

## Summer School 2009 Lecture Details

**Professor Philip Boland, (UCD School of Mathematical Sciences)**

Topics: Modelling financial risk with R. Simulation methods for probability distributions; heavy tailed distributions; risk models for aggregate loss and Panjer's recursion formula.

**Professor Nigel Boston (UCD School of Mathematical Sciences and Claude Shannon Institute)**

Distributions in number theory.

**Dr Rodrigo Caballero (UCD School of Mathematical Sciences)**

Topic: Climate Risk

**Professor Alan Newell, (University of Arizona)**

Title: Approximations and asymptotic expansion of integrals. Applications from water waves to the central limit theorem.

**Dr Conall O'Sullivan , (UCD Smurfit Business School)**

Topics : Introduction to derivatives, derivative pricing and credit risk modelling.

**Professor Govindan Rangarajan, (Indian Institute of Science, Bangalore)**

Topics: Basics of auto regressive processes; estimating parameters; transfer functions; spectral representation; Granger causality and its application.

**Professor Peter Richmond,( Trinity College Dublin & CASL)**

Title: Financial dynamics: a physics perspective. No prior knowledge of physics will be assumed.

**Professor Siddhartha Sen (UCD School of Mathematical Sciences)**

Topics: Simple ideas in modelling linear and non linear systems.

**Professor Richard Timoney (Trinity College,Dublin)**

Topic: Basic ideas of wavelets

