



HMM Parameters

Initial probs

$$P(S_1 = \text{L}) = 0.5 = P(S_1 = \text{F})$$

Transition probs

$$P(S_t = \text{L/F} | S_{t-1} = \text{L/F}) = 0.95$$

$$P(S_t = \text{F/L} | S_{t-1} = \text{L/F}) = 0.05$$

Emission probabilities

$$P(O_t = y | S_t = \text{F}) = 1/6 \quad y = 1, 2, 3, 4, 5, 6$$

$$P(O_t = y | S_t = \text{L}) = 1/10 \quad y = 1, 2, 3, 4, 5$$

$$= 1/2 \quad y = 6$$