THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

DEPARTMENT OF APPLIED MATHEMATICS
應 用 數 學 系

The Hong Kong Polytechnic University
Department of Applied Mathematics

Seminar Series

Mean-field team with general state equations and input constraint

By

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Abstract

We investigate stochastic team optimization of large-scale system, in linear-quadratic-Gaussian framework. Concretely, the underlying large-scale system involves considerable weakly-coupled cooperative agents for which the individual admissible controls: (i) enter the diffusion terms, (ii) are constrained in some closed-convex subsets. We will give the details of the person-by-person optimality principle and the construct of an auxiliary control problem based on decentralized information. The decentralized social strategy is then derived by a class of new consistency condition systems, which are mean-field-type forward-backward stochastic differential equations (FBSDEs) with projection mappings.

Click to join (Zoom)

Date: 12 December 2022 (Monday)
Time: 20:00-20:45 (Hong Kong Standard Time GMT +8)
Venue: Online Talk via Zoom (Meeting ID: 932 0512 9072)
Speaker: Prof. Xinwei Feng, Shandong University
Host: Dr. James Huang, The Hong Kong Polytechnic University
Click to join:
https://polyu.zoom.us/j/93205129072?pwd=Wnp6QmhkTUVjRFk3Y0luMVpKVUxidz09

*** * * ALL ARE WELCOME * * ***