

Initial : $h[E_n] = 0$ for all n
Conditions : $g[E_n] = 1$ for all n

Initialize : $s[i, j] = +1$ or -1 chosen randomly

Choose new site

Calculate current energy
and energy if spin is flipped
(E_{Now} and E_{New})

Calculate transition probability
 $P[E_{\text{Now}} \rightarrow E_{\text{New}}]$

Is $P[E_{\text{Now}} \rightarrow E_{\text{New}}] > \text{random}[0,1]$?

Yes

No

$h[E_{\text{New}}] + = 1$
 $g[E_{\text{New}}] \times = f$
 $s[\{i, j\}_{\text{New}}] \times = -1$
 $E_{\text{New}} \rightarrow E_{\text{Now}}$
 $\{i, j\}_{\text{New}} \rightarrow \{i, j\}_{\text{Now}}$

$h[E_{\text{Now}}] + = 1$
 $g[E_{\text{Now}}] \times = f$

Is histogram flat?

Yes

No

$f \rightarrow f^{1/2}$
Is $f > f_{\text{Min}}$?

No

Yes

Record $g[E]$

$h[E_n] = 0$ for all n