

Quiz 5

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1 Introduction

Once the states of a robot are partially observable, we apply Q-learning

False. Q-learning attempts to update the value of $Q(s, a)$ at state s and action a . In the case of having partial observation, the agent only estimate the value of current state by probability distribution. Thus, it is not recommended to use Q-learning for partially observable state.

Once facing delayed reward, we apply TD-learning

True. TD-*lambda* utilize the temporal discount factor $0 \leq \gamma \leq 1$, yielding the accumulated reward over time

$$V(X) = \sum \gamma^i r_i^{\pi(X)}$$

2 References

Advance Robotics Fall 2012, University of California at Berkeley.