

2nd Robust Agent-Based Modelling at Scale Workshop
8th & 9th July 2024, Rhodes House, Oxford
Workshop Schedule (subject to potential minor changes)

Monday 8th July

9 – 9.30 Registration & Coffee

9.30 – 10.00 Mike Wooldridge & Ani Calinescu (University of Oxford) *Welcome, project overview*

Session 1:

10.00 – 10.30 Samarth Swarup (Biocomplexity Institute and Initiative, University of Virginia) *Digital Similars for Large-scale Agent-based Social Simulation*

10.30 – 11.00 Noor Sajid (Max Planck Institute of Biological Cybernetics) *Deep Active Inference* (remote talk)

11.00 – 11.30 COFFEE BREAK

Session 2:

11.30 – 12.00 Marco Pangallo (CENTAI, Italy) *Learning latent variables for data-driven agent-based models*

12.00 – 12.30 Svitlana Vyetrenko (J.P.Morgan AI Research) *On simulated investor modeling*

12.30 – 13.00 Aldo Glielmo (Banca D'Italia) *From agent-based simulation to multi-agent reinforcement learning: The experience of the Applied Research Team*

13.00 – 14.00 LUNCH

Session 3:

14.00 – 14.30 Arzu Uluc (Bank of England) *Agent-based models for policy: past, present, future*

14.30 – 15.00 Tucker Balch (J.P.Morgan AI Research)

15.00 – 15.30 Gary Polhill (The James Hutton Institute) *Challenges of validating ABMs, and how exascale could help (a bit)* (remote talk)

15.30 – 16.00 COFFEE BREAK

Session 4:

16.00 – 17.00 **Panel Discussion** (engagement with industry, benchmarks, scalability, robustness, transferability, synthetic data)

7pm **Arrival and Pre-dinner drinks in the Atrium, [Ashmolean Museum](#), Oxford, OX1 2PH – access via main entrance**

7.30pm **Dinner in the Greek and Roman Sculpture Gallery**

10.00pm **Guests depart**

Tuesday 9th July

9.00 – 9.30 Coffee & Refreshments

Session 5:

9.30 – 10.00 Theo Damoulas (University of Warwick) *Generating Origin-Destination Matrices in Neural Spatial Interaction Models*

10.00 – 10.30 Joel Dyer (University of Oxford) *Accelerating policy optimisation and decision-making with causal abstraction*

10.30 – 11.00 Benjamin Patrick Evans (J.P.Morgan AI Research) *ADAGE: A generic two-layer framework for adaptive agent based modelling -- Unifying product design, calibration, and other common ABM tasks*

11.00 – 11.30 COFFEE BREAK

Session 6:

11.30 – 12.00 Zhaozhi Qian (University of Cambridge) *Synthcity: a benchmark framework for diverse use cases of tabular synthetic data* (remote talk)

12.00 – 12.30 Nick Bishop (University of Oxford) *Population synthesis as scenario generation for simulation-based planning under uncertainty & SynthPop*

12.30 – 13.00 Imran Mahmood (University of Oxford) *Exploring the dynamics of gene drive mosquitoes within wild populations using an agent-based simulation*

13.00 – 14.00 LUNCH

Session 7:

14.00 – 14.30 Joel Dyer (University of Oxford) *SBI4ABM*

14.30 – 15.30 Arnau Quera-Bofarull (University of Oxford) *Differentiable Agent-Based Models & BlackBIRDS*

15.30 – 16.00 COFFEE BREAK

Session 8:

16.00 – 16.30 Ayush Chopra (MIT) *AgentTorch: Agent-based Modeling in the era of AI* (remote talk)

16.30 – 16.50 Aldo Glielmo (Banca D'Italia) *Black-it*

16.50 – 17.00 Final Discussions & Close