



## SEMINAR ANNOUNCEMENT

### On some applications of stochastic analysis

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**Date :** 30 October 2009 (Friday)  
**Time :** 5 pm – 6 pm  
**Venue:** SPMS-Executive Classroom 1, MAS-03-06  
School of Physical and Mathematical Sciences

Stochastic analysis is a branch of infinite-dimensional analysis that relies on a combined use of analytic and probabilistic tools and has been the object of a rapid development in recent decades. In particular, it has been successfully applied to solve numerous problems related to PDEs, functional inequalities, mathematical finance and extensions of stochastic calculus. In this talk, we will introduce the basic tools of stochastic analysis which consist in a gradient and divergence operator defined on a probability space. And we will also present some of their applications to sensitivity analysis, statistical estimation and stochastic inequalities.

#### Speaker Biography

Dr Nicolas PRIVAULT received his PhD in probability in 1994 from the University of Paris VI. He has held a number of visiting and long term appointments in Europe, Asia, and the Americas, and is currently an Associate Professor at City University of Hong Kong. His research interests are in stochastic analysis, including stochastic calculus, stochastic inequalities, statistical estimation, probabilistic methods for PDEs, and applications to finance and insurance. He has tutored over 10 PhD students and is the author of 90 refereed publications including two recent books, on stochastic analysis and on interest rate modeling, published by Springer-Verlag and World Scientific respectively.

Host: Prof. Bernhard Schmidt, Deputy Head, Division of Mathematical Sciences, School of Physical and Mathematical Sciences

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