

### SAID BUSINESS SCHOOL, University of Oxford

# **SEMINAR SERIES / TRINITY 2011**

Convenors: Felix Reed-Tsochas, Institute for Science, Innovation and Society,

Saïd Business School

Eduardo López, Saïd Business School

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01865 288785

Seminar webpage: www.cabdyn.ox.ac.u k/complexity\_semina rs.asp

Sandwiches and drinks will be provided

Please note: although the seminar programme detailed was correct at time of printing, seminar arrangements are subject to change for the latest information, please check the seminar webpage.

# Tuesday 10<sup>th</sup> May

(12.30 - 2.00pm) James Martin Seminar Room

#### Dr Jianguo Liu

Research Fellow in Complex Networks, CABDyN Complexity Centre, Saïd Business School

'Solving the apparent diversity-accuracy dilemma of recommender systems'

#### **ABSTRACT**

Recommender systems use data on past user preferences to predict possible future likes and interests. A key challenge is that while the most useful individual recommendations are to be found among diverse niche objects, the most reliably accurate results are obtained by methods that recommend objects based on user or object similarity. In this paper we introduce a new algorithm specifically to address the challenge of diversity and show how it can be used to resolve this apparent dilemma when combined in an elegant hybrid with an accuracy-focused algorithm. By tuning the hybrid appropriately we are able to obtain, without relying on any semantic or context-specific information, simultaneous gains in both accuracy and diversity of recommendations.





