Special Issue

Deep Reinforcement Learning for Multi-Agent Systems

Message from the Guest Editor

Deep reinforcement learning (DRL) have attracted numerous real-world applications in various domains. While the majority of DRL research is now focused on single agents, there is a fast-growing trend to extend DRL for problems in multiagent systems. Several foundational approaches to multiagent DRL (MADRL) have emerged, including counterfactual multi-agent (COMA), value-decomposition networks (VDNs) and QMIX, but there are still many challenges in this area, such as large-scale agent teams, heterogeneity and robustness. This Special Issue aims to collect most up-to-date research in MADRL, ranging from theoretical problems to practical application, and to simulation platforms and applications in this area. Specific topics include (but are not limited to): scalability, partial observability, non-stationarity, credit assignment, heterogeneity, curriculum learning, mechanism design, dynamic programming, planning, communication, adversarial attachment, security, empirical study, simulation, and reflection on current trends.

Guest Editor

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