

Hilary Term 2009

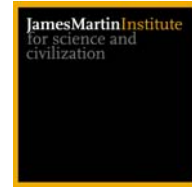
CABDyN SEMINAR SERIES
Saïd Business School, University of Oxford



Convenors:

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

Eduardo López, *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 Complexity Centre (<http://sbs-xnet.sbs.ox.ac.uk/complexity/>).

Wednesday 18th March, 12.30 – 2.00 pm

Seminar Room B, Saïd Business School

Dr Vittoria Colizza

Complex Systems Lagrange Lab, ISI Foundation, Turin Italy

‘Do the rich really take it all?’

ABSTRACT

"The rich are different from you and me," said F. Scott Fitzgerald. But do the rich — the well connected and highly influential — really form an exclusive club? Do they attract and exchange among themselves the vast majority of resources available in the system, or do they tend to avoid one another? In network theory, 'rich' nodes are generally defined as the highly connected nodes, and the 'rich-club' phenomenon refers to their tendency to form tighter interconnected groups than randomly expected, pointing to the presence of dominant subgroups in the system. By shifting the attention from the bare topology of a network to its weighted nature, it is possible to explore the associations between prominence and control of resources in a networked system. The weighted rich-club phenomenon provides a new general framework that enables to investigate the tendency of prominent elements to form clubs with exclusive control over the majority of resources circulating in a system. The results shed a new light on the distribution of traffic in transportation networks, the allocation of resources among scientists in collaborative endeavors, and the deepening of social relationships among users in online communication.

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