

2nd Robust Agent-Based Modelling at Scale Workshop
8th & 9th July 2024, Rhodes House, Oxford & Remote participation
Workshop Schedule

Monday 8th July

9 – 9.45 Registration & Coffee

9.45 – 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
Similar 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 Vyetenko (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**

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 – 15.00 Arnau Quera-Bofarull (University of Oxford) *Differentiable Agent-Based Models & BlackBIRDS*
- 15.00 – 15.30 Richard Bailey (University of Oxford) *Rewards in open-ended environments*

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) *BeforeIT.jl: A fast and modular Julia package for macroeconomic simulations*

16.50 – 17.00 Final Discussions & Close