Nanyang Technological University

DIVISION OF ECONOMICS

Seminar Series

The Division of Economics invites you to a seminar by Associate Professor Bob Hammond

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Speaker	:	**Bob Hammond** *Department of Economics, North Carolina State University*
Topic	:	**"The Secure Boston Mechanism: Theory and Experiments"**
Chairperson	:	**Associate Professor Eko Riyanto** *Division of Economics* *School of Humanities & Social Sciences*
Date	:	**Wednesday, 18 November 2015**
Time	:	**2.30pm to 3.30pm**
Venue	:	**Meeting Room 5** (HSS-04-89) *Nanyang Technological University* *School of Humanities and Social Sciences* *14, Nanyang Drive* *Singapore 637332*

About the Speaker:

Robert Hammond is an Associate Professor of Economics at North Carolina State University, arriving after receiving his PhD in Economics from Vanderbilt University in 2008. His research interests are in empirical microeconomics, primarily in the fields of industrial organization and experimental economics. Specifically, he often work in the areas of mechanism design (e.g., auctions) and market design (e.g., school choice). In his first few years while on the faculty at North Carolina State University, Hammond established an experimental laboratory within the Poole College of Management and continues to maintain its subject recruitment system. He has also maintained a high degree of outreach. Along with his colleagues at North Carolina State University, Umut Dur and Thayer Morrill, Hammond established a partnership with the Wake County School System to administer its magnet school assignment procedure and use data from the school system to understand the economic outcomes of assignment mechanisms.

Abstract:

The two primary objections to the Boston Mechanism (BM) are that it is not strategy proof and that sophisticated students benefit at the expense of naive students. However, it is an attractive algorithm from an optimization standpoint. We introduce an intuitive modification of BM that secures any school a student was initially guaranteed but otherwise prioritizes a student at a school based upon how she ranks it. This new mechanism, the Secure Boston Mechanism (sBM), is less manipulable than BM and provides some protection for naive students. We further compare sBM to the Deferred Acceptance algorithm (DA) and show that whenever DA is Pareto inefficient, then there exists a larger assignment problem where DA makes the same (inefficient) assignment but an equilibrium in undominated strategies of sBM is Pareto efficient and Pareto dominates the DA assignment. To provide empirical evidence in favor of the performance of sBM, we conduct a lab experiment using a novel experimental design. The results strongly support the use of sBM over BM, finding a 65% increase in truth-telling with sBM, relative to BM. Further, while BM assigns more students to their reported first choice, BM and sBM assign similar number of students to their true first choice. Finally, sBM assigns fewer subjects to a school they prefer less than their district school, relative to BM.

Reservation:

Admission is free. Please reply to h-dae@ntu.edu.sg to confirm your attendance.