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Seminar

From Martingale Optimal Transport to McKean-Vlasov Control Problems

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University of Paris-Dauphine

Abstract

The Martingale Optimal Transport (MOT) problem consists in maximizing a reward value among a class of martingales with given marginal distributions. It is motivated by its application in finance to obtain the no-arbitrage price bounds of derivative options in a data calibrated market. We consider a class of MOT problems and show how it could be related to a McKean-Vlasov (mean-field) control problem, which is a large population control problem. We then study the dynamic programming principle and the numerical approximation of the McKean-Vlasov control problem.

Date: 28 January 2019 (Monday)
Time: 4:30pm – 5:30pm
Venue: Room 219, Lady Shaw Building,
The Chinese University of Hong Kong, Shatin

All are Welcome