

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

Prof. Mingyu Xu
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Hedging distributions via BSDEs

Abstract: In the classical backward stochastic differential equation (BSDE) theory, one studies the problem of hedging given random variables.

In this paper, we introduce the notation of hedging distributions, that is, hedging random variables following a given distribution, via BSDEs. We also introduce a related efficient hedging problem, that is, to find the minimum cost to hedge a given distribution. The problems have been considered both under linear and nonlinear dynamics. As an example, the efficient hedging and portfolio selection problems in a market with different deposit and loan rates are studied. We also introduce the concept of law-invariant \mathbb{G} -exception, and give a class of them explicitly. A portfolio selection problem in behavioural finance is given to demonstrate its applications.

Zoom link:

Topic: Math Finance Colloquium

Time: Feb 1, 2021 02:00 PM Pacific Time (US and Canada)

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