

One-Day IOP meeting
Complexity of evolutionary processes in biology and the behavioural sciences
13th June 2011, University of Manchester

Preliminary programme

- 10:00 registration and coffee
- 10:30 **Tom Mullin (chair of NCP Group)**
Welcome
- 10:35-11:30 **KEYNOTE TALK: Alan Grafen FRS (Oxford)**
A third kind of mathematical optimisation principle can help bring Darwinian order to equations of motion for gene frequencies
- 11:30-11:50 **Bruce Edmonds (Manchester Metropolitan)**
Using data sets to simulate evolution within complex environments
- 11:50-12:10 **Rebecca Hoyle (Surrey)**
Effects of fixed and variable maternal inheritance in adapting to a novel environment
- 12:10-13:30 LUNCH
- 13:30-13:50 **Sebastian Ahnert (Cambridge)**
Evolution of modularity and complexity in self-assembling polyominoes
- 13:50-14:10 **Iain Johnston (Oxford)**
Symmetry and Complexity in the Evolution of Self-Assembling Structures
- 14:10-14:30 **Steffen Schaper (Oxford)**
Fragmented neutral spaces lead to contingency in evolution
- 14:30-14:50 **Thomas Fink (CNRS/ London Institute for Mathematical Sciences)**
The relation between robustness, evolvability and fitness
- 14:50-15:10 COFFEE BREAK
- 15:10-15:30 **Ignacio Gallo (Imperial)**
A simple model for studying the probability of extinction of populations of equal fertility and different longevity
- 15:30-15:50 **Kyriakos Kentzoglanakis (MRC National Institute)**
Bacterial Plasmids: The evolution of copy number control
- 15:50-16:10 **Jean Boulton (Cranfield)**
Evolutionary processes and social systems
- 16:10-16:30 **Mark Hardman (Canterbury)**
Human Behaviour: A Bridge Too Far for Complexity?
- 16:30 close

The meeting is organized by the Nonlinear and Complex Physics Group of the Institute of Physics.

All talks are in the Moseley Lecture Theatre, School of Physics and Astronomy University of Manchester, Schuster Building, Brunswick Street, Manchester M13 9PL.

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