

The RSS Environmental Statistics Study Group present a 1½day workshop on

Bayesian models in environmental applications using WinBUGS

June 12th and 13th 2003

Imperial College, London

Course presenters: Dr Nicky Best and Prof Sylvia Richardson

Course overview: Bayesian methods are becoming increasingly popular in a remarkably wide range of applied data analysis problems. One reason for this is the flexibility of modelling made possible by the simulation-based methods, such as Markov chain Monte Carlo (MCMC), used for Bayesian estimation. Environmental and spatial/temporal data are particularly well suited to this approach since MCMC methods allow realistic models to be fitted. Such models can readily incorporate features such as spatial and/or temporal structure, different geographical scales of measurement, missing data, measurement error and so on. This course will introduce participants to a range of Bayesian models for spatial and temporal data and provide practical experience of how to fit these using the WinBUGS software.

Course content: Overview of Bayesian inference and MCMC methods; hierarchical models; autoregressive models for temporally and spatially correlated data; Bayesian kriging and spatial prediction; measurement error and missing data; practical experience of using WinBUGS with examples drawn from e.g. environmental epidemiology, forest ecology, meteorological prediction and pollution modelling.

Who should attend: Statisticians, environmental scientists, data analysts, PhD students and postgraduate researchers working with environmental or spatial/temporal data who wish to use a Bayesian approach to analysing their data. No previous experience of using WinBUGS or Bayesian methods is necessary, but participants will be expected to be familiar with standard statistical modelling techniques such as regression and generalised linear models; a basic understanding of hierarchical (multilevel) models will also be useful but not essential. Participants are also strongly advised to attend the half-day meeting prior to the course on Bayesian methods in environmental statistics organised at the RSS headquarters in London at 2pm on Wed 11th June 2003 (further details will be sent with registration details).

Practical details:

Course duration: 9.00am Thurs 12th June – 3.00pm Fri 13th June

Location: Imperial College, St Mary's Campus, London W2 1PG, UK

Course fee: £100 for RSS fellows and students; £150 otherwise

Registration: Places are limited so you are advised to register as soon as possible. To book a place, please complete the registration form below and send it together with the appropriate registration fee to:

Jonelle Lewis, RSS, 12 Errol St., London, EC1Y 8LX.

You may fax or email your registration form if you are paying by credit card:

Email: j.lewis@rss.org.uk; Fax: +44 (0)20 7614 3905

Tel: +44 (0)20 7614 3910

We are only able to accept payment in the form of a cheque (in pounds sterling) or by credit card. We are sorry but we are unable to issue invoices.

I wish to attend the short course on “Bayesian models in environmental applications using WinBUGS” on June 12-13	
Name	
Address	
Postcode	Fax
Telephone	Email
<i>To help us target the course appropriately, please provide some brief information about your background:</i>	
Occupation:	
Main research interests:	
Reason for attending course:	
Have you used Bayesian methods before?	
I am a student* / fellow of the RSS* / not a fellow of the RSS* (*delete as appropriate)	
Tick box:	Payment (to be made at time of registration)
	I enclose a cheque for £100* / £150* (*delete as appropriate) made payable to “The Royal Statistical Society”
	Please debit my credit card for the amount of £100* / £150* (*delete as appropriate)
	Type of card: Visa / Mastercard / AMEX
	Card number:
	Expiry date:
	Signature