November 1st, 2021 Zoom Meeting 2:00 P.M. - 3:00 P.M.

## Prof. Jiaxuan Ye (Worcester Polytechnic Institute)

## **Regime Switching Mean Field Games with Quadratic Costs**

**Abstract:** This paper studies Mean Field Games with a common noise given by a continuous time Markov chain under a Quadratic cost structure. The theory implies that the optimal path under the equilibrium is a Gaussian process conditional on the common noise. Interestingly, it reveals the Markovian structure of the random equilibrium measure flow, which can be characterized via a deterministic finite dimensional system.

## Zoom link:

Topic: Math Finance Colloquium (USC) Time: Nov 01, 2021 02:00 PM Pacific Time (US and Canada)

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