Social Simulation Conference 2022

12-16 September 2022

University of Milan
Department of Social and Political Sciences

Via Conservatorio 7, 20122 Milan

`https://ssc2022.behavelab.org/`

Programme

Monday 12 September 2022

14.00-15.30 - Tutorials

An introduction to agent-based simulations in the Julia language
(Room 11)

Bogumił Kamiński (SGH Warsaw School of Economics, Poland), Przemysław Szufel (Warsaw School of Economics, Poland) & Rajith Vidanaarachchi (University of Melbourne, Australia)

Using interdisciplinary co-simulation for modeling socio-technical energy systems
(Room 12)

Fabian Adelt, Sebastian Hoffmann (TU Dortmund University, Germany), Jan Sören Schwarz (Carl von Ossietzky University of Oldenburg, Germany) & Matteo Barsanti (École Polytechnique Fédérale de Lausanne, Switzerland)

Overcoming barriers in computational social science education
(Room 13)

Katarzyna Abramczuk (University of Warsaw, Poland) & Wander Jager (University of Groningen, The Netherlands)

15.30-16.00 - Coffee break

16.00-17.15 - Workshops

ESSA@work, by the ESSA@work team
(Room 11)

Chair: Silvia Leoni, University of Leicester

The ethics of agent-based social simulations
(Room 12)

Chairs: David Anzola (Universidad del Rosario, Colombia), Peter Barbrook-Johnson (Oxford University, United Kingdom) & Nigel Gilbert (University of Surrey, United Kingdom)

Artificial utopias (Agent-based models of utopian societies)
(Room 13)

Chair: Bruce Edmonds (Manchester Metropolitan University Business School, United Kingdom)

17.15-18.00 - Invited talk

(Room 11)

"Inverse Generative Social Science: From Intelligent Agent Design to the Blind Model Maker"
Joshua M. Epstein (NYU School of Global Public Health, USA)

Chair: Flaminio Squazzoni (University of Milan, Italy)

Tuesday 13 September 2022

9.00-9.15 - Welcome

(Room 11)

Petra Ahrweiler (ESSA President) & Flaminio Squazzoni (SSC2022 chair)

9.15-10.45 - Parallel Tracks

– Track: "Management" - Section I –

(Room 11)

Chair: Friederike Wall (University of Klagenfurt)

Collaborative search and autonomous task allocation in organizations of learning agents
Stephan Leitner (University of Klagenfurt, Austria)

Controlling replication via the belief system in multi-unit organizations
Ravshanbek Khodzhimatov, Stephan Leitner and Friederike Wall (University of Klagenfurt, Austria)

How does behavioral interdependence influence performance? An experimental study on human teams
Giovanni Francesco Massari & Ilaria Giannoccaro (Politecnico di Bari, Italy)

Is management overrated? An exploration of the satisfaction and performance on group dynamics and task components
Shaoni Wang, Kees Zoethout and Wander Jager (University of Groningen, The Netherlands)

– Track: "Using qualitative data to inform behavioral rules in agent-based models" –

(Room 12)

Chair: Melania Borit (UiT The Arctic University of Norway, Norway)

Trustworthiness of simulation: A qualitative account
Martin Neumann (JGU Mainz, Germany)

The innovation network in the Rhenish Lignite area – A participatory ABM approach to partner selection and knowledge diffusion
Christian Stehr & Miriam Athmer (Ruhr-University Bochum, Germany)

Integrating agent-based modelling and behavioural data analytics: A case study of climate change farmers' perception in Italy
Sandra Ricart, Paolo Gazzotti, Claudio Gandolfi & Andrea Castelletti (Politecnico di Milano, Italy)

Challenging the establishment: A computational grounded theory of the emergence of sustainable food companies in Colombia
Cesar Garcia-Diaz, Mónica Ramos-Mejía, Sebastian Duenas-Ocampo & Isabella Gomati de la Vega (Universidad Javeriana, Colombia)

– Track: "Multiscale ABSS method for social policy making" - Section I –

(Room 13)

Chair: Takao Terano (Chiba University of Commerce, Japan)

Societal Prototyping Design (SPD), an integrative platform for policy design to realize a sustainable and healthy society
Toshiya Kaihara, Takao Terano, Hajime Kita & Shingo Takahashi (Kobe University, Japan) et al.

The economic and epidemiological effects of contact tracing in the face of an evolving virus
Patrick Mellacher (University of Graz, Austria)

Workplace assignment to individual workers in each household using synthetic population in Japan
Tadahiko Murata, Daiki Iwase & Takuya Harada (Kansai University, Japan and Shibaura Institute of Technology, Japan)

Identifying socio-economic characteristics of influential spreaders using agent-based modeling
Marius Kaffai (University of Stuttgart, Germany)

A study on multi-scale modeling in social simulation focusing on relationships among decision-makers
Gaku Shimizu, Toshiya Kaihara, Daisuke Kokuryo & Nobutada Fujii (Graduate School of System Informatics, Kobe University, Japan)

10.45-11.15 - Coffee break

11.15-12.45 - Parallel Tracks

– Track: "Management" - Section II –

(Room 11)

Chair: Stephan Leitner (University of Klagenfurt, Austria)

The benefits of coordination in (over)adaptive virtual teams
Dario Blanco Fernandez, Stephan Leitner & Alexandra Rausch (University of Klagenfurt, Austria)

The effects of variety and redundancy driven inertia on collaborative problem-solving
Claudia Estevez-Mujica and César García-Díaz (Universidad de los Andes & Universidad Javeriana, Colombia)

Exploring the coping strategies of bullying targets in organisations through abductive reasoning: An agent-based simulation approach
Marco Campenni, Chia-Hao Ho, Costantine Manolchev & Navonil Mustafee (University of Exeter, UK)

Superiority bias and communication noise can enhance collective problem solving
Amin Boroomand & Paul Smaldino (University of California, Merced, USA)

Process evidence in experimental accounting research: The benefits of integrating agent-based modeling with laboratory-based experimental research
Jannick Plähn & Matthias Meyer (Hamburg University of Technology, Germany)

– Track: "Science modelling" –

(Room 12)

Chair: David Anzola (Universidad del Rosario, Colombia)

A Simple model of citation cartels: When self-interest strikes science
Davide Secchi (University of Southern Denmark, Denmark)

Disagreement on the diagnostic value of evidence in scientific communities: an opinion dynamics model
Matteo Michelini, Javier Osorio, Wybo Houkes, Dunja Šešelja & Christian Straßer (Technical University of Eindhoven, The Netherlands)

Comparing peer review regimes in an epistemic landscape: An agent-based model
Carlo De Bernardi & Francesco Renzini (University of Milan, Italy)

Fairness in funding research by lottery
Thomas Feliciani & Kalpana Shankar (University College Dublin, Ireland)

– **Track: "Multiscale ABSS method for social policy making" Section II** –

(Room 13)

Chair: Toshiya Kaihara (Kobe University, Japan)

Simulation-based classification in multi-objective optimization problems with social simulation
Yusuke Goto, Hiroyuki Morita, Yasuyuki Shirai & Hisashi Ichikawa (Shibaura Institute of Technology, Japan)

Validity assessment of uncertain infection indicators using virtual artificial society model
Yuki Misu & Shingo Takahashi (Waseda University, Japan)

Estimating the risk of household contact transmission of COVID-19
Setsuya Kurahashi, Taisei Mukai, Keiko Otake, Yukari Sekine, Keisuke Nakajima, Junichi Sugiyama, Takeshi Takizawa & Yasushi Kakizawa (University of Tsukuba, Japan)

Evacuation simulation for large-scale urban population
Etzion Harari, Naphtali Abudarham & Tomer Rokita (Advanced Defense Systems Ltd, Gazit Institute, Tel-Aviv, Israel)

Assessing the cost of population dynamics design options in a microsimulation
Rachel Bacon, George Hodulik & Wesley Wildman (Center for Mind and Culture, Boston, USA)

12.45-14.00 - Lunch

14.00-15.45 - Parallel Tracks

– **Track: "Philosophy"** –

(Room 11)

Chair: Riccardo Boero (Norwegian Institute for Air Research, Norway)

A philosophy of intelligent agent-based models
Thomas Chesney (University of Nottingham, UK)

Computer simulations as iterated analogies: A viable framework for the epistemology of simulation in the social sciences
Massimo Rusconi, Davide Secchi & Raffaello Seri (University of Insubria, Italy)

Engaging with stakeholders: An expertise-centred approach
David Anzola (Universidad del Rosario, Colombia)

Is agent-based modelling of utopias a good idea?
Nicholas Gotts (Independent researcher, UK)

On social simulation in 4D relativistic spacetime
Kwun Hang Lai (Leiden University, The Netherlands)

– **Track: "Energy transitions"** –

(Room 12)

Chair: Emile Chappin (TU Delft, The Netherlands)

Policy Making in Energy Transition with Agent-based Modelling
Salih Çevikarslan (University of Twente, The Netherlands)

Prerequisites for modeling the multi-domain consumer engagement in the energy transition: A comprehensive segmentation approach
Matteo Barsanti, Sebastian Hoffmann, Fabian Adelt, Claudia R. Binder & Johannes Weyer (EPFL, Lausanne, Switzerland)

From CONSumers to PROSumers: Spatially explicit agent-based model on achieving positive energy districts
Erkinai Derkenbaeva, Gert Jan Hofstede, Eveline van Leeuwen & Solmaria Halleck Vega (Wageningen University and Research, The Netherlands)

A model of district regeneration in Stockholm
Gary Polhill, Andrea Scalco, David Hales, Giuseppe Pellegrino-Masini, Erica Löfstrøm & Christian Klöckner (The James Hutton Institute, UK)

Dynamics of Individual Investments in Heat Technology
Sascha Holzhauer, Friedrich Krebs & Lukas Jansen (University Kassel, Germany)

– **Track: "Crowd management & evacuation modelling"** –

(Room 13)

Chair: Marcin Czupryna (Cracow University of Economics, Poland)

Computational decision support for crowd management applications: A case study on operational in-event pedestrian crowd management
Floris Boendermaker, Natalie van der Wal, Willem Auping, Dorine Duives & Corentin Kuster (Delft University of Technology, The Netherlands)

Strategies to mitigate disasters at the Hajj religious festival using GIS and agent-based modelling
Muteb Alotaibi, Graham Clarke & Nick Malleson (University of Leeds, UK)

Impact of leader-follower behavior on evacuation performance: An exploratory modeling approach
Jakob Irnich, Natalie van der Wal, Dorine Duives & Willem Auping (Delft University of Technology, The Netherlands)

An agent-based simulation model for crowd evacuation based on Bayesian Nash equilibrium
Yiyu Wang, Jiaqi Ge & Alexis Comber University of Leeds, UK)

Dynamic of pedestrians' flows during daytime
Marcin Wozniak (Adam Mickiewicz University, Poland)

<div align="center">**15.45-16.15 - Coffee break**</div>

<div align="center">**16.15-17.15 - Invited Talk**</div>

(Room 11)

"Complex centrality: Predicting influence in social networks"
Damon Centola (University of Pennsylvania, USA)

Chair: Flaminio Squazzoni (University of Milan)

<div align="center">**17.15-18.00 - Selected paper**</div>

(Room 11)

Can social norms explain long-term trends in alcohol use? Insights from inverse generative social science
Tuong Manh Vu, Charlotte Buckley, Joao A. Duro, Alan Brennan, Joshua M. Epstein & Robin Purshouse (University of Sheffield, UK)

Chair: Flaminio Squazzoni (University of Milan)

<div align="center">**18.00-18.30 - Virtual gathering event**</div>

<div align="center">**18.30-20.00 Poster session + drinks & finger food**</div>

Interpreting agent behaviour that has emerged through artificial intelligence learning
Thomas Chesney & Robert Pasley (Adam Mickiewicz University, Poland)

Search theory, conventionality and the "emergence of money": an agent-based model in the context of economic sociology
Eduardo C. Ferraciolli (Lisbon School of Economics and Management, Lisbon, Portugal)

Relativitization: a turn-based strategy game in 4D relativistic spacetime
Kwun Hang Lai (Leiden University, The Netherlands)

Social influence modeling in Python using defSim
Marijn Keijzer (Institute for Advanced Study in Toulouse, France)

An agent-based model of prosocial equilibrium: Simulating the role of religiously motivated behaviour in the formation and maintenance of large-scale societies
Ivan Puga-Gonzalez, Leron Shults, Ross Gore & Konrad Talmont-Kamisnki (NORCE Center for Modelling Social Systems, Kristiansand, Norway)

An evolutionary analysis of network formation in coordination games
Francesco Renzini (University of Milan, Italy)

Wednesday 14 September 2022

09.00-10.00 - Invited Talk

"Simulating social systems with individual-based models: are they worth it?"
Alison Heppenstall (University of Glasgow, UK)

Chair: Petra Ahrweiler (Johannes Gutenberg University, Mainz, Germany)

10.00-10.45 - Selected papers

The importance of dynamic networks within a model of politics
Ruth Meyer & Bruce Edmonds (Manchester Metropolitan University, Manchester, UK)

Simulating social innovation processes and policy experiments: The case of a referendum on closing a road in a public park for car traffic
Loes Bouman, Wander Jager & Patrycja Antosz (University of Groningen)

Chair: Petra Ahrweiler (Johannes Gutenberg University, Mainz, Germany)

10.45-11.15 - Coffee break

11.15-12.45 - Parallel Tracks

– Track: "Socio-ecological systems and social behaviour" - Section I –

(Room 11)

Chair: Geeske Scholz (The James Hutton Institute, UK)

Navigating the space between empirics and theory: empirical-stylized modelling of social-ecological systems
Maja Schlüter, Nanda Wijermans, Laura Elsler, Blanca Gonzalez-Mon, Emilie Lindkvist, Romina Martin, Rodrigo Martinez-Pena, Kirill Orach, Kara Pellowe & Udita Sanga (Stockholm University, Sweden)

A data driven approach to model fishery responses to socio-ecological change in the southern North Sea
Jonas Letschert, Birgit Müller, Gunnar Dreßler, Christian Möllmann & Vanessa Stelzenmüller (Thuenen Institute of Sea Fisheries, Bremerhaven, Germany)

Attracted to fish: a gravity-based model of purse-seine vessel behaviour
Nicolas Payette, Ernesto Carella, Katyana A. Vert-Pre, Brian Powers, Steven Saul, Michael Drexler, Aarthi Ananthanarayanan & Richard Bailey (University of Oxford, UK)

Multiscale agent-based modelling with a hierarchical nested approach
Zhanli Sun (Leibniz-Institut für Agrarentwicklung in Transformationsökonomien, Germany)

– Track: "ABM in Economics" - Section I –

(Room 12)

Chair: Paolo Pellizzari (Ca' Foscari University of Venice, Italy)

Assessing the performance of collective and individual pay for performance systems
Silvia Leoni (University of Leicester, UK)

Elephants in the negative space: Simulating regional innovation systems in low income countries
Ozge Dilaver, Joshua Omoju & Roseline Wanjiru (Northumbria University, UK)

Finance and decreasing business dynamics: Using macroeconomic agent-based simulation
Tae-Sub Yun, Hanbit Lee & Il-Chul Moon (Korea Advanced Institution of Science and Technology (KAIST), South Korea)

Exploring credit relationship dynamics in an interbank market benefiting from Blockchain-based distributed trust: Insights from an agent-based model
Morteza Alaeddini, Julie Dugdale, Paul Reaidy & Philippe Madiès (Université Grenoble Alpes, France)

Embedding social simulation in the design of wine pricing policies
Nikitas M Sgouross (University of Piraeus, Greece)

– Track: "Norms, values & institutions" - Section I –

(Room 13)

Chair: Amineh Ghorbani (Delft University of Technology, The Netherlands)

Formalising empirically-based heterogeneous decision makers in a social dilemma experiment under risk
Nanda Wijermans, Eva Vriens & Giulia Andrighetto (Institute for Future Studies, Stockholm, Sweden)

Extending partial-order planning to account for norms in agent behavior
Tokimahery Ramarozaka, Jean-Pierre Muller & Rakotonirainy Hasina (University of Fianarantsoa, Madagasca)

An agent-based model of the role of epistemic vigilance in human cooperation
Mariusz Rybnik, Ivan Puga-Gonzalez, F. Leron Shults, Ewa Dąbrowska-Prokopowska & Konrad Talmont-Kaminski (University of Bialystok, Poland)

Compliance patterns reconstructed
Katharina Luckner & Veronika Fikfak (University of Hamburg, Germany)

A theoretical agent-based model to simulate the rise of complex societies
Saida Hachimi El Idrissi, Mohamed Nemiche & Bezza Hafidi (Ibn Zohr University, Marocco)

12.45-14.00 - Lunch

14.00-15.45 - Parallel Tracks

– Track: "Methodology" –

(Room 11)

Chair: Gary Polhill (The James Hutton Institute, UK)

Heterogeneity in agent-based models
Deborah Olukan, Jonathan Ward, Nicolas Malleson & Jiaqi Ge (University of Leeds, UK)

Rejection sampling for complex models facing limited data
Ernesto Carrella (University of Oxford, UK)

All the right moves? Systematically exploring the effects of random travel in agent-based models
Edmund Chattoe-Brown (University of Leicester, UK)

Model mechanisms and behavioral attractors
H Van Dyke Parunak (Parallax Advanced Research, USA)

Conducting systematic reviews of agent-based models – Current practice and potential improvements
Sebastian Achter, Melania Borit, Clémentine Cottineau, Birgit Müller, Gary Polhill, Vikoriia Radchuk & Matthias Meyer (Hamburg University of Technology, Germany)

– Track: "Opinion dynamics and social influence" –

(Room 12)

Chair: Bruce Edmonds (Manchester Metropolitan University, Manchester, UK)

Opinion polarization caused by misestimation of opinion distributions
Taisei Ninomiya, Fujio Toriumi & Hitoshi Yamamoto (The University of Tokyo, Japan)

Opinion polarization, influencers, & endogenous online social networks
Louis Dalpra (BETA, University of Strasbourg, Belgium)

Identity causes polarization: Advancing the Hegselmann-Krause model focusing on identity groups
František Kalvas, Ashwin Ramaswamy, Ashley Sanders-Jackson & Michael Slater (University of West Bohemia, Czechia)

Influence and similarity in social networks. A study of the opinion dynamics among teenagers through an agent-based model
Dario Germani, Barbara Sonzogni & Federico Cecconi (CNR-IRCrES, Italy)

There are (almost) no chain reactions in T.C. Schelling's Checkerboard Model
Daniel Mayerhoffer (University of Bamberg, Germany)

– Track: "Norms, values & institutions" - Section II –

(Room 13)

Chair: Christopher Frantz (Norwegian University of Science and Technology, Norway)

Gossip promotes cooperation only when it is pro-socially motivated
Martina Testori, Charlotte Hemelrijk & Bianca Beersma (Vrije Universiteit Amsterdam, The Netherlands)

Social preferences in the public goods game – An agent-based simulation with EconSim
Christoph Bühren, Jan Haarde, Christian Hirschmann & Janis Kesten-Kühne (Clausthal University of Technology, Germany)

On the diffusion of Schwartz values
Marcin Czupryna, Katarzyna Growiec, Bogumił Kamiński & Paweł Oleksy (Cracow University of Economics, Poland)

Relation between the public and the private and evolution of food sharing
Elpida Tzafestas (University of Athens, Greece)

15.45-16.15 Coffee break

– Track: "ABM in Economics" - Section II –

(Room 11)

Chair: Silvia Leoni (University of Leicester, UK)

The equity premium puzzle: An application of an agent-based evolutionary model
Luca Gerotto, Paolo Pellizzari & Marco Tolotti (Ca' Foscari University of Venice, Italy)

Endogenous network cross markets
Fan Gao & Daniel Ladley (University of Leicester, UK)

A micro-foundation framework of national accounts to study macroeconomic phenomena: Integrating the stock-flow consistent approach with agent-based modelling
Jack Birner, Marco Mazzoli, Eleonora Priori & Pietro Terna (University of Turin, Italy)

Incorporating price expectations into agent-based representations of land developer decision models
Dawn Parker, Shahab Valaei Sharif, Paul Waddel & Ted Tskiakapoulis (University of Waterloo, Canada)

The added value of using the ODD Protocol for agent-based modelling in economics: Go for it!
Emiliano Alvarez & Volker Grimm (Universidad de la República, Uruguay)

– Track: "Social identity modelling" –

(Room 12)

Chair: Nanda Wijermans (Stockholm University, Sweden)

Social identity shapes consensus formation in opinion dynamics models
Peter Steiglechner, Paul E. Smaldino, Deyshawn Moser, Achim Schlüter & Agostino Merico (Jacobs University, Germany)

First step towards a new understanding of radicalisation: Modeling identity fusion
Mijke van den Hurk, Mark Dechesne & Frank Dignum (Utrecht University, The Netherlands)

Emergence of group hierarchy
Guillaume Deffuant & Thibaut Roubin (Université Clermont Auvergne, France)

HUM-e emo-socio-cognitive agent architecture for representing human decision-making in the presence of fear
Patrycja Antosz, Leron Shults, Ivan Puga-Gonzalez & Roger Normann (University of Groningen, The Netherlands)

Observations on modeling social identity: Suggestions to address the challenges of social identity
Norman Johnson (Referentia Systems Inc, USA)

– Track: "Policy modelling & applications" –

(Room 13)

Chair: Bruce Edmonds (Manchester Metropolitan University, Manchester, UK)

Hand in (Latex) glove: A discussion of agent-based modelling and public health
Corinna Elsenbroich, Alison Heppenstall & Petra Meier (University of Glasgow, UK)

Governing change: A dynamical systems approach to understanding the stability of environmental governance

Nusrat Molla, John DeIonno, Thilo Gross & Jonathan Herman (University of California, Davis, USA)

Inside the bounds of ecological policy-making: human needs and political feasibility in the context of sustainable consumption
Michelle Alfers, Frederik Banning, Jessica Reale & Elias-Johannes Schmitt (Ruhr-Universität Bochum, Germany)

Who exercises the power in European agri-food systems? A meta-study of the diversity of actors and network configurations
Tim Williams, Sibylle Bui, Costanza Conti, Niels Debonne, Christian Levers, Rebecca Swart & Peter Verburg (Vrije Universiteit Amsterdam, The Netherlands)

Finding the sweet spot between efficacy and acceptance of COVID restrictions
Oscar de Vries, Wander Jager & Rineke Verbrugge (University of Groningen, The Netherlands)

18.00-18.30 - Virtual gathering event

(Room 11)

20.00-22.00 - Social dinner at Festa del Perdono's cloister

Thursday 15 September 2022

09.00-10.00 - Invited Talk

Beyond allocation: How institutional ensembles can harness internal and external complexity
Scott E. Page (University of Michigan, Ann Arbor, USA)

Chair: Nigel Gilbert (University of Surrey, UK)

10.00-10.45 - Selected papers

Status, competition and incomplete network information in advice-seeking dynamic networks: An agent-based model
Francesco Renzini, Federico Bianchi & Flaminio Squazzoni (University of Milan, Italy)

The power of social networks and social media's filter bubble in shaping attitudes: An agent-based model
Cristina Chueca Del Cerro (University of Glasgow, UK)

Chair: Nigel Gilbert (University of Surrey, UK)

10.45-11.15 - Coffee break

11.15-12.45 - Parallel Tracks

– Track: "Socio-ecological systems and social behaviour" - Section II –

(Room 11)

Chair: Patrycja Antosz (University of Groningen, The Netherlands)

Modeling innovations as a social-ecological phenomenon
Udita Sanga & Maja Schlüter (Stockholm Resilience Centre, Sweden)

The role of household adaptation and migration on flood resilience in Jakarta, Indonesia
Puck Merceij (Delft University of Technology, The Netherlands)

Co-simulation of socio-technical energy systems: An interdisciplinary design process
Fabian Adelt, Matteo Barsanti, Sebastian Hoffmann, Debopama Sen Sarma, Jan Sören Schwarz, Ben Vermeulen, Tom Warendorf, Claudia Binder, Bert Droste-Franke, Sebastian Lehnhoff, Johanna Myrzik, Christian Rehtanz & Johannes Weyer (TU Dortmund University, Germany)

Understanding the dynamics of nature experience and nature appreciation: An agent-based approach
Fernanda Reintgen Kamphuisen, Yannick Joye & Wander Jager (University of Groningen, The Netherlands)

A multilevel process perspective on resistance to change
Claudia Estevez-Mujica & César García-Díaz (Universidad de los Andes, Colombia)

– Track: "Opinion dynamics and polarisation" –

(Room 12)

Chair: Guillaume Deffuant (INRAE, France)

The strength of weak bots
Marijn Keijzer & Michael Mäs (Institute for Advanced Study in Toulouse, France)

Networked models of social influence: Explaining left-right political landscapes in Europe through opinion dynamics and network structure
Daniel Reisinger, Michael Vogrin, Guilherme Wood, Thomas Schmickl & Georg Jäger (University of Graz, Austria)

How the availability heuristics, confirmation bias and fear may drive societal polarisation: An opinion dynamics simulation of the case of COVID-19 vaccination
Teng Li & Wander Jager (Huazhong Agricultural University, China)

The biased-voter model: How persuasive a small group can be?
Christos Charalambous, Agnieszka Czaplicka, Raul Toral & Maxi San Miguel (IFISC, Spain)

Modelling the emergence of opinion misperceptions in online interactions
Daniele Vilone & Eugenia Polizzi (CNR, Italy)

– Track: "Agriculture, sustainability and food" –

(Room 13)

Chair: Marco Cremonini (University of Milan, Italy)

Modelling the potential impact of cultured protein on the agricultural sector
Nick Roxburgh & Gary Polhill (The James Hutton Institute, Aberdeen, Scotland, UK)

An agent-based model of UK farmers' decision-making on adoption of agri-environment schemes
Chunhui Li, Meike Will, Nastasija Grujić, Jiaqi Ge, Birgit Müller, Arjan Gosal & Guy Ziv (University of Leeds, UK)

How distance affects the service quality of agricultural outsourcing: A study integrating econometric, game theoretical and agent-based models
Hang Xiong & Peng Jiang (Huazhong Agricultural University, China)

Consumer behavior and product circulation simulation of emerging circular economy strategies: An agent-based model for sustainability and circularity assessment
Ryu Koide, Shinsuke Murakami, Haruhisa Yamamoto & Keisuke Nansai (National Institute for Environmental Studies, Japan)

How many refugees can a forest system hold? Deforestation and prevention in a Zambian refugee settlement
Brigitte Ruesink & Steven Gronau (Leibniz University Hannover, Germany)

12.45-14.00 - Lunch

14.00-15.45 - Parallel Tracks

– Track: "Experiments, networks and behaviour" –

(Room 11)

Chair: Federico Bianchi (University of Milan)

Exploring routine dynamics from the 'bottom-up': A mixed-method approach by combining agent-based modeling with laboratory experimental research
Dehua Gao, Jiangfeng Ni & Shuang Zhao (Shandong Technology and Business University, China)

Need for cognitive closure and the structure of social networks
Katarzyna Growiec, Beata Łopaciuk-Gonarczyk & Bogumił Kamiński (Warsaw School of Economics, Poland)

Social network dynamics and sustained grading discrimination
Dorottya Kisfalusi & Karoly Takacs (Linköping University, Sweden)

The friendship field – An agent-based model on dyadic friendship formation driven by social battery
Chrisja van de Kieft & Eva Timmer (Wageningen University & Research, The Netherlands)

Influence of social networks in private climate adaptation
Thorid Wagenblast, Tatiana Filatova, Brayton Noll, Lauren Grimley & Antonia Sebastian (Technische Universiteit Delft, The Netherlands)

– Track: "Social and behavioral models for climate change mitigation and adaptation" - Section I –

(Room 12)

Chair: Tatiana Filatova (Delft University of Technology, The Netherlands) & Leila Niamir (IIASA-International Institute for Applied Systems Analysis, Vienna)

Public acceptance of green mobility policies
Marie Lisa Kogler, Daniel Reisinger & Annina Thaller (University of Graz, Austria)

Integrating households climate change adaptation in a complex evolving economy: the role of different behavioral assumptions
Alessandro Taberna, Tatiana Filatova & Brayton Noll (Delft University of Technology, The Netherlands)

An agent-based model of environmental tax reform
Franziska Klein & Jeroen van den Bergh (Universitat Autònoma de Barcelona, Spain)

Investing in rural infrastructure and education to improve rural resilience under shifting climate in Senegal: an application of capabilities and aspirations theory using the MIDAS ABM
Andrew Bell, Alex de Sherbinin, Fabien Cottier & Nicolas Choquette-Levy (Wageningen University & Research, The Netherlands)

Simulating the leverage points for the upscaling of innovative organic agri-food systems
Alba Alonso-Adame & Siavash Farahbakhsh (ILVO, Belgium)

– Track: "Human deliberation and decision-making" –

(Room 13)

Chair: Lois Vanhée (Umeå universitet, Sweden)

Formalising agent reasoning – The Paso Doble of data and theory
Nanda Wijermans & Harko Verhagen (Stockholm University, Sweden)

Utilizing the full potential of norms for the agent's decision process
Christian Kammler, Frank Dignum & Nanda Wijermans (Umeå University, Sweden)

From threatening pasts to hopeful futures, A review of agent-based models of anxiety
Arvid Horned & Loïs Vanhée (Umeå University, Sweden)

A cognitive model of epistemic vigilance in situations of varying competence, consistency, and utility

Piotr Paweł Laskowski, Ivan Puga-Gonzalez, F. Leron Shults and Konrad Talmont-Kaminski (NORCE Center for Modelling Social Systems, Kristiansand, Norway)

Simulating bounded rationality in decision-making: An agent-based choice modelling of vehicle purchasing
Khoa Nguyen, Valentino Piana & René Schumann (HES-SO Valais Wallis, Switzerland)

15.45-16.15 - Coffee break

16.15-18.00 - Parallel Tracks

– Track: "Inverse generative social science" –

(Room 11)

Chair: Joshua M. Epstein ((NYU School of Global Public Health, USA)) & Tuong Manh Vu (University of Sheffield, UK)

Black-box Bayesian inference for agent-based models
Joel Dyer, Patrick Cannon, J. Doyne Farmer & Sebastian M. Schmon (Institute for New Economic Thinking, University of Oxford, UK)

Learning Interpretable Logic for Agent-Based Models from Domain Independent Primitives
Rory Greig, Jordi Arranz & Chris Major (Improbable Defence, London, UK)

Evolutionary model discovery of human behavioral factors driving decision-making in irrigation experiments
Lux Miranda, Ozlem Ozmen Garibay & Jacopo Baggio (University of Central Florida, USA)

Towards Eusociality Using an Inverse Agent Based Model
John Stevenson (Long Beach Institute, USA)

– Track: "Social and behavioral models for climate change mitigation and adaptation" - Section II –

(Room 12)

Chair: Tatiana Filatova (Delft University of Technology, The Netherlands) & Leila Niamir (IIASA-International Institute for Applied Systems Analysis, Vienna)

Role of households' climate change adaptation to coastal floods: The case of Shanghai
Jonas Lechner, Brayton Noll, Tatiana Filatova, Amineh Ghorbani, Alessandro Taberna & Jie Yin (Delft University of Technology, The Netherlands)

Human behavior and forestry – A comparison of agent-based models
Hanna Ekström, Nils Droste & Mark Brady (Lund University, Sweden)

COASTMOVE: A global agent-based model of adaptation and migration decisions in face of sea level rise
Lars Tierolf, Toon Haer, Jens de Bruijn, Wouter Botzen, Lena Reimann & Jeroen Aerts (Vrije Universiteit Amsterdam, The Netherlands)

How beliefs on food and climate change impact the dietary adoption? An agent-based approach
Maël Franceschetti, Cédric Herpson & Jean-Daniel Kant (Sorbonne Université, CNRS, France)

Simulating collective risk management from experimental data
Omid Roozmand, Guillaume Deffuant, Giulia Andrighetto & Mario Paolucci (CNR Rome, Italy)

– **Track: "Frameworks, tools and applications"** –

(Room 13)

Chair: Bogumił Kamiński (Warwaw School of Economics, Poland)

Online platform for Agent-based Building Blocks Architecture (ABBA)
Tatiana Filatova, Amineh Ghorbani, Igor Nikolic, Martijn Warnier & Liz Verbeek (Delft University of Technology, The Netherlands)

A global synthetic population for simulation models
Marijn Ton, Michiel Ingels, Hans de Moel, Jens de Bruijn, Wouter Botzen & Jeroen Aerts (Vrije Universiteit Amsterdam, The Netherlands)

Utilising the AgentsX.jl platform for ease of ABM development – A case study with the predator-prey model
Rajith Vidanaarachchi, Jason Thompson, Branislava Godic & Roderick McClure (The University of New England, Australia)

A template for transfer of NetLogo models to high-performance computing environments for enhanced real-world decision-support
Jason Thompson, Haifeng Zhao, Sachith Seneviratne, Rohan Byrne, Rajith Vidanaarachchi & Roderick McClure (The University of Melbourne, Australia)

An exploration on agent-based simulations and process mining
Emilio Sulis (University of Turin, Italy)

18.00-18.30 - Virtual gathering event

(Room 11)

Friday 16 September 2022

09.00-10.00 - Invited Talk

(Room 11)

Models of human identity signaling
Paul Smaldino (University of California, Merced, CA, USA)

Chair: Harko Verhagen (Stockholm University, Sweden)

10.00-10.45 - ESSA awards and announcement of SSC2023

(Room 11)

Rosaria Conte Oustanding Award

Best PhD Dissertation

Best Student Paper

Best student Poster

Presentation of Social Simulation Conference 2023

10.45-11.15 - Coffee break

11.15-12.00 - Special "welcome back" talks

(Room 11)

Rigour for agent-based modellers
Bruce Edmonds (Manchester Metropolitan University Business School, UK)

The trade-off between realism and experimental control in a spatial agent-based model
Thomas Feliciani, Jochem Tolsma, Andreas Flache & Michael Mäs (University College Dublin, Ireland)

Chair: Patrycja Antosz (University of Groningen, The Netherlands)

12.00-13.00 - ESSA general assembly

(Room 11)

13.00-14.00 - Lunch (end of the conference)