

Social Simulation Conference SSC2023

Location: Clarice Pears Building School of Health & Wellbeing, University Of, 90 Byres Rd, Glasgow G12 8TB

Program

All times are in BST.

Monday

12-13:00 Lunch

13:00-15:00 ESSA@work

13:00-15:00 The transformative potential of exascale computing for agent-based modelling

15:00-15:30 Coffee

15:30-17:30 Alternative models of the development of inequality

Tuesday

9:00-10:30 Keynote Brian Castellani, Durham University

How to escape the dilemmas of complex systems modelling in public health: A users guide and map

Chair: Corinna Elsenbroich

10:30-11:00 Coffee

11:00-13:00 Parallell Sessions (120)

Special Track - Qual2Rule (100min) Room 103	General Track (115) Room 102 Chair: Nicolas Payette
23 Melania Borit, Christopher Frantz and Ruth Meyer Methods for using qualitative data to inform behavioural rules in Agent-Based Modelling: Preliminary results of a Systematic Literature Review (10)	38 Wander Jager and Shaoni Wang Simulations as a Dialogue Tool: Strengthening Community Engagement and Local Democratic Processes (15)
105 Frithjof Stöppler How abstracts concepts come alive: modelling network path dependence with qualitative data (20)	46 Petra Ahrweiler, Nigel Gilbert, Martha Bicket, Albert Sabater Coll, Blanca Luque Capellas, David Wurster, Jesús Siqueiros Garcia and Elisabeth Späth Gamification and Simulation for Innovation (20)
102 Nanda Wijermans, Eva Vriens and Giulia Andrighetto Heterogeneous agent decision-making - an empirically informed approach to behavioural types (20)	89 Alexander Melchior, Frank Dignum and Pinar Yolum Policy Development for Societal Challenges: The Collaborative Agent Based Modelling Policy Framework (20)
86 Lidia Mayangsari, Bhakti S. Onggo and Konstantinos V. Katsikopoulos Simple Heuristics as Mental Model for Staple Food Choice: An ABM Exercise (15)	72 Branislava Godic, Rajith Vidanaarachchi, Jason Thompson, Victoria Farrar, Leon Booth and Simone Pettigrew Visual Agent-Based Model Communication using Storyboards in Public Health: A case study using the potential effect of Autonomous Vehicles on Physical Activity (10)

48 Michelle Alfors and Paola D'Orazio Modeling the Impact of Social and Behavioral Factors on the Spread of Infectious Diseases in a Macro-Financial Agent-Based Model: a Methodological Proposal (15)	39 Kanako Shibata and Toshiyuki Ogawa Locality enhances consensus in opinion dynamics (10)
96 Jose Padilla and Erika Frydenlund Referencer: A Collaborative Online Space for Multidisciplinary Modeling (10)	56 Gary Polhill, Benjamin McCormick, Nick Roxburgh, Samuel Assefa and Keith Matthews A 'Theory of the Middle Range' to Support Food Security and Circular Economy Value Chain Scenario Analysis (20)
110 Rajith Vidanaarachchi, Sangeetha Chandrashekeran, Melissa Kennedy, Jason Thompson and Saman Halgamuge Synthesising an ABM Population Representative of an Indigenous Population: Modelling Science Meets Indigenous Knowledge and Lives (10)	11 Bernardo Alves Furtado and Vanessa Nadalin Policy comparisons and causality in an agent-based model (20)

13:00-14:00 Lunch

Parallel Sessions (90)

Special Track: Management, Organization and Economic Sciences (60 min) Room 103	General Track (70 min) Room 102 Chair: Riccardo Collasanti
28 Eduardo Ferraciolli Agent-based Modeling and the Sociology of Money: a Framework for the Study of Coordination and Plurality (20)	101 Yiyu Wang, Jiaqi Ge and Alexis Comber Navigation in Complex Space: a Bayesian Nash Equilibrium-Informed Agent-Based Model (10)
90 Siamak Khatami and Christopher Frantz Income vs. Demand: Exploring Dynamics of Poverty Lines using Agent-based Modeling (20)	44 Doug Salt, Gary Polhill, Corran Musk, Lorenzo Milazzo, Dawn Parker and Kit Macleod Towards automated provenance collection for experimental runs of agent-based models (20)
26 John Stevenson Local Sharing and Sociality Effects on Wealth Inequality in a Simple Artificial Society (20)	74 Liz Verbeek, Tatiana Filatova, Amineh Ghorbani, Igor Nikolic and Martijn Warnier Agent-based Building Blocks Architecture (ABBA): How software engineering can help computational social science models (10)
24 Ali Banihashemi, Stephan Leitner, Alexandra Rausch and Gernot Mödritscher A comparative analysis of open and closed strategy-making: A simulation study (20)	117 Corinna Elsenbroich, Harko Verhagen and Nanda Wijermans Agent Decision-Making Heterogeneity - Agent (Meta)Frameworks for Agent-Based Modelling (15)
	103 Nicolas Payette The curse of possibilities (15)

15:30-16:00 Coffee

Parallel Sessions (90)

Special Track: Management, Organization and Economic Sciences (90) Room 103	General Track (85) Room 102 Chair: Rok Novak
31 Dehua Gao Digital artifacts as the 'template' during the replication of routines across boundaries: Insights from a NK-based simulation model (10)	7 Elizabeth Hunter and John D. Kelleher Estimating Population Burden of Stroke with an Agent-Based Model (20)

97 Claudia Estevez-Mujica Networks and people (in)efficiency (20)	49 Hyesop Shin and Eric Silverman Glasgow Low Emission Zone: Simulating the Change in Traffic Flow and the Following Health Outcomes (15)
18 Cesar Garcia-Diaz The impact of cognitive diversity on networked search and coordination (20)	52 Ryan Allcock and Peer-Olaf Siebers Crowd Health Encoding, for Crowd Simulations Using the Smoothed Particle Hydrodynamics Computational Method application (20)
6 Stephan Leitner Building resilient organizations: The roles of top-down vs. bottom-up organizing (20)	20 Anthony Favier, Phani-Teja Singamaneni and Rachid Alami Human Simulation to Challenge Human-Aware Robot Navigation (20)
	37 Przemyslaw Szufel Agent-based simulation of autonomous intelligent vehicle fleet in urban networks (10)

17:30-18:30 Keynote Scott Moss Founding President of ESSA

Agent-Based Social Simulation and Modelling: Cui Bono?

Chair: Harko Verhagen

18:30-19:30 Drinks Reception and Poster Session

Wednesday

9:00-10:30 Keynote Tatiana Filatova, Delft University of Technology

Computational models of adaptive human behaviour and social institutions for exploring responses to climate change

Chair: Alison Heppenstall

10:30-11:00 Coffee

11:00-13:00 Parallel Sessions (120min)

Special Track: Useful Models for PH (100) Room 103 Chair: Riccardo Colasanti	Special Track: Sense and Sensibility (120) Room 102
45 Fabrizio Pecoraro, Filippo Accordino, Federico Cecconi and Mario Paolucci ABM for simulating the access to elective surgery services: the issue of patient mobility in Italy (20)	73 Maarten Jensen, Loïs Vanh��e and Frank Dignum Context-Sensitive Deliberation for Scalability in Realistic Social Simulations (20)
62 Umberto Gostoli, Martin Hinsch and Eric Silverman Growing populations from the 'bottom-up': an ABM approach to the generation of synthetic populations (20)	100 Mariusz Rybniak, Ivan Puga-Gonzalez, Leron Shults, Ewa Dąbrowska-Prokopowska, Andrew Atkinson and Konrad Talmont-Kamiński Superstition in the cognitive model: Modelling ritualised behaviour as error management (20)
61 Edmund Chattoe-Brown Reculer Pour Mieux Sauter: Resurrecting an ABM of Household Budgeting and Applying It to Deteriorating Economic Conditions (20)	2 Friederike Wall Aspirations Levels in Agent-based Models of Decision-Making in Organizational Contexts (20)

85 Vittorio Nespeca, Vitor V. Vasconcelos, Rick Quax and Marcel Olde Rikkert A conceptual and procedural multi-model development framework to inform multi-domain policies: the case of school closures in the Netherlands (10)	8 Jonas Stein, Vincenz Frey and Andreas Flache Talk less to strangers: how homophily can improve collective decision-making in diverse teams (20)
87 Heeseo Kwon and Mathy Sannasi Conceptualising the Recursive Relationship among Urban Development, Physical Activity, and Health Using Agent-based Modelling (10)	66 Louise Dupuis de Tarlé, Gabriella Pigozzi and Juliette Rouchier Exploring Opinion Diversity and Epistemic Success with an Argumentative Model (20)
67 Martin Hinsch, Eric Silverman and David Robertson Whole-system pandemic modelling including pathogen evolution (20)	17 Ivan Puga-Gonzalez, F. Leron Shults, Konrad Talmont-Kaminski and Ross Gore The Rise and Fall of Religion: A Model-Based Exploration of Secularisation, Security and Prosociality (20)

13:00-14:00 Lunch

Parallell Sessions (90min)

General Track (75 min) Room 103 Chair: Nick Gotts	General Track (80 min) Room 102 Chair: Edmund Chattoe-Brown
47 Rajith Vidanaarachchi, Branislava Godic, Jason Thompson, Victoria Farrar, Leon Booth and Simone Pettigrew An Agent-Based Model based on the Theory of Planned Behaviour with Long-Short Term Memory Modules—Case Study on Food Delivery and Its Implications (20)	104 Gabriele Filomena Towards Dynamic Cognitive Maps in Agent-Based Models of Cities (10)
88 Carolina Crespi and Mario Pavone Does a group's size affect the behavior of a crowd? An analysis based on an agent model (20)	35 Kwun Hang Lai Interstellar knowledge dynamics (20)
71 Mariëlle Rietkerk, Geeske Scholz, Gerdien de Vries and Emile Chappin Advancing the fit of behavioural theory in agent-based energy transition models: an exploration of use behaviour and ways forwards (10)	10 Bernardo Buarque, Malte Vogl and Roberto Lalli An Opinion Dynamics of Science? Agent-Based Modeling of Knowledge Spread (15)
77 Sili Shen, Hang Xiong, Yuqi Liu and Liangzhi You Formation of farmers' pro-environmental behavior: an agent-based simulation based on the theory of planned behavior (10)	94 Ezgi Topuz and Gönenç Yücel Analyzing the Emergence and Dynamics of Pluralistic Ignorance with Agent-Based Models (20)
116 Daniel Schubert Using Survey Data to develop agent-based models of spatial segregation (15)	51 İrem Betül Koçak and Gönenç Yücel Minority Opinion Expression in the Presence of Perceived Majority Dominance (15)

15:30-16:00 Coffee

16:00-17:30 Panel Discussion

Standards in ABM Room 103

Chair: Bruce Edmonds

19:00 Conference Dinner

Thursday

9:00-10:30 Keynote Dan Birks, University of Leeds

Simulating Crime

Chair: Jason Thompson

10:30-11:00 Coffee

11:00-13:00 Parallell Sessions (120min)

Special Track: Sense and Sensibility (115) Room 103	Special Track: Simulation in Crisis (90) Room 102
84 Mijke van den Hurk, Mark Dechesne and Frank Dignum Exploring the stepwise process and consequences of identity fusion in different groups: An agent-based model (20)	59 Simon Plakolb and Patrick Mellacher The hidden effect of pandemic interventions: Modeling viral phylogenetic linearity under scenarios derived from the last pandemic (10)
40 Marlene Batzke and Andreas Ernst An experimental attempt at validating an agent-based model on decision making, social norm change, and norm internalization (15)	13 Nick Malleson, Molly Asher and Yannick Oswald Using Approximate Bayesian Computation to Infer Disease Parameter Uncertainty in a COVID-19 Microsimulation (10)
80 Teng Li, Wander Jager and Andreas Flache How Does Culture Affect Vaccination Opinion Polarisation? (15)	9 Marcin Wozniak With just one tap. Network study of tweets dissemination during the war in Ukraine (20)
79 Anna Melnyk and Bart De Bruin To be or about to become? Moral responsibility within transition to community energy (15)	69 Rok Novak and David Kocman Assessing Particulate Matter Dose Through Mobility: An Agent-Based Model Approach in An Urban Context (15)
50 Ivan Digel, Sascha Holzhauer and Friedrich Krebs Exploring Investment Decisions in Energy Retrofitting with a Multi-Stage Algorithm: An Agent-Based Model (20)	70 Ruth Meyer, Amelie Schmidt-Colberg, Antonio Kruse, Daniel Eberhardt and Corinna Köpke Towards a specification of behaviour models for crowds (15)
22 Sophie Jones, Ruth Hunter and Leandro Garcia Developing an agent-based model exploring collective patterns and income inequalities in adult's leisure-time physical activity (10)	54 Francesca Giardini, Melania Borit, Harko Verhagen and Nanda Wijermans Modeling Realistic Human Behavior in Disasters. A Rapid Literature Review of Agent-Based Models reviews (20)
64 Aleid Sunniva Teeuwen, Yue Dou, Markus A. Meyer, Daniel Ayalew Mekonnen, Ermias Tesfaye, Solomon Bizayehu and Andrew Nelson Aspiration adaptation, poverty and agricultural management: an agent-based modelling study (20)	

13:00-14:00 Lunch

Parallell Sessions (90min)

Special Track: Sense and Sensibility (70) Room 103	Special Track: Norms and Institutions (70) Room 102 Chair: Patrycja Antosz
16 Diego Dametto, Luc Vieira, Christophe Blaison and Tobias Schroeder EACIS Emergent Affective Configuration of Identities in Space (10)	34 Ernesto Carrella, Patrycja Antosz, Ivan Puga Gonzalez and F. Leron Shults Representing social norms in agent-based models – conceptualization and operationalization (10)

99 Mandy Balthasar Aspects of Decision-Making in Human-Machine Teaming (20)	63 Yerali Gandica and Guillaume Deffuant Bounded confidence models generate more secondary clusters when the number of agents is growing (20)
42 Bruce Edmonds, Dino Carpentras and Edmund Edmund Chattoe-Brown The grand challenge of helping people agree and how we might go about collectively tackling it (20)	107 Nathan Lloyd and Peter R. Lewis Towards Reflective Normative Agents (20)
83 Loïs Vanhée and Melania Borit Thirty years of sense and sensibility in Agent-Based Models: A bibliometric analysis (20)	60 Guillaume Deffuant, Marijn Keijzer and Sven Banisch Regular access to constantly renewed online content favors radicalization of opinions (20)

15:30-16:00 Coffee

Parallel Sessions

General Track (80min) Room 103 Chair: Stephan Leitner	General Track (55 min) Room 102 Chair: Bruce Edmonds
57 Salih Çevikarslan Research Joint Ventures in an R&D Driven Market with Evolving Consumer Preferences: An Evolutionary Multi-Agent Based Modeling Approach (20)	68 Frederik Banning, Marcin Czupryna and Bogumił Kamiński How Schwartz values influence social networks in the workplace (20)
33 Christa Blokhuis, Emely de Vet, Gert Jan Hofstede and Marga Ocké Protein transition in a dynamic food environment: An agent-based model to simulate consumption practices at the community level (10)	65 Thorid Wagenblast, Tatiana Filatova, Amineh Ghorbani and Martijn Warnier Empirically-driven social networks: using survey data to specify social influence in agent-based models (10)
92 Corinna Elsenbroich, Ricardo Colasanti, Jennifer Boyd, Roxana Pollack and Nigel Gilbert Modelling Demographic Developments Driven by Housing Market Dynamics (15)	19 Martina Testori, Bianca Beersma, Charlotte Hemelrijk and Francesca Giardini What matters most in supporting cooperation, the gossip content or the gossiper's intention? Simulating motive interpretation in gossip dynamics (15)
98 Alexandra Pröpper, Friedrich Krebs and Sascha Holzhauser PANDORA – an agent-based-model to analyze acceptance of (energy) policies, applied to the German heating sector (20)	32 Martin Neumann, Davide Secchi, Maria Stefania Festila and Rasmus Gahrn-Andersen Comparing performance of different organizational team structures by agent-based modelling (10)
30 Magdalena Rath and Patrick Mellacher Exploring the long-term effects of COVID-19-policies on intra-household care work division (15)	

Friday

9:00-10:30 Keynote Nanda Wijermans, Stockholm University
The agent design dance. A reflection on modelling situated decision-making
Chair: Gary Polhill

10:30-11:00 Coffee

11:00-13:00 Parallell Sessions (60 min)

Special Track Rapid ABM (60min) Room 103	General Track (45min) Room 102 Chair: Rajith Vidanaararchichi
58 Önder Gürcan, Timo Szczepanska and Patrycja Antosz A Guide to Re-Implementing Agent-based Models: Experiences from the HUMAT Model (20)	111 Paola Andrea Zambrano-García, Cesar Garcia-Diaz and Carlos Moreno-Mantilla Influence of franchise governance mechanisms on franchisee's local decisions about the environmental practices use: An NK simulation model (20)
55 Christian Kammler, Frank Dignum and Nanda Wijermans Towards a social simulation interaction tool for policy makers – a new research agenda to enable usage of more complex social simulations (20)	91 Loes Bouman, Wander Jager and Dimitris Ballas SimBologna: a spatial microsimulation and agent-based modelling approach to the analysis of citizens' participation to democratic innovations for a Greener Europe (10)
106 Matt Hare, Nick Roxburgh, Doug Salt and Gary Polhill Barriers and model curation issues associated with rapid adaptation of empirical legacy ABM in response to urgent policy maker queries (20)	29 Bruce Edmonds A Declaration of Social Simulator Rights (15)

12:15 Best Student Presentation Award and unveiling of next SSC location. Room 103

13:00-14:00 Lunch

End of conference