



LONDON  
MATHEMATICAL  
SOCIETY

University of  
**Strathclyde**  
Glasgow



EDINBURGH  
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## Stochastic Modelling in Ecosystems

### Programme

**Venue: LT908, Livingstone Tower, 26 Richmond Street, Glasgow G1 1XH.**

The University map can be found at <http://www.strath.ac.uk/maps/johnandersoncampus/>

**Date: 11 June 2012**

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| 10:00 – 10:28        | Registration/Tea and Coffee  |
| Chair                | <b>Professor Xuerong Mao</b> , University of Strathclyde   |
| 10:28 – 10:30        | <i>Welcome address</i>   |
| 10:30 – 11:20        | <b>Professor Pat Heslop-Harrison</b> , University of Leicester<br>Between biodiversity and crops: needs from stochastic models at the ecosystem scale                            |
| 11:20 – 12:10        | <b>Dr Chenggui Yuan</b> , University of Swansea<br>SDDEs in Population Systems   |
| <i>12:10 – 13:30</i> | <i>Lunch break and posters</i>   |
| Chair                | <b>Professor Pat Heslop-Harrison</b> , University of Leicester   |
| 13:30 – 14:20        | <b>Professor Mathew Williams</b> , University of Edinburgh<br>Data assimilation approaches for analysing the terrestrial carbon cycle  |
| 14:20 – 15:10        | <b>Dr Jongrae Kim</b> , University of Glasgow<br>Robustness analysis of community structure  |
| <i>15:10 – 15:40</i> | <i>Tea and Coffee</i>  |
| Chair                | <b>Professor Mathew Williams</b> , University of Edinburgh   |
| 15:40 – 16:30        | <b>Dr Francesco Accatino</b> , Politecnico di Milano, Italy and Georg August University of Goettingen, Germany<br>Modeling humid savannas adding stochasticity to a matrix model |
| 16:30 – 17:20        | <b>Dr Alison Gray</b> , University of Strathclyde<br>SDE SIS Epidemic Models   |

*17:20 – 18:00 Discussions and posters*

**Date: 12 June 2012**

Chair **Dr David Alonso**, The Spanish Council for Scientific Research

10:00 – 10:50 **Dr Pierre Couteron**, IRD Montpellier France

How analyses on remotely sensed images help designing and calibrating models of vegetation patterns dynamics?

10:50 – 11:40 **Dr Martin Griffiths**, University of Essex

An extended three-stage pessimistic model for the spread of HIV amongst injecting drug users

11:40 – 12:30 **Miss Jiafeng Pan**, University of Strathclyde

Estimation of parameters for the SDE SIS epidemic model

*12:30 – 13:30 Lunch break and posters*

Chair **Prof Carlo De Michele**, Politecnico di Milano, Italy

13:30 – 14:20 **Dr David Alonso**, The Spanish Council for Scientific Research

Ecological dynamics and environmental fluctuations: The case of Malaria in an East African highland

14:20 – 15:10 **Dr. H. Yue and Mr D. Lee**, University of Strathclyde

Objective and correlated sensitivity analysis of oscillatory biological networks

*15:10 – 15:40 Tea and Coffee*

Chair **Dr Pierre Couteron**, IRD Montpellier France

15:40 – 16:30 **Dr Minjoo Kim**, Glasgow University

Functional autoregressive value-at-risk

16:30 – 17:20 **Prof Carlo De Michele**, Politecnico di Milano, Italy

Ecohydrology of arid and semi-arid ecosystems

*17:20 – 18:00 Cheese, wine, discussions and posters*