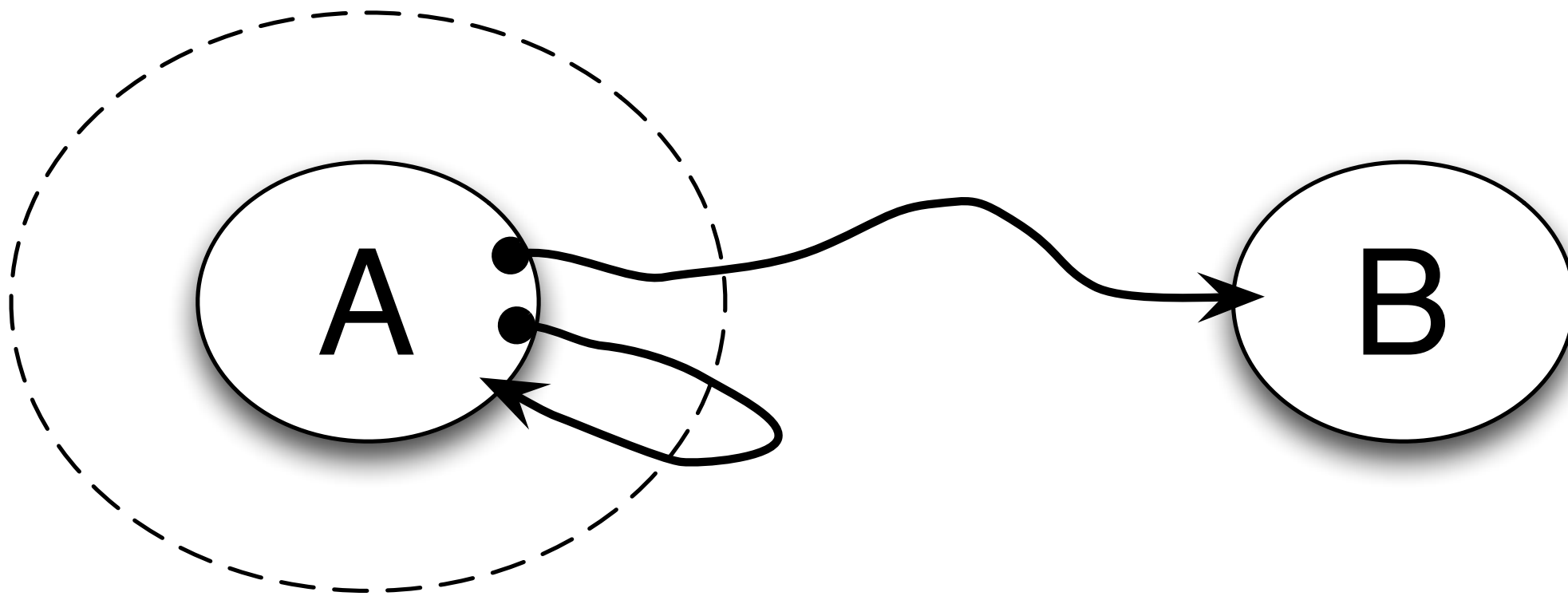


Path ensemble: TIS

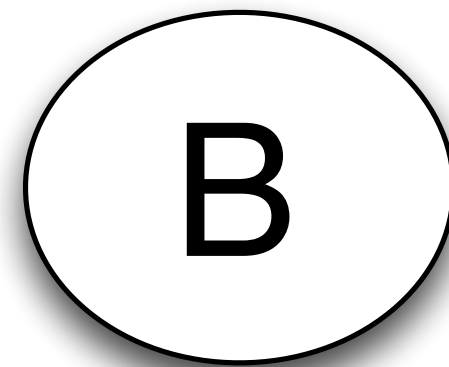
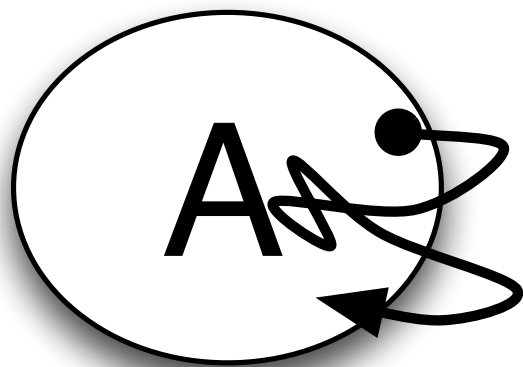


$$H[\mathbf{x}(L)] = h_A(x_0) \hat{h}_j[\mathbf{x}(L)] \prod_{\alpha \in \{A, B\}} \bar{h}_\alpha[\mathbf{x}(L)] \sum_{\alpha \in \{A, B\}} h_\alpha(x_L)$$

$$\hat{h}_j[\mathbf{x}(L)] = \begin{cases} 1 & \text{if } \exists x_i \in \mathbf{x}[L] \text{ such that } \lambda(x_i) > \lambda_j \\ 0 & \text{otherwise} \end{cases}$$

$$\bar{h}_\alpha[\mathbf{x}(L)] = \prod_{i=1}^{L-1} (1 - h_\alpha(x_i))$$

Path ensemble: Minus



$$\begin{aligned} H[\mathbf{x}(L)] &= h_A(x_0) \bar{h}_A(x_0, \dots, x_a) \hat{h}_{A,0}(x_0, \dots, x_a) \\ &\quad \times h_A(x_a) h_A(x_b) \bar{h}_A(x_b, \dots, x_L) \hat{h}_{A,0}(x_b, \dots, x_L) \\ &\quad \times h_A(x_L) \bar{h}_B[\mathbf{x}(L)] \quad (\text{with } 0 < a < b < L) \end{aligned}$$