香港浸會大學
HONG KONG BAPTIST UNIVERSITY

# Department of Mathematics
# Statistics Research & Consultancy Centre

## Distinguished Lecture Series

# Statistics under Uncertaity: A New Challenging Problem in Finance


## Professor Shige Peng

*Professor, School of Mathematics, Shandong University, Jinan, China*
*Elected member, Chinese Academy of Sciences, 2005*
*1st Prize of Science and Technology, Education Committee of China, 1994*
*Second Class National Natural Sciences Prize of China, 1995*
*Top Prize of Science and Technology of Shandong Province, China, 2003*
*Su Buqing Award of Applied Mathematics, 2006*
*TAN Kah Kee Science Award （陈嘉庚）by Chinese Academy of Science, 2008*


**Date:** **16 December 2009 (Wednesday)**

**Time:** **11:00am - 12:30pm** (Preceded by Reception at 10:30 am)

**Venue:** **RRS905, Sir Run Run Shaw Building,**
**Ho Sin Hang Campus,**
**Hong Kong Baptist University**

## Abstract


To solve risk control problem in finance we face a chanllenging problem: how to quantitatively measure a risk position while the distribution uncertainty (or ambuguity) is essentially integrated into the utilities of financial markets, financial institutions, locally or globally? It also provides a new opportunity for us to explore fundamental problems in statistics under probability and distribution model uncertainty. We present our new law of large number (LLN) and central limit theorem (CLT) under uncertainty which bring us to a new frontier of risk data analysis. One typical problem is how to estimate the robust version of the normal distribution of which naturally appears from our new CLT? This fascinating problem involves statistics, probability theory, theoretical and computational nonlinear PDE of HJB type, ....


**All are welcome**

**The Medium of Instruction: English/Mandarin**

For enquires please contact Ms. Claudia Chui, 3411 2348.

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