Hong Kong Consortium of Quantitative Finance

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Hong Kong - Singapore joint Seminar Series in Financial Mathematics/Engineering

Markovian Equilibria In Ergodic Many-Player Games and Mean-Field Games

Professor Asaf Cohen

University of Michigan

Abstract

We consider a symmetric stochastic game with weak interactions between many players. Time is continuous, the number of states is finite, and costs are ergodic. We prove the existence of a unique Nash equilibrium in the game and show that its limiting behavior (as the number of players goes to infinity) is governed by the unique mean-field equilibrium of the corresponding mean-field game. This is joint work with Ethan Zell.

About the speaker

Prof. Asaf Cohen is an Assistant Professor in the Department of Mathematics at the University of Michigan since 2019. He graduated from Tel-Aviv University in Israel at 2014. Then he was a post-doc in the Technion, Israel, and the University of Michigan, followed by two years as an Assistant professor at the University of Haifa, Israel. His research interests are applied probability and control theory and their applications to mean-field games, mathematical finance, and stochastic networks.

Date

9 March 2022 (Wed)

(HK Time)

Time

8:30pm – 9:30pm (HK Time)

Zoom

https://polyu.zoom.us/j/92059806601?pwd=RGlUa01waWhOUXoweXBIcWhDM3NDUT09

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