Algorithm 1: Quicksort

```
Input: \theta_0
for Learning iteration i := 0 \dots \mathcal{I} do
Policy weight update
\theta_{i+1} \leftarrow \theta_i - \alpha_i \hat{\mathbb{E}}_{\rho^{\pi^{\theta_i}}} \left[ C_{0:T}^{\gamma} \nabla_{\theta} \log \pi^{\theta_i} (Z_{0:T}) \right]
\alpha_i > 0, learning rate
end for

return Near-optimal policy \pi^{\theta_{\mathcal{I}}}
```