

WFE and Imperial College's Technology Conference

Monday 24 – Wednesday 26 July 2017

London

Monday 24 July

18:45 – 21:30

Welcome Reception

Venue: 170 Queen's Gate, Imperial College London

Tuesday 25 July

Imperial College London - City and Guilds Building

8:00 – 9:00

Registration

9:00 – 9:15

Welcome Address

Nandini Sukumar, CEO, WFE

Siobhan Cleary, Head of Research & Public Policy, WFE

Dr Andrei Kirilenko, Director, Centre for Global Finance & Technology, Imperial College Business School

9:15 – 9:35

Opening Keynote - Technology's Impact on Market Structure – Revisiting Core Assumptions

Gregg Berman, Director, Citadel Securities

9:35 – 10:45

Panel Session - Reg-Tech: Enabling Compliance and Enhanced Oversight

Moderator:

Ruth Wandhöfer, Managing Director, Global Head of Regulatory and Market Strategy, Citi

Discussants:

Tony Sio, Head of Exchange & Regulator Surveillance, Market Technology, Nasdaq

Vikas Shah, Managing Director, Investment Banking, Rosenblatt Securities

Satya Pemmaraju, Founding Partner & CEO, Droit

Lucio Biase, CEO, LMRKTS

10:45 – 11:15

Presentation of Latest Research

Andriy Shkilko, Associate-Professor of Finance, Wilfrid Laurier University

Every cloud has a silver lining: Fast trading, microwave connectivity and trading costs

Professor Shkilko presents his recent research into modern markets, where trading firms spend generously to gain a speed advantage over their rivals. The marketplace that results from this rivalry is characterized by speed differentials, whereby some traders are faster than others. How does such a marketplace affect liquidity? To answer this question, he and his co-authors study a series of exogenous weather-related episodes that temporarily remove speed advantages of the fastest traders by disrupting their microwave networks. During these episodes, adverse selection declines accompanied by improved liquidity and reduced volatility. Liquidity improvement is larger than the decline in adverse selection consistent with the emergence of latent liquidity and enhanced competition among liquidity suppliers. The results are confirmed in an event-study setting, whereby a new business model adopted by one of the technology providers reduces speed differentials among traders, resulting in liquidity improvements.

11:15 – 11:45

Presentation of Latest Research

Jonathan Brogaard, Assistant Professor of Finance, Foster School of Business, University of Washington

Risk and Return in High-Frequency Trading

Professor Brogaard presents his latest research paper looking at performance and competition among high-frequency traders (HFTs). In this paper, he and his co-authors construct measures of latency and find that differences in relative latency account for large differences in HFTs' trading performance. HFTs that improve their latency rank due to colocation upgrades see improved trading performance. The stronger performance associated with speed comes through both the short-lived information channel and the risk management channel, and speed is useful for a variety of strategies including market making and cross-market arbitrage. They explore implications of competition on relative latency and find support for various theoretical predictions.

11:45 – 12:15

Panel Session – Making Sense of Electronic Markets

Gregg Berman discusses the practical implications of their research for market operators, policy makers and technology officers with **Andriy Shkilko** and **Jonathan Brogaard**

12:15 - 13:45

Lunch
Room: Queen's Tower Room

13:45 – 14:45

Panel Session – Blockchain/DLT: Use-Cases and Limitations

Moderator: **Andrei Kirilenko**, Director of the Centre for Global Finance and Technology, Imperial College Business School

Discussants: **Ashwin Kumar**, Managing Director, Group Head of Business & Product Development, Deutsche Boerse Group
Jennifer Peve, Executive Director Office of FinTech Strategy, DTCC
Michael McFadgen, Managing Director, Euclid Opportunities, NEX

14:45 – 15:45 **Panel Session – Cyber-Security: Keeping the Barbarians from the Gate**

Discussants: **Jerry Perullo**, Chief Information Security Officer, Intercontinental Exchange
Russell Wing, Head of Information Security, London Metal Exchange
Bobby Singh, Chief Information Security Officer, TMX Group

15:45 – 16:15 **Coffee Break**
Room: Concourse Area

16:15 – 17:15 **Panel Session – Market Infrastructures, Post Trade and Fintech – Finding the Value**

Moderator: **Rebecca Lewis**, Analyst, Financial Markets, Federal Reserve Bank of Chicago

Discussants: **Arjun Jayaram**, Founder & CEO, Baton Systems
Ray Kahn, Senior Director, ICE
Dave Olsen, Jump Trading

19:00 – 22:00 **Gala Dinner (Welcoming remarks by David Gann, Imperial College Vice-Provost on Innovation)**

Venue: Natural History Museum
Room: Earth Hall

Wednesday 26 July

Imperial College London - City and Guilds Building

9:00 – 9:30 **Emiliano Pagnotta**, Assistant-Professor of Finance, Imperial College Business School

Presentation of Latest Research

Chasing Private Information

Professor Pagnotta presents his recently published research looking at whether market-based signals reveal the trading of privately informed investors? He and his co-authors examine this question using a novel sample of over 5,000 equity and option trades documented in the SEC's insider trading investigations. They find that:

(1) Trades based on information about fundamentals do impact information signals. (2) The relation between private and public signals is complex and, for commonly used liquidity metrics, contrary to standard theories. (3) Trade volume is more informative in option markets than in stock markets, with the combination of both being most informative. Evidence from the SEC's Whistleblower Reward Program addresses potential selection concerns.

9:30 – 10:00

Presentation of Latest Research

Jennifer Conrad, Professor of Finance, University of North Carolina - Chapel Hill

The Term Structure of Liquidity Provision

Professor Conrad presents the results of her recently published research into the term structure of liquidity provision in all stocks from 100 milliseconds to 600 seconds after each trade for 2000-2015. At a one second horizon, the aggregate price of liquidity provision, net of losses to information, falls from 17 basis points of total dollar volume in 2000 to 1.5 basis points in 2015. Regulatory changes, technological shocks, and changes in the industrial organization of markets are associated with declines in the price of liquidity provision, and with changes in the term structure. Over the 16-year period, the slope of the term structure is increasingly steep, consistent with intense non-price (i.e. speed) competition. The term structure and profitability of market-making in recent years is more closely tied to market, rather than idiosyncratic, risk. This is consistent with electronic market makers managing liquidity provision in large well-diversified portfolios of securities.

10:00 – 11:15

Moderator:

Panel Session – IT as Enabler or Investment?

Aparajita Ajit, Vice President and Head Strategic Accounts, Mphasis UK Limited

Discussants:

Brendan Bradley, Co-Founder, Seismic Foundry

Ruixuan Wang, Executive Manager of Technology Planning Office, Dalian Commodity Exchange

Thomas Aidan Curran, Founder, Imarum GmbH

11:15 – 11:45

Coffee Break

Room: Concourse Area

11:45 – 12:15

Presentation of Latest Research

Pete Kyle, Professor of Finance, Robert H. Smith School of Business, University of Maryland

Dimensional Analysis and Market Microstructure Invariance

Professor Kyle presents his latest research paper in which he combines dimensional analysis, leverage neutrality, and a principle of market microstructure invariance to derive scaling laws expressing transaction costs functions, bid-ask spreads, bet sizes, number of bets, and other financial variables in terms of dollar trading volume and volatility. The scaling laws are illustrated using data on bid-ask spreads and number of trades for Russian stocks. These scaling laws provide useful metrics for risk managers and traders; scientific benchmarks for evaluating controversial issues related to high frequency trading, market crashes, and liquidity measurement; and guidelines for designing policies in the aftermath of financial crisis.

12:15 – 14:00

Lunch

Room: Queen's Tower Room

14:00 – 15:15

Panel Session – Artificial Intelligence and Machine Learning: To Infinity and Beyond

Moderator:

Alex Powell, Independent Consultant

Discussants:

Nathan Benaich, Ph.D., Artificial Intelligence Venture Capital Investor

Frank Hatheway, Chief Economist and Senior Vice President, Nasdaq

John Macpherson, CEO, BMLL Technologies

Mike O'Keeffe, General Manager, Corlytics Solutions Ltd

15:15 – 15:30

Closing Address

Nandini Sukumar, CEO, WFE

Siobhan Cleary, Head of Research & Public Policy, WFE

Dr Andrei Kirilenko, Director, Centre for Global Finance & Technology, Imperial College Business School

15:30 – 17:00

Farewell Reception

Venue: Concourse Area

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