$\max_{\boldsymbol{\theta} \in \mathbb{R}^d} \mathbb{E}_{a_t \sim \pi_{\boldsymbol{\theta}}(\cdot \mid s_t)} \left[\sum_{t \in \mathbb{R}^d} \gamma^t r(s_t, a_t) \middle| s_0 = s \right]$