

Michaelmas Term 2007

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/>).

Monday 3rd December, 12.30 – 2.00 pm
(please note different day)

Seminar Room B

Dr Santo Fortunato
Institute for Scientific Interchange Foundation, Turin

Three Puzzles in Community Detection

ABSTRACT

Detecting communities in networks is crucial to uncover relationships between nodes of complex networks. In spite of the sizeable literature on the topic, the elements of the problem are not clearly defined. I discuss the three main aspects of the problem, which in some respect still pose a challenge to scholars: the definition(s) of community, the evaluation of partitions and the issue of hierarchies. I conclude with the description of a new fast method that accounts for both overlapping communities and hierarchical structure.

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