



The Chinese University of Hong Kong
Department of Statistics

Seminar

Convergence to the Mean Field Game Limit:
A Case Study

By

Professor Marcel Nutz
Department of Statistics
Columbia University in the City of New York

Abstract

Mean field games are interpreted as approximations to n -player games with large n . In this talk we study the convergence of Nash equilibria in a specific setting. If the mean field game has a unique equilibrium, any sequence of n -player equilibria converges to it as n tends to infinity. However, we will see that both the finite and infinite player versions of the game often admit multiple equilibria. We show that mean field equilibria satisfying a transversality condition are indeed limits of n -player equilibria, but we also find mean field equilibria that are not limits, thus questioning their interpretation as “large n ” equilibria. (Joint work with Jaime San Martin and Xiaowei Tan)

Date: November 9, 2018 (Friday)
Time: 2:30 p.m. - 3:30 p.m.
Venue: Lady Shaw Building, Room LT3
The Chinese University of Hong Kong

ALL INTERESTED ARE WELCOME !!