NUS National University of Singapore | Department of Economics, Faculty of Arts & Social Sciences

NUS National University of Singapore | Department of Mathematics, Faculty of Science

New directions in economics
JANEWAY INSTITUTE CAMBRIDGE

Markov Decision Process and Reinforcement Learning Workshop

Programme

Date: 22 September 2023 (Friday)

Venue: Winstanley Lecture Theatre, Trinity College, Cambridge, United Kingdom

9:30 - 9:55	Registration
9:55 - 10:00	Opening speech
Session 1 (10:00 - 12:40)	
10:00 – 10:35	**Agostino Capponi, Columbia University** Title: Market Microstructure in the Big-data Era: Improving High-frequency Price Prediction via Machine Learning
10:35 - 11:10	**Patrick Cheridito, ETH Zurich** Title: Deep Trade Execution
11:10 - 11:30	Tea break
11:30 - 12:05	**Yijiong Zhang, NUS (Chongqing) Research Institute** Title: Optimal Market Making in a Multi-agent Market under Model Uncertainty: A Reinforcement Learning Approach
12:05 - 12:40	**Wolfgang Karl Härdle, Humboldt University Berlin** Title: Regime-switching Reinforcement Learning
12:40 - 14:30	Lunch break
Session 2 (14:30 - 18:15)	
14:30 – 15:05	**Peter Bossaerts, University of Cambridge** Title: Statistical Efficiency in Human and Machine Reinforcement Learning
15:05 - 15:40	**Sorawoot Srisuma, National University of Singapore and University of Surrey** Title: Least Squares Estimation of Dynamic Games with Unobserved Heterogeneity
15:40 - 16:15	**Karun Adusumili, UPenn** Title: Temporal Difference Estimation of Dynamic Discrete Choice Models
16:15 - 16:30	Tea break
16:30 - 17:05	**Tomaso Aste, UCL** Title: Network modeling for complex systems
17:05 - 17:40	**Alessio Sancetta, Royal Holloway, University of London** Title: Action-State Dependent Dynamic Model Selection

17:40 -18:15	**Julian Sester, NUS** Title: Markov Decision Processes under Model Uncertainty

19:00 ~ 21:30	Speakers' and organisers' dinner

Date: 23 September 2023 (Saturday)

Venue: Winstanley Lecture Theatre, Trinity College, Cambridge, United Kingdom

Session 1 (10:00 - 12:40)	
10:00 - 10:35	**Xiaohong Chen, Yale University** Title: STEEL: Singularity-aware Reinforcement Learning
10:35 - 11:10	**Chengchun Shi, LSE** Title: Doubly Inhomogeneous Reinforcement Learning
11:10 - 11:30	Tea break
11:30 - 12:05	**Tetsuya Kaji, Chicago Booth** Title: An Adversarial Approach to Structural Estimation
12:05 - 12:40	**Ruohan Zhan, HKUST** Title: Post-Episodic Reinforcement Learning Inference
12:40 - 14:30	Lunch break
Session 2 (14:30 - 16:00)	
14:30 – 15:05	**Masashi Sugiyama, RIKEN/The University of Tokyo** Title: Learning under Continuous Distribution Shifts
15:05 - 15:40	**Bo An, Nanyang Technological University** Title: Reinforcement Learning for Handling Complex Multi-agent Interactions
15:40 - 16:00	Closing remarks & Farewell