



SAID BUSINESS SCHOOL, University of Oxford

## SEMINAR SERIES / MICHAELMAS 2011

Convenors: Felix Reed-Tsochas, Institute for Science, Innovation and Society,  
Saïd Business School  
Eduardo López, Saïd Business School

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Seminar webpage:  
[www.cabdyn.ox.ac.uk/complexity\\_seminars.asp](http://www.cabdyn.ox.ac.uk/complexity_seminars.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 25<sup>th</sup> October**  
(12.30pm - 2.00pm) James Martin Seminar Room

**Dr Austin Gerig**  
Senior Research Fellow, Complex Networks, University of Oxford

*'The Effects of High Frequency Trading in a Multi-Asset Model'*

### ABSTRACT

Traditional market makers are losing their importance as automated systems have largely assumed the role of liquidity provision in markets. We update the model of Glosten and Milgrom (1985) to analyze this new world: we add multiple securities and introduce an automated market maker who prices order flow for all securities contemporaneously. This new automated participant transacts the majority of orders, sets prices that are more efficient, and increases informed and decreases uninformed traders' transaction costs. These results can explain the recent dominance of high frequency trading in US markets and the corresponding increase in trading volume and decrease in transaction costs for US stocks.

