A = 1110111111,1111101101,1111001000,11111,1110101100
B = 1101111101,1111001011,1110111001,1110100001
D = 1111011111,1110111010,1110110001,1111010100
E = 1110110111,1111011011,1101110000,1111,1110001001
F = 1110111011,1110100111,1110110100,1111,1110100001
G = 1110111111,1110111010,1111010011,1110100100
H = 1101111011,1111010111,1110110010,1111001001
I = 1110111011,1111010111,1101001011,1111010000
J = 1110110111,1111011100,1110101001,1111000101
K = 1101111011,1111010111,1110110010,1110100000
L = 1110111011,1110100111,1110110100,1111000100
N = 1110111011,1111010111,1110110010,1111000011
O = 1110111011,1111010111,1110110010,1111010010
P = 1110110111,1110101111,1110110001,1111010010
Q = 1110110111,1110110001,1111000110,1111010010
S = 1110110111,1111001110,1111010100,1111,1110100100
T = 1110110111,1110100111,1110010100,1111001000
U = 1110110111,1101100010,1110110100,1111010100
V = 1110110111,1110101111,1110110010,1111010001
W = 1101110111,1111001011,1110101100,1110110000
X = 1110110111,1111001110,1111010100,1111001000
Y = 1110110111,1101111101,1111001110,1110110011
Z = 1110110111,1110110001,1111000110,1111001000
a = 1110110111,1101100010,1110110100,1111010010
b = 1110111011,1110010110,1110110000,1111,1111000010
c = 1110110111,1111000101,1110001101,1111010001
d = 1110110111,1111001000,1110001101,1111010000
e = 1110110111,1111001110,1110101001,1111001000
f = 1110110111,1110100101,1110100110,1111000100
g = 1110110111,1110100101,1110110000,1111,1111000100
h = 1110110111,1110010110,1110110001,1111000100
i = 1110110111,1110001100,1111,1110100010
j = 1101110111,1110011000,1111,1110100010
m = 1110110111,1101100010,1110110010,1111010010
n = 1110110111,1110011000,1111,1110100100
o = 1110110111,1111010001,1110110000,1111000100
q = 1110110111,1110001101,1110110001,1111000100
r = 1110110111,1101100010,1110110100,1111010010
s = 1101110111,1110100110,1111001000,1111,1111000010
u = 1110110111,1110010110,1110110000,1111,1111000100
v = 1110110111,1101100010,1110100110,1111001000
w = 1110110111,1111001010,1110110001,1111001000
z = 1110110111,1101110001,1111000110,1111001000
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11 = 1110110111,1110110001,1110100110,1111001000
12 = 1110110111,1111001010,1110110100,1111000100
13 = 1110110111,1110010100,1111,1111010001
17 = 1110110111,1111001010,1110110100,1111000100
1A = 1110110111,1110110010,1110100100,1111,1101100001
1B = 1110110111,1110010110,1110101000,1111,1110100010
1C = 1101110111,1111001010,1110101100,1111,1110100000
1D = 1110110111,1110010110,1110101000,1111,1110001000
1E = 1110110111,1110100111,1111010100,1111,1110010001
1G = 1110110111,1110100111,1110101000,1111,1110001001
1I = 1110110111,1101100010,1110110001,1110100100
1J = 1110110111,1101100010,1111000110,1110100100
1K = 1101110111,1110100110,1111001000,1111,1111000001
1L = 1110110111,1101100110,1110100011,1111001000
1M = 1110110111,1101100010,1110110010,1111010000
1N = 1110110111,1110011000,1111010001,1111010001
1P = 1101110111,1110011000,1111,1111000001
1Q = 1101110111,1110001010,1110110100,1111,1110100010
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1a = 1110110111,1110001000,1111000100,1111,1110100000
1c = 1110110111,1110011000,1111000101,1110010001
    
```

$$\int_0^x \text{Hit Integration (n:4,w:11)}$$

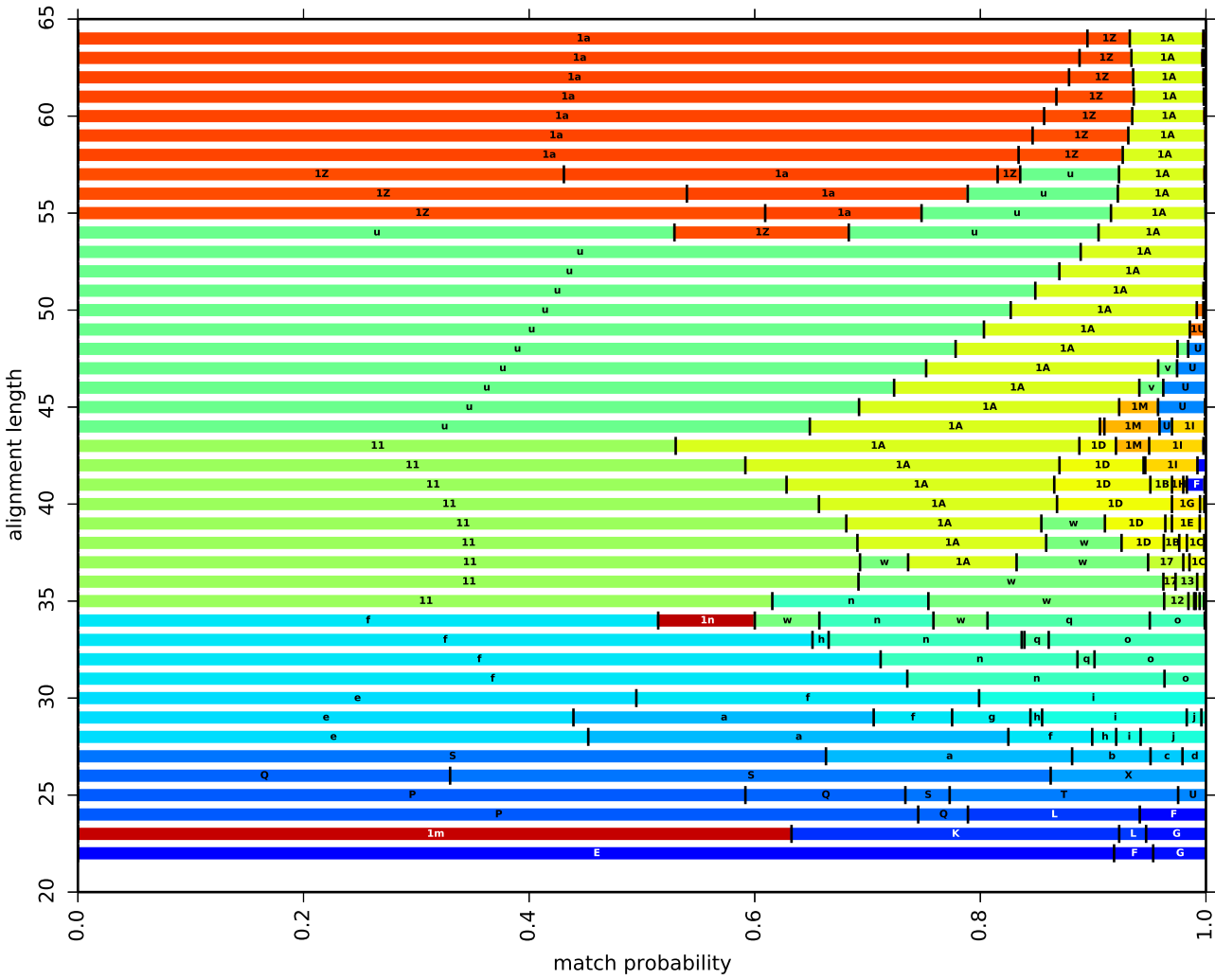


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5 = 1101111111,1110111011,1111011101,1111100111
6 = 1101111111,1101111011,1111101101,1111010011
7 = 1101111111,1111101101,1101111001,1111010011
8 = 1101111111,1111101101,1101111001,1111010011
9 = 1101111111,1111001011,1110101100,1110011001
A = 1101111111,1111101011,1110010001,1111101011
C = 1111011111,1110111001,1110101011,1110100010
D = 1111011111,1110111010,1110100010,1111010100
E = 1101111011,1111011101,1110110000,1111100010
H = 1101111011,1111010110,1110110010,1111010101
I = 1101110111,1111010110,1101001011,1111010001
J = 1110101111,1110111001,1110100100,1111000101
M = 1101111101,1111100111,1100111101,1110100010
N = 1101111011,1111010110,1110110010,1111000101
O = 1110111011,1111010110,1110100100,1111010010
P = 1110110111,1110101100,1110110001,1110110010
Q = 1110101111,1110110001,1110001101,1111010010
S = 1110101111,1111001101,1111010100,1111010010
V = 1101111011,1111010110,1110110010,1111100010
W = 1101110111,1111001010,1110101100,1111010000
Y = 1101110111,1101111010,1111001101,1110110011
Z = 1110101111,1110110001,1111000110,1111001000
e = 1110101111,1111001101,1111010010,1111001000
f = 1101110111,1111010010,1110100100,1111000100
m = 1111011011,1101100010,1110100100,1111100100
r = 1110111011,1101100010,1110011010,1111010010
s = 1101110111,1110011010,1111001000,1111010000
u = 1110101011,1110010010,1110101000,1111000100
v = 1110111011,1101100010,1110100100,1111001000
z = 1110101111,1101100010,1111000110,1111001000
10 = 1110110111,1101100010,1110100100,1111010010
11 = 1110110111,1101110001,1110100100,1111001000
1J = 1110110111,1101100010,1111000110,1110100100
1K = 1101110111,1101001010,1111001000,1111010000
1L = 1110110111,1101010010,1110100011,1111001000
1N = 1101101011,1110011000,1111010010,1111000100
1P = 1101101011,1100110001,1111000010,1111000100
1Q = 1101101011,1100010100,1111010100,1110100010
1S = 1110111011,1101100010,1111010010,1110100100
1Z = 1110101011,1110011000,1111010000,1111001000
1a = 1110101011,1110001000,1111000100,1111001000
1c = 1101101011,1100110001,1111000010,1110010001
1m = 1110110111,1111101010,1111001000,1111010001

```

\int_x^1 Hit Integration (n:4,w:11)

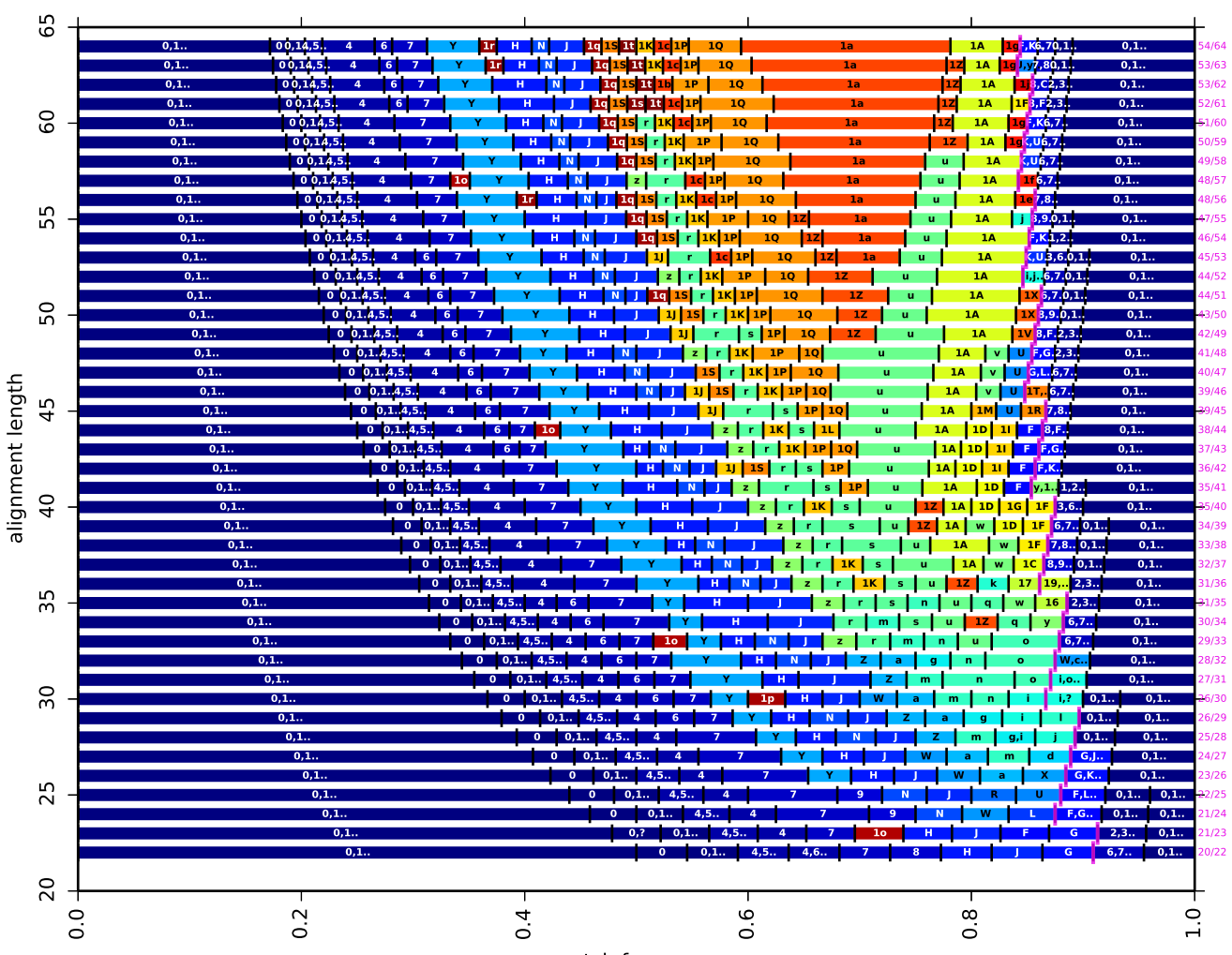


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E = 110111011111,111101110111,1101110000101111,11110001011001111
F = 1110111011111,111010011110111,11110110100010111,11110100001010010111
G = 111101111111,111011101001111,1111010011101011,11110100100001001111
K = 110111101111,11110101111011,1110111001001111,1110110000010101111
L = 111011101111,111010011110111,11110110100010111,11110001000100101111
P = 111101101111,111010111100111,1110111000110111,111011001000101111
Q = 111011011111,1110111000110111,111100011101011,1111010010001001111
S = 111011011111,111100111010111,1111010100010111,11110100100100001111
T = 111011101111,111101001110111,11110011010010111,11110010000100101111
U = 111101110111,11011100010111011,11101001100101111,111010100100001001111
X = 111011011111,111100111101011,1111010100010111,111100100100000101111
a = 111011101111,11011100010111011,11101001100101111,11110100100001001111
b = 111101110111,11100101101001111,111011000001110111,111110000100010010111
c = 1110110110111,11111000100110111,11100011010100111,1111010001000001001111
d = 1110110110111,11111001000110111,11100011010100111,1111010001000001001111
e = 111011011111,111100111010111,11110101001100111,111100100100000101111
f = 111011101111,1111010010101111,11101001101001011,111100010001000101111
g = 111011101111,11110100101001111,110110110000110111,111100010001001001111
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i = 111101101111,11101001101001111,111011000100110111,1111100001000100001111
j = 1111101101111,11100111000101011,111101000010010111,111010100010100001111
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o = 11101011011011,11110110001010011,111011000001101000111,1111000101000001001111
q = 111011101111,11110010110100111,1110110100010010111,1111000100010001001111
u = 1110110110111,111100100110010111,11101011000010010111,1111001000101000100111
v = 111101110111,11011100010111011,11101001100101111,111100100001001010111
w = 111011101111,11110010110100111,11011010001101011,1111000100010001001111
11 = 1110110111011,11101110001011011,111010010110001111,111101000100010001111
12 = 111011101111,11110010110100111,1110110100001010111,1111000100010001001111
13 = 111011101111,11100101101001111,11110110001010011,1111000100010001001111
17 = 111011101111,11110010110101011,1110110100010010111,1111000100010001001111
1A = 1110110101111,11101011001100111,111010011000010010111,1101101000010100010111
1B = 111011101111,111100101101011,1101101000110111,111010100010000011011
1C = 110111101111,111110010110111,11101011100100111,11101101000001010111
1D = 111011101111,111100101101011,110110101000110111,1111000100010010010111
1E = 111011101111,111010011110111,11110110100010111,111100100001010010111
1G = 111011101111,111010011110111,11110110100010111,11110001001010010111
1H = 111101110111,11011001010111011,11110100110010111,111010100010010100111
1I = 111101110111,11011100010111011,11101001100101111,11101010001010010111
1M = 111101110111,11011100010111011,11101001100101111,111010000100101001111
1U = 111101110111,11101000011010111,111011011000010111,1111000101000100100111
1Z = 111010110110111,111010011001010111,11101100010000010111,11100010100100001111
1a = 1110101101111,11100011001010111,1110001010010010001111,1110110001000001101011
1m = 111011101111,1111101101011,11110011010001111,1111010000110111
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Dirac (n:4,w:11)

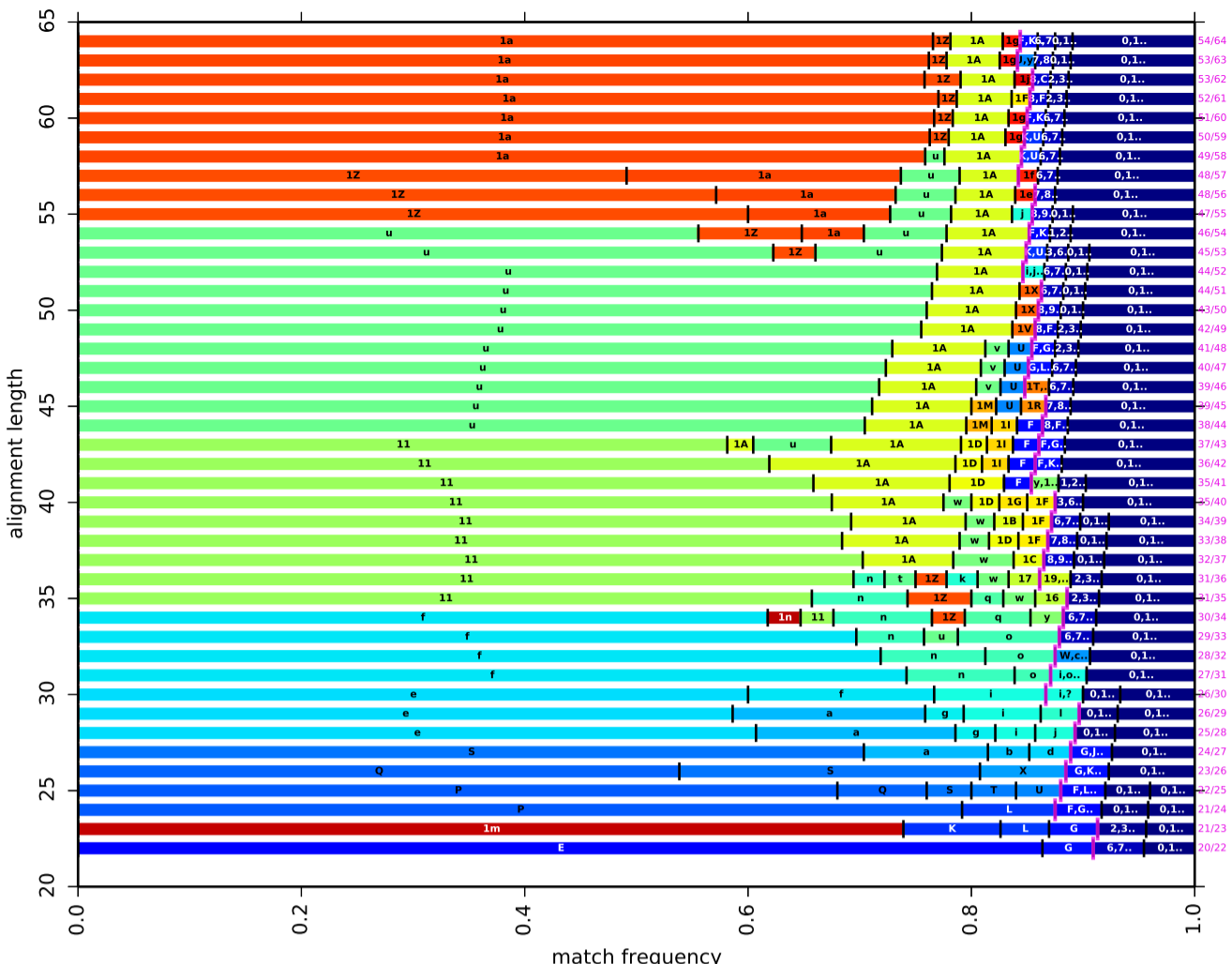


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5 = 1101111111,1110110111,1111011011,1111100111
6 = 1101111111,1101111011,1111101101,1111010011
7 = 1110111111,1111101101,1101111001,1111101011
8 = 1110111111,1111101101,1101111001,1111010010
9 = 1101111111,1111001011,1111010101,1100110010
A = 1110111111,1111101011,1111001001,1111101011
B = 1101111011,1111001011,1111011001,1110100010
C = 1111011111,1111011001,1110101011,1110100010
D = 1111011111,1110110101,1110100010,1111010100
E = 1101110111,1111011011,1110110001,1111000101
F = 1110110111,1110100111,1111010100,1111010001
G = 1111011111,1110110100,1111010011,1111010001
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K = 1101110111,1111010110,1110110010,1111010000
L = 1110110111,1110100110,1111010100,1111000100
M = 1101111011,1111010011,1110011101,1110100010
N = 1101110111,1111010110,1110110010,1111000010
O = 1110110111,1111010110,1110100101,1110100101
P = 1111011111,1110101100,1111011000,1111010001
Q = 1110101111,1110110001,1111000110,1111010001
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S = 1110101111,1111001010,1111010100,1111010001
T = 1110110111,1111000110,1111001010,1111001000
U = 1111010111,1110100010,1111010010,1110101000
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W = 1101110111,1111001010,1111010100,1111010000
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Y = 1110110111,1101111010,1111100110,1110110011
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a = 1111010111,1101100010,1111010010,1111010000
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g = 1110110111,1111001001,1110101000,1111100010
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k = 1110110111,1111001010,1110010001,1111001000
l = 1110101111,1111001010,1111010001,1111001000
m = 1111010111,1101100010,1111010010,1111010000
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r = 1111010111,1101100010,1111001010,1111001000
s = 1101110101,1110100101,1111001000,1111001000
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v = 1110110111,1101100010,1111010010,1111001000
w = 1110110111,1111001010,1110101000,1111001000
x = 1110111111,1111101011,1111001001,1111001001
y = 1111011111,1110111011,1111001010,1111011000
z = 1110101111,1101110001,1111100011,1111001000
10 = 1111011011,1101100010,1111010010,1111001000
11 = 1110101101,1110110001,1111010010,1111001000
12 = 1110110111,1111001010,1111010000,1111001000
13 = 1110110111,1110010100,1111101000,1111001000
14 = 1110110111,1110010100,1111101000,1111001000
15 = 1111010111,1111001011,1111011000,1111001000
16 = 1110111111,1111101011,1111010001,1111010001
17 = 1110110111,1111001010,1111010001,1111001000
18 = 1101110111,1111001010,1111010100,1111010000
19 = 1111011111,1101101011,1111010011,1111010001
1A = 1110101011,1110101001,1111010001,1101101000
1B = 1110101011,1111001010,1110101000,1111010100
1C = 1101110111,1111001010,1111010100,1111010000
1D = 1110110111,1111001010,1110101000,1111001000
1E = 1110110111,1110010110,1111010001,1111001000
1F = 1110101111,1110111010,1110100100,1111001000
1G = 1110110111,1110100110,1111010100,1111001000
1H = 1110110111,1101001010,1111010010,1111010001
1I = 1110110111,1101100010,1111101001,1110101000
1J = 1110101111,1111011001,1110001010,1111010001
1K = 1101110101,1111010101,1111001000,1111010000
1L = 1110101011,1101010010,1111010001,1111010000
1M = 1110110111,1101100010,1111010001,1110100010
1N = 1101101011,1110011000,1111010001,1111001000
1O = 1110110111,1111010001,1110100100,1111010000
1P = 1101101011,1110011000,1111010101,1111000010
1Q = 1101101011,1100010100,1111010100,1111000010
1R = 1110101111,1110101001,1111001001,1111000010
1S = 1110110111,1101100010,1111010001,1110100100
1T = 1110101111,1111001010,1111010100,1111010000
1U = 1110110111,1110100010,1111010100,1111000010
1V = 1110101111,1111001010,1111010001,1111000010
1W = 1110110111,1110100001,1111000100,1111000010
1X = 1101101111,1101110010,1111000100,1111001000
1Y = 1110101011,1111010001,1111000010,1111010000
1Z = 1110101011,1101000100,1111010001,1110001000
1a = 1110101011,1110010001,1111000100,1111010000
1b = 1101110101,1110100101,1111000100,1111010001
1c = 1101101011,1111001000,1111000010,1111001000
1d = 1110101011,1101001000,1111001000,1111001000
1e = 1101101011,1110100101,1111001000,1111001000
1f = 1110101111,1111010001,1111001000,1111010000
1g = 1110110111,1111001010,1111001010,1111001000
1h = 1101110111,1111010010,1111010001,1111001000
1i = 1110111111,1110110001,1111001010,1111010000
1j = 1110101111,1111011101,1111001001,1110100001
1k = 1111011111,1110110101,1111001011,1111010001
1l = 1110111111,1111101011,1111000010,1111010001
1m = 1110110111,1111101011,1111001000,1111010001
1n = 1101101111,1111001010,1111010100,1111001000
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1q = 1101111011,1101110100,1111000010,1111010001
1r = 1101111011,1111010011,1110011101,1110100101
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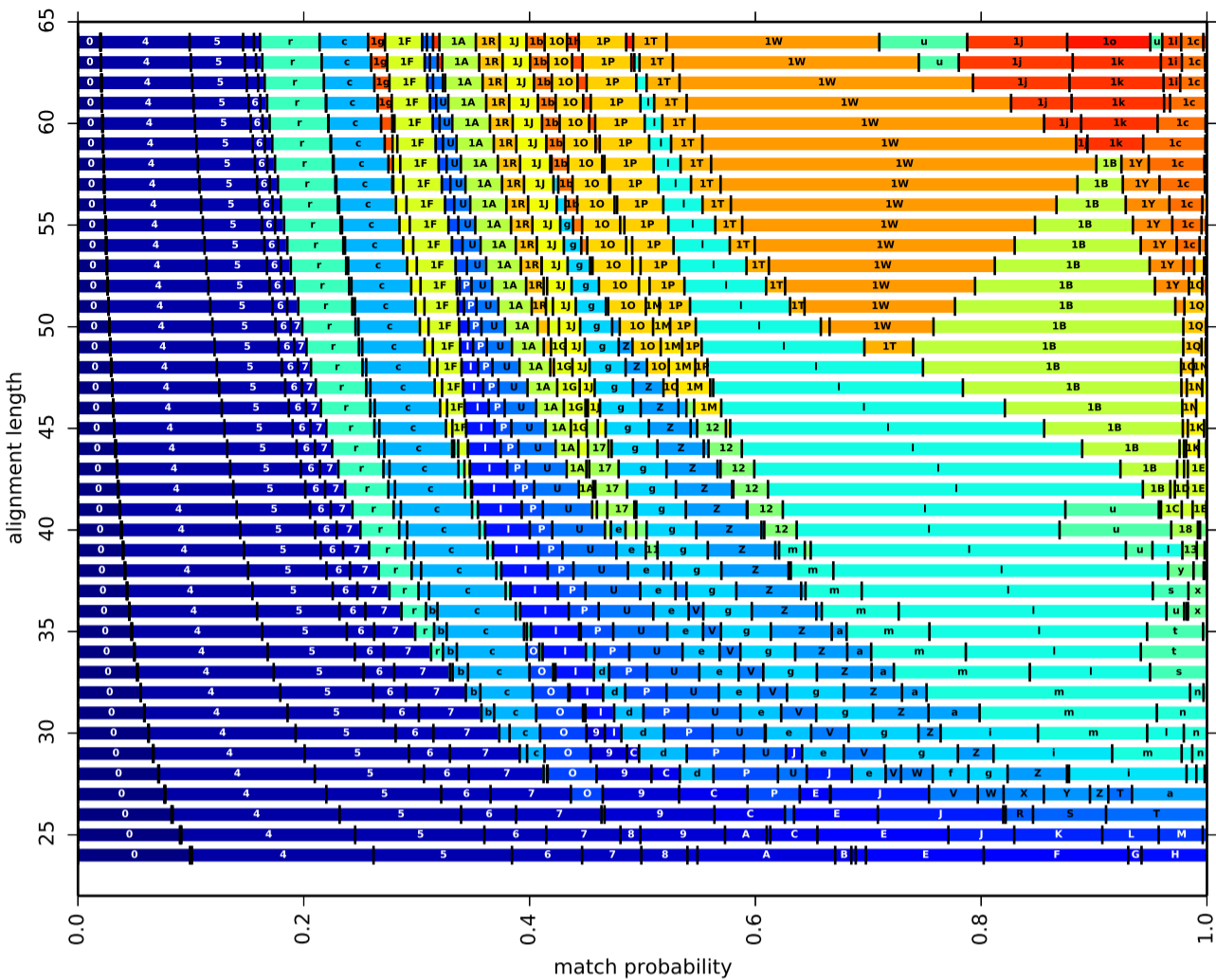
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$$\sum_x \text{Heaviside}(n;4,w;11)$$



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2	1111111111,1101111111,1111010111,1111101011
3	1111111111,1101101111,1111011011,1111100111
4	1111011111,1101111011,1110110111,1111111010
5	1101111111,1111011011,1111011101,1111100111
6	1110111111,1101111011,1111101101,1111010011
7	1110111111,1111101101,1101111001,1111010010
8	1110111111,1111101101,1101111001,1111010010
9	1101111111,1111001011,1111010111,1110011001
A	1101111111,1111101101,1111001000,111111,1110101100
B	1101111101,1111001011,1111011100,1111010001
C	1111011111,1110110011,1101011010,1110100010
D	1111011111,1110111010,1110100010,1111010100
E	1101110111,1111011011,1110110000,1111,1110001010
F	1110110111,1110100110,1111011000,1111,1110100001
G	1111011111,1110110001,1111010011,1111010010
H	1101111011,1111011101,1110110010,1111001010
I	1110111011,1111010110,1110100110,1111010000
J	1110110111,1110111001,1110100110,1111000101
K	1101111011,1111010110,1110110010,1111010000
L	1110111011,1110100110,1111011000,1111000100
M	1101111011,1111010011,1110011101,1110100010
N	1101111011,1111010110,1110110010,1111000010
O	1110111011,1111101011,1110110010,1111,1110101010
P	1111011011,1110101100,1111011000,1111,1110100010
Q	1111011011,1110110001,1111000110,1111010000
R	1110110111,1111010011,1111001010,1111001000
S	1110110111,1110011010,1111010000,1111,1110100100
T	1110110111,1111000110,1111001010,1111001000
U	1110110111,1110110001,1111010010,1111010100
V	1101110111,1111010110,1110110010,1111100010
W	1101110111,1111001010,1111010100,1111,1110100001
X	1110110111,1111001101,1111010100,1111,1110010000
Y	1110110111,1101111010,1111001101,1110110011
Z	1110101111,1110110001,1111000110,1111001000
a	1110110111,1111000101,1110110010,1111010010
b	1110110111,1110010100,1111,1110100001
c	1110110111,1111000101,1110001010,1111010000
d	1110110111,1111001000,1111,1110001010,1111010000
e	1110110111,1111001101,1111010010,1111001000
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g	1110110111,1111010010,1111010100,1111000100
h	1110110111,1110010100,1111010001,1111000100
i	1110110111,1110010100,1111010001,1111000010
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k	1110110111,1110010100,1111000100,1111000010
l	1110110111,1111001101,1111010001,1111001000
m	1110110111,1110010001,1111010010,1111010010
n	1110110111,1110011000,1111010010,1111001000
o	1110101011,1111010001,1110110000,1111000100
p	1110110111,1111010101,1111010011,1111000101
q	1110110111,1111001010,1111010100,1111000100
r	1110110111,1111000101,1110010100,1111010001
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v	1110110111,1110001010,1110100100,1111001000
w	1110110111,1111001010,1110110001,1111001000
x	1110111111,1111101011,1111001001,1110100010
y	1111011111,1110111011,11101001,1110110001
z	1110110111,1101110001,1111000110,1111001000
10	1110110111,1101100010,1111001010,1111001000
11	1110110111,1110110001,1110100101,1111001000
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1M	1111011011,1101000101,1110100101,1110000100
1N	1110110101,1110011000,1111010010,1111001000
1O	1110110101,1110110001,1110100101,1110100100
1P	1101101011,1110011000,1110101011,1111000100
1Q	1101101011,1100010100,1110101000,1111001000
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1c	1110110101,1110011000,1111000101,1111000100
1d	1110110101,1101001000,1111001000,1111001000
1e	1101110101,1110100101,1110010000,1111,1110001000
1f	1110110111,1110101000,1101001000,1111,1110101000
1g	1110110111,1111010001,1110100101,1110010000
1h	1110111011,1110110010,1110100100,1111001000
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1j	1110101111,1110111101,1110100100,1110100000
1k	1111011111,1110111010,1110100101,1110110010
1l	1110111111,1111101011,1110100010,1111010001
1m	1110110111,1110011001,1111001000,1111,1110100010
1n	1110110111,1110010100,1110101000,1111001000
1o	1110111111,1110111001,1111100101,1111001011
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1q	1101111011,1101110100,1111000101,1110000100
1r	1101111011,1111010011,1100111010,1110100100
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Bernoulli (n:4,w:12)

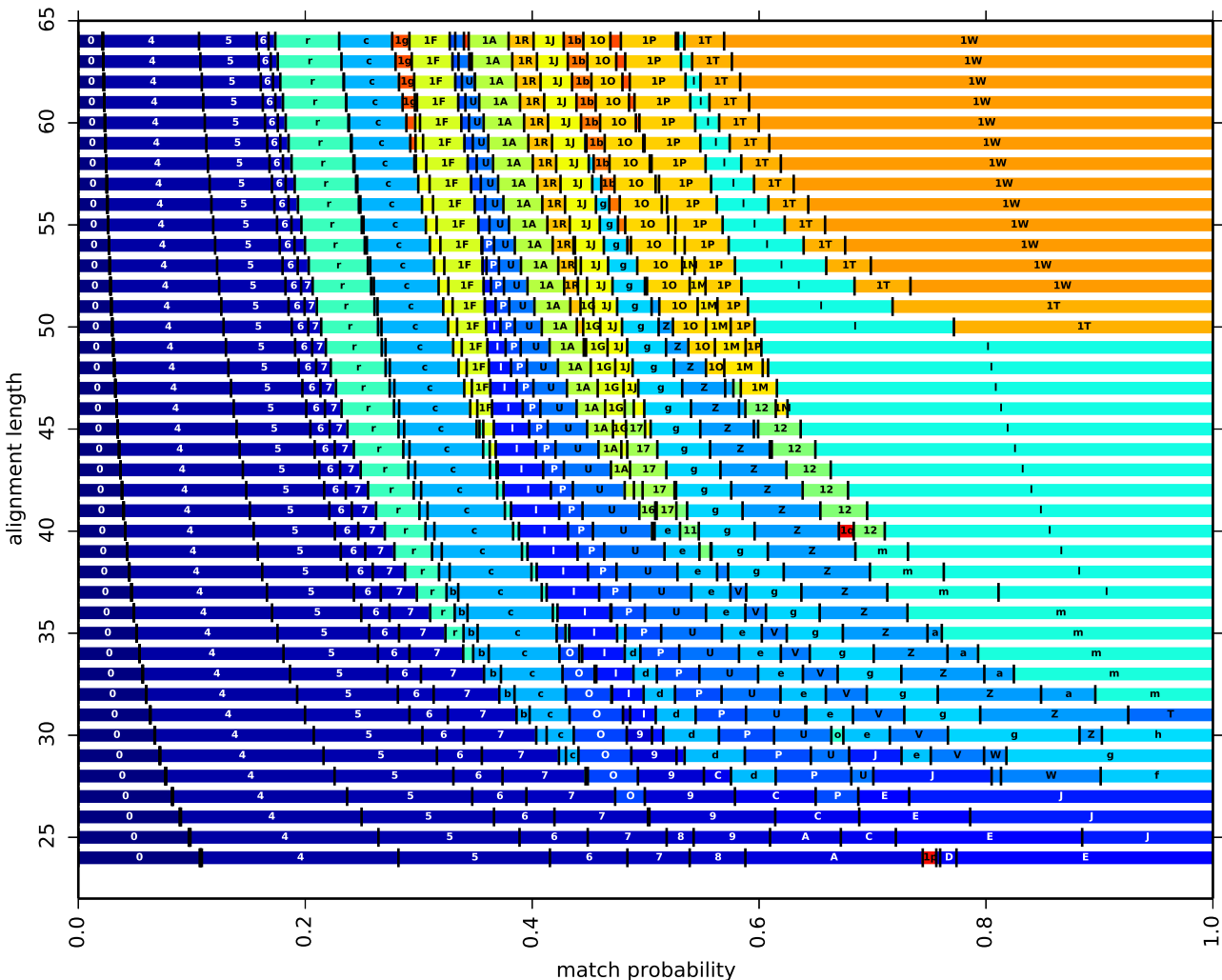


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A = 111011111111,111111010111,11100100111011,11101010001111
B = 110111110111,111100101111,111101011001011,1110101000110111
C = 110111101111,111010111011,111011011001011,1111001000110111
E = 111101011111,110111110101,11110100011011,1111001010001111
F = 111010111111,111101100101,11110100011011,1111001010001111
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W = 111010111111,1111011100011011,11110001101011,1111010010010010111
X = 111010111111,11110011001011,111010100011011,1111000100100010111
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Z = 111101101111,11110100011011,1111001010001111,111101001000100100111
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ad = 111010101011,11110100011011,1111010010100101,1111000100010010111
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ai = 111010101011,11110100011011,1111010010100101,1111000100010010111
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ak = 111010101011,11110100011011,1111010010100101,1111000100010010111
al = 111010101011,11110100011011,1111010010100101,1111000100010010111
am = 111010101011,11110100011011,1111010010100101,1111000100010010111
an = 111010101011,11110100011011,1111010010100101,1111000100010010111
ao = 111010101011,11110100011011,1111010010100101,1111000100010010111
ap = 111010101011,11110100011011,1111010010100101,1111000100010010111
aq = 111010101011,11110100011011,1111010010100101,1111000100010010111
ar = 111010101011,11110100011011,1111010010100101,1111000100010010111
as = 111010101011,11110100011011,1111010010100101,1111000100010010111
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au = 111010101011,11110100011011,1111010010100101,1111000100010010111
av = 111010101011,11110100011011,1111010010100101,1111000100010010111
aw = 111010101011,11110100011011,1111010010100101,1111000100010010111
ax = 111010101011,11110100011011,1111010010100101,1111000100010010111
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ba = 111010101011,11110100011011,1111010010100101,1111000100010010111
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bc = 111010101011,11110100011011,1111010010100101,1111000100010010111
bd = 111010101011,11110100011011,1111010010100101,1111000100010010111
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bf = 111010101011,11110100011011,1111010010100101,1111000100010010111
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bk = 111010101011,11110100011011,1111010010100101,1111000100010010111
bl = 111010101011,11110100011011,1111010010100101,1111000100010010111
bm = 111010101011,11110100011011,1111010010100101,1111000100010010111
bn = 111010101011,11110100011011,1111010010100101,1111000100010010111
bo = 111010101011,11110100011011,1111010010100101,1111000100010010111
bp = 111010101011,11110100011011,1111010010100101,1111000100010010111
bq = 111010101011,11110100011011,1111010010100101,1111000100010010111
br = 111010101011,11110100011011,1111010010100101,1111000100010010111
bs = 111010101011,11110100011011,1111010010100101,1111000100010010111
bt = 111010101011,11110100011011,1111010010100101,1111000100010010111
bu = 111010101011,11110100011011,1111010010100101,1111000100010010111
bv = 111010101011,11110100011011,1111010010100101,1111000100010010111
bw = 111010101011,11110100011011,1111010010100101,1111000100010010111
bx = 111010101011,11110100011011,1111010010100101,1111000100010010111
by = 111010101011,11110100011011,1111010010100101,1111000100010010111
bz = 111010101011,11110100011011,1111010010100101,1111000100010010111
ca = 111010101011,11110100011011,1111010010100101,1111000100010010111
cb = 111010101011,11110100011011,1111010010100101,1111000100010010111
cc = 111010101011,11110100011011,1111010010100101,1111000100010010111
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cf = 111010101011,11110100011011,1111010010100101,1111000100010010111
cg = 111010101011,11110100011011,1111010010100101,1111000100010010111
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\int_0^x Hit Integration (n:4,w:12)

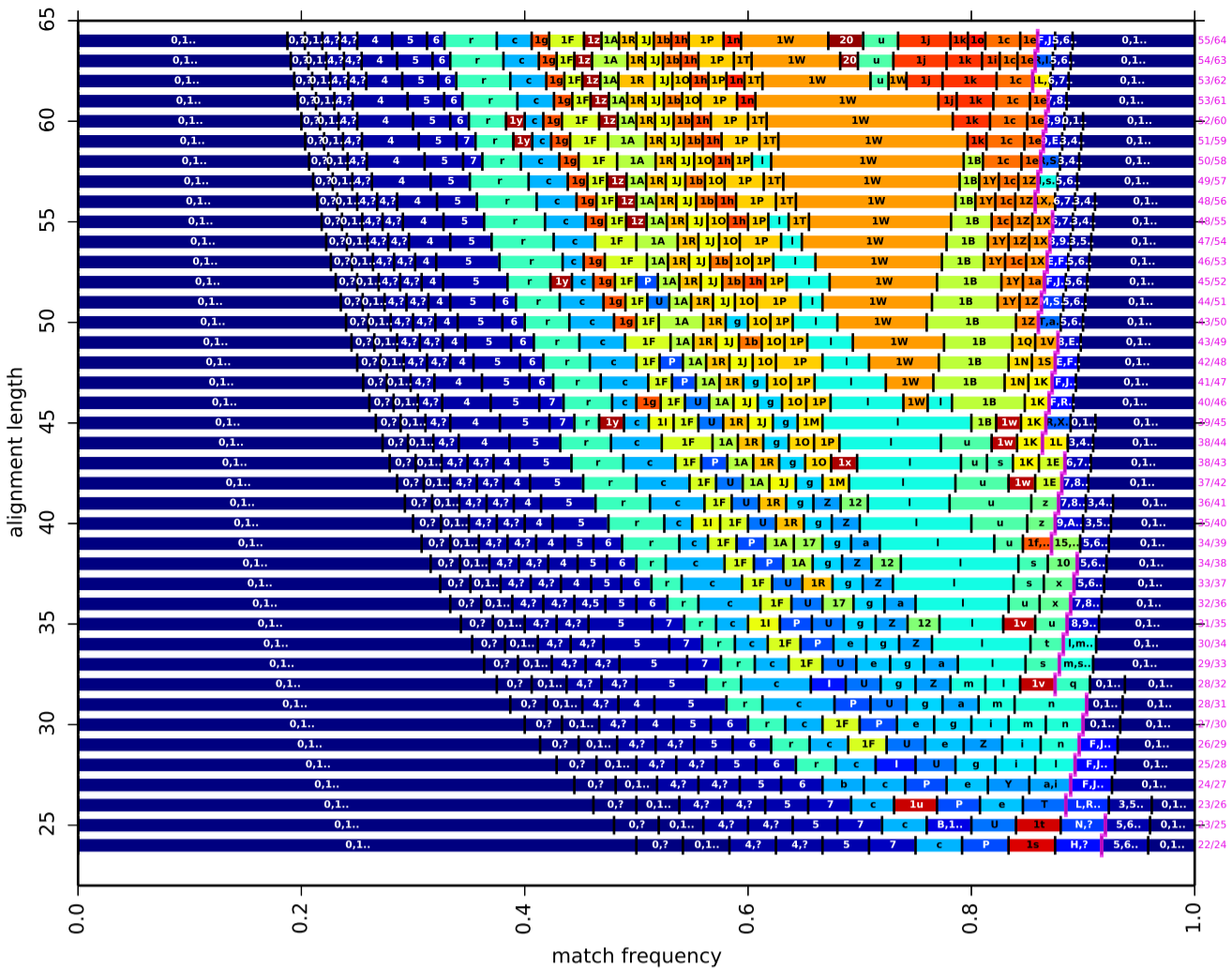


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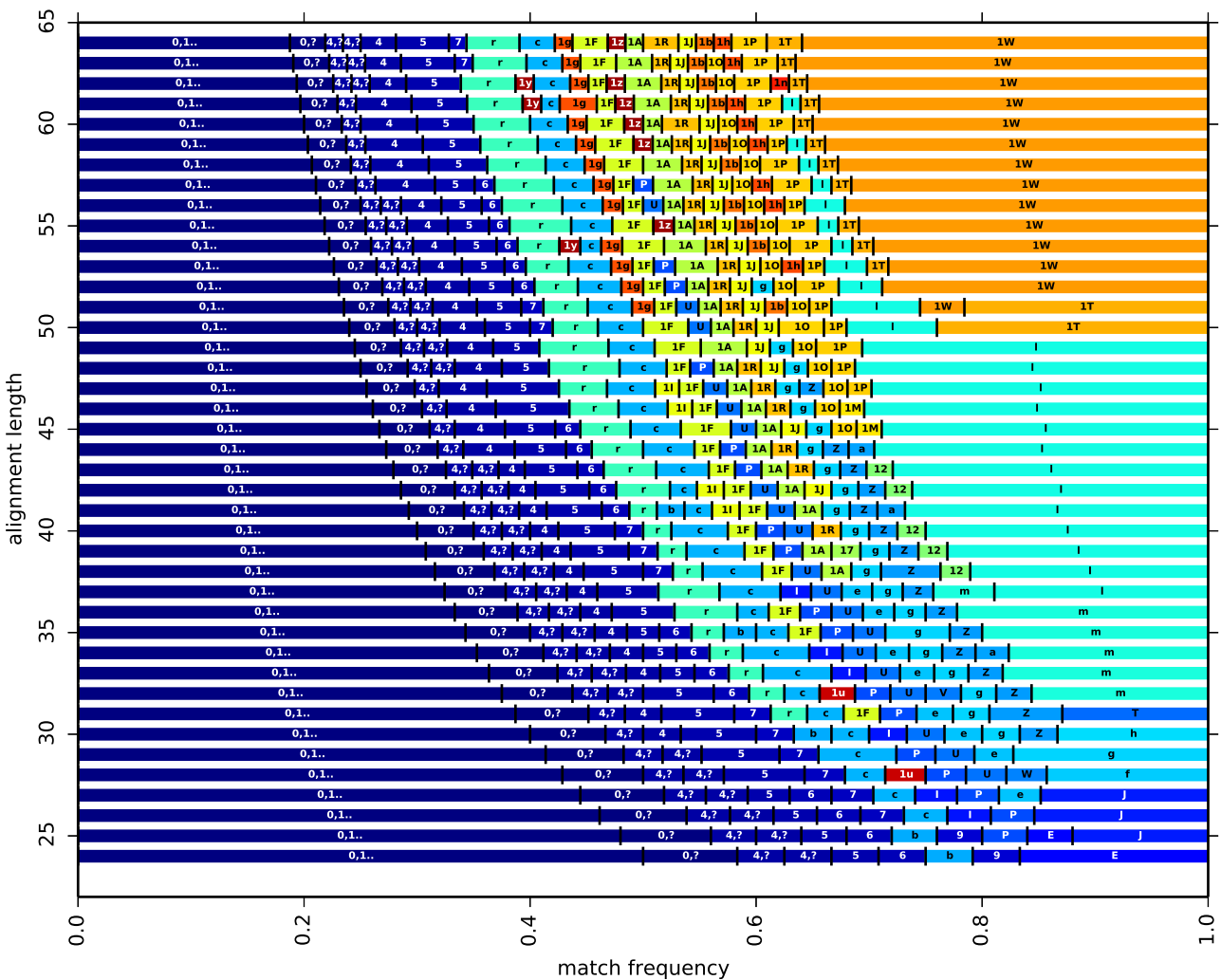
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6 = 111011111111,110111110111,111110011011,11110010101111
7 = 111101111111,110111110011,111111010101,11110100101111
8 = 110111111111,111111010111,111100111011,11101010010111
9 = 111101101111,110110111011,11111101001011,111100011010111
A = 111011111111,11111101011,111100100111011,1111010100010111
C = 110111101111,111010111011,11101101001011,11111001000110111
D = 111101101111,110111110101,111010100111011,1111100100010111
E = 111101101111,110111110101,111010100011011,111110011010001111
f = 111101101111,110111110101,111011100011011,11111000110100111
J = 110110111111,111011101011,11101100010111,111110100010010111
O = 110110111111,110111101101,11101011100111,111110001010111
P = 111101101111,110111110101,1110110010100111,11110101000110111
T = 111101101111,111001010101,11011011000011011,11111000100010010111
U = 111011110111,11111010011011,1110110100001111,11111000110110111
V = 111011111111,11011100011011,1111010111001011,1111010001000001111
W = 111011011111,1110110001011,11110001101011,111110010010001001111
Z = 111101101111,1101110100011011,111001010100111,11110100010001001111
a = 111101101111,111001010100111,11101100010011011,111100101000100010111
b = 111011111111,111111010101,11011011100111,11100101110111
c = 111011101111,110111011011,111010011111011,1111010100101111
d = 110111101111,111101011011,11100110101011,111011100100011111
e = 111011011111,11110111001011,1110101000111011,1111100101000110111
f = 111101110111,11101100101011,11101011100011011,11110100100010001111
g = 111101101111,1101110100011011,11110010110100111,11110100010001001111
h = 111101101111,1101110100011011,11110010110100111,11111000010001001111
i = 111011101111,1111000110101011,111101000011001011,1111000100010000011111
l = 111101101111,111100101100111,111011010001101011,1111100100010001001111
o = 110111110111,11111000101111,11100011011011,11111001000100101111
r = 111011110111,110111011011,11111001011111,1110111111001011
11 = 110101110111,11111001101011,11100110100101111,11110100010011001111
12 = 111011011011,1111010100011011,111101001101001011,111110001001000100101111
16 = 111011011111,11011100011011,1111010111001011,111100100110011011
17 = 111011110111,11111010011011,1111001100101011,1111010001100010111
1A = 110101111011,11111010011011,1111001100101011,111011011100010111
1F = 111101101111,110111110101,111100110011011,1110101000110111
1G = 110101111011,11111010011011,1111001100101011,11100101100010111
1J = 111011110111,11111010011011,1110011001010011,1110110001100010111
1M = 111011011011,1111011000101011,111010001011001011,1111000100100010010111
1O = 111011011011,1110111000101011,11101000101100111,111100010010100101111
1P = 111011011011,1111001000101011,111010101010000111,11101001000100001001111
1R = 110101111011,11111010011011,1110100110001011,111100100010101111
1T = 111011011011,1110110000101011,110101000110001011,1110100010010001001111
1W = 111011011011,11110101000101011,11110001010010001011,1111001100100001001001111
1b = 111011011101,1110111000101011,1111000101001011,111010100100101001111
1g = 110111111011,11110100011111,111010011110011,111100111010111
1p = 111101101111,111011110101,1111001101001111,111101000110111
1q = 111101101111,111001010100111,11101101000101011,11101100010001000101111

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Dirac (n:4,w:12)

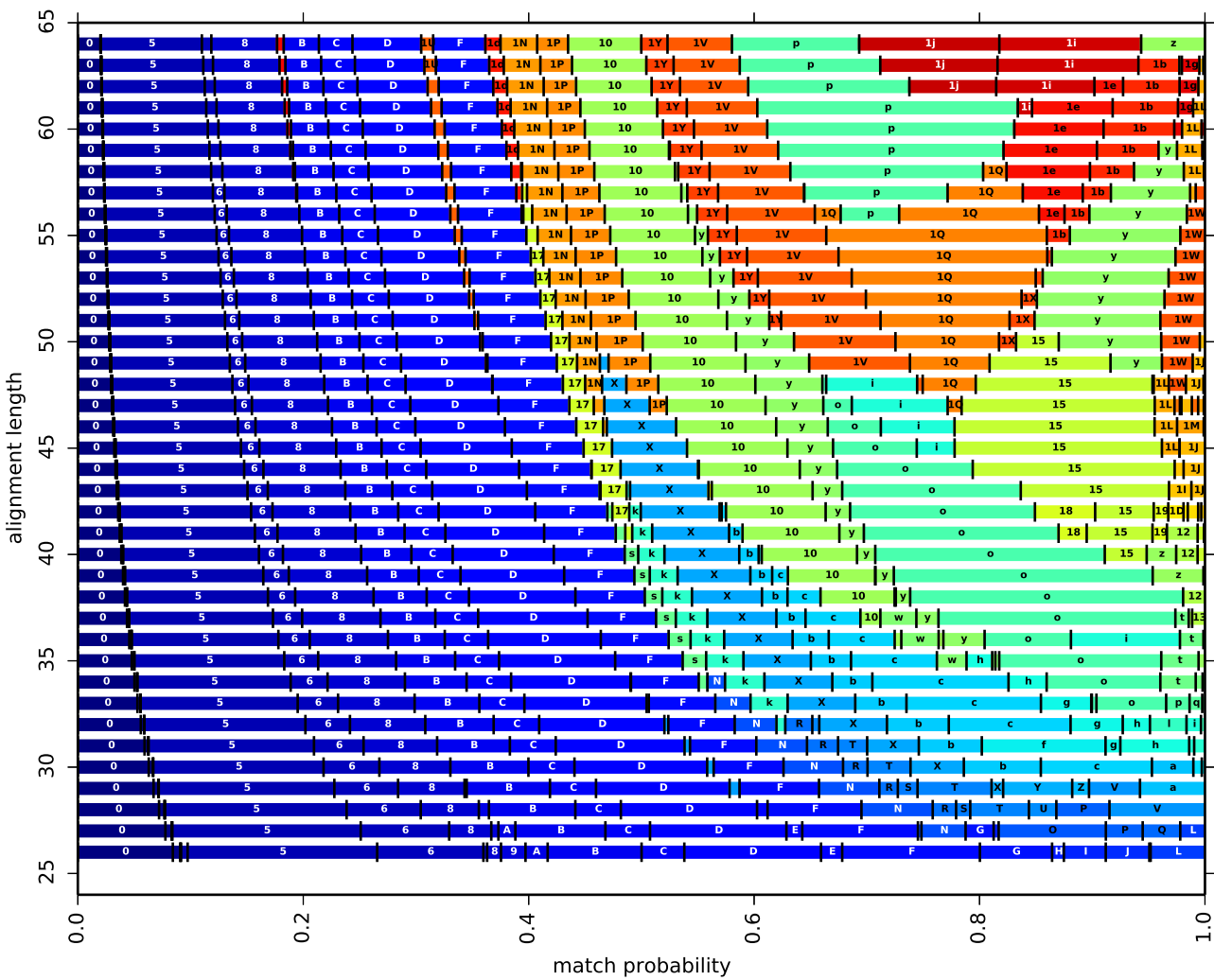


$$\sum_0^x \text{Heaviside}(n:4,w:12)$$



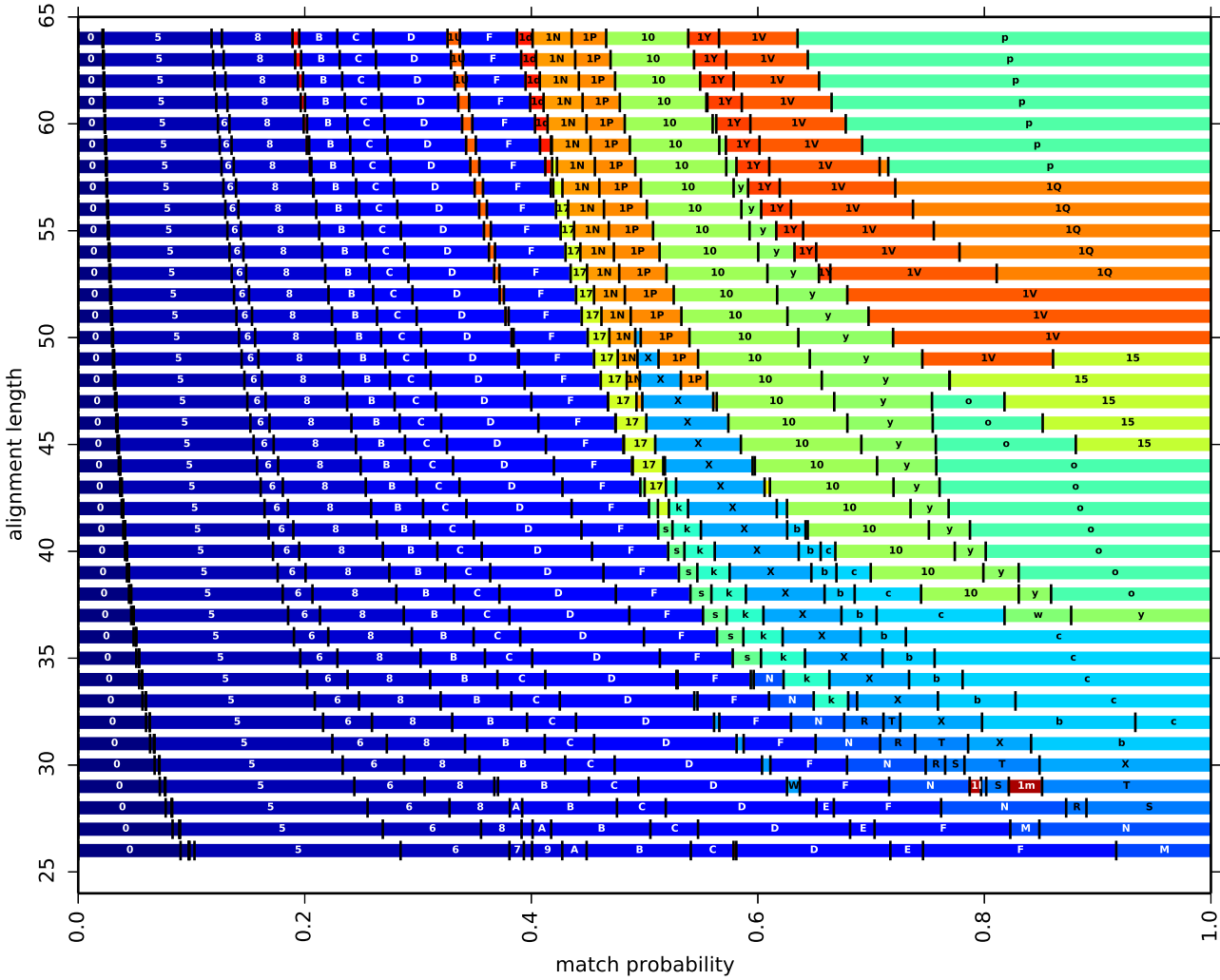
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1 = 111111111111,111011111111,111111101111,111110111011
2 = 111111111111,111011111111,111110111011,111111010111
3 = 111111111111,111011011111,111110111011,111111001111
4 = 110111111111,111101111101,111110110111,111111010111
5 = 111101111111,110111111011,111111011011,111101100111
6 = 111101111111,110111110111,111111001101,111100110111
7 = 111101111111,110111110011,111111101011,111101001101
8 = 110111111111,111111010111,111110011101,111010100111
9 = 111101101111,110111011101,111111101001,111100011011
A = 111011111111,111111011011,111100100111,1111010110001111
B = 110111111011,111110010111,1111010111001011,1110100001101111
C = 110111101111,111101011101,111011011001011,1111001000110111
D = 111101101111,110111111011,111010100111,1111001100010111
E = 111101101111,110111110101,1111010100011011,1111001101000111
F = 111101111111,11110111001011,11110100011011,1111001101001011
G = 111101101111,11110101110011,11100110010111,111101001010010111
H = 111011011111,11110011100011,1111010100011011,1110001001001111
I = 111101101111,110111111011,111011100011011,1111000110100111
J = 110110111111,111101110101,111011010011011,1111101000100111
K = 111011011111,11110111001011,111010100011011,1110100110001011
L = 110111101111,11110010111011,111011100100111,111110100000100111
M = 111101101111,111100101100111,11011101000011011,1111000110010111
N = 110110111111,1111001101011,111100010011011,111101011100010011
O = 111011011111,1101111101101,11101011100111,1111100010110111
P = 111101101111,110111111011,1110110010100111,1111010100011011
Q = 111011011111,1110111000111011,111010111001011,111100100001001011
R = 110111101111,11011110100111,11110001011011,11101010001001011
S = 111101111111,11110011100011,1111010100011011,1111001001001011
T = 111101101111,11110010110111,1101101100001011,111100010001001011
U = 111011110111,1111010011011,1110101010001111,11110001101011
V = 111011011111,11011100011011,111101011001011,111101001001000111
W = 111011011111,11110110001101,111110001101011,11111001001000111
X = 111011011111,11110011001011,1111010100011011,111100010001001011
Y = 111101101111,11110100101011,11101101100001011,1111000100010111
Z = 111101101111,1101110100011011,11110010110100111,111100011010111
a = 111101101111,111100101100111,11101100010011011,111100101000100111
b = 111011110111,1111110101101,110110111100111,11110011011011
c = 111011110111,1101110111011,11101001111101,11110101001011
d = 110111110111,111101011011,111100110101011,1110110010091111
e = 111011011111,1111011100101,111010100011011,111101001010001011
f = 111101101111,111011001011011,111011110001011,11110100100010001111
g = 111101101111,110110100011011,11110010110100111,1111010010001001011
h = 111011011111,110110100011011,11110010110100111,111100001001001011
i = 111101101111,111001011010011,11101110000011011,1111010010001001011
j = 111101101111,111100101100111,11101110000011011,111100000100010111
k = 111011011111,111100101100111,11101100010011011,1111000001001001011
l = 111011011011,111100010101011,111101100001001011,11110001000100001111
m = 111101101111,111100101100111,111011010001101011,1111000010001001011
n = 111011011011,1111010010110011,1111000101001000111,11110011000010001011
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p = 111101110111,111011111011,111101100011011,11110010100111
q = 111011011011,11101110001010011,11101001010001011,111101000100001001011
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u = 111011011011,1111001001001011,111001000101000100111,1110101001000101011
v = 111011011011,1111001001010011,11110100001000101011,1110001001001010001111
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x = 111011011011,1111001001010011,1111101000010001010011,11110001000010001111
y = 111011011011,111100101100111,111011010001101011,1111001000100010001011
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11 = 110101110111,1111100111011,111001010001011,111101000101100111
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13 = 111101101111,1110100101100111,11101100001011011,111100100010001010001111
14 = 111101101111,110110010101011,1111010110001101,11110100100010000010111
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18 = 111101101111,1110110101001011,111101100001001001011,1111000101000110010011
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1B = 111011011011,11101101001001011,110101000110001011,1111010001001000101111
1C = 111011011011,111101001011010011,11110110001000101011,111010010010001010011
1D = 111101101111,111100101100111,111011100100011011,11011000101000100010111
1E = 111011011111,111101011001011,1111001100011011,111100100101001001011
1F = 111101101111,1101111101011,111100110011011,111010001101011
1G = 110111110111,11111010011011,1111001100101011,111001010100010111
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1L = 111011011111,111100111010011,1111010100011011,111010100101101011
1M = 111011011011,1111011000101011,11101000101100111,111100010001000101111
1N = 111101101111,111100101101011,11101101100001011,11110010001010100111
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1P = 111101101111,11110010001011011,11101010110000111,11101001000100010111
1Q = 111011011011,111010110010011,11101000101001011,111100010010001001011
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1S = 111011011111,111100111010011,1111010100011011,1111001001001001011
1T = 111011011011,11110110000101011,110101000110001011,1110100010010001010111
1U = 111101101111,111100101100111,11101100010011011,11110010001000101101
1V = 111111011111,11111010010111,11110001011011,11110001000100010111
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1a = 111101101111,111100101100111,111011000101011,1111001000100010010111
1b = 111011011011,1110111000101011,1111000101001011,11101010010010010111
1c = 111011011011,111101000101011,1110011000110001011,111010010010010100111
1d = 111011011011,11110101001001011,110101000110001011,11110011001000100001111
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1f = 111011011111,11110100101001011,111011100100011011,1111000101000100010111
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1m = 111011011011,11101000101001011,111010100010001011,11110001000010010111
1n = 111011011011,111101010001001011,11101000110001011,111100010001001010111
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1p = 111101011111,111111101011,111001101001111,111100010001001011011
1q = 111101101111,111100101100111,111011000101011,1110110001000100010111
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1s = 111101111111,1111011001011,11110100011011,11110010010010111
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1v = 111011010111,11110101000101011,1111010001000100111,1110110010000100100111
1w = 111101101111,111100101100111,111011010001101011,1111010001000100010111
1x = 111011011011,11110110000101011,11101000110001011,1111000100100010010111
1y = 111101101111,110110111011,11111111001011,11100011010111
1z = 110101110111,1111110011011,11101100100111,11110010111010011
20 = 110110101011,11110001001001011,1110101010000001011,111100100010100100001111
21 = 111101101111,111010010101011,1111000110101011,1110101001000101011
22 = 111101101111,111100101100111,1110110010001101011,1111000101000100001111
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Bernoulli (n:4,w:13)



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 6 = 111101111111,11011111110111,11111101011111,1111100110110111
 8 = 111011111111,11011110111011,11111011101011,11111101001111
 9 = 110111111111,11111101011111,11111001110111,1111101101101111
 A = 111101111111,11101110111011,11111110010111,11110010110111
 B = 11011111101111,11110111011011,11110010111111,1111101101001111
 C = 11011111101111,11101111011011,11110010111111,111011011101001111
 D = 11110101111111,11011111101011,1110110011101011,111110011010011111
 E = 11011110111111,11110101110111,111011110110010111,111110010001101111
 F = 11110101111111,1110111110100111,111010001011011111,111101011000110111
 G = 11101110111111,1111010011101111,111101110100101111,11110100011000101111
 H = 11101110111111,1111010011101111,111101110100101111,1111101100010001001111
 I = 11011111010111,11111100101110111,111010111001011111,1111100110000100101111
 J = 11110101111111,1111110001101111,111110101110010111,11110110001001001111
 L = 11110101111111,11101110001110111,111110101110010111,111101100000010001011111
 N = 11011111011111,11111100101110111,111010111001011111,1111100100010101111
 O = 11110101111111,11101110001110111,111110101110010111,1111100010010010101111
 P = 11110101111111,11101110001110111,111110101110010111,111110100001001000111111
 Q = 11110101111111,11101110001101111,111110101110010111,111101010010001000111111
 R = 11110101111111,11110110001110111,111110101110010111,1110110010010100111111
 S = 11101110111111,1111010011101111,11110111010010111,1111101000010001011111
 T = 11110110111111,11110110001101111,111110101110010111,1111100010100010101111
 U = 11110101111111,11110110001101111,111110101110010111,1111101000010010011111
 V = 11110101111111,111110010110010111,1110110010001110111,1111010100010001011111
 X = 11110110111111,111010111000110111,1111100101101001111,1111010010001001011111
 Y = 11110110111111,111010111000110111,1111100101101001111,111110100100010010011111
 Z = 11110110111111,11101110001101111,1111100101101001111,111110010110010111,1111010010001000101111
 a = 1110111011011111,111101001011001111,111100111000101010111,111110101000100010011111
 b = 11110110111111,111010111000110111,1111100101101001111,11110100100010001011111
 c = 11110110111111,111010111000110111,1111100101101001111,1111101001000100010011111
 f = 11110110111111,1111100101101001111,11101110100001110111,11111001100010001011111
 g = 11110110111111,1111100101101001111,1111011010001010111,11110010100010001011111
 h = 111101011101111,111100011101001111,11101110000010110111,1111010010010001000111111
 i = 111010101101111,11100101110001010111,11110110000100010111,11110100010010001000111111
 k = 11110110111111,11110101111001111,11111010100110111,111101100010010101111
 l = 1111011011011111,111011001010001110111,1111011001100010111,11111000010001000100101111
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 q = 1111011011011111,11111001010001110111,1111011001100010111,11111001100000010001011111
 s = 11011111101111,1111101001101111,111010111001011111,111101001001010011111
 t = 1111011011011111,11110101001101001111,11111100001000110111,11111000100100010001011111
 w = 1111011011011111,1110111000010110111,1111000111010010111,111110001001000100011111
 y = 1111011011011111,11101100110001010111,111101001100010111,11110100100100010100011111
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 10 = 11110101101111,1110111000011010111,111100011010100111,11110011000001000101111
 12 = 1110111011011111,1111001011010010111,1110101100000100101111,111101100010001000101111
 13 = 11110101101111,111101011001100001111,111011001010001100111,1111100010100010000101111
 15 = 1111011011101111,111010101011000111,111011000100010110111,11110100100100010000101111
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 18 = 11110101101111,11110010101001001111,11011100001001010111,111110000100010001001111
 19 = 1110101011101111,11101100010100100111,111001101000100010101011,111110001010010001000101111
 1D = 11101110101111,111100101001101011,111101100110100010111,1111010001000010010011111
 1I = 11110110111111,11110010100101111,1110010100010101111,1111011000100001000100101111
 1J = 11110101111111,11110101110010111,1110100110001101111,111100110010100000101111
 1L = 11110101101111,11110101001101001111,1110110010010001001111,111110001001000101001111
 1M = 11110101111111,11110101110010111,11011001100011101111,1111010100100001001001111
 1N = 111010111101111,1110111110010111,1111100010011010111,111010110010100011111
 1P = 1110101111011111,1111011001010111,1111010001101010111,111010101001000101111
 1Q = 111010110101111,111010100001010111,11110100010100010111,1111001010001001000101111
 1U = 11011111011111,1111001011110111,1101110110010111,111010111000110111
 1V = 111010110101111,11110110100011010111,111011000110100010111,1111000101000100100011111
 1W = 1111011011011111,1101100110001010111,111101001100010111,1111001001000101010111
 1X = 111010110101111,111011010001010111,111110001001001010111,111100100100010000101111
 1Y = 111010110101111,111011010001010111,111110001001010010111,11110010100010000011111
 1b = 1110101101011111,1111011010001010111,111100100010100010111,1111001010001001000110111
 1d = 11110101011111,1110111111001011,111010110001110111,1111001001101001111
 1e = 111010110101111,11110110010100010111,1110110000101001010111,11110001001000101001001111
 1g = 111101011011111,1111011001010010111,11110010001000100010111,11101001010001000101111
 1i = 1110101011101111,11101100100100010111,111010101000011010010111,11110001001010001001001111
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\int_0^x Hit Integration (n:4,w:13)

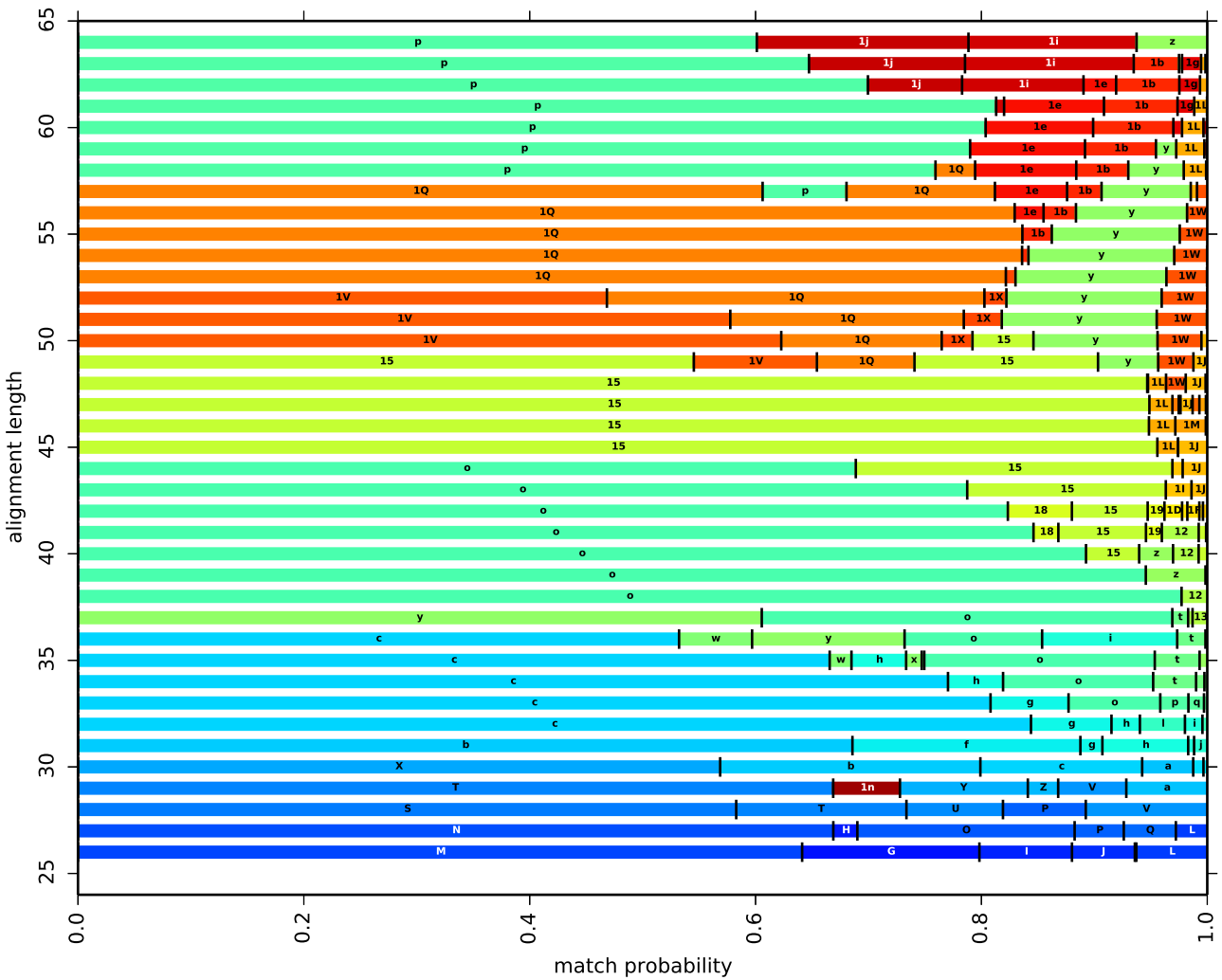


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6 = 111011111111,110111111101,111111010111,111100110101
7 = 111011111111,110111111101,111111010111,111101001111
8 = 111011111111,110111101101,111110111010,111111010011
9 = 110111111111,111111010111,111100111011,111110101111
A = 111011111111,111011011101,111111001011,111001011011
B = 110111111011,111011110110,111100101111,11110110100111
C = 110111110111,111011101101,111100101111,11101011101011
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F = 111011011111,111011110100,11101000101101,1110101100011101
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R = 111011011111,11101110001101,1111010111001011,1110101001010011
S = 111011101111,11101000111011,11101110100101,111101000010001011
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W = 111011110111,111101011101,1110111011000111,1111001001011011
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k = 111011101111,1110101011100111,111101010011011,1110110001011011
o = 111011011011,111011001010001101,111010100011010011,11110000100100010111
p = 111011101111,1110100010100101,1110100110000101011,1110100100010001000111
s = 110111110111,111100101101,111010111001011,111010010010100111
w = 111011011011,11101100001101,1110001110100101,1110100100100010001111
y = 111011011011,11101001100010101,111010100110001011,11101010011000101000111
10 = 111011011011,111011000010101,1110001110100011,11101010010001000111
15 = 111011011011,1110101011100011,110110001000101011,1110101001000100010111
17 = 110111110111,11111010011011,1110101110010101,111010001010100111
1N = 111010111011,11101110010101,1111000100101011,111010100101000111
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1Y = 111010111011,1110110100010101,11110001001001011,111001010001000001111
1d = 111011011111,11101111100101,1110101100011011,11100100110100111
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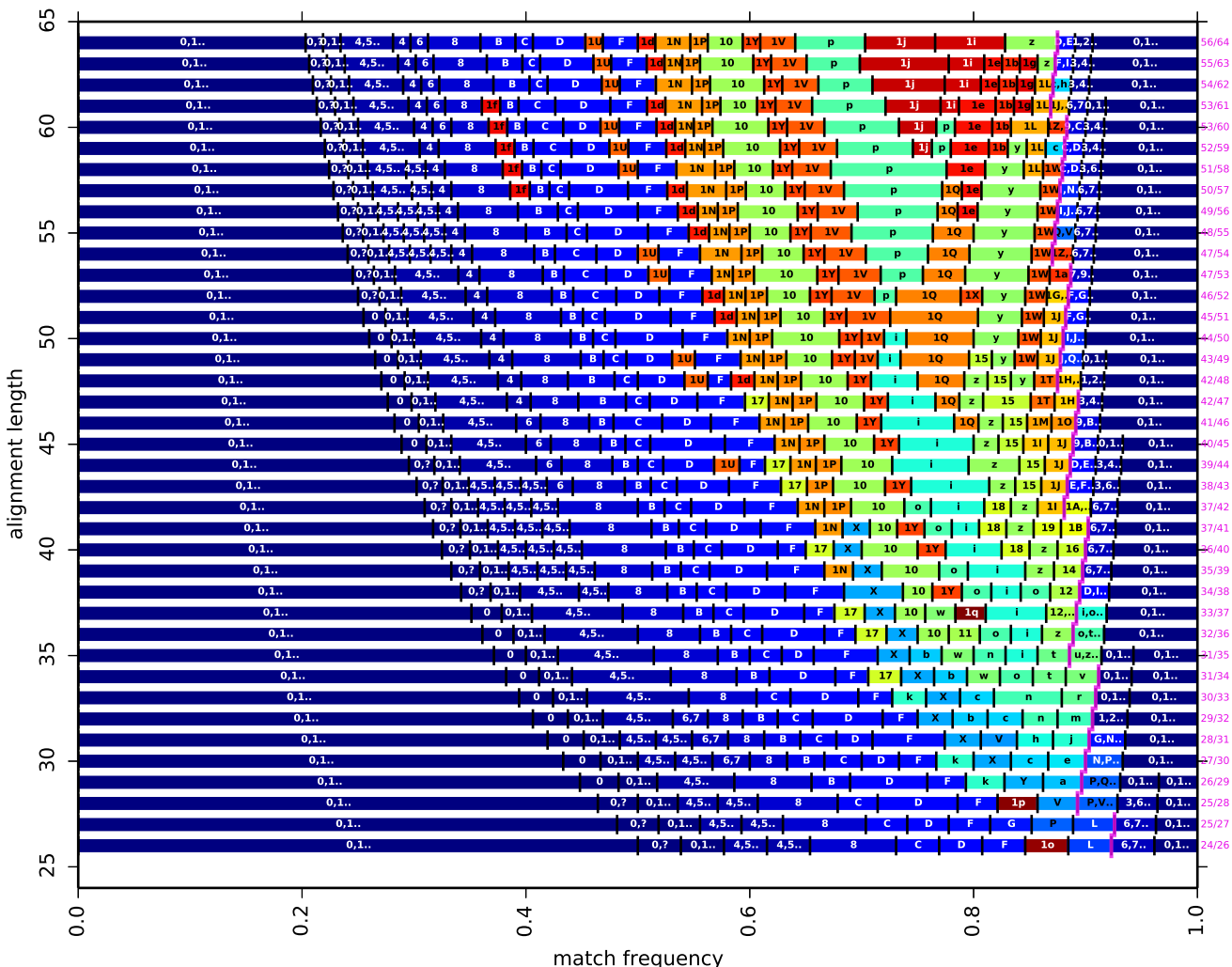
\int_x^1 Hit Integration (n:4,w:13)



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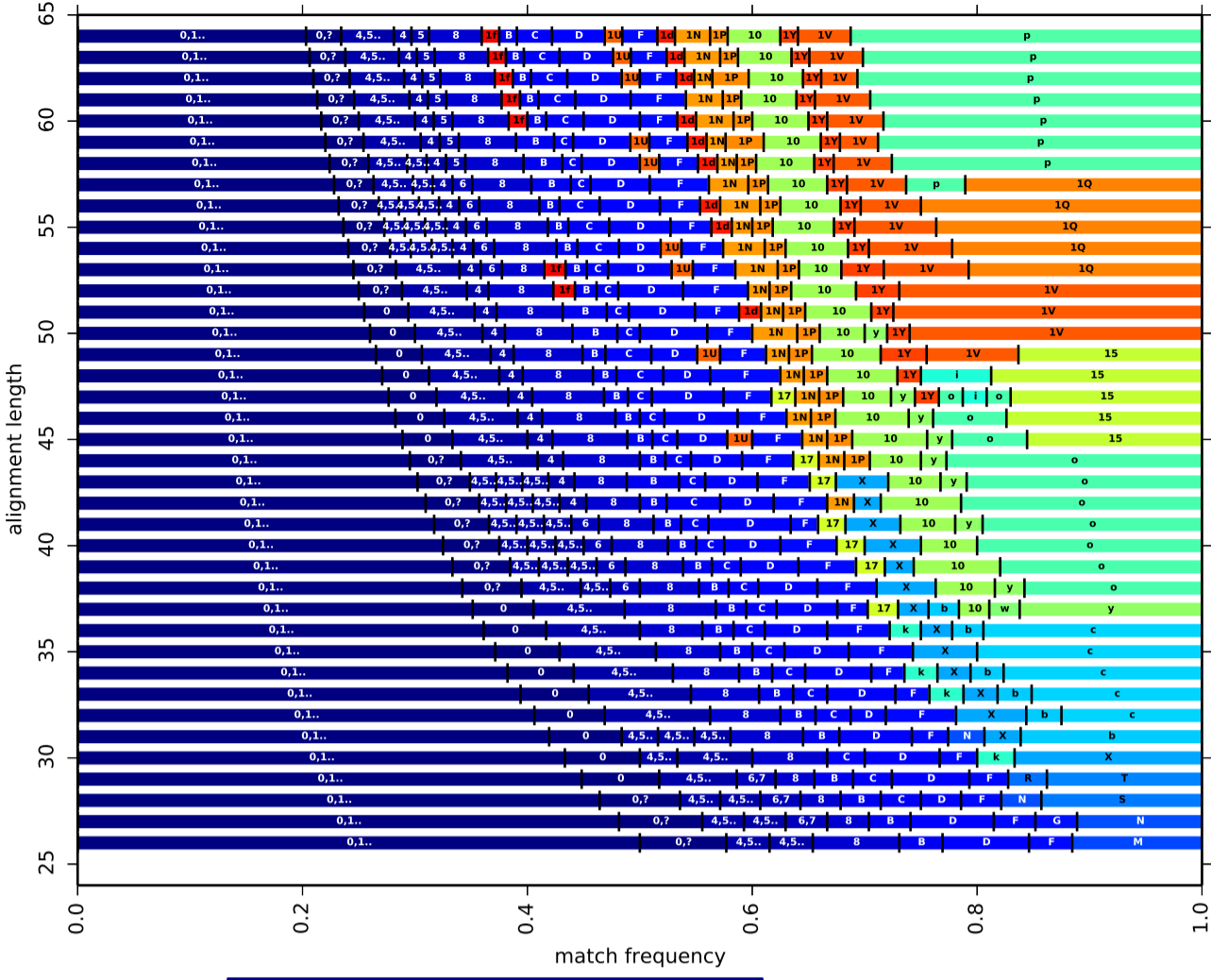
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I = 11011111101111,1111100101110111,1101011100101111,111100110000100101111
J = 11110110111111,111011100011101111,11110101110010111,11110100010010001111
L = 11110110111111,111011100011101111,11110101110010111,1111010000010001011111
M = 11101110111111,111110111010111,111010011011001111,11110110100001101111
N = 11011111101111,1111100101110111,11101011100101111,1111001000110101111
O = 11101101111111,111011100011101111,11110101110010111,111100010010010101111
P = 11110110111111,111011100011101111,11110101110010111,1111010000100100011111
Q = 11110110111111,111011100011101111,11110101110010111,11110101001000100011111
S = 11101110111111,1110100111101111,11110111010010111,1111010000100010111111
T = 11110110111111,111011100011101111,11110101110010111,111100010010001011111
U = 11110110111111,111011100011101111,11110101110010111,111101000010010011111
V = 11110110111111,1111100101101001111,110110010001110111,11110010100010001011111
X = 11110110111111,1110101110001110111,111100101101001111,1111010010001001011111
Y = 11110110111111,1110101110001110111,1111100101101001111,111101001000100100111111
Z = 11110110111111,111011100011101111,111100101101001111,1111010001000100111111
a = 11101110111111,11101001011001111,111100111000101010111,1111010100010010010011111
b = 11110110111111,1110101110001110111,111100101101001111,11110100100010001011111
c = 11110110111111,1110101110001110111,1111100101101001111,111101001000100010111111
f = 11110110111111,111100101101001111,11101110100001110111,11110010100010001011111
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h = 111101101110111,111100011101001111,11011100000110110111,11110100100100010000111111
i = 111011011011111,11100101110001010111,111101100001010010111,111101000100100010000111111
j = 11110110111111,11110011010010101111,1101100001110100111,1111010000100010001011111
l = 1111011011101111,111011001010001110111,1111011001100010111,111110000100010001001011111
o = 1111011011101111,1111001010001110111,11110101000101001111,1111100001001000100101111
p = 1110111010110111,11110100001010010111,11110100110000101010111,111010011000101001000011111
q = 1111011011101111,111101001010001110111,111101011001100001111,111110010100000010001011111
t = 1111011011101111,11101010001101001111,1110111000010001101111,11110001000100010001011111
w = 111101101101111,11101110000110110111,1111000111010010111,1111010010010001000111111
x = 1111011011101111,11110101100101001111,1101100010100110111,11110100010010001001011111
y = 1111011011101111,11011001100010110111,1111010011000110111,11110100100100010100011111
z = 1110110101101111,1110110010011000101111,11100110100001010001010111,111100001001010001001011111
12 = 1110110101101111,1111000101100101111,1110101100000100101111,11110100010010001000111111
13 = 1111011011101111,111101011001100001111,110110010100011001111,111110001001000010001011111
15 = 1111011011011111,111010101110001111,111011000100010101111,11110100100100010000110111
18 = 1111011011101111,11110011010100101111,110111000011001010111,11111000010010001001011111
19 = 1110110110110111,111011000110100100111,11100110100010000110101011,111110001010010001000101111
1D = 1110111011101111,111100101000111010111,11110100110100010111,11110100010000100100011111
1F = 1110110111101111,11110010100111010111,111101100110100010111,11111000100100001000101111
1I = 11110111011111,1111001011010011111,11100101000110101111,1111011000100010001000101111
1J = 11110110111111,11110101110010111,11101001100011101111,11100110010100000101111
1L = 1111011011101111,11110101001101001111,1110110010010001001111,111110000100100010100101111
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1Q = 11101011101101111,11101101000011010111,11101100010110001010111,11110010100010010000101111
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1X = 11101011101101111,11101101100011010111,11110001001010010111,11100101000100001001011111
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1g = 1111011011101111,11110110011010010111,1111001010001100010111,111100101000100010001011111
1i = 11101101011101111,1110110010011000010111,11101010100001101001010011,111000100101000100010011111
1j = 111011101101101111,111101001100100010111,11101000110000110100010111,111100110001010000100101111
1n = 11110110111111,111011100011101111,11110101110010111,11110110010001000111111
    
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Dirac (n:4,w:13)



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3 = 111111111111,111011101111,111110111011,111111101101
4 = 110111111111,111101111101,111110110111,111111010111
5 = 110111111111,111101110111,111110111011,111111001111
6 = 111101111111,110111111101,111111010111,111110011011
7 = 111101111111,110111111101,111111010111,111101100111
8 = 111011111111,110111101101,111110111011,111111100111
9 = 110111111111,111110101111,111110011101,111111010011
A = 111101111111,111011011101,111111100101,111110010111
B = 110111111111,111101110111,111110010111,111110110101
C = 110111111011,111101110111,111110010111,111101101101
D = 111101111111,110111111011,111011001101,111110011001
E = 110111101111,111101011101,111011101101,111110010011
F = 111101111111,111011111001,111010001011,111101010001
G = 111011101111,111101001110,111101100010,111110100010
H = 111101110111,111101001110,111101100010,111110100010
I = 110111110111,111110010110,111010110010,111110010001
J = 111101101111,111011000110,111110101101,111110001010
K = 111101101111,111011000110,111110101101,111101000100
L = 111101101111,111011000110,111110101101,111101000010
M = 111011101111,111110111011,111101001101,111101010001
N = 110111110111,111110010110,111010110010,111110010001
O = 111101101111,111110001101,111110101101,111100010010
P = 111101101111,111011000110,111110101101,111110000100
Q = 111101101111,111011000110,111110101101,111101010001
R = 111101101111,111101100011,111110101101,111010010010
S = 111011101111,111101001110,111101100101,111110000100
T = 111101101111,111011000110,111110101101,111100010010
U = 111101101111,111011000110,111110101101,111110000100
V = 111101101111,111100101100,111101100101,111100100010
W = 111011110111,111110111011,111011101000,111110010010
X = 111101101111,111010110001,111110010101,111101000100
Y = 111101101111,111010110001,111110010101,111101000100
Z = 111101101111,111010110001,111110010101,111101000100
a = 111011101111,111101001110,111100110001,111101010001
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c = 111101101111,111010110001,111110010101,111101000100
d = 111011101111,111101001110,111100110001,111110000010
e = 111101101111,111100011010,111101100001,111100001000
f = 111101101111,111100010100,111101100001,111100010000
g = 111101101111,111100010100,111101100001,111100010000
h = 111101101111,111100011010,111101100001,111101000100
i = 111010110111,111100011000,111101100001,111101000100
j = 111101101111,111100010010,111101100001,111100000100
k = 111101101111,111010111001,111110101001,111101000101
l = 111101101111,111010010001,111101100100,111110000100
m = 111101101111,111101001000,111101100101,111101000100
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p = 111011101011,111101000101,111101001000,111101000100
q = 111101101111,111010010001,111101010001,111110010000
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s = 110111110111,111110010110,111010100111,111100100111
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u = 111101101111,111011000101,111100101001,111101001000
v = 111101101111,111010001000,111111010100,111101000100
w = 111101101111,111110000101,111100011010,111101001000
x = 111101101111,111010100100,111101000101,111110000100
y = 111101101111,111010010001,111101010010,111101001000
z = 111011011011,111010010010,111100110000,111100001000
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1C = 111101101111,111010110001,111110010100,111101000100
1D = 111011101111,111100100110,111101001010,111101000100
1E = 111011110111,111100100011,111101001010,111100000100
1F = 111011110111,111100100110,111101001010,111100010000
1G = 111101101111,111101011001,110100100011,111100010000
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1I = 111101101111,111100101000,111101001011,111101000010
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1R = 111101101111,111100101000,111101100001,111010100000
1S = 111101101111,111100101001,111010010010,111100100001
1T = 111101111111,111101011001,110100100011,111100010001
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1j = 111011011011,111101001000,111101000010,111100010000
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1o = 111101101111,111110001101,111001011001,111101000010
1p = 111011110111,111110001101,111010110001,111101000010
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$$\sum_0^x \text{Heaviside}(n;4,w;13)$$

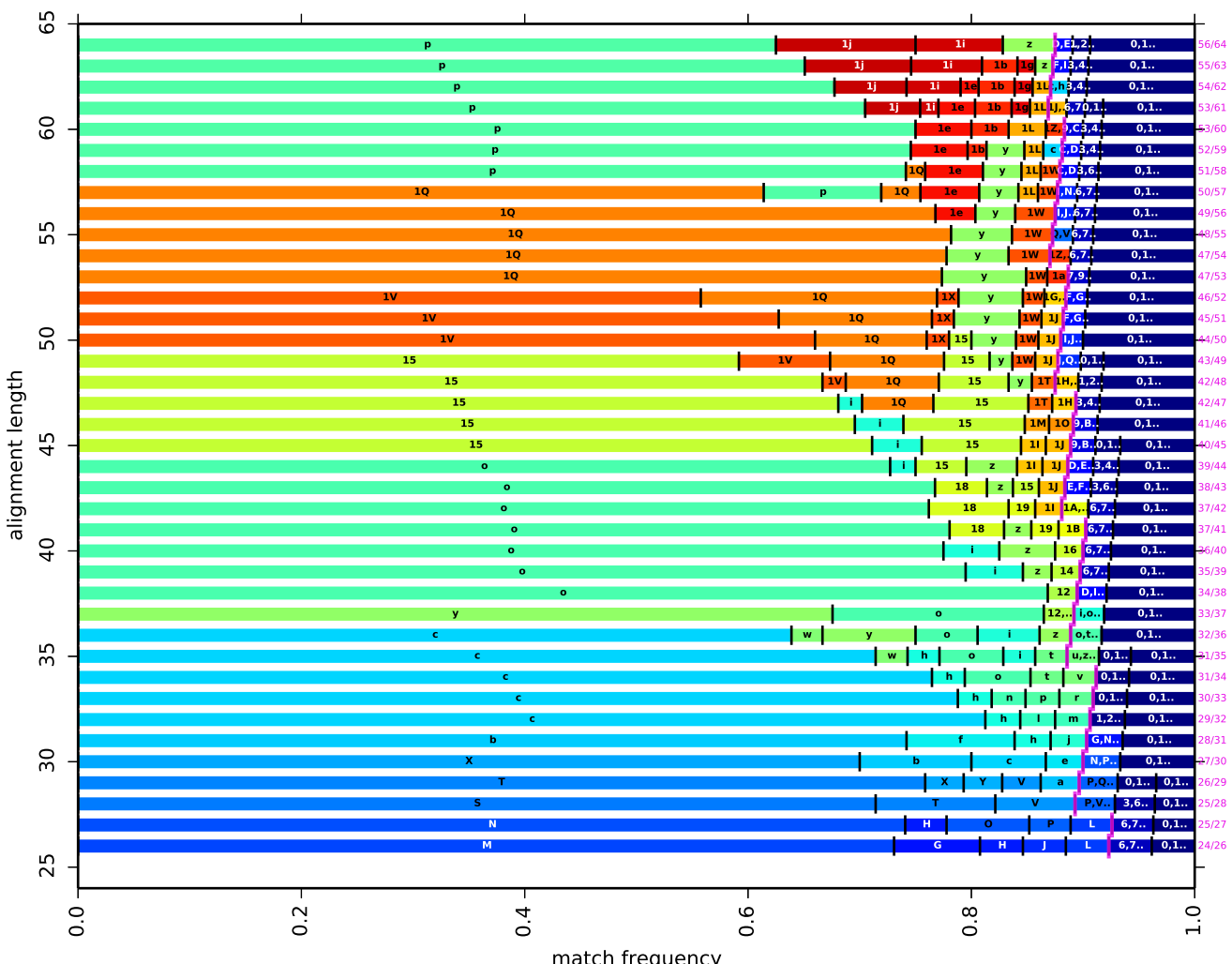


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B = 110111111011,111101110110,111110010111,111110110011
C = 110111110111,111011110101,111110010111,111011011010
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E = 110111101111,111101011101,111011101001,111110010001
F = 111101011111,110111111001,111010001011,111101011000
G = 111011101111,111101001110,111101110101,111110100010
H = 111011101111,111101001110,111101110101,111110100010
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J = 111101011111,111011000110,111110011001,111101001001
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Z = 111101101111,111010110001,111110010100,111101000000
a = 111011010111,111101001011,111100110001,111101010000
b = 111101011111,111010010101,111100101000,111101000000
c = 111101011111,111010110001,111100101000,111101000000
d = 111011010111,111101001100,111100110001,111110000000
e = 111101011111,111100011010,111101010000,111110000100
f = 111101011111,111100101000,111101101000,111100100000
g = 111101011111,111101001010,111101010001,111100100000
h = 111101011111,111000110100,111101100000,111101000000
i = 111010101111,111001011000,111101100000,111101000000
j = 111010101111,111100101001,111011000011,111100000100
k = 111101011111,111010101100,111110101001,111101000000
l = 111010101111,111010010001,111101100001,111100000100
m = 111101011111,111101001001,111100110001,111011000100
n = 111101011111,111010010001,111101010001,111110000100
o = 111101011111,111100101000,111101100001,111100000100
p = 111011010111,111101000010,111101001010,111010010000
q = 111101011111,111101001000,111101010000,111110010000
r = 111101011111,111101001001,111100100101,111100010000
s = 110111110111,111110010101,111010110010,111101001001
t = 111101011111,111010100100,111101100001,111110000100
u = 111101011111,111011000010,111100101000,111110100000
v = 111101011111,111011000100,111101010010,111110100000
w = 111101011111,111011000010,111101010010,111101000000
x = 111101011111,111010100100,111101000101,111110000100
y = 111101011111,111010010001,111101010010,111101000100
z = 111010101111,111011001000,111100110000,111110000100
10 = 111101011111,111011000010,111100011010,111100010000
11 = 111101011111,111000101100,111101010000,111100000100
12 = 111011010111,111100101001,111010100000,111101000000
13 = 111101011111,111101010001,111101010001,111110000100
14 = 111101011111,111101100011,111110101100,111101000000
15 = 111101011111,111010101100,111101000001,111101000000
16 = 111101011111,111101011001,111010010001,111101000000
17 = 110111110111,111110100110,111010110010,111101000100
18 = 111101011111,111101101001,111110000100,111110000100
19 = 111010101111,111011000100,111100110101,111100010000
1A = 111011110111,111110101101,111001010100,111111001001
1B = 110111110111,111101001110,111011101001,111010010101
1C = 111101101111,111010110001,111110010100,111101000100
1D = 111011010111,111100100011,111101001010,111110000100
1E = 111010111011,111100100001,111101100100,111110000100
1F = 111010111011,111100100110,111110010100,111110000100
1G = 111101011111,111101011001,111010010001,111110000100
1H = 111101011111,111101011001,111010010001,111110000100
1I = 111101011111,111100101001,111001010010,111101000000
1J = 111101011111,111101011001,111010010001,111100100000
1K = 110111110111,111101001110,111100110100,111101000101
1L = 111101011111,111101001100,111101001000,111101000000
1M = 111101011111,111101011001,111010010001,111101000000
1N = 111010111011,111011100101,111100010010,111101010000
1O = 111101011111,111101001101,111110101100,111101000000
1P = 111010111011,111101001010,111101000101,111010100000
1Q = 111010111011,111010100001,111101000101,111100100000
1R = 111010111011,111100101001,111101100001,111101000000
1S = 111101011111,111100101001,111101001001,111100100000
1T = 111101011111,111101011001,111010010001,111101000000
1U = 111101011111,111100101101,111011101001,111101010000
1V = 111010111011,111101010001,111010001001,111110001000
1W = 111101011111,111010010001,111101010001,111100100000
1X = 111010111011,111101000101,111100010001,111100100000
1Y = 111101011011,111101010001,111100010001,111100100000
1Z = 111101011111,111100101001,111010100001,111100010000
1a = 111101011111,111101100010,111110101100,111101000000
1b = 111101011111,111101000010,111100100001,111100100000
1c = 111101011111,111100101000,111101010001,111100100000
1d = 111101010111,111011111001,111010110001,111100100100
1e = 111101010111,111101001000,111101001001,111100001000
1f = 111101011111,111101011001,111101011001,111100010000
1g = 111101011111,111101001000,111101001001,111100010000
1h = 111101011111,111100101000,111101010001,111100100000
1i = 111101010111,111101000100,111101010001,111100001000
1j = 111101010111,111101000100,111101000101,111100001000
1k = 111101011111,111101011011,111111000101,111100010011
1l = 111101011111,111101011011,111101000101,111100001001
1m = 111101011111,111100011011,111101010010,111101000000
1n = 111101011111,111101000110,111101011001,111101000000
1o = 111101011111,111101000110,111001011001,111101000000
1p = 111101011111,111101000110,111010110001,111101000000
1q = 111101011111,111010010001,111101010001,111110000100

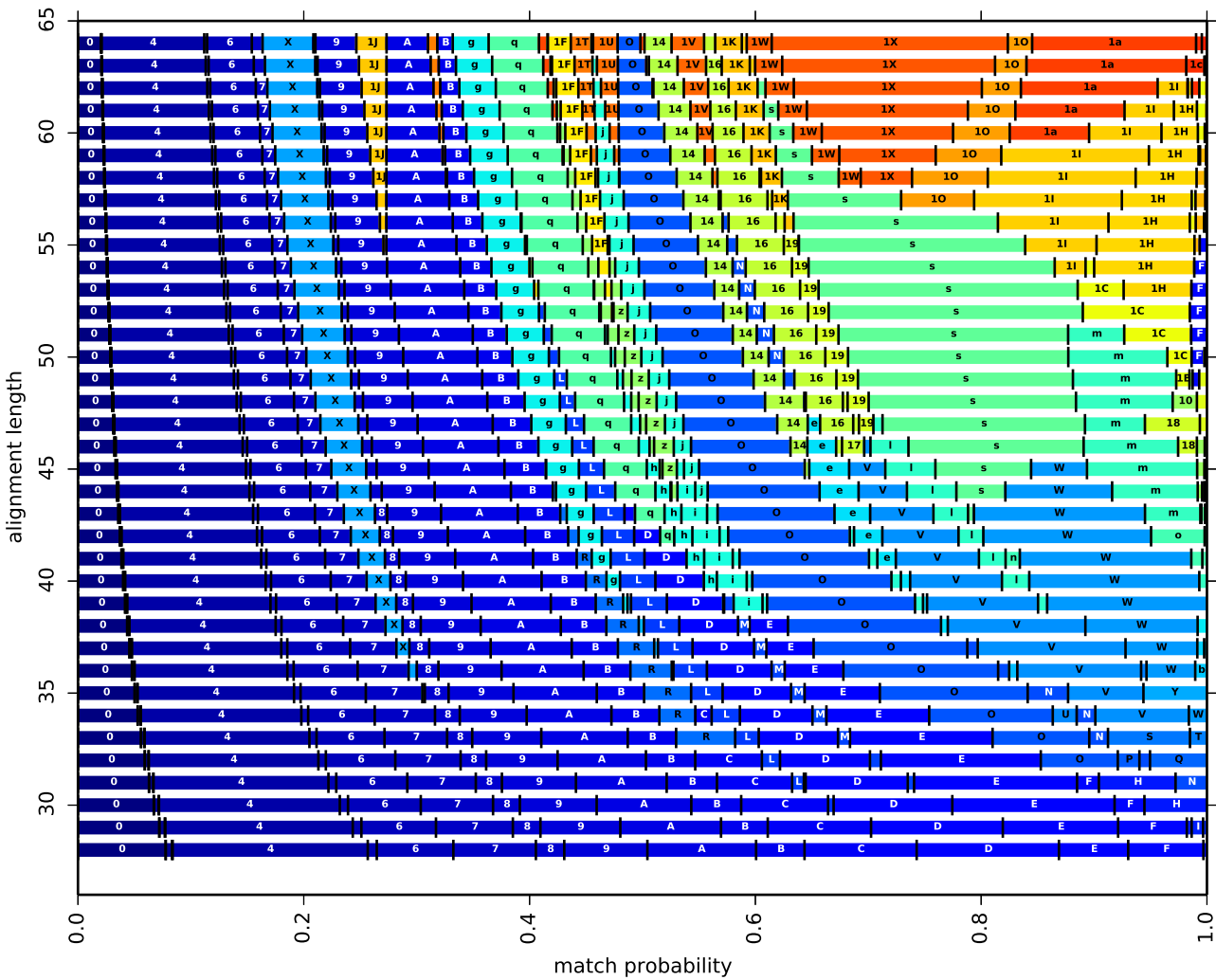
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\sum_x Heaviside (n:4,w:13)



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 1 = 111111111111,111011111111,111111011111,111110111011
 2 = 111111111111,111011111111,111110111011,111111010111
 3 = 111111111111,111011101111,111110111101,111111101011
 4 = 110111111111,111101111101,111110110111,111111010111
 5 = 110111111111,111101110111,111110111101,111111001111
 6 = 111011111111,110111111011,111111010111,111110011011
 7 = 111011111111,110111111011,111111010111,111101100111
 8 = 111011111111,110111101101,111111011101,111111010011
 9 = 110111111111,111110101111,111110011101,111111011001
 A = 111011111111,110111011101,111111100101,111110010111
 B = 110111111111,111101110110,111110010111,111111011001
 C = 110111111011,111101110110,111110010111,111101101100
 D = 111010111111,110111111010,111011100110,111110011001
 E = 110111101111,111101011101,111011101100,111110010011
 F = 111011011111,110111111001,111010001011,111101011001
 G = 111011101111,111101001110,111011100110,111110100010
 H = 111011101111,111101001110,111101110101,111110110001
 I = 110111110111,111110010110,111010110010,111110010001
 J = 111101101111,111011000110,111110101100,111110100101
 K = 111011011111,110111000110,111110101100,111110100010
 L = 111101101111,111011000110,111110101100,111110100001
 M = 110111101111,111110111010,111110100110,111110100001
 N = 110111110111,111110010110,111010110010,111110010001
 O = 111101101111,111011100011,111110101100,111110001001
 P = 111011011111,111011100011,111110101100,111110100001
 Q = 111010111111,110111100011,111110101100,111110100100
 R = 111011011111,111101100011,111110101100,111110100100
 S = 111011101111,111101001110,111101101001,111110100001
 T = 111011011111,111101001110,111110101100,111110100001
 U = 111011011111,111011100011,111110101100,111110100001
 V = 111011101111,111110010110,111011001001,111110010000
 W = 111011110111,111101011101,111011101100,111110010011
 X = 111011101111,111010110001,111110010110,111110100100
 Y = 111011101111,111010110001,111110010110,111110100100
 Z = 111011101111,111010110001,111110010110,111110100001
 a = 111011101111,111010010110,111100110001,111110100001
 b = 111011101111,111010110001,111110010110,111110100001
 c = 111011101111,111010110001,111110010110,111110100001
 d = 111011101111,111010010110,111100110001,111110100000
 e = 111011101111,111100011010,111100110001,111110100001
 f = 111011101111,111100010100,111101101000,111110010000
 g = 111011101111,111100010100,111101101000,111110010000
 h = 111011101111,111100010100,111101101000,111110010000
 i = 111010110111,111100010100,111101101000,111110010000
 j = 111010110111,111100010100,111101101000,111110010000
 k = 111011101111,111010111001,111110101001,111110001001
 l = 111011101111,111010111001,111110101001,111110001001
 m = 111010110111,111110100100,111110011001,111110010001
 n = 111011011011,111011001000,11101111,111100010001
 o = 111010110111,111011001000,11101111,111100010001
 p = 111011101011,111010000101,111101001000,111101000100
 q = 111011011011,111011001000,11101111,111110010000
 r = 111010110111,111011001000,11101111,111110001000
 s = 110111110111,111110010110,111010110010,111101001001
 t = 111011011011,111010100101,111011100010,111110001000
 u = 111011011011,111011000101,111100101100,111110100100
 v = 111011011011,111011000101,111101011001,111101000100
 w = 111011011011,111011000101,111100011010,111101001000
 x = 111011011011,111011000101,111101000101,111110000100
 y = 111011011011,110110011000,111110101001,111101001000
 z = 111011011011,111011000101,111001101000,111110000100
 10 = 111011011011,111011000101,111100011010,111110010001
 11 = 111011011011,111000101100,111101101000,111110010001
 12 = 111011101011,111100101100,111011000001,111110110001
 13 = 111011011011,111101100110,111011000100,111111000100
 14 = 111011011011,111101100011,111101011001,111101010001
 15 = 111011011011,111010101100,111101100010,111110010000
 16 = 111011011011,111101011001,110110011001,111101010000
 17 = 110111110111,111110100110,111010110010,111101000101
 18 = 111011011011,111100110100,111011000101,111110000100
 19 = 111010110111,111110001010,111100110001,111100101000
 1A = 111011110111,111110101101,111001011001,111110011001
 1B = 111011110111,111101001110,111011101100,111101001011
 1C = 111011101111,111011100011,111110010110,111101001001
 1D = 111011101111,111100100110,111101100101,111110001000
 1E = 111011101111,111100100011,111101100101,111100000001
 1F = 111011110111,111100100110,111101100101,111110001000
 1G = 111011011111,111101011001,110110011001,111110010000
 1H = 111011011111,111101011001,110110011001,111110010000
 1I = 111101101111,111100101001,111001000101,111101100010
 1J = 111011011111,111101011001,110110011001,111100100001
 1K = 110111110111,111101001110,111100110100,111101000101
 1L = 111011011111,111101001100,111011001001,111110000100
 1M = 111101101111,111101011001,110110011001,111101000100
 1N = 111011011111,111011100101,111100010010,111101100101
 1O = 111011011111,111011000110,111101011001,111010010001
 1P = 111010111011,111101000101,111101000110,111010100100
 1Q = 111010110111,111011000010,111101100010,111100100001
 1R = 111011101111,111000101001,111101100001,111100100001
 1S = 111011011111,111100101001,111101001001,111100100001
 1T = 111011011111,111101011001,110110011001,111100101000
 1U = 110111110111,111100101101,111011101100,111101011000
 1V = 111011101011,111101100001,111101100010,111110001000
 1W = 111011011011,111100100010,111101001000,111101001001
 1X = 111010110101,111010100010,111110001001,111100100001
 1Y = 111010110101,111010100010,111110001001,111100100001
 1Z = 111011101111,111100101001,111011000010,111110001001
 1a = 111011011111,111101100010,111110101100,111101000001
 1b = 111011011011,111101100001,111100100101,111100100001
 1c = 111011101111,111100101001,111011010000,111100100001
 1d = 111011011111,111011111001,111011100010,111100100101
 1e = 111011011011,111101100100,111101100010,111100010001
 1f = 101111111011,111011011011,111101100111,111100101111
 1g = 111010110111,111011001100,111100100010,111100100001
 1h = 111011011011,111001011001,111011000100,111100100001
 1i = 111011011011,111011000100,111101010001,111100010001
 1j = 111011011011,111101001000,111110010111,111100100001
 1k = 111011011111,111101111011,111111100101,111100101011
 1l = 111011101111,111101110101,111101100010,111110000101
 1m = 111011101111,111100011101,111101100101,111101000101
 1n = 111011011111,111011000110,111110101100,111101001000
 1o = 111011110111,111110001101,111001011001,111101000001
 1p = 111011110111,111110001101,111010110001,111101000001
 1q = 111011011011,111011001000,111101100101,111100010001

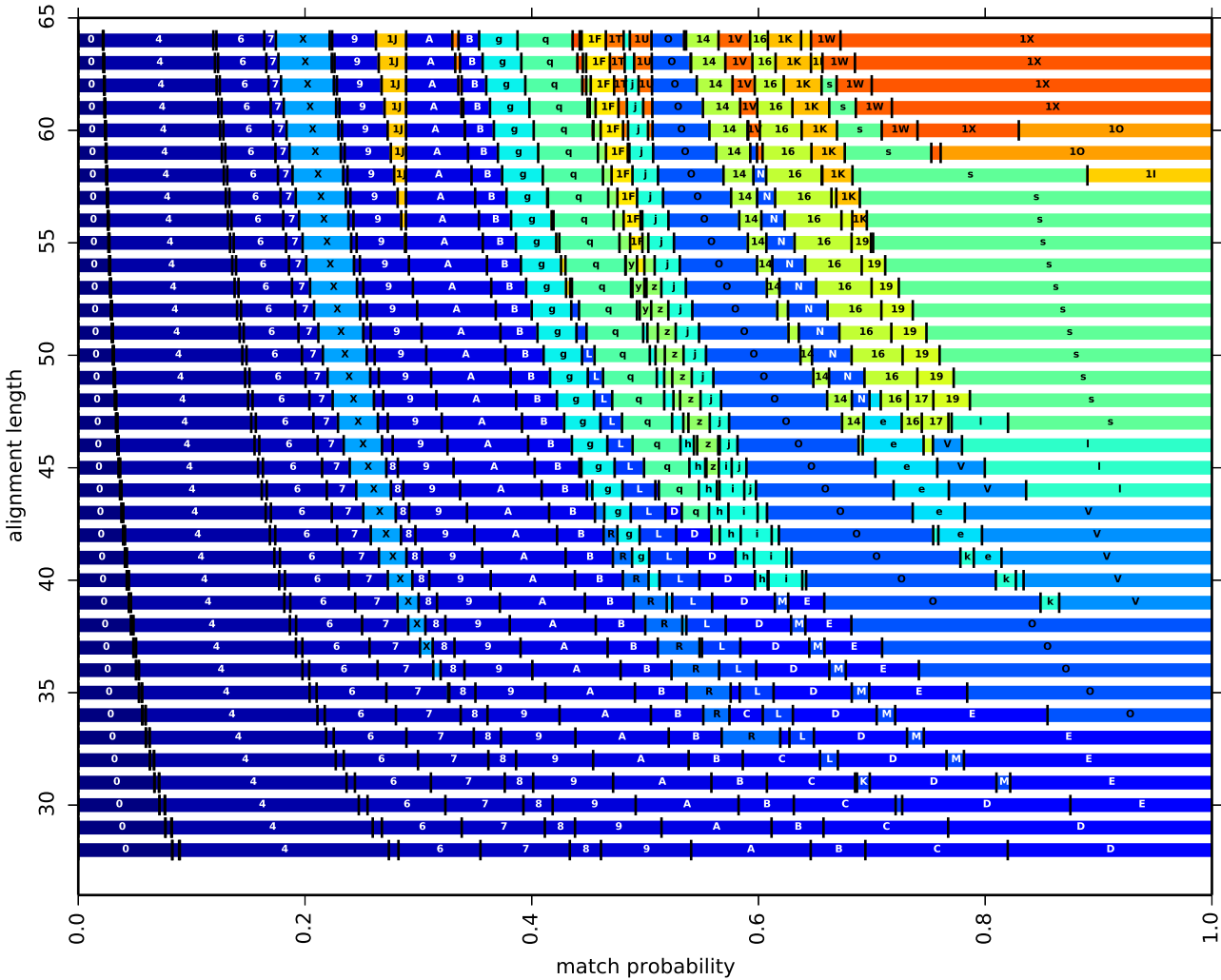
Bernoulli (n:4,w:14)



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6 = 11101111111111,1111111111011011,1101111101101111,1111110011101011
7 = 11011111111111,1111011101110111,1111110011110111,1111111010011111
8 = 11011111110111,1111011111011011,1111110100111111,1111001101101111
9 = 11011111110111,111011111011011,1111110100111111,111011001110101111
A = 11111011011111,1110111111010111,111011000111101111,111110110001101111
B = 11110110111111,1110111111010111,111111001110011011,111101010001110111
C = 11111011011111,1110111111010111,111010111000110111,111101000110111111
D = 11111011011111,11101111110010111,111010100011101111,11110101010001011111
E = 11111011101111,111010010111101111,11101110110000110111,111101001000011001011111
F = 11111011101111,111010010111001111,11110110110000110111,111101001100010101001111
H = 111101101101111,111010010111101111,11110111011000011011,111110100100010001011111
I = 1110101101101111,111011100010110111,11110010111100100111,111010100100001010011111
L = 11101111011111,11111100111010111,111011010001110111,11110001011001010111
M = 11101111011111,111111001101001111,1110101001110111,1111010010011001011111
N = 1110110110110111,1110111000110101011,111100101110001001111,111101001000100100101111
O = 11101101101111,11110111100101001111,11110100011100110111,1111100100100010100011111
P = 11101101101111,111011100011101011,111101001011000101111,1111100101000100101001111
Q = 111011101101111,111010010110001111,111100111000110101011,11111010100010000110011111
R = 11110110111111,1110111111010111,1111010011100011111,111101100010101111
S = 111011101101111,1110111000110101011,11110100101000011111,1111100010001001010101111
T = 111011101101111,11100111000110101011,11110100101100011111,111110001000100010011111
U = 111011101101111,1110101011000110111,1110110000111010111,11111000100010010101111
V = 111011101101111,111100111000110101011,111101001011000011111,111110001000100100011111
W = 111011101101111,111010011000110010111,111101000110010100010111,1111100101000100001010001111
X = 11011111111011,1110111100111111,1111100101111111,111111011011101011
Y = 111011101101111,111100111000110101011,11110100101100011111,11111100010001000100011111
b = 1111011011101111,1111011100010010111,11110000011101010111,111100100100010000111111
e = 111011101101111,11110011000101010111,111001010110100011011,11110100100010001010011111
g = 11101110111111,1111110011101011,111010111100100111,1110101001011111
h = 111101011110111,1101111110101011,1111001100110100111,111011001010001101111
i = 111011011101111,111101000111010111,111011110011001111,11111001001001010101111
j = 11101101111111,111011110011001111,111010001110010111,111100100100010101111
l = 111011101101111,111100111000110101011,1111010010110001001111,1111100100010001001000011111
m = 111101101110111,1111001101001001111,11110100100010011000101011,111100100101000001100101111
n = 111101110110111,11110101001010001111,111011010001001001100111,1111100001000010010101111
o = 1111010110110111,11101110011001010111,111101000101001100010111,1111000101000010001010011111
q = 111101011110111,1101111110101011,11101100101000111111,11110010011010011111
s = 111011101101111,11110011000110101011,110110100101010000111011,1111100010001001001000011111
z = 111011011110111,111010111100101011,111110100011011011,111110010001010010011111
10 = 111101101101111,111010001011001111,11101010011000001100111,11110001000101010000101111
14 = 11101110110110111,11110111000110101011,111101001010011001111,111110001000100101010111
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17 = 11101110110110111,11110111000110101011,1111010010110001001111,111110001000100100101001111
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19 = 1110110110110111,111010101100011101011,11110100001100010111,1111100010010001000011111
1B = 1110111011101111,11110100110010101011,1111001001011000011011,1111001001000100010100011111
1C = 1111011011101111,1111001011010010111,111010100011000110111,111100110001000100010010011111
1F = 1110110111101111,1111010101001110111,1110111100010011011,11101100100110100011111
1H = 111101101101111,11110011010010101011,11110101001001100101011,11110001000100011000110111
1I = 11101110110110111,11101010000110101011,11101100010101000101011,111101000100010010101001111
1J = 11111011011111,1101011111110111,111101110001110111,11111100111010011111
1K = 11101110110110111,11110011000110101011,11110100101100001101011,111010010001001000111111
1O = 1110101101101111,111101110001000100111,11110100010001010101011,11110001010010001000100011111
1T = 1110101101101111,111101110001000111,1111010001110100111,1111000100001010101111
1U = 1110110111011111,1111011110010100111,1111010001110011011,11111001000100010100101111
1V = 1110110110110111,111100111101000101011,111101010001110010111,11111000100100010010011111
1W = 111011011010110111,1111010001101001011,111010101100000110010111,111100010100101000100011111
1X = 111011011010110111,11101010001001000111,11101100011000010101011,11110001001001000100011111
1a = 1111011010110111,1110101011001000101011,11110011000010101001011,11110010010100100010100011111
1c = 11101110110110111,111100110101000110111,111100101000110100010111,1111011000100100000101010111
    
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\int_0^x Hit Integration (n:4,w:14)

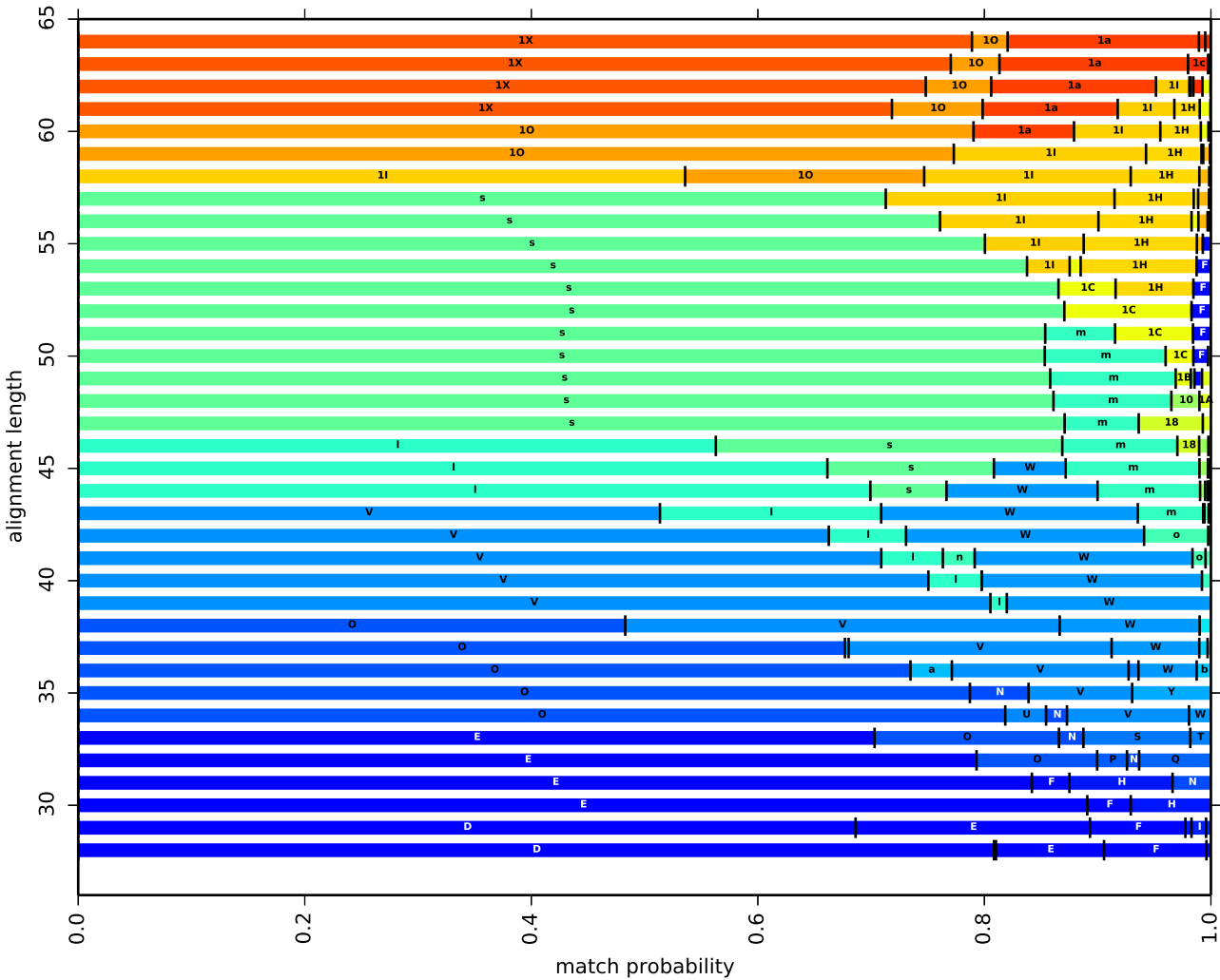


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4 = 11011111111111,11110111011111,11111001110111,11111101111011
6 = 11011111111111,11111111011101,1101111101101111,11111001110111
7 = 11011111111111,1111101110110111,1111110011101111,1111111010001111
8 = 11011111101111,1111011110111011,1111101001111111,111110011101101111
9 = 11011111101111,1111011110111011,1111101001111111,111010011101101111
A = 11111011011111,1110111111010111,111011000111101111,111101110001101111
B = 11111011011111,1110111111010111,111110011100110111,111101010001110111
C = 11111011011111,1110111111010111,11110101110001101111,111101100011011111
D = 11111011011111,1111011111001011,111101010001110111,11110100101000101111
E = 11111011011111,111101001011101111,11110110110000101111,1111010100001100101111
K = 11101111011111,111111100111010111,1111011000101110111,11111001011010010111
L = 11101111011111,1111110011101011,1110110101001110111,11111001011010010111
M = 11101111011111,1111110010100111,1110110101001110111,11110100101000101111
N = 11101110110111,11110111000110101011,111100101110001001111,111101001000100100101111
O = 11101101110111,11110111110010100111,11110100011100110111,1111100100100010100011111
R = 11111011011111,1110111111101011,1111010011100011111,11110111000101101111
V = 11101110110111,11110011100010101011,11110100101000011111,1111110001000100100011111
X = 11011111110111,1111011110011111,1111100101111111,111111011101101111
e = 111101110110111,1111001010001010111,1111001010110100010111,11110100100010001010011111
g = 11110111011111,111111100111010111,11101101111001001111,1111010010111011011111
h = 11110111110111,1101111110101011,11110011001101100111,1111011001010001101111
i = 11101101110111,1111010001110110111,111101110011001111,111110010010001010101111
j = 11101101110111,111101110010001111,11110100011100110111,1111100100100010101111
k = 11101110110111,1111000111010010111,11101101000010101111,1111100010010100100101111
l = 11101101101111,11110011100011010111,1111010010110001001111,11111001000100100011111
q = 11110111110111,11011111110110111,11110100101000111111,1111001100110110011111
s = 11101101101111,111100110001101010111,1101101001010100001110111,1111100010001001001000011111
y = 111011011110111,1110101111001010111,11110100010110111,11111001100101000101111
z = 111011011110111,1110101111001010111,111110100010110111,1111100100010100101111
14 = 11101110110111,1111011100011010111,111101001010011001111,111110001000100100101111
16 = 111011110110111,1111011011010111,1111010010110001001111,1111010001000100100101111
17 = 11101110110110111,1111011100011010111,1111010010110001001111,111110001000100101001111
19 = 1110110110110111,1110101011000111010111,111101100001010010111,111110001001001000100011111
1F = 111011011110111,111101010001110111,1110111100010011011,11110100100110100011111
1I = 1110110110110111,111010110000101010111,11101100010101000110111,1111010001000100101001111
1J = 11111011011111,1101011111110111,111101110001101111,111111011101001111
1K = 11101110110110111,111100110001101010111,11110100101100001010111,11101010001000100100011111
1O = 111010110110111,11110111000100100111,11110100010100101011011,1111000101001001000100011111
1T = 111011011101111,111101111001001111,11110100011101100111,1111001100100010101111
1U = 111011011101111,111101111001001111,111101000111100110111,111110010010001010011111
1V = 1110110110110111,111100011010001010111,1111010001110010111,11111000100100100101111
1W = 111011011010110111,1111101000101010010111,111010101100000110010111,1111000100100101000100011111
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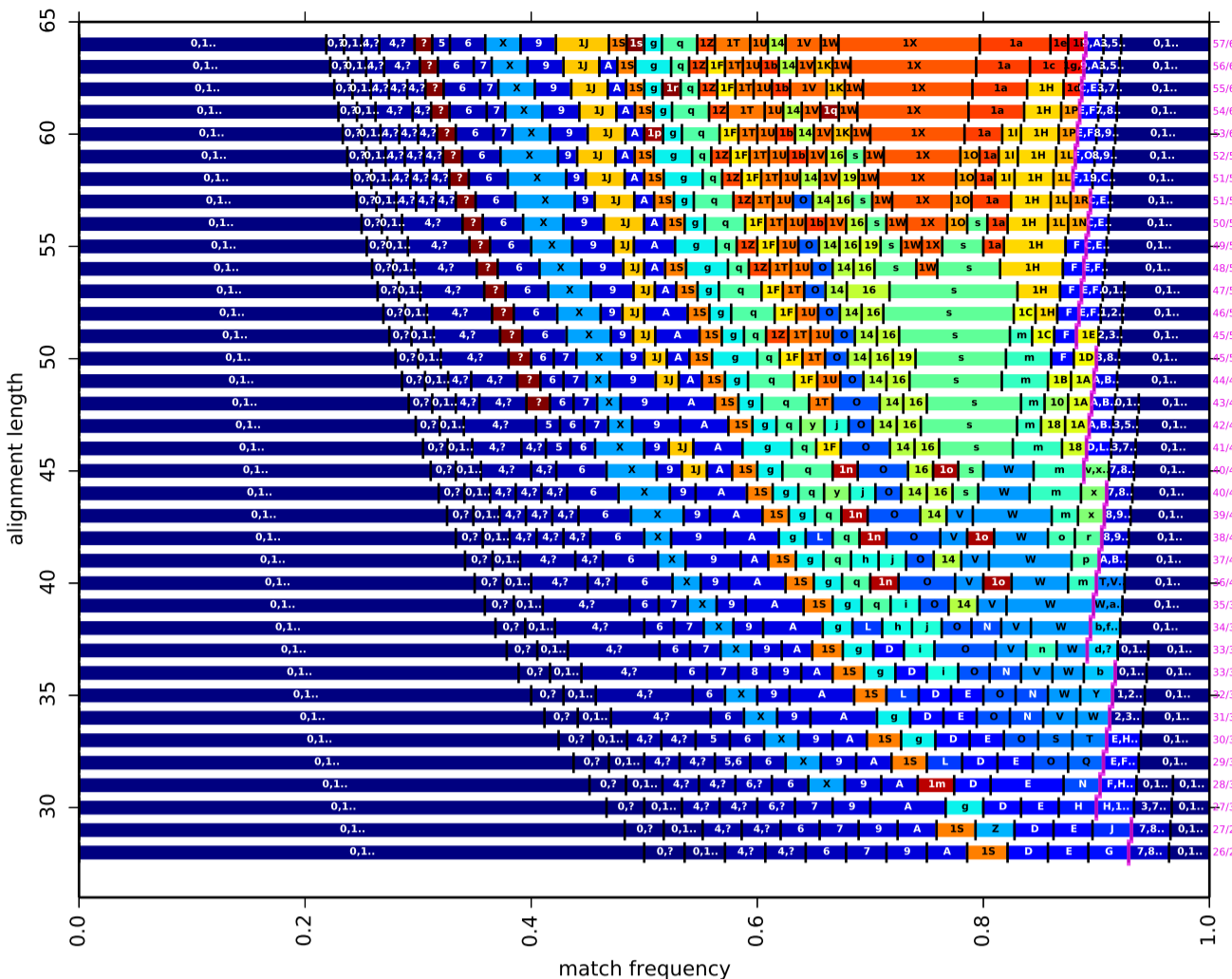
\int_x^1 Hit Integration (n:4,w:14)



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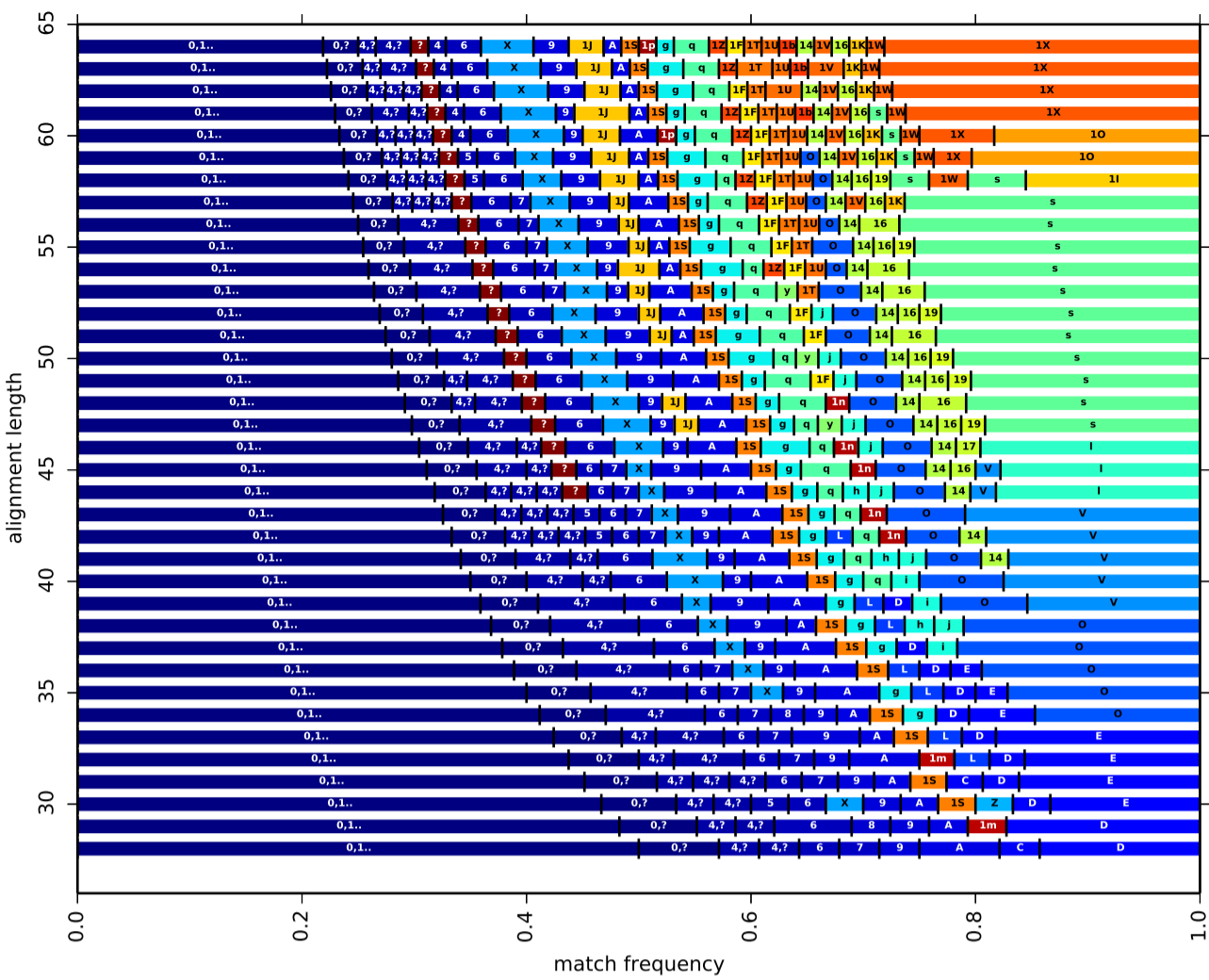
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F = 111101101101111,111010010111001111,11101110110000110111,11101001100010101001111
H = 111101101101111,11101001011101111,111011101100001011,111010100100001000101111
I = 111101101101111,111011100010110111,11110010111100100111,11101010010000101001111
N = 111011101101111,1110111000110101011,111100101110001001111,111010100010010010101111
O = 111011011011111,111011110010100111,1110100011100110111,11110010010001010001111
P = 111011101101111,111011100011101011,11101001011000101111,111100101000100101001111
Q = 111011101101111,1110100101101001111,11100111000110101011,11111010100010000011001111
S = 111011101101111,1110111000110101011,11101001010000111111,1111000100010010101111
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a = 111011101101111,1110011000111010111,11101001011000101111,1111001010001001000101111
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IO = 111010110110111,111011100010100100111,11101000110001010101011,11100010100100100010001111
IX = 1110101100110111,11101010001001000111,1110100011000010101011,111100010001001000001111
Ia = 111101101110111,111010101100100010111,1110011000010101001011,111001001010010001010001111
Ic = 111011101101111,111001101010001010111,11100101000110100010111,11101100010010000010101011
    
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Dirac (n:4,w:14)



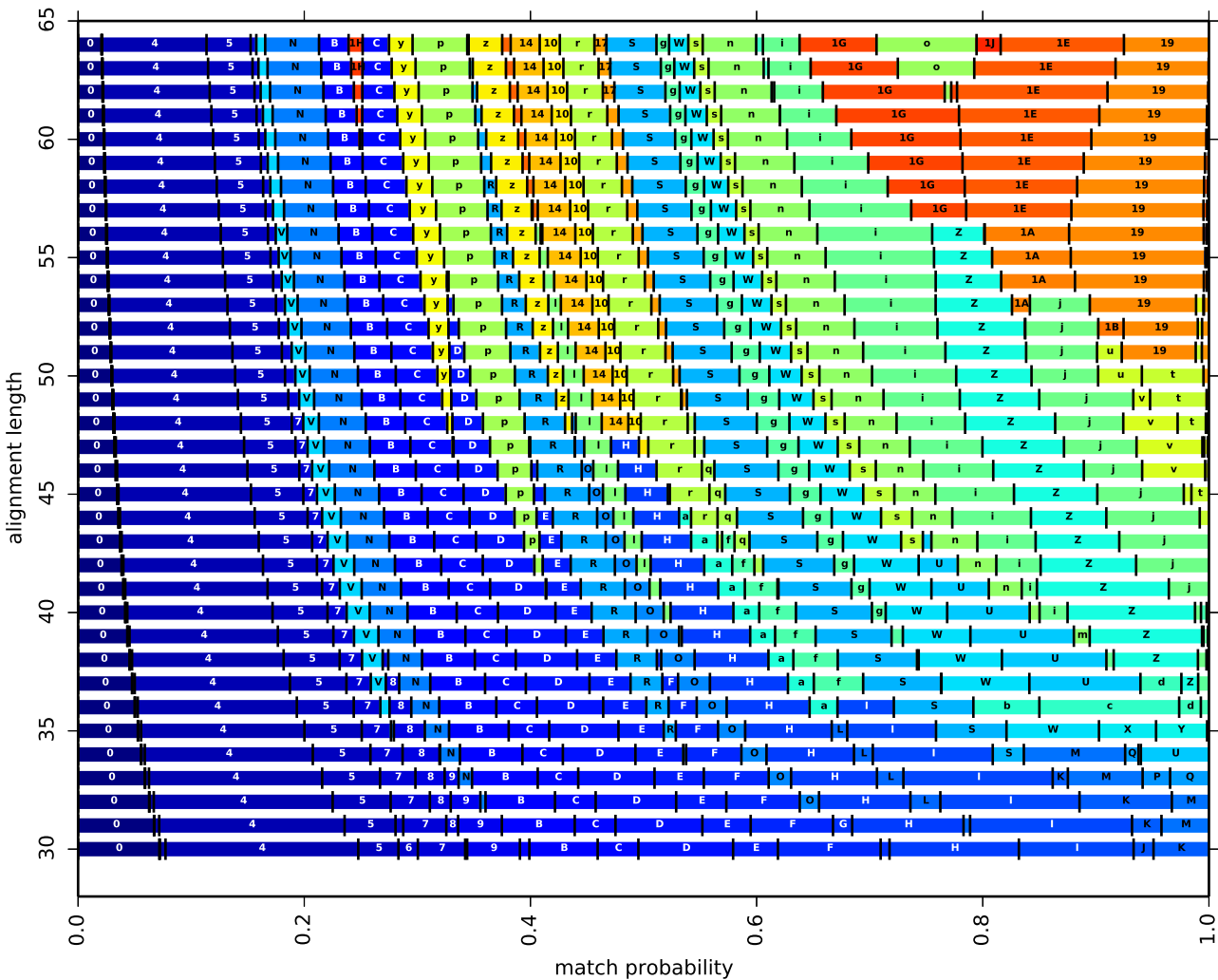
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F = 11111011011111,111101001011001111,11101110110000110111,111010010000100101111
G = 11110110111111,1110110111001011,11111010010001110111,1111101010000001001111
H = 11111011011111,11110100101110111,1110111011000110111,11111010010000100010111
I = 11110110110111,111101110001011011,1111100101110010011,11101010010000101001111
J = 11111011101111,11101101000110111,111010001110010111,1111100000100010010111
K = 11101111011111,111110110001101011,11101100010110111,11111001010100010111
L = 11101111011111,1111110011101011,111011010100110111,1111100101010010111
M = 11101111011111,1111110011010011,111011010100111011,11101001000101111
N = 11101101101111,111011100011010111,1110010110001001111,11101001000100101111
O = 11101101101111,111011110010100111,111010001110010111,11111001000100010111
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S = 11101101101111,1110110001010111,111010010000111111,111100010001001010111
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V = 11101101101111,111001110001101011,111010010100001111,1111100010001001000111
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Z = 11111011011111,111011111101011,1110101100010111,111011000011010111
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b = 11101101101111,111011010001001011,11110000011010111,1110010100010000011111
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d = 11101101101111,11110001001010111,111011000001000101011,11110001100010001010010111
e = 11101101101111,11100101001010111,1110010101010001011,111010010001000101001111
f = 11101101101111,11110010010101011,111010100100010111,1110110001000100010010111
g = 11101110111111,111110011101011,11101011100100111,111010100101110111
h = 11101011110111,11011111010111,11100110010100111,1110110010100010111
i = 11101101101111,1110100011101011,1110111100100111,111011001000101010111
j = 11101101101111,1110111100100111,111010001100110111,1111001001000101010111
k = 11101101101111,111000111001011,11101100001010111,11110001001010010111
l = 11101101101111,11100111000101011,1110100101000100111,111100100010001000011111
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p = 111010110110111,111001010001001011,11111010001100010111,111101010010000100010111
q = 11110101110111,11011111010111,1110100100011111,1110011001101100111
r = 11101101101111,11110001001010111,11101100010001000101011,11110101001000101000111
s = 11101101101111,11100100010101011,11101001010000110111,11110001000100010001111
t = 11101101101111,111001010001000111,1110101000011001011,1110100100100010100111
u = 11110101111111,1110111011010011,1110100110011011,111100100100001000101111
v = 11111011111111,11101111101011,111011010011001011,111010001001010111
w = 11101101111111,1111101111001011,11100100101110111,111101110010101011
x = 11101101111111,111111111001011,1110100110110111,11101101101100111
y = 11101101110111,11101011100101011,11110100011011011,111100110010100010111
z = 11101101110111,11101011100101011,11110100011011011,11111001001010010111
aa = 11101101101111,11101000101000111,11101001000000100111,11100001000101000010111
ab = 11101101101111,111011010001001011,111010001010001011,1111000100010000011111
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ad = 11101101101111,1110110111010011,1110101000011001011,11110001000100010001111
ae = 11101101101111,1110110111010011,1110101000011001011,11110001000100010001111
af = 11101101101111,1110110111010011,1110101000011001011,11110001000100010001111
ag = 11101101101111,1110110111010011,1110101000011001011,11110001000100010001111
ah = 11101101101111,11101101110010011,111010000111010011,1110011001000101010111
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aj = 11101101011111,1110111101001011,11100101000101011,111100110100010001001111
ak = 11101111101111,1110111001011011,11100101110010111,1111001100001001010111
al = 11101101101111,111011100010101011,1110100101000101011,1110101000100010010111
am = 11110101101111,11101111101011,1110100011100111,1111010100010001001111
an = 11101101110111,111011100101011,1110100010110111,111100100100010001111
ao = 1110110110110111,1110011010000110111,11101100010100001011,11101010001000010001111
ap = 11101110111111,111110011010111,111011101001011,111010100100010001001111
aq = 11101101101111,111100010001001011,11101100001010001011,11110000010100010001111
ar = 111010110110111,111100110001001011,11100101000101011,111100100100010001001111
as = 11101111011111,1111110011101011,111010010100111111,11100111101001011

$$\sum_0^x \text{Heaviside}(n;4,w;14)$$



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2 = 1111111111111,1110111111111,111111101110111,111111101011111
3 = 1111111111111,111011110111111,111111101110111,111111101010111
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5 = 1110111111111,111111011111011,111111101011111,110111101101111
6 = 1110111111111,11111110111011,110111101011111,111111001110111
7 = 1101111111111,111101110110111,111110011110111,111111101001111
8 = 1101111110111,111101111011011,111110100111111,111100111010111
9 = 1101111110111,111101111011011,111110100111111,11101100111010111
A = 1111011011111,111011111101011,11101100011110111,111101100010111
B = 1111011011111,111011111101011,11111001110010111,11101010001110111
C = 1111011011111,111011111101011,111101011100010111,11101100010101111
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K = 1110111011111,1111110011101011,11110100010111011,11110001010010111
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b = 1111011011011,111101110001001011,111100000110101011,11110010010001000001111
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k = 1111011011011,111100011101001011,111011010000101011,11111000101010001010111
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m = 1110110110111,111100110010100111,11110100100010010001011,11110010100000010010111
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1G = 1110111011111,11111001101011,111101010100101011,11110101011000111
1H = 1111011011011,11110011000101011,11110100100100101011,11110001000101000101011
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1S = 1111011011111,111011111101011,1111011000101011,1110100011100111
1T = 1110110111111,1111011100100011,111101000111010011,1111000100010101011
1U = 1110110110111,1111011100100011,111101000111001011,111100100100010100111
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1Z = 1110110111111,1110111101001011,11100010110011011,1110111000011001011
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1b = 11101101110111,111101001010100111,1110011100010101011,1110100100100100111
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1j = 1110110111111,1110111101001011,11100010110011011,1110110100010100111
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1n = 11101101110111,111001110000110111,111101000101010001011,111101000100001001111
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1p = 1110110111111,1111100110101011,11101110100101011,1110101010011110111
1q = 1110110110111,11101001100100101011,11110100001010100111,111110001001000100010111
1r = 11101011110111,1111110100101011,11100101100110111,1111011001101010011
1s = 1110111101111,1111110011101011,111010010100111111,1111001111101001011

Bernoulli (n:4,w:15)

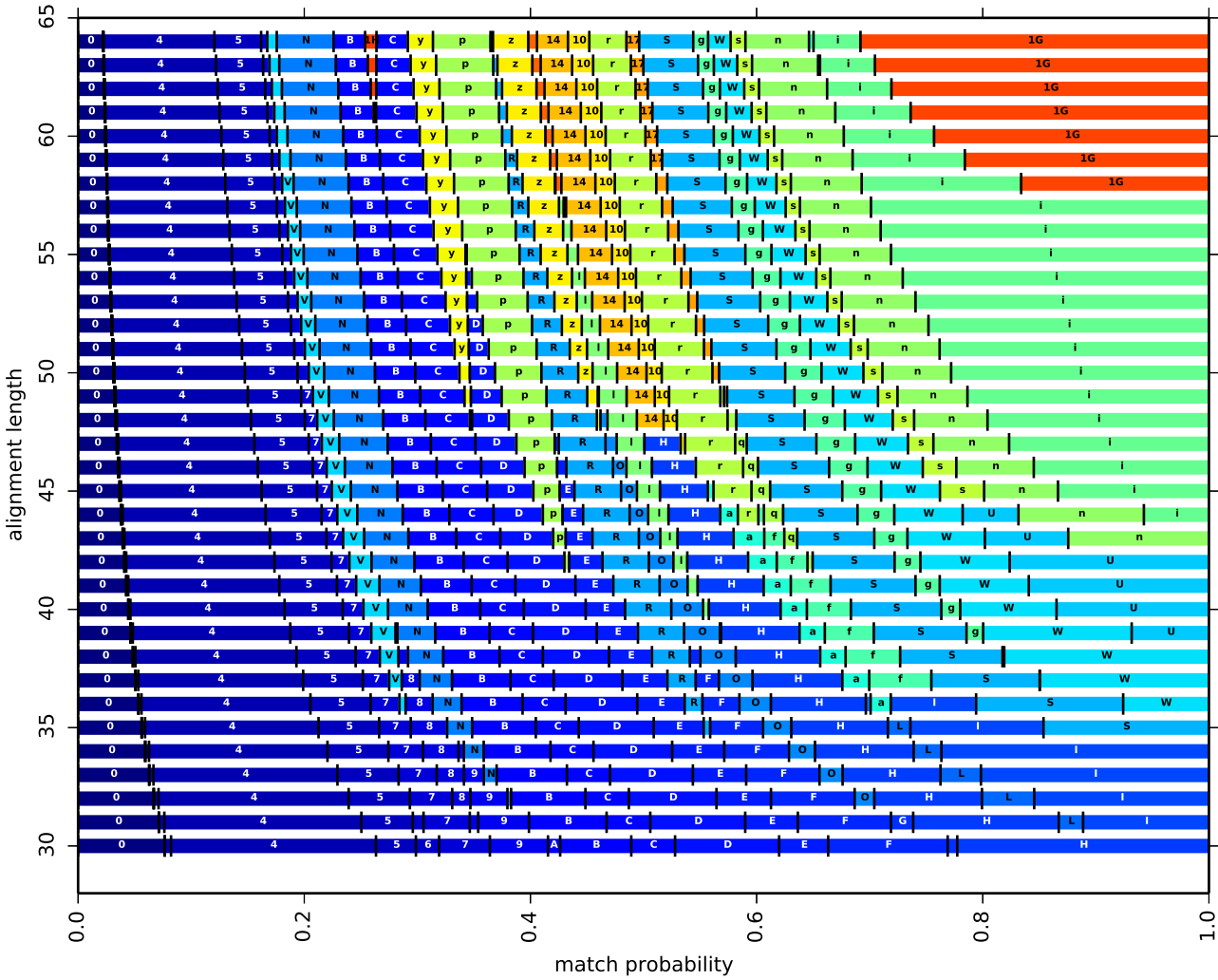


match probability

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6 = 11011111111111,11111011111101,11111110111011,11111011100111
7 = 11011111111111,11111011110111,11111011101101,11111110010111
8 = 11101111111111,11111011101101,11111100111011,11111110100111
9 = 11011111111111,11111011101101,11111100111011,11111110100111
B = 11101101111111,11110111101101,11111110101101,11110100101101
C = 11011011111111,11111011101101,11101011100111,11111010010111
D = 11111011111111,11101111110101,11110110001101,11111000111011
E = 11110110111111,11101111110101,11111001101011,11110101000110
F = 11110110111111,11101111110101,11101101001011,1111100110100111
G = 11110110111111,11110111110101,11110101001011,1111110001100111
H = 11101111101111,11111010101110,11110011010100,11111010100010
I = 11110110111111,11110111001011,1111100101110010,1111101000100010
J = 11111011011111,11110010110101,11111001100101,1111101000100010
K = 11110110111111,11110011100010,11111010010101,1111010010001001
L = 11101111011111,11111001101011,11110101010101,1111101001000101
M = 11110110110111,11111010100010,11110100010110,1111001010001001
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O = 11110101111111,11101111110101,11110110001101,11110101010001
P = 11110110111111,11110101000101,11101100010100,1111100100010001
Q = 11110110110111,11110110100010,11111010001100,1111100101000100
R = 11101011111111,11111011010101,11110101011000,11111010001011
S = 11101110110111,11101001110100,11111010001010,1111101001000101
U = 11110110110111,11110101000101,11101100011000,1111100101000101
V = 11111101111111,11101011110101,11110011101111,11111111100101
W = 11110110110111,11110110001010,11110100101001,111111001000100010
X = 11110110110111,11110101000101,11110100001100,1111100100100010
Y = 11110110110111,11110001010010,11111010001010,1111100100010010
Z = 11110110101011,11110010100010,11110010001001,1111010001000010
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f = 11110110111111,11110100111001,11110111000101,1111010010010011
g = 11101110110111,11101001110100,11110110001010,111110101001000101
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l = 11101111101011,11111010101101,11101100101001,1111010011001010
m = 11110110101011,11101000101001,1111010100100010,111110010100010010
n = 11101110110111,11110101010001,11110100100001,1111101010101011
o = 11101101010111,11110100100100,11110100010100,1111010010000100
p = 11101110111111,11111001101011,11101111101100,11101010010111
q = 11101101111111,11111100101010,11110101101000,1111100100010100
r = 11101011101011,11111101001010,11110010111001,1111010001000101
s = 11110110110111,11110100101000,11110101000010,1111100100001001
t = 11110110110111,11110100100100,11110010001001,1111010010001000
u = 11110110101101,11110100110010,11110010000100,111101001100010001
v = 11110110101011,11110100011001,11110100010001,1111010100010001
y = 11110110111111,11101111110101,11101110100110,11111000110101
z = 11101101111111,11111100101101,11101011011000,11111100010101
10 = 11101101111011,111110101001,111010110001,1110110011010010
14 = 11101101111111,11111100101011,11101010001110,1111001011010001
17 = 11101110110111,11111000101010,11101001101001,1111010010001001
19 = 11110110110111,11110010100101,1111001010010010,1111001000010010
1A = 11110110101011,11110010010100,11111000100010,1111010010010001
1B = 11110110110111,11110010100101,1111001010010010,1111001000100010
1E = 11110101011011,11101001001100,11110101001001,1111010001000100
1G = 11101101101011,11110110010001,11110010100010,1111100010010001
1H = 11011101111111,111111101010,11110010111011,1110101101001111
1J = 11101101101011,11110100100100,1111011001010000,1111100010010010
    
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\int_0^x Hit Integration (n:4,w:15)

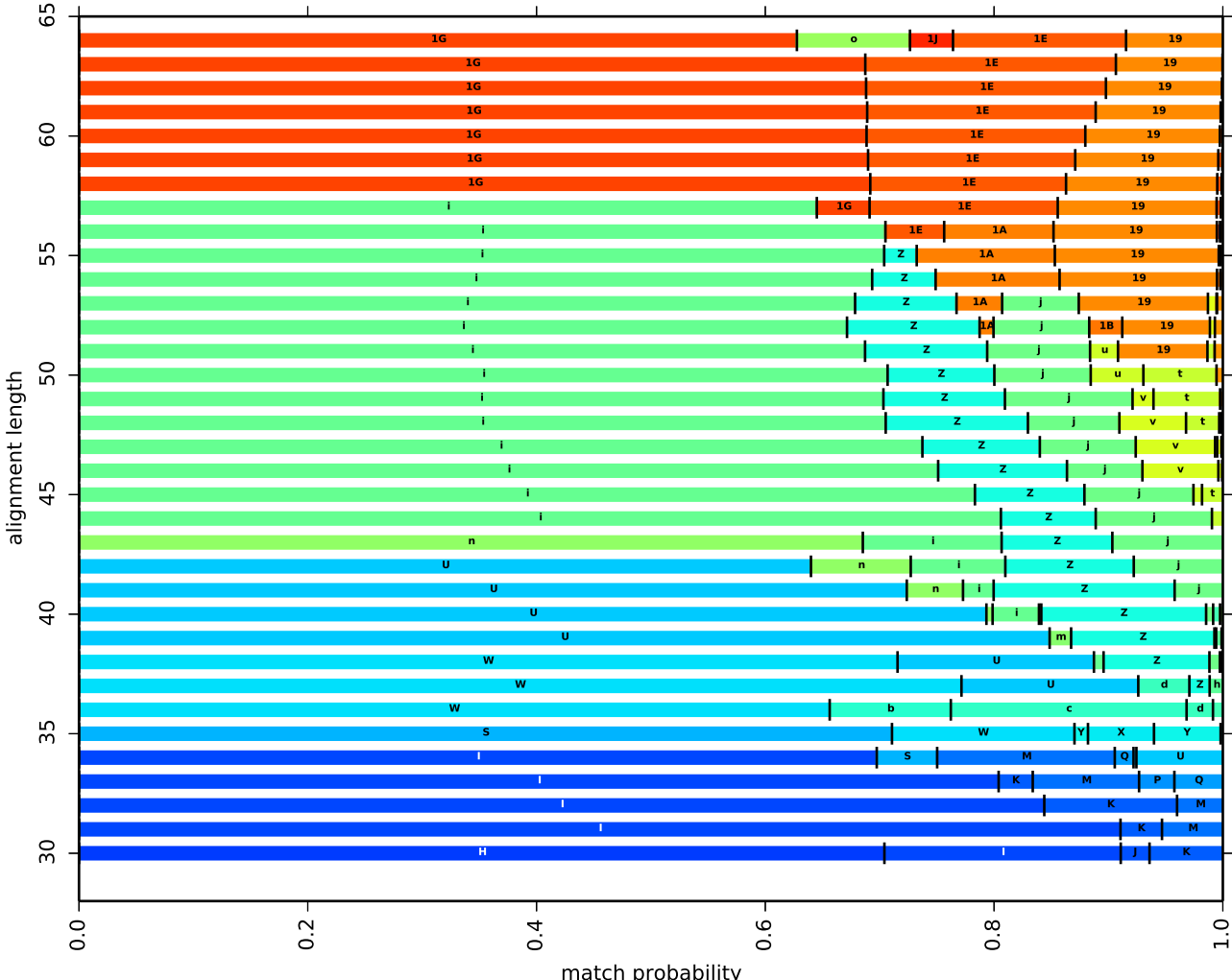


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0 = 11111111111111,11011111111111,11111101111111,11111111011111
4 = 11011111111111,1111011111011111,1111101111110111,1111111011010111
5 = 11110111111111,1110111111110111,1111111011011111,1101111101110111
6 = 10111111111111,1111101111110111,1111111011101111,1111011100111111
7 = 11011111111111,1111101111101111,1111011110111011,1111111001011111
8 = 11101111111111,1111101110110111,1111110011101111,1111111010010111
9 = 11011111111111,1111101110111011,1111100111101011,1111111010011111
A = 11101111111111,1111101011101111,1111111011001111,1111010011101011
B = 11011011111111,1110111110110111,1111111010111011,111101001011101111
C = 11011011111111,1111111011101011,111010111100111111,111111001011101111
D = 11110101111111,111101111110110111,111101110001110111,111111000111010111
E = 11110101111111,1110111111101011,111110011101010111,11110101100011101111
F = 11110101111111,1110111111101011,11110110100101101111,111110011010010111
G = 11110111011111,1110111111101011,111101011001110111,11111110001010010111
H = 11101111110111,11111010101110111,111100101101001111,1111101011000010101111
I = 11101110111111,111101110010110111,11111001011100101111,1111011000100010101111
L = 11101111011111,11111100111010111,111101101001110111,111110100100110001011111
N = 11011011111111,1110111111001111,1111101010111111,111111101110110101
O = 11110101111111,111011111110110111,1111011000111010111,11111010110001110111
R = 11101011111111,1111111101010111,11110101011100011111,11110110001011101111
S = 1110111011011111,11101001110100101111,1111011000101010111,1111101000100010001011111
U = 1110111011011111,11110110100010101111,1111010001110100101111,11111001010001001000011111
V = 11111011111111,1110110111110111,1111001110111111,1111111111001011
W = 1111011011011111,11110110001011010111,1110110010110100101111,111111001010001000100101111
a = 11110111111111,11110100111100101111,1111101110001010111,111101100010010011101111
f = 11110110111111,11110100111100101111,1111011110001010111,111101100100010011001111
g = 1110111011011111,11101001111010010111,111110110001011010111,11111001010010001000101111
i = 1111011101110111,11101100010110100110111,11110110010001001010111,111110110010000100010100101111
l = 11101111010111,111110101011110111,111101001010011111,11110100111110110111
n = 1110110110110111,11110110110000101111,11110100110000101010111,11110001000100010100101111
p = 11101111011111,111111001110101111,1110101111101100111,11101101010011111111
q = 11101101111111,111111001101101011,11110101110100010111,111110010000101100101111
r = 11101011101111,111111101001010111,11110010101110010111,111101000110001011011111
s = 11110111011111,111101001101001001111,1111011010001011010111,1111100101000100001001011111
y = 11110111011111,11101111111010111,111011101001110111,1111100011110110111
z = 11101101111111,111111100101110111,11101011011100011111,11111100010101010111
10 = 1110110111101111,111111101001110111,11101011000111010111,1111011001110100110111
14 = 1110110111011111,11111111001010111,11110101000011101111,1111100101110100011111
17 = 1110111011101111,111111000101010111,11110011110100101111,1111010010100010001011111
1G = 111011010111010111,1110111001010001001111,111100101100010100101111,111110001001020001000010011111
1H = 11011101111111,1111111110101011,1111100101111010111,1110101110110011111

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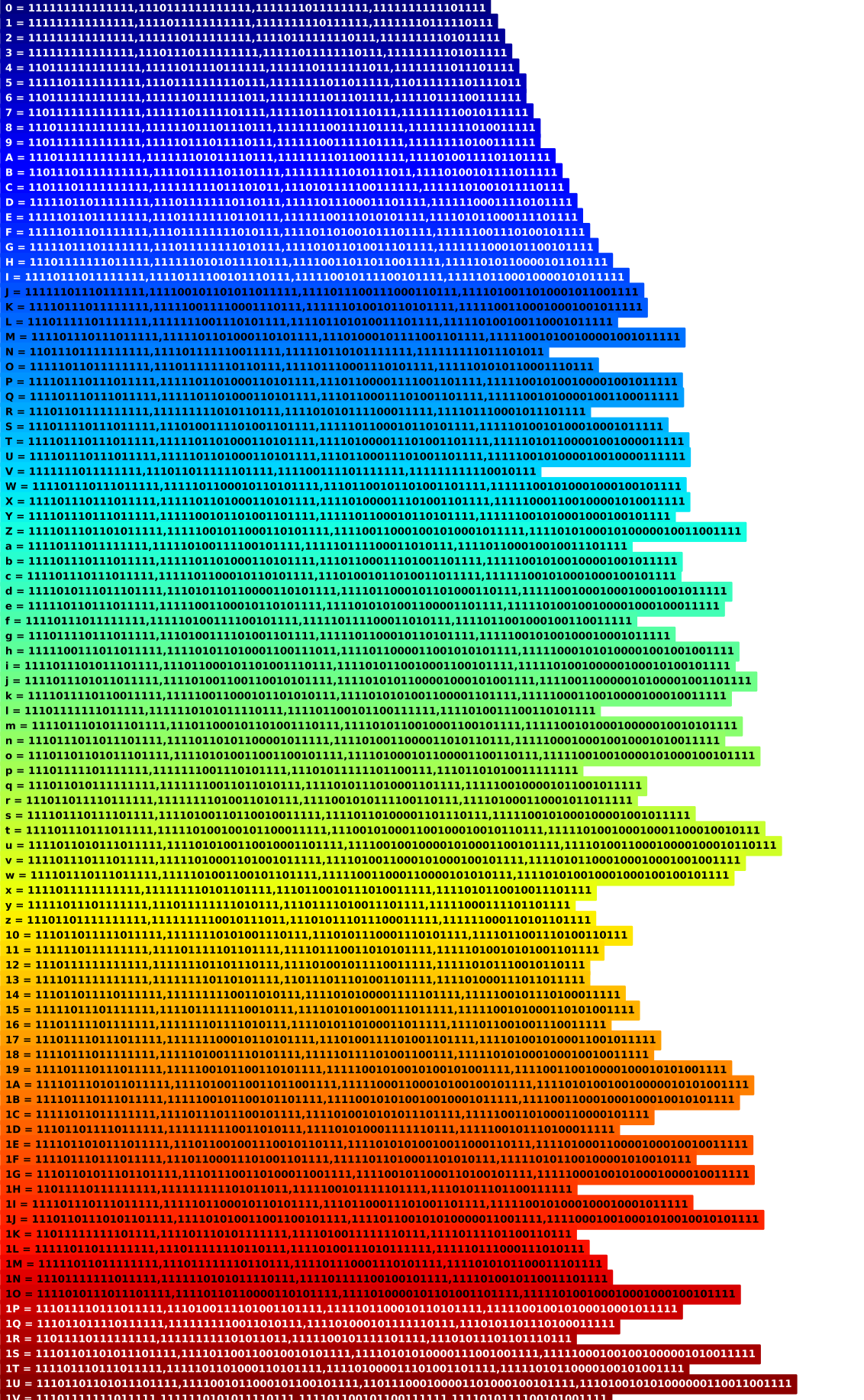
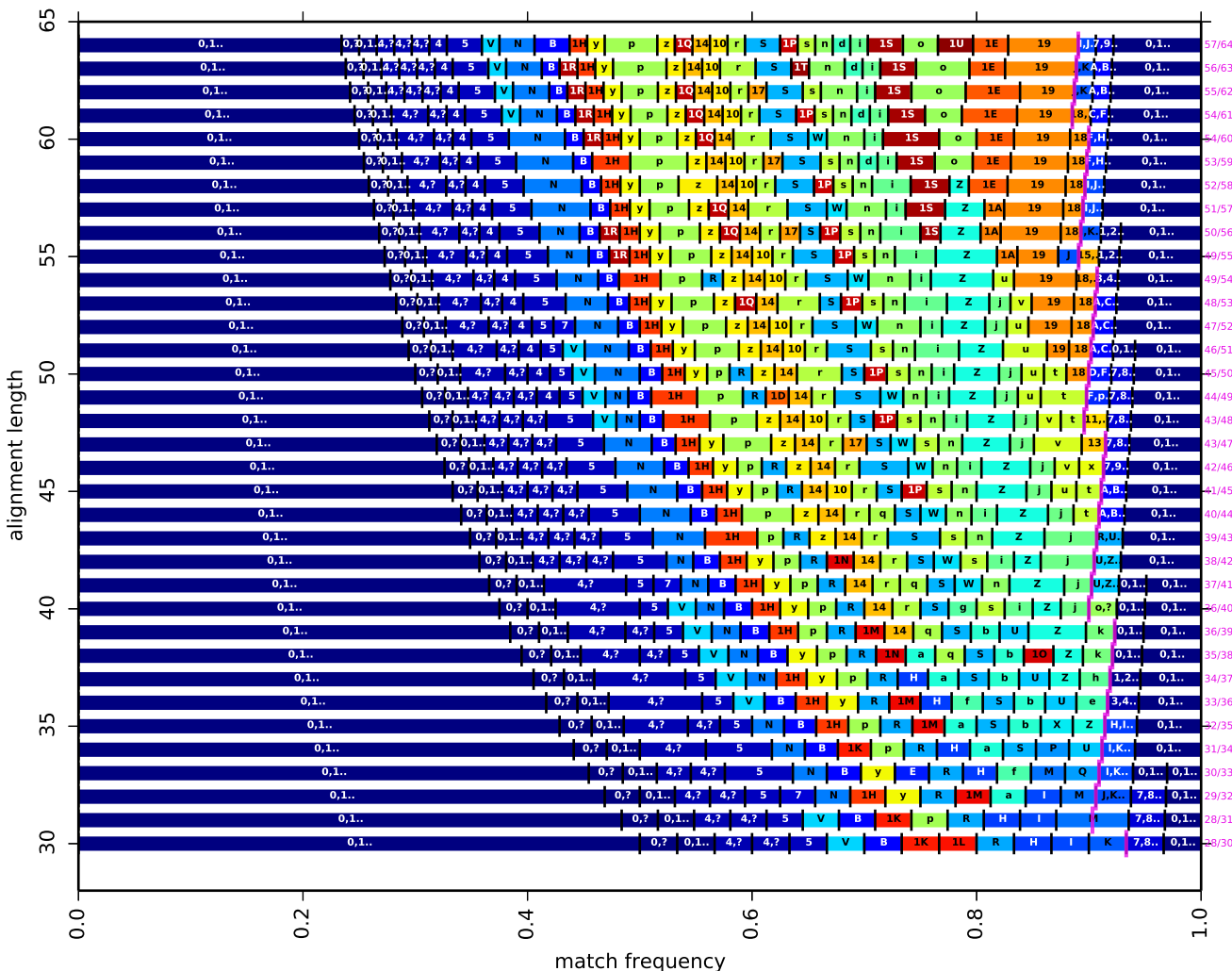
\int_x^1 Hit Integration (n:4,w:15)



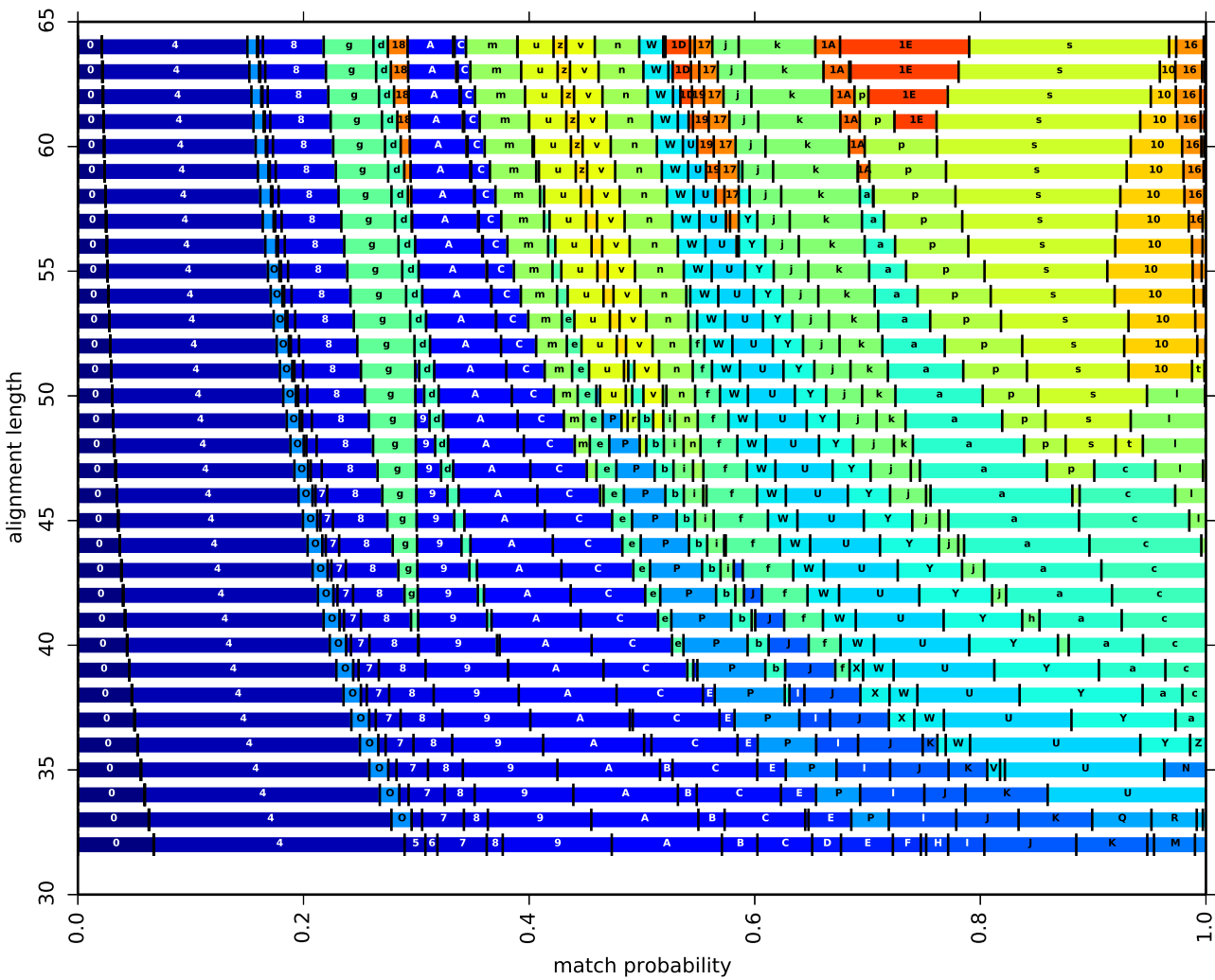
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H = 111011111101111,1111101011110111,111100110110011111,1111101010000101101111
I = 1111011101111111,1111011100101110111,1111100101110010111,11111010001000010101111
J = 111110110111111,111100101010110111,11110110011100011011,1111010011101000101001111
K = 111101110111111,1111001111000110111,1111101001011010111,11110011000100010011111
M = 1111011101101111,11110110100011010111,1110100010111100110111,11111001010010000100101111
P = 1111011101101111,111110110100011010111,111011000011100110111,11111001010010000100101111
Q = 1111011101101111,11110110100011010111,1110110001110100110111,11111001010000100110001111
S = 111011101101111,111010011110100110111,11111011000101101011,1111101001010001000101111
U = 1111011101101111,111110110100011010111,1111010001110100110111,11111001010000100100011111
W = 1111011011101111,11110110001011010111,1110110010110100110111,111111001010001000100101111
X = 1111011101101111,111110110100011010111,11110100001110100110111,11111000110010000101001111
Y = 1111011101101111,111110010110100110111,111110110001011010111,111111001010001000100101111
Z = 1111011101101111,1111100101100011010111,1111001100010010100010111,111101010001010000010011001111
b = 1111011101101111,1111101100011010111,1111010001110100110111,111110010100001001011111
c = 1111011101101111,111110110001011010111,1111010010110100110111,11111001010001000100101111
d = 1111011101101111,111101011011000011010111,111101100010110100110111,1111100100010001000100101111
h = 111110011101101111,111101011010001100111011,111101100001100101010111,11111000101010000100100101111
i = 11110111011101111,111101000101101001110111,111101100100011001010111,111110100100000100011010101111
j = 1111011101101111,11110100110011001010111,1111010110000100010100111,111110011000001000001001101111
m = 1111011101101111,11110100010110100110111,111101011001000110010111,111110010100010001000100101111
n = 11101110110110111,1111010110110000101111,111101001100001101011011,111110001000100010001001101111
o = 11101101101110111,11110101001100110010111,11110100010110000110011011,111110010010000101000100101111
t = 1111011101101111,11111010010010100011111,11100101000110010001001011011,111110100100010001100010010111
u = 1111011011101111,1111010001100100010111,1111001001000010100010010111,111101001100010000100010110111
v = 1111011101101111,1111101000110100101111,111101001100010100010010111,111101011000100010001001001111
19 = 1111011101101111,11111001010011010111,111110010100101001010111,111110010001000100010101001111
1A = 1111011101101111,1111010011001101100111,11111000110001010010010111,111101010010010000010101001111
1B = 1111011101101111,111110010110010110111,11110010101001001000101111,1111001000100010001001010111
1E = 1111011011101111,1110110010011001010111,1111010100100100100010111,1110100110000100010010011111
1G = 1110110101110110111,11101110011010001100111,111100101100011010010111,111110001001010001000010011111
1J = 111011011010110111,11110101001100110010111,11110110010101000001100111,1111000100100010100100101111
    
```


Dirac (n:4,w:15)



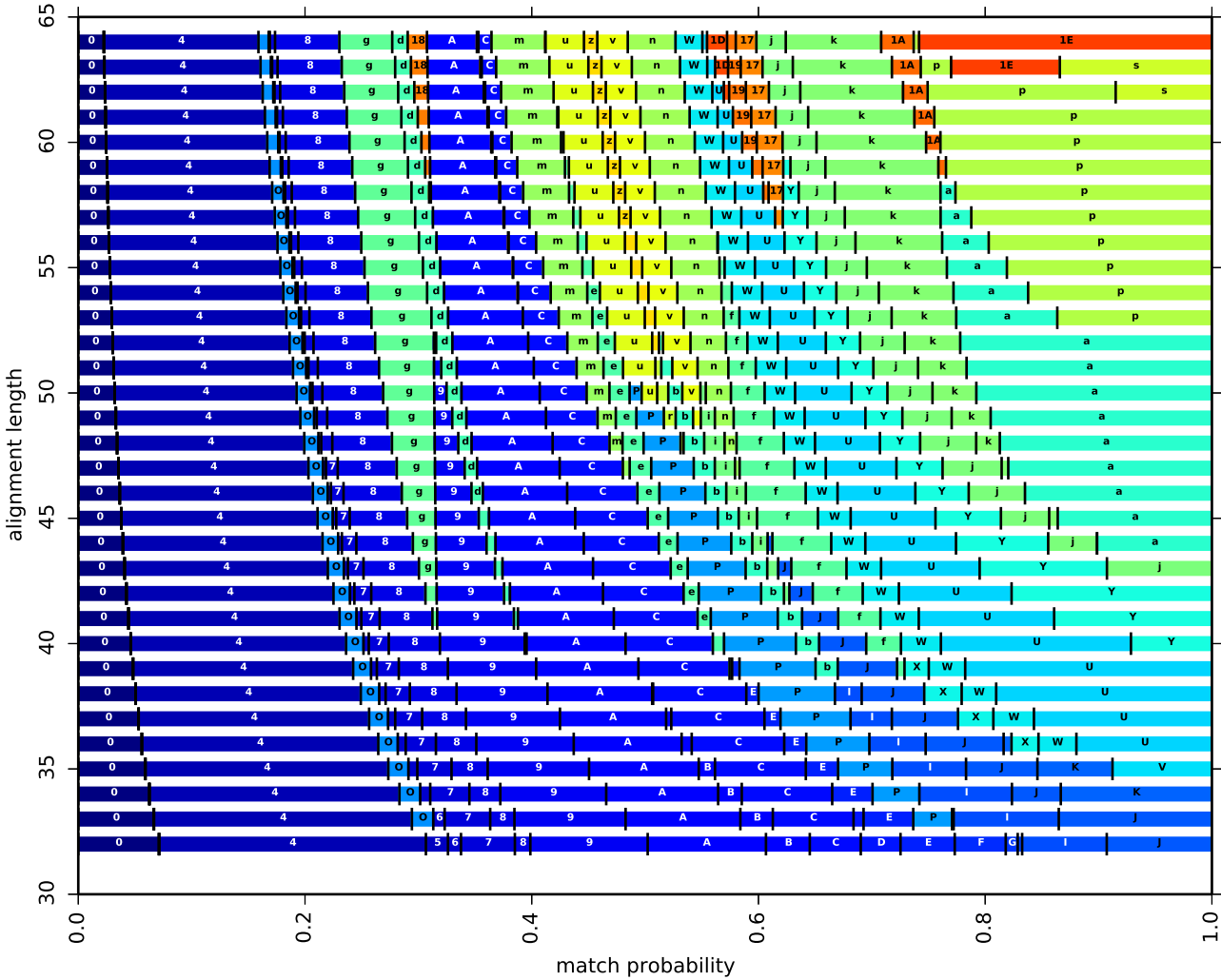
Bernoulli (n:4,w:16)



```

0 = 1111111111111111,1111011111111111,1111111011111111,1111111111101111
4 = 1101111111111111,111110111111011111,1111110111011111,1111111011101111
5 = 1111011111111111,110111111111101111,1111111010111111,1111110111001111
6 = 1101111111111111,111111011011011111,111110101111011111,1111110110110111
7 = 1110111111111111,111111011011110111,111111100111101111,1111111101001111
8 = 1101111111101111,111100111101111111,111111010011111111,111111011101101111
9 = 1101111111101111,111100111101111111,111111010111110111,111110110110010111
A = 1111011101111111,110111111101101111,11110100111101011111,111101110001101111
B = 1111011101111111,110101111110110111,11111011100011011111,11110100101101011111
C = 1110111011111111,111110111101101111,1111010011011110101111,11110110110001101111
D = 1111011011111111,110111111101101111,11110100101101011111,11110111000110101111
E = 1110111111011111,111110100111011111,1111011110110001011111,11111000101001110111
F = 1111101101111111,111011111101101111,1111101011000011101111,11110110001010101111
H = 1110111011111111,111110111010110111,111101001011100101111,1111010111000011011111
I = 1110111111011111,111111001011101111,1111010111001101011111,111110100010001011111
J = 1110111110111111,11111101100101011111,1111010010011101110111,111110100110001000101111
K = 111101101110111111,1111011001011010101111,1111010111001001011111,111110100000101100110111
M = 111101110110111111,1111011110010100101111,111101000100110110011111,11111000101101000101001111
N = 111101110110111111,1111001110010110101111,11110100010110001011111,1111100010100100010010011111
O = 1101111110111111,111110111101111111,111111101111110111,11111111001100110111
P = 1111011101111111,110111111101010111,11101101001110011111,1111010011001001110111
Q = 111101101110111111,11110111001111010111,1111010011110100101111,111101010000010011101111
R = 111101110110111111,1111010001011010101111,11110111100001001011111,111010100101001000110011111
U = 111101110110111111,1111100110010110101111,1111010001011001011111,111110010100100010100011111
V = 111101101110111111,11110100010110110111,1111010111001010011111,111101000100010010101111
W = 111101101110111111,1110101111001010011111,1111011001011101100111,11110110001000100101011111
X = 111101101110111111,11110111001111010111,1111010111100100101111,11110110010001000111011111
Y = 111101101110111111,11110110001110100101111,11110101101000011101111,1111100100100010001010011111
Z = 111101101110111111,1111001100010010101111,1111010100011100100101111,111110100100100010001010011111
a = 111101101110111111,111101011100101001011111,1110111000101001100101111,11111000010010001010011111
b = 111101101110111111,1110111101111010111,111110001011010011111,11110101100100011101111
c = 111101101110111111,111110100110010101111,11110100100010100010101111,111101010001000100010100101111
d = 111011111011111111,111110111101111011,11110111100111011111,111101001101011011111
e = 1111011011111111,111011111101010111,1111010010111110011111,1111100101000011101111
f = 111101101110111111,1111011100111101010111,111101011100100101111,111110010001010010101111
g = 110111101111111111,11110011111101111,11111111101011011,11110110110011011111
h = 1110111011101101111,11101110000110101010111,1111001011101000110011111,1111001100010000101001011111
i = 111011111101111111,1111011001010010101111,11110100010011101101111,1111010011100100101111
j = 1111011011101101111,1111010010110100101111,1110110011100011100110111,11110100100010010001000111111
k = 1111011011101101111,11101010101010011001111,1110100010011010101111,11111000110001000101011111
l = 11110011101011011111,1111010011010011000101111,11110100110001000010010101111,11110100010001010100100011111
m = 111101101101111111,111011111110100111,111011111000111010111,11110100101010101111
n = 111101101110111111,11101100111101010111,111101011100100101111,111110010000101100101111
p = 1111011011101101111,1111001011001010010111,11101011000100100100101111,1110110000100100010001010011111
r = 111101101110111111,1110111110111010111,1110111100100011010111,1111100010110110011111
s = 1111011011101101111,11110101101001001001111,111101001001010100011001111,11110010100100000101000101111
t = 1111011011101101111,1111100101000110100101111,111010110000001101001001111,1111010000100100010001010011111
u = 110111111101011111,111101010111110111,11110110000111010111,1111010101110011001111
v = 111011011110111111,11110101110110010111,111111110001101101011,1111011001010100011101111
z = 110111101111011111,11110101110100111111,111011100100101101111,111100110011011010111
10 = 111101111011011111,1111001011001011010111,111100101001000100101111,1111001000100010001000101111
16 = 111101110110111111,11111010011000101001111,11110010100101001000100111,11101010011000100010100101001111
17 = 1111011011101101111,1111001001111001010111,11110110001010010111,1111010100100010011000011111
18 = 110111111101111111,111100110111110111,11111111010111001111,11110101111001011111
19 = 1111011011101101111,111100111110011010111,111101100010100101111,11110101000100011001011111
1A = 111101101110111111,111101001010110001111,11101011010000101010111,11110010100010001001011111
1D = 1111011011101101111,1111010011100110100111,111101100010100101111,111101010010001001100101111
1E = 11110110110101101111,1111010001101100110010111,11101011001000011001010111,1111100101000101000010001101111
    
```

\int_0^x Hit Integration (n:4,w:16)



0 = 11111111111111,11110111111111,11111110111111,11111111101111

4 = 11011111111111,1111011111101111,1111110111011111,1111111101111011

5 = 11110111111111,1101111111110111,1111111010111111,111111101110011111

6 = 11011111111111,1111111011011111,11111010111101111,111110110111110111

7 = 11101111111111,111111011101110111,11111100111101111,111111101000111111

8 = 1101111111101111,11110011110111111,11111010011111111,11111101110111011

9 = 1101111111101111,11111001110111111,11111101011111011,11111011101100101111

A = 1111011101111111,110111111110110111,1111101001110101111,111101110001101111

B = 1111011011111111,111011111110110111,1111011110001101111,1111010010101011111

C = 1110111011111111,111110111110110111,1110100110111010111,1111011010001101111

D = 1111011011111111,1101111110110111,1111010010110101111,1111011100011010111

E = 1110111110111111,11111010011110111,11110111101100010111,11111000101001110111

F = 1111101011111111,111011111110110111,1111010110000110111,11110110001010101111

G = 1110111101111111,11111010011101111,111010001101101111,111101101001000101111

I = 1101111111011111,1111100101110111,1110101100110101111,1111011000101000101111

J = 1101101111011111,1111101110010110111,1110100100110110111,11110100110001000101111

K = 1111011011011111,1111011001111010111,11101011100100101111,1111010000011001101111

O = 111011111111111,1111101111101111,1111111011111011,11111111000101111

P = 1110110111111111,1110111111010111,1110110100111001111,11101001001001101111

U = 1110111011101111,11110011001011010111,11110100010110010111,111110010100100010100011111

V = 1110110111011111,1110110010110110111,11101011100101001111,1111011000100010010101111

W = 1110110111011111,11101011100101001111,11101010010110100111,1111011000100010010101111

X = 1110110110111111,1110110011101010111,11101011100100101111,11101001000100011011111

Y = 1110110111011111,11101100011010010111,111010110100001101111,1111100100100010001010011111

a = 111011011101101111,1110010110010100101111,11101110001010010010111,111111000100100010001010011111

b = 1110110111011111,11101110111011010111,11111000101101001111,111101101100100011101111

d = 1110111110111111,111110101111110111,111011111001110111,111010011101011111

e = 1110110111111111,1110111111010111,1110100101111001111,111110011010001101111

f = 1111011011011111,11101110011101010111,11101011100100101111,11111001001010011010111

g = 1101110111111111,11111001111101111,11111111010111011,11101010010111111

i = 1110110111011111,1111101110010110111,11101001001110110111,11110100111001000101111

j = 1110110110110111,11110100101010010111,111010011000110010111,1110100100010001000111111

k = 1110110110110111,111010100101001001111,11101000101001010111,11110001000100010001011111

m = 1111011101111111,111011111110100111,11101111100011101011,111101001011011111

n = 1111011011011111,11101100111101010111,11101011100100101111,111101001000101101101111

p = 111011011101101111,11110010111001010010111,111010110001001001010111,111011000010010001010011111

r = 1110110111011111,111011110111010111,11101110010001101111,1111100010110110011111

s = 111011011101101111,11101011101001001001111,111011000100101010001100111,111001010011000000101000101111

u = 1101111111010111,111101010101110111,11101110000111010111,111100101110011001111

v = 1110110111011111,11101011110110001111,11111100010110101011,1111010010100011101111

z = 1110111011110111,111010111010011111,11101110010010110111,11110011001101010111

17 = 111101101110110111,1110100111001010111,1111011100010100101111,111101010010001000100011111

18 = 1101111111011111,11110011011111011,111111101011100111,1111010111001011111

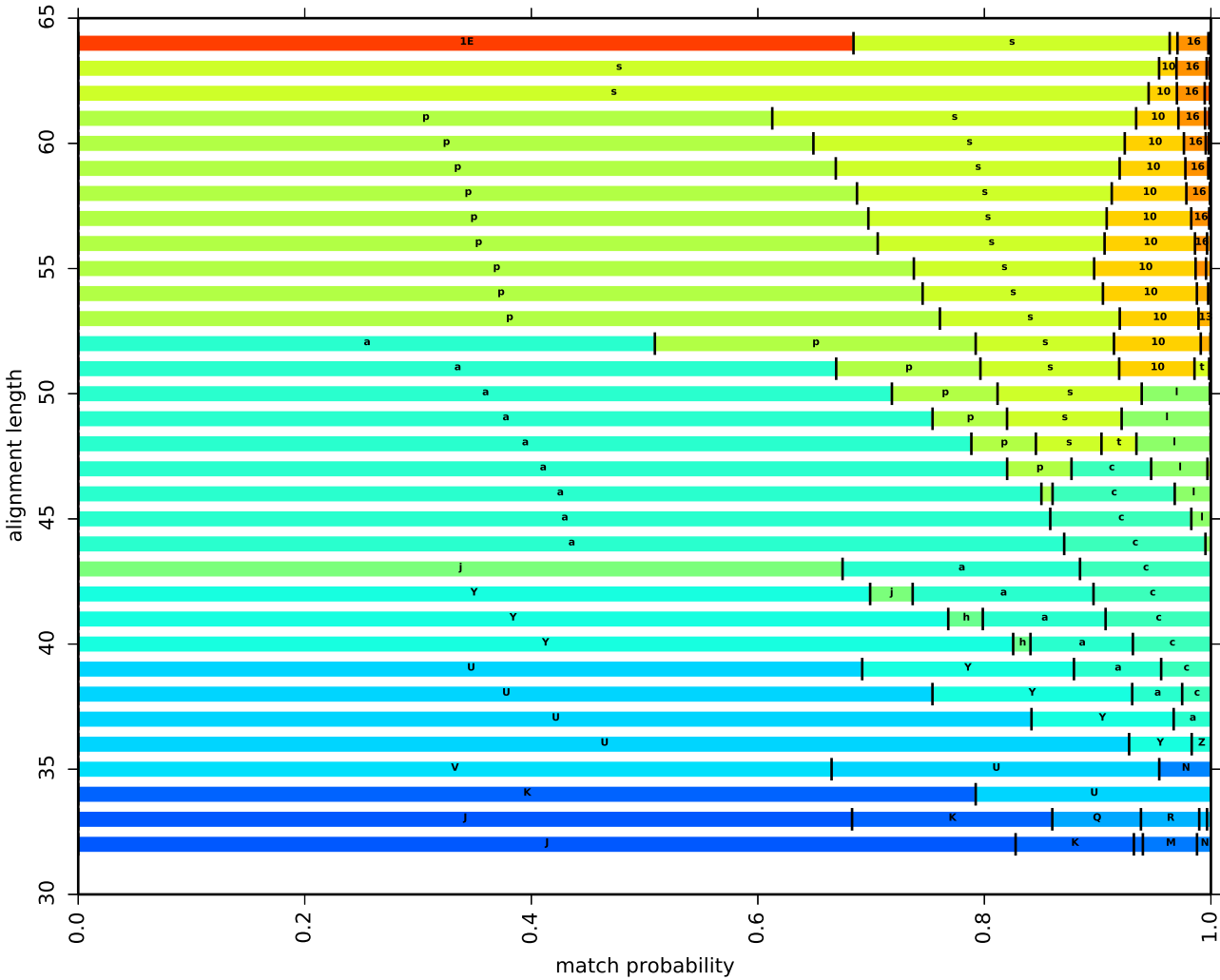
19 = 111011011101101111,11100100111001010111,1111011100010100101111,1110101001000100100101111

1A = 1110110110110111,1110100101010001111,11101011100000101010111,11110010001000100010101111

1D = 1110110110110111,111010011100110100111,11101110001010010111,1110101001000100100101111

1E = 1110110110110111,11101000110100110010111,111010111001000110010111,11110010100010100001000101111

\int_x^1 Hit Integration (n:4,w:16)

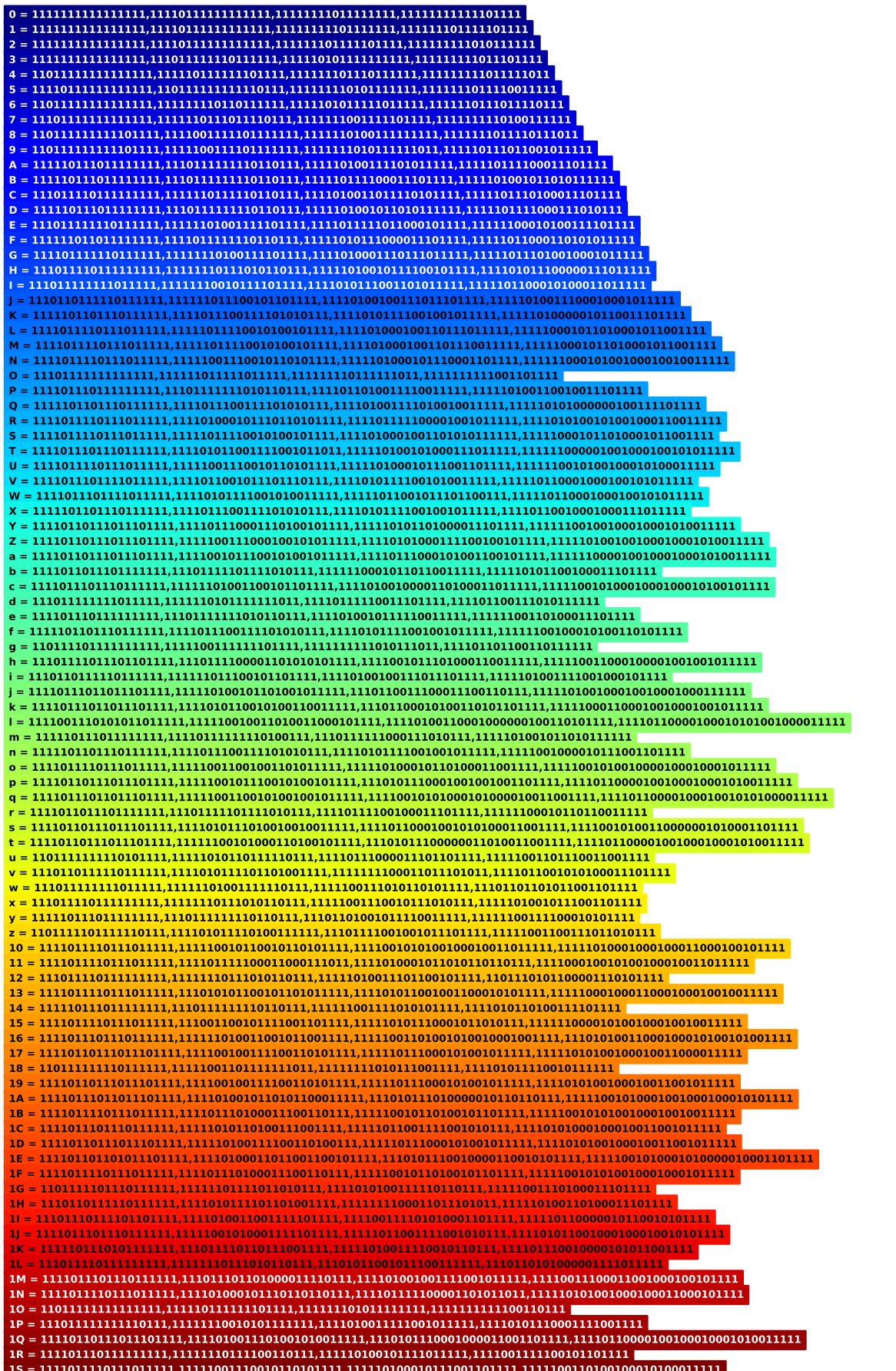
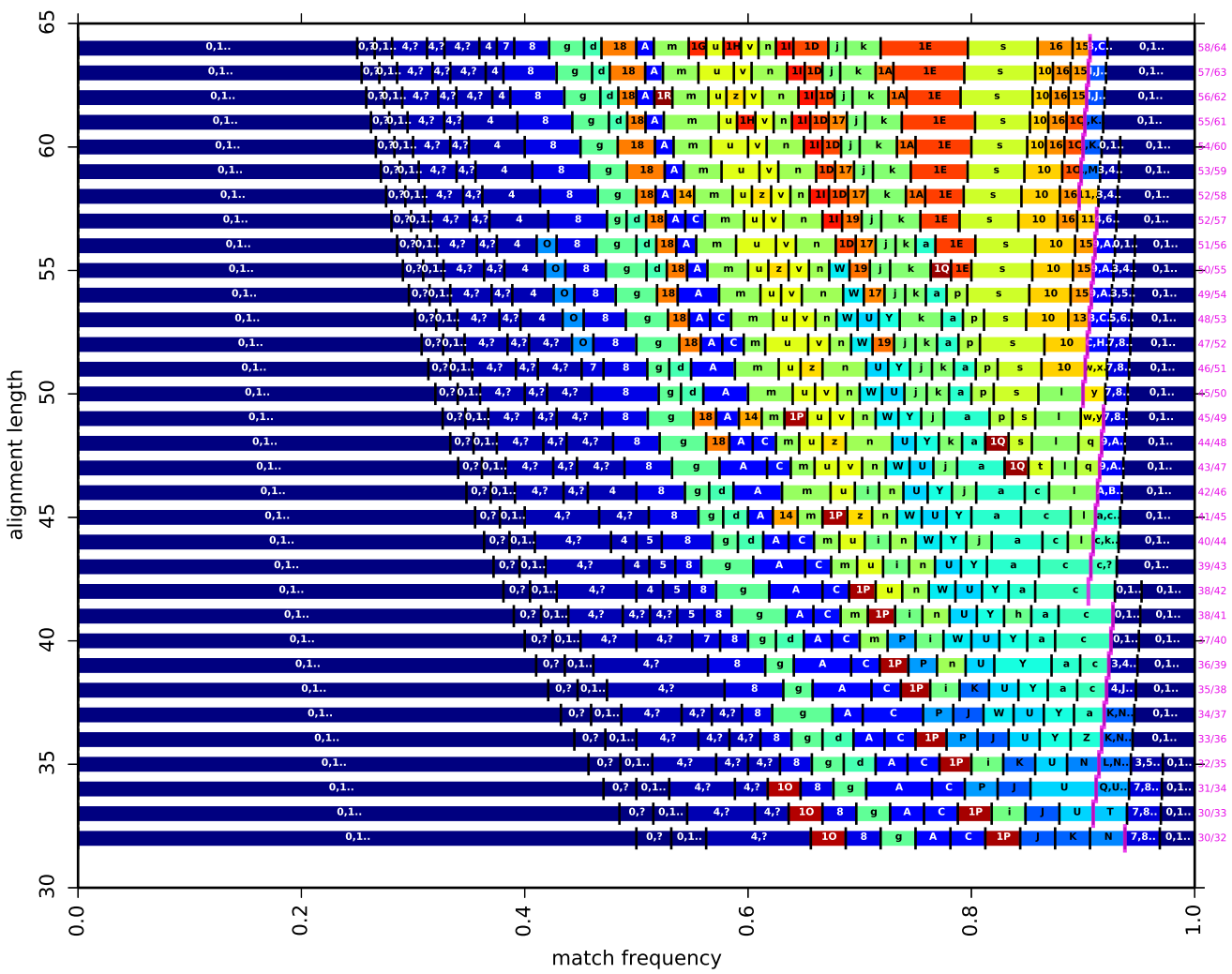


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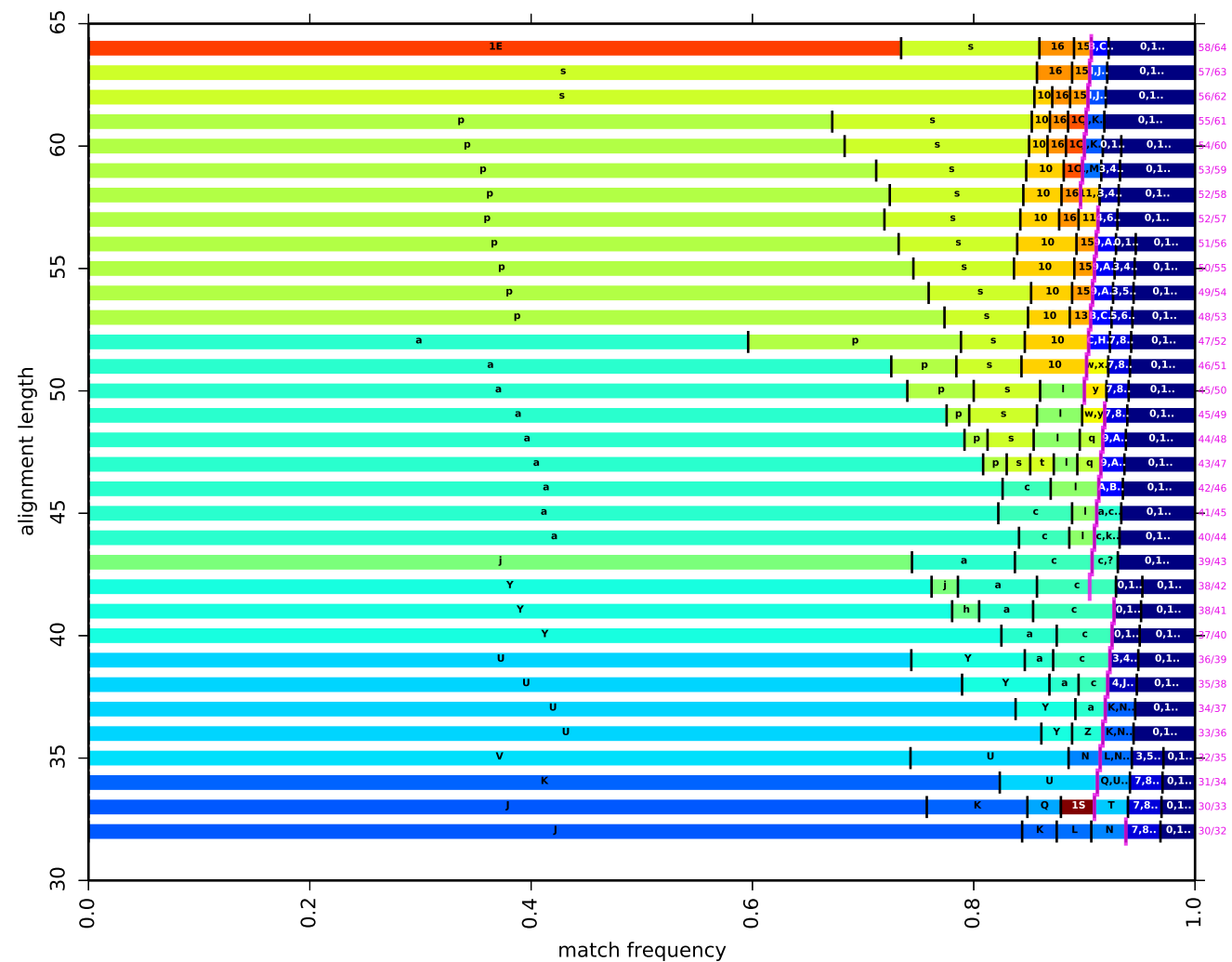
j = 11101101111011111,1111101110010110111,1111010010011101110111,1111101001110001000101111
K = 111110110111011111,111101110011101010111,111101011100100101111,11111010000010110011101111
M = 11110111011101111,11111011110010100101111,111101000100110111001111,111110001011010001011001111
N = 111101111011101111,1111100111001011010111,1111101000101110001101111,11111100010100100010011111
Q = 11111011011101111,111101110011110101011,11110100111101001001111,11110101000000100111101111
R = 11110111101101111,1111010001011101010111,11110111110000100101111,11110101000101001000110011111
U = 11110111101101111,11110011100101010111,1111010001011100110111,1111110010100100010100011111
V = 11110111011101111,111101100101110111011,1111010111100101001111,11111011000100010010101111
Y = 111101101110110111,11110111000111010010111,11111010110100001110111,11111100100100010001010011111
Z = 111101101110110111,11111001110001001010111,11110100011110010010111,1111101000100010001010011111
a = 111101101110110111,11110010111001010010111,1111011100010100110010111,1111110000100100010001010011111
c = 11110111011101111,11111010011001010111,1111010010000101000101111,11111001010001000100010100101111
h = 111011101110110111,11101111000011010101011,111100101110100011001111,11111001100010000100100101111
j = 11110111011101110111,111110010110100101111,111011001110001110011011,111110100100010010001000111111
l = 11110011101010110111,11111001001101001010111,111101001100010000010011010111,111101100001000101001000011111
p = 111101101110110111,11111001011100101001011,111010111000100100100110111,1111101100001001000010001010011111
s = 111101101110110111,11110101110100100100111,1111011000100101010001100111,11110010100100000101000101111
t = 111101101110110111,1111110010100011010010111,1110101110000001101001100111,11110110000100100010001010011111
10 = 11110111101101111,11111001011001011010111,111100101010010001001101111,11111010001000100011000100101111
13 = 11110111101101111,1110101011001011010111,11110101100100110001010111,1111100010001100010001001001111
16 = 11110111011101111,111110100110010100111,1111100101000101001000100111,11101010011000100010100101001111
1E = 111101101101110111,1111010001101100110010111,111010111001000011001010111,11111001010001010000010001101111

```

Dirac (n:4,w:16)



$$\sum_x \text{Heaviside}(n;4,w:16)$$



0 = 1111111111111111,1111011111111111,1111111011111111,1111111111101111
1 = 1111111111111111,1111011111111111,1111111101111111,111111101111101111
2 = 1111111111111111,1111011111111111,111111101111011111,1111111101011111
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1B = 11110111011101111,11110111000111001011,1111100101101001010111,1111100101010010001001001111
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1F = 11110111011101111,11110111000011001011,11110010110100101011,111110010100010001000101111
1G = 11011111011101111,111110111101101011,1111010100111101011,111110111010001110111
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1J = 11110111011101111,111110010100011110111,11110110011100101011,1111010110010001000100101111
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1L = 11110111011111111,111110111010101011,111101100101110010111,11110111010000011101111
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1O = 1101111111111111,1111101111110111,1111110101111111,1111111111001011
1P = 1110111111110111,1111110010111111,1111010011110010111,1111010111000111100111
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1R = 1111011101111111,11111101111001011,11110100101110111,1111001111001010111
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