

The May meeting of the New South Wales Branch will be held on

**Thursday, 18 June 2009**

6:00pm for refreshments at Common Room 3082, Level 3, Red Centre  
and

6.30pm for talk at Seminar Room M032, Ground Floor, Red Centre  
University of New South Wales

## **Gareth Peters**

**Ph.D., University of NSW, Mathematics and Statistics Department and  
CSIRO Mathematical and Information Sciences**

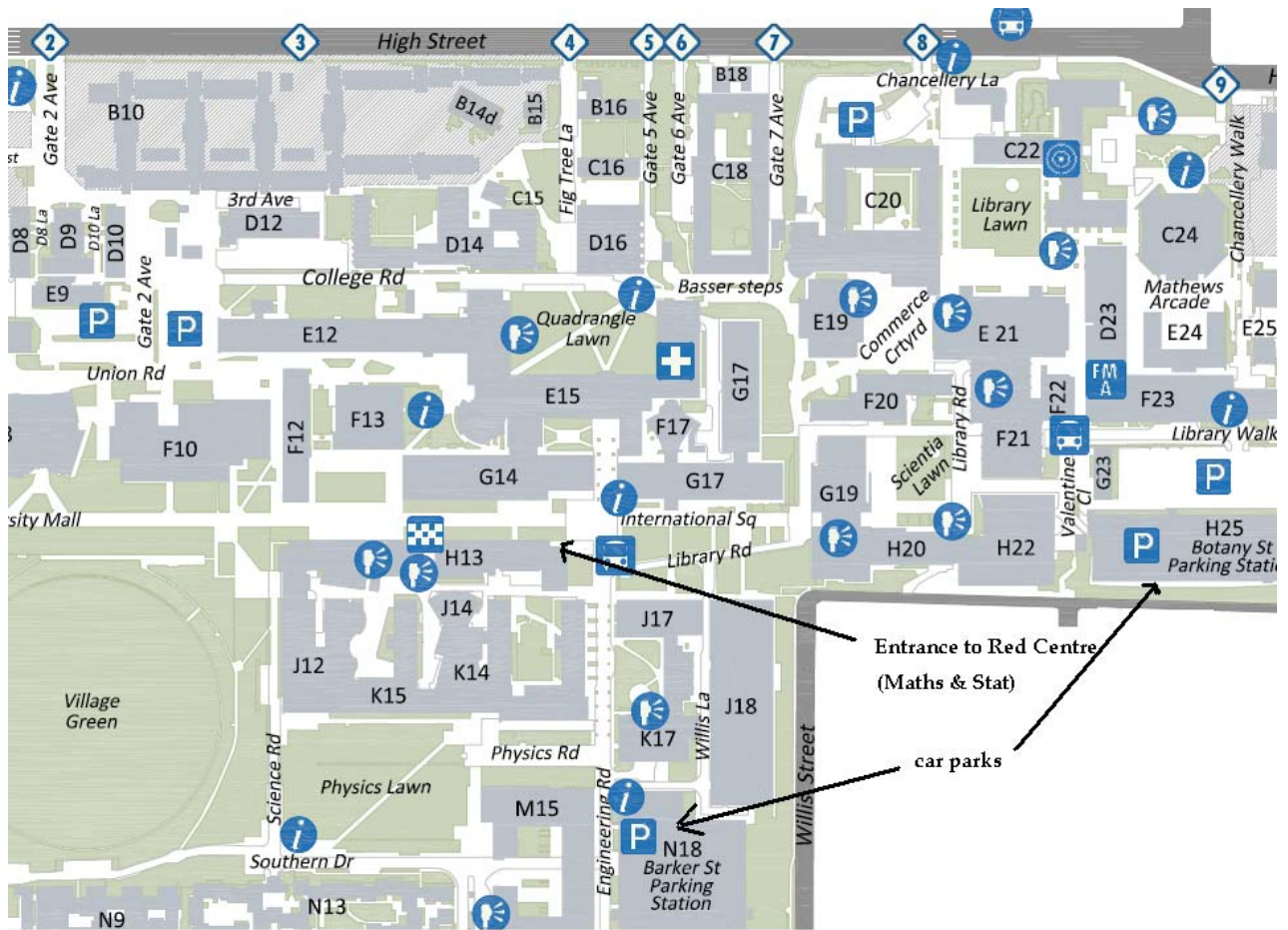
### **Dynamic Operational Risk: Modelling dependence and combining different sources of information**

This talk will present some background to Operational Risk statistical modelling as a result of Basel II. It will cover some ongoing work that I have undertaken over the last 4 years initially with Commonwealth Bank of Australia and later jointly with colleagues at CMIS group in CSIRO and RiskLab in ETH, Zurich. The statistical modelling of Operational Risk involves several interesting statistical challenges. This talk highlights a few of these challenges faced by the banking industry. I will pay particular attention to a sequence of papers which make some progress towards statistical solutions to some of the challenges faced in this area. I will conclude the talk by presenting in detail a recent paper dealing with one aspect of Operational Risk modelling which is related to introducing dependence in a dynamic model. I will present the model, justification and relationships to previous models proposed and then the statistical sampling methodology used to work with the model developed.

Gareth holds a BSc., B.Eng (Hons 1<sup>st</sup>) from the University of Melbourne, a M.Sc (by research) from Cambridge University and is about to submit a Ph.D. in Statistics (by publication) at the University of NSW. He will take up a lecturer position in Statistics in July at UNSW.

His research interests have involved developing advanced Monte Carlo sampling methodology and theory including Sequential Monte Carlo (particle filters) and advanced Markov chain Monte Carlo algorithms. He has published several papers in the areas of risk modelling, non-life insurance modelling, signal processing and communications engineering as well as computational statistics. He has been an invited visitor at several institutes such as LSE in Toulouse, RiskLab in ETH, QintQ in the UK, SAMSI in the US and ISM in Tokyo.

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