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THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON FINANCIAL MATHEMATICS

Second-order PDEs on Wasserstein Space

by

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Abstract

Mean-field control with common noise and filtering problems naturally lead to second-order PDEs on Wasserstein space. In this talk, we analyze a class of such equations in which the second-order operator is finite-dimensional in nature. We establish comparison principles and apply them to obtain particle convergence rates in mean-field control. The talk is based on joint work with Erhan Bayraktar, Ibrahim Ekren, and Xihao He.

Date : 07 January 2026 (Wednesday)
Time : 11:00a.m. – 12:00noon
Venue : Room 4502 (Lift 25/26)

All are Welcome!