

Distributed coordination in networked dynamic systems: From flocking and synchronization to social learning

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In this talk I will present a unified view of distributed coordination and consensus algorithms which have appeared in various disciplines such as distributed computing, statistical physics, computer graphics, robotics, and control theory over the past decade. These algorithms have been proposed as a mechanism for demonstrating emergence of a global collective behavior (such as social aggregation in different species, including schooling, flocking and synchronization) using purely local interactions and also describe the behavior when the network is extremely large and interconnections are random

I will then show some connections between these models and social learning the economics literature and present new models of social learning in network s that are combine these ideas with Bayesian learning

