電気情報工学科 Lecture Series 2018

Time and venue: 5月10日(木)17:00~18:00,中講義室

Lecturer: Prof. Chenglin Liu (Jiangnan University, China)



Title: Consensus Problem of Delayed Linear Multi-Agent Systems: Analysis and Design

Abstract: Time delay is common in biological systems and engineering applications, such as model for population growth, chemical process control systems, and network control systems. In multi-agent coordination control network, there exist two types of time delays. One non-negligible time delay called input delay is caused by the processing and connecting time for the packets arriving at each agent, while the other one called communication delay caused by the information transmission between neighboring agents. Therefore, delay effect on consensus seeking has been a hot topic in consensus analysis of multi-agent systems, and has attracted numerous attentions in the past decade. In this presentation, the delay robustness of consensus collective behavior is analyzed for homogeneous linear multi-agent systems; for the dynamical consensus seeking of linear multi-agent systems with communication delay, some innovative consensus algorithms are designed to decrease or eliminate the communication delays' impacts on the consensus behavior.

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