10 YEARS AFTER THE CRISIS: MODELLING MEETS POLICY MAKING

THE FIELDS INSTITUTE
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The 2008 financial crisis posed unprecedented challenges to practitioners and policy makers around the world. Researchers responded in tandem by re-examining the approaches to model financial markets and their interactions with the real economy. Agent-based models, networks, dynamical systems, and mean-field games, and several other techniques became part of the emerging research area of systemic risk alongside more traditional economic models. The Fields Institute played a leading role in these developments, having hosted numerous workshops and meetings on financial stability, mathematics for new economic thinking, monetary and fiscal policy, and market microstructure. More recently, as part of the new CQAM initiative, the Institute launched a new lab on Systemic Risk Analytics to take research in this area to a new level, including the novel applications of machine learning and blockchain technologies.

In this workshop, organized jointly with the New Approaches to Economic Challenges (NAEC) of the Organisation for Economic Co-operation and Development (OECD), the Fields Institute will host leading academic experts and policy makers to reflect on the lessons learned over the past 10 years. The workshop will be an opportunity to discuss recent advances in modelling of financial system with the aim of a sustainable, inclusive and stable economy. Topics will include heterogeneous agents, network models, growth and sustainability, income and wealth inequality, financial stability, and effective regulation. It is expected that workshop will promote long-term collaborations between researchers from NAEC and the Fields Institute and Canadian regulators and policy makers, including groups at the Finance Ministry, the Bank of Canada, the Office of the Superintendent of Financial Institutions (OSFI), and the Canadian Securities Transition Office (CSTO).

9:00 - 10:00 Mini-Course: Complexity Economics
Alan Kirman, NAEC Initiative

10:30 - 12:30 Mini-Course: Agent-Based Models in Economics I
Blake LeBaron, Brandeis International Business School
Alissa Kleinnijenhuis, University of Oxford

14:00 - 15:00 Mini-Course: Asset Price Bubbles: Economics, Mathematics, and Statistics
Matheus Grasselli, McMaster University

14:00 - 15:30 Mini-Course: Cyber-security and the Financial System
Michael Zerbs, Scotiabank; Alex Lipton, Silamoney and MIT & Filipe Dinis, Bank of Canada

16:00 - 17:00 Complexity of the Financial System II - Networks
Casar Brunetti, The Federal Reserve; Grzegorz Hanke, Bank of Canada & Thomas Hud, McMaster University

To register, please visit: http://www.fields.utoronto.ca/activities/18-19/crisis