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Quantitative Finance LAB



Algo-trading and DEFI

7- 8, November 2024

Politecnico di Milano

Venue: sala Consiglio Department of Mathematics, building 14, VII floor
Via Bonardi 9 - Milano 20133

7, November

9.00 Registration

9.30 First session

Chair: Emilio Barucci

- 9.30 Tomaso Aste (University College London) Combining Deep Learning and Higher Order Networks for Limit Order Book Forecasting
- 10.10 Robert Boyce (Imperial College) Market Making with Exogenous Competition
- 10.40 Sturmius Tuschmann (Imperial College) Optimal Portfolio Choice with Cross-Impact Propagators

11.10 Coffee break

- 11.40 Ivan Gufler (LUISS) The Rise of Algorithmic Trading: Implications for Price Elasticity and Market Competitiveness
- 12.10 Lorenzo Schönleber (Collegio Carlo Alberto and University of Turin) Decentralized and Centralized Options Trading: A Risk Premia Perspective
- 12.40 Fabrizio Lillo (Bologna University & Scuola Normale Superiore) Time Varying Liquidity: Online Learning and Optimal Trading

13.15 Light lunch

14.30 Second session

Chair: Andrea Prampolini

- 14.30 Álvaro Cartea (University of Oxford) Why do Market Makers Signal Themselves?
- 15.10 Andrea Macrì (Scuola Normale Superiore) Deviations from the Nash Equilibrium and Emergence of Tacit Collusion in a Two-player Optimal Execution Game with Reinforcement Learning
- 15.40 Konark Jain (University College of London & J.P. Morgan) No Tick-Size Too Small: A General Method for Modelling Small Tick LOBs

16.10 Coffee break

- 16.40 Niccolò Bardoscia (Intesa Sanpaolo) Prospective Relevance of Alternative Price Formation Models for Securities Markets

- 17.10 Fayçal Drissi (University of Oxford) Equilibrium Liquidity and Competition in Automated Market Makers
- 17.40 Leandro Sánchez-Betancourt (University of Oxford) Automated Market Makers Designs Beyond Constant Functions In terms of preference

8, November

9.00 Third session

Chair: Michele Azzone

- 9.00: Jean-Philippe Bouchaud (Capital Fund Management) The Inelastic Market Hypothesis: A Microstructural Interpretation
- 9.40 Edoardo Vittori (Intesa Sanpaolo) CVA Hedging by Risk-Averse Stochastic-Horizon Reinforcement Learning
- 10.10 Mustafa Yigit Yağci (Bursa Uludag University) Predictability and Efficiency of Stock Market for Various History Ranges and Trading Volumes: a Study on BIST30 Index

10.40 Coffee break

- 11.00 Maximilian Göbel (Brain) Maximally Machine-Learnable Portfolios
- 11.30 Antonio Briola (University College London) Deep Limit Order Book Forecasting
- 12:00 Matvey Andreev (Insolvent Capital) Funding Rate Formula Differences Across Exchanges: Case Study
- 12.30 Marcello Restelli (Politecnico di Milano) Reinforcement Learning in Algorithmic Trading

13.30 Light lunch