



**UCD School of  
Mathematics and Statistics**

University College Dublin  
Belfield, Dublin 4, Ireland

Tel +353 1 716 2580  
Fax +353 1 716 1196

**Scoil na  
Matamaitice agus na Staitisticí UCD**

An Coláiste Ollscoile, Baile Átha Cliath  
Belfield, Baile Átha Cliath 4, Éire

Email [seminars@maths.ucd.ie](mailto:seminars@maths.ucd.ie)  
Web [maths.ucd.ie/seminars](https://maths.ucd.ie/seminars)

## Statistics and Actuarial Science Seminar

---

**Dr Andy Golightly (Newcastle University)**

will speak on

**Bayesian inference for partially observed diffusion processes**

Thu 8th March 2012 at 3:00PM

Location: Statistics Seminar Room- L550 Library building

We consider Bayesian inference for parameters governing nonlinear multivariate diffusion processes using discretely observed data that may be incomplete and subject to measurement error. The typically unavailable transition density characterising the process is replaced with an Euler-Maruyama approximation and an imputation approach is adopted for inference. We consider the task of constructing an MCMC scheme that is not afflicted by the well known problem of dependence between parameters and augmented data. We apply the method to examples arising from finance and systems biology.

This talk is part of the **Statistics and Actuarial Science** series. For more, see  
<https://maths.ucd.ie/seminars>