



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON FINANCIAL MATHEMATICS

The Distribution Builder - A tool for financial decision making in the FinTech era

by

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Abstract

The era of FinTech heralds personalized financial decision making through tools such as robo-advising. Alas, the input of personal preferences needed to personalize decision making is difficult and existing methods lack robustness. Sharpe, Goldstein, Blythe and Johnson introduced with the distribution builder a powerful tool to directly solicit user preferences on the outcomes of investments that can be used as base from decision making. In this presentation we explain how the methodology of the distribution builder can be leveraged successfully from the original setting - portfolio optimization in complete markets - to a wide array of other situations: consumption, incomplete markets and the timing of asset sales. This talk is based on joint work with Carole Bernard, Peter Carr, Mauricio Elizalde Mejia, Sixian Jin and Benjamin Rajotte.

Biography

Stephan Sturm is Associate Professor of Mathematical Sciences at Worcester Polytechnic Institute (WPI) in Massachusetts. After obtaining his PhD in Mathematics from TU Berlin (Germany), he became a Postdoctoral Research Associate and Lecturer at ORFE in Princeton before joining WPI as a faculty member. Sturm's research covers mainly different areas of financial mathematics, but he is interested in stochastic modeling in general, such as applications to climate science. In finance, his work is devoted in particular in questions of value adjustments for derivative securities (XVAs), optimal portfolio selection, and systemic risk in financial markets.

Date : 15 February 2024 (Thursday)

Time : 4:30pm

Venue : Room 4472 (Lifts 25/26)

All are Welcome!