

Title: Model-Based Inference under Misspecification in Large Games and Networks

Speaker: Prof. Aniruddha Ghosh, Orfalea College of Business

Area: Economics

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Abstract:

In this talk, I shall present two frameworks for analyzing equilibrium behavior under misspecification in large games and network environments. The first framework extends the Mas-Colell (1984) equilibrium concept of anonymous interaction in large games to incorporate belief misspecification, using KL divergence minimization within type-specific feasible belief sets. Agents interact anonymously but hold constrained or incorrect beliefs about the distribution of others' actions. We characterize conditions for existence, nonexistence, and comparative statics of misspecified equilibria, and provide examples illustrating how misspecification shapes aggregate outcomes. The second framework poses a distinct misspecification question in network settings, focusing on issues of consensus and convergence. The argumentation we provide is an attempt to bridge the literature on networks with that on model-based misspecified learning and inference.

Speaker Profile:



Aniruddha Ghosh Assistant Professor at the Department of Economics at the Orfalea College of Business at Cal Poly. He received his Ph.D. in Economics from the Johns Hopkins University.

His research interests are in microeconomic and statistical theory with a focus on model misspecification, social learning, and decision theory.

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