(metropolis sampling)

\[ \Theta \] (normalized) \[ \rightarrow \]
\[ (p(\Theta) \propto \text{target distribution}) \rightarrow \text{proposed distribution} \]
\[ \Theta^* \]
\[ \sigma^* \]
\[ N(\theta^*; \sigma^*) \]
\[ \theta_t \]
\[ \text{proposed}\]

1. Accept all uphill moves: \( \theta_{t+1} = \theta^* \) proposed

   for optimal acceptance, try for acceptance
   \[ \alpha (\theta^*_t, \theta^* \text{proposed}) \]
   \[ \frac{p(\theta^* \text{proposed} | y \Delta)}{p(\theta_t^* | y \Delta)} \geq 1 \]
   about 44%

2. Accept downhill moves with probability
   \[ \alpha (\theta^*_t, \theta^* \text{proposed}) \]
   for 1 iteration

3. If don't accept in 2, stay where you are...
\theta^* = \theta + t

(it counts)
as a valid
draw from
\text{target}

\text{PDS} too
\text{small}

\text{proposed}
tiny move,
\text{almost all}
\text{accepted}

\text{sticky}

\text{huge proposed}
mostly rejected

\text{PDS} too
dis

- blocky