```
function LinearPartition(x)
    n ← length of x
    Q ← hash()                          ▷ hash table: from key (i, j) to score
    Q(0, 1) ← 1                                                        ▷ axiom
    for j = 1, ...n do
        Q(j, j + 1) ← 1                                                ▷ PUSH
        for each key (i, j) in Q do
            Q(i, j + 1) ← Q(i, j) · e^{−δ(x,j)/kT}                     ▷ SKIP
            if (x_i, x_j) in {AU, UA, CG, GC, GU, UG} then
                for each key (k, i) in Q do
                    Q(k, j + 1) += Q(k, i) · Q(i, j) · e^{−ξ(x,i,j)/kT}   ▷ POP
        BEAMPRUNE(Q, j + 1,beamsize)
    return Q(0, n + 1)
```