Graduate School Event

Robustness of Solutions in Game Theory

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Host: Maksym Serbyn

Game Theory is the mathematical formalization of social dynamics: systems where agents interact over time and the evolution of the state of the system depends on the decisions of every player. This thesis takes the perspective of a single player and focuses on what they can guarantee in the worst case over the behavior of other players. We focus on sustained interactions over time, where the players repeatedly obtain quantitative rewards over time, and they are interested in maximizing their long-term performance. Two fundamental questions that Game Theory aims to answer are:1. How much can a player guarantee?2. How to act to obtain the guarantee?We study the answers in games that exhibit Partial Observation, Perturbed Description, Stochastic Transitions, and/or Infinite States.

Monday, July 7, 2025 04:00pm - 05:00pm

Sunstone Bldg / Ground floor / Big Seminar Room B (I23.EG.102) and Zoom

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