Hong Kong Consortium of Quantitative Finance











Hong Kong - Singapore joint Seminar Series in Financial Mathematics/Engineering

Robust Brownian motion in financial pricing and risk modeling Professor Shige Peng Shandong University, China

Abstract

The notion of Brownian motion plays a fundamentally important role in quantitative finance. A well known difficulty in this domain is that it is very hard to be applied in the situation of probability model uncertainties in this complicated and unpredictable real world. A new notion of robust version of Brownian motion (G-BM) has been introduced. Theoretical investigation and real data implementations showed that this is a robust and powerful tool in financial pricing and risk measuring.

About the speaker

Prof. Peng, mathematician, academician of the Chinese Academy of Sciences, professor of the School of Mathematics, Shandong University, dean of the Taishan College of Shandong University. In 2005, he was elected as an academician of the Chinese Academy of Sciences. In 2007, he was appointed as the Chief Scientist of the National Ministry of Science and Technology 973 Program "Quantitative Analysis and Calculation in Financial Risk Control". He won the Chen Jiageng Science Award in 2008. In 2009, led by him, the "Finance-Mathematics Interdisciplinary Talent Training Experimental Area" declared by Shandong University was approved. At the International Conference of Mathematicians held in Hyderabad, India in August 2010, Academician Shige Peng was invited to give a one-hour plenary lecture and was the first mathematician in mainland China to receive this honor. In 2011, he won the Tenth Hua Luogeng Mathematics Award. In the same year, he was appointed by Princeton University as one of the three "2011-2012 Princeton Global Scholars ".

Date

13 Oct 2022(Thursday) (HK Time)

Time

4:00pm – 5:00pm (HK Time)

Zoom

https://cityu.zoom.us/j/97 545585941?pwd=MEZRT HZpRVJyT3kySVBMaDV hM0Y4dz09 Meeting ID: 975 4558 5941 Passcode: 566235