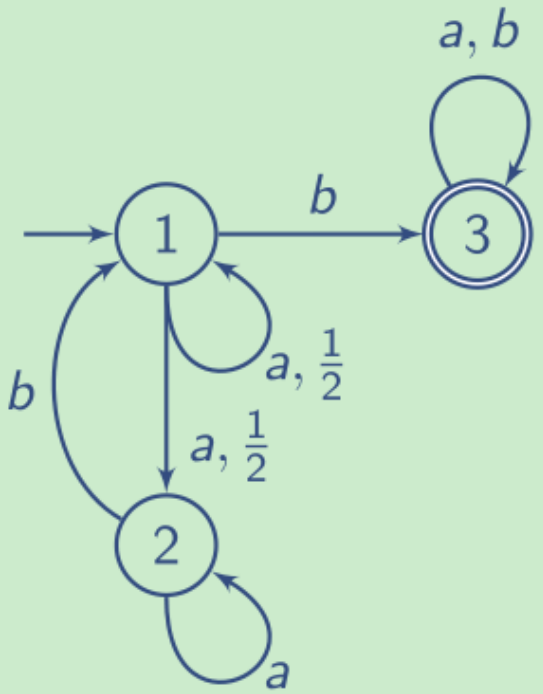
Probabilistic Automata

Example



- 1 is the initial state.
- $\{3\}$ is the set of accepting states
- $\mathbb{P}_{\mathcal{A}}(aab) = \frac{1}{4}$ the acceptance probability.

Definition (Rabin 63)

A probabilistic automaton is a tuple $\mathcal{A} = (Q, A, (M_a)_{a \in A}, q_0, F)$.