Risky Asset Models with Dependence

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Overview

It is well known that log-returns from financial time-series often exhibit a significant dependence structure. In the classical geometric Brownian motion model, the log returns are increments of Brownian motion with drift and hence due to independent increments of Brownian motion, the log-returns are independent. To overcome these limitations of geometric Brownian motion and related exponential Levy models, Fractal activity time Geometric Brownian motion models were introduced.

In this course, we will cover different models for risky assets and discuss their limitations and will introduce more general models which have long-range dependence properties. Further, we will discuss the option pricing under these risky asset models.

Modules	Risky Asset Models with Dependence Feb 27 – Mar 03, 2023
	Number of participants for the course will be limited to 50.
You Should Attend If…	▪ You are working in a financial industry and looking for different models for risky assets. ▪ You are a senior undergraduate, postgraduate or PhD student who is looking for a job, or looking for higher studies or having interest in this area. ▪ You are a faculty from academic institution interested in learning how to do research or interested to develop a course on asset pricing models with simulation aspects.
Fees	The participation fees for taking the course is as follows: **Participants from abroad : US $500** **Industry/ Research Organizations: 10,000** **Academic Institutions (Faculty): 6,000** **Academic Institutions (Students): 3,000** The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility. The participants will be provided accommodation on payment basis subject to availability.

The Faculty

Prof. Nikolai Leonenko is the faculty of Cardiff School of Mathematics, Cardiff University U.K. His research interests include Stochastic Processes, Random Fields, Limit Theorems, Continuous Time Random Walks, Fractional Diffusion Modeling and Financial Mathematics.

Dr. Arun Kumar is an Associate Professor at Indian Institute of Technology Ropar. His research interest is Subordinated Stochastic Processes, Time-Series Modeling and Financial Mathematics.

Course Co-ordinator

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