## 1: Initialize $\pi$ randomly. 2: **for** until convergence **do** 3: Let $V := V^{\pi}$ . $\triangleright$ typically by linear system solver 4: For each state s, let

**Algorithm 2** Policy Iteration

$$\pi(s) := \arg \max_{a \in A} \sum_{s'} P_{sa}(s') V(s').$$