General Session | General Session | [GS] J-2 Machine learning

[1I3-J-2]Machine learning: advances in reinforcement learning

Chair:Masahiro Yukishima Reviewer:Kohei Miyaguchi
Tue. Jun 4, 2019 3:20 PM - 4:20 PM Room I (306+307 Small meeting rooms)

3:40 PM - 4:00 PM

[1I3-J-2-02]Generalized goal oriented deep reinforcement learning for robot arm training with continuous action space

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Keywords:Robot arm, Deep reinforcement learning, Continuous action, Generalized goal

In multigoal reinforcement learning, Universal Value Function Approximators(UVFA) that takes not only a state but also a goal for inputs is used. We designed a task by bringing the end effector of the 7DOF robot arm to the goals using UVFA based multigoal reinforcement learning, Meanwhile, we performed the equivalent task by changing the number of goals. We confirmed a superb prediction ability by mapping the goal reachability degree using UVFA.