

# THE CAMBRIDGE STATISTICS DISCUSSION GROUP

**Tuesday 15th October 2013 7:15 for 7:45**

Large Lecture Theatre,  
MRC Cognition and Brain Sciences Unit,  
Chaucer Road, Cambridge, CB2 7EF

## **Simulating environmental systems: the benefits of being discrete**

**Mike Bithell**

Department of Geography

**Abstract:** Many things that we encounter in the natural world are made up of individual separate objects – scree slopes are made from individual smaller rock fragments, forests from individual trees and society from individual people. The interactions between these discrete components lead to complex systems in which, over time, larger-scale structures emerge from the smaller. Using computer simulation we can explore the behaviour that results by directly modelling every rock, or every tree or every person. These models promise to help us understand better how people interact with the natural world at a time when society faces increasing environmental challenges.

**Speaker:** Mike Bithell obtained a degree in Natural Sciences and Doctorate in Astrophysics from the University of Cambridge, before moving to the Rutherford Appleton Laboratory to work on simulation of Ozone in the atmosphere. He then moved to Geography in Oxford to model climate and the interaction between people and the environment. He currently works in the Geography department at Cambridge, and aims to develop models of society that can be integrated with physical and ecological models. This can help us understand how environmental changes affect social systems, and inform thinking about how societies adapt to environmental change.

**Annual General Meeting:** Mike Bithell's talk will be preceded by a brief Annual General Meeting.

**Directions** Chaucer Road is off Trumpington Road – if you are heading away from the city centre it is the first right after the junction with Brooklands Avenue. Number 15 is at the end on the left and is a large Victorian House with a more modern extension to its right. The entrance is in the porch located in the middle of the older section on the left as you come in and is accessed by ascending a few steps from the car park. Cars may be parked there. The outside door will be locked at 7:45.

Arrivals after 7:45pm can gain admittance by contacting the secretary on 07761769436. A map showing the location of the unit is at <http://www.mrc-cbu.cam.ac.uk/contacts/directions>.

### **Provisional Next Meetings:**

25<sup>th</sup> November – James Wason (MRC Biostatistics).

3<sup>rd</sup> February 2014 – Klaudia Walter (Sanger Institute).

20<sup>th</sup> February – Richard Samworth (Statistical Laboratory).

27<sup>th</sup> March – Peter Fretwell (British Antarctic Survey).

30<sup>th</sup> April – Nick Galwey (GlaxoSmithKline) on 'Working with Epidemiologists'.

**Supper:** Some members eat before a talk at the University Centre meeting in the Granta Lounge at **5-45pm**. All welcome!

**Secretary:** Peter Watson, MRC Cognition and Brain Sciences Unit, 15 Chaucer Road, Cambridge CB2 7EF;

telephone 01223 355294 Extension 801; E-mail [peter.watson@mrc-cbu.cam.ac.uk](mailto:peter.watson@mrc-cbu.cam.ac.uk)

**For security purposes could you please let Peter Watson know if you intend attending the talk.**

**Slides and .mp3 files of old talks:** <http://www.mrc-cbu.cam.ac.uk/people/peter.watson/csdg.html>

**TURN OVER for the Annual General Meeting agenda**

# THE CAMBRIDGE STATISTICS DISCUSSION GROUP

**Tuesday 15th October 2013 7:15 for 7:45**

Large Lecture Theatre,  
MRC Cognition and Brain Sciences Unit,  
Chaucer Road, Cambridge

## **Annual General Meeting**

The annual general meeting will be followed immediately by Mike Bithell's talk 'Simulating environmental systems: the benefits of being discrete'.

### **Agenda:**

0. Approval of Minutes of previous A.G.M.  
(<http://imaging.mrc-cbu.cam.ac.uk/statswiki/csdg/newtalks>)
1. Treasurer's Report.
2. Secretary's Report.
3. Election of Chairman, Secretary, Treasurer, plus 3 other members of the Committee.
4. Any Other Business.

### **Rules for Election:**

1. FRANCISE: All paid-up members may vote or stand for office.
2. NOMINATIONS: The offices to be filled are Chairman, Secretary and Treasurer and three other members of the Committee.

An outgoing Chairman will be a member of the Committee *ex officio*. At the end of each year the entire Committee will stand down, but may stand again for the same office as they are leaving without nomination. To be elected to a different office a candidate must be nominated by one person from the paid-up membership, not including himself. Nominations do not require a seconder to be valid, but do require the consent of the nominee. One person can be nominated for more than one office, but hold only one. If a person is elected to a higher office (according to the ordering given below) he or she automatically ceases to be a candidate for a lower office. A candidate for the post of Chairman, Secretary, Treasurer is automatically a candidate for the Committee if he or she fails to gain election to one of these three posts.

**TURN OVER for directions to the Cognition and Brain Sciences Unit and abstract of Mike's talk**