

Trinity Term 2008

CABDyN SEMINAR SERIES
Saïd Business School, University of Oxford



Convenors:

Felix Reed-Tsochas, *James Martin Institute, Saïd Business School*

Jukka-Pekka Onnela, *Physics Department & Saïd Business School*



Our meetings intend to provide a forum for rigorous research (in a broad range of disciplines) focusing on complex adaptive systems, using methods and techniques such as agent-based modelling and complex network analysis. Since potential areas of application for such approaches can be located across the social, natural and engineering sciences, our aim is to involve participants from a wide range of departments in Oxford. We welcome talks which focus on particular areas of application and associated technical issues, but also encourage contributions which address more fundamental conceptual or mathematical problems. The CABDyN Seminar Series is one of the activities of the CABDyN Research Cluster (<http://sbs-xnet.sbs.ox.ac.uk/complexity/>).

Tuesday 10th June, 12.30 – 2.00 pm

JMI Seminar Room, Saïd Business School

Prof David Sherrington
Rudolf Peierls Centre for Theoretical Physics
University of Oxford

Physics and Complexity

ABSTRACT

This talk will be concerned with the evolution of complexity in “many-body” systems through interactions with conflicts, even with relatively simple individual units or character of few-body interaction, viewed from the perspective of physics.

However, I shall discuss not only topics traditionally recognised as physics but also others more traditionally considered to be within other domains, such as biology, economics, information theory, computer science and social science. The common links come through conceptualization, minimal modelling and mathematical formulation, rather than apparent physical similarity. I shall concentrate on concepts and methodologies which have their origin in attempts to understand some complex solids, but I shall try to show their much wider applicability and potential, some of the successes in application, some of the similarities and differences between systems, and some of the challenges that remain in the symbiosis of subjects.

Sandwiches and drinks will be provided

For further information contact info.cabdyn@sbs.ox.ac.uk

Seminar webpage: http://sbs-xnet.sbs.ox.ac.uk/complexity/complexity_seminars.asp