The Hong Kong Polytechnic University
Department of Applied Mathematics

Seminar

Mathematics of transfer learning and transfer risk: from medical to financial data analysis

By

Prof. Xin GUO
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Abstract
Transfer learning is a popular paradigm for utilizing existing knowledge from previous learning tasks to improve the performance of new ones. In this talk, we will first discuss how our earlier empirical study of eye disease diagnosis leads to our current work on the mathematical framework of transfer learning. We will then establish the feasibility of transfer learning and present our analysis of transfer risk in the context of financial data analysis and portfolio management.

Biography
Prof. Xin GUO is the Coleman Fung Chair professor in Financial Modeling at the Department of Industrial Engineering and Operations Research, UC Berkeley. Her research interests are in stochastic processes, stochastic control and games, and mathematical foundation of machine learning, with applications to financial engineering and medical data analysis. She is the co-editor for Frontier in Mathematical Finance, and on the editorial board of several leading journals such as Operations Research, Mathematical Finance, and etc.

Date: 13 December 2023 (Wednesday)
Time: 11:00-12:00 noon (Hong Kong Standard Time GMT +8)
Venue: HJ302
Speaker: Prof. Xin GUO, UC Berkeley, University of California, Berkeley
Host: Prof Xun LI, The Hong Kong Polytechnic University

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