



CEST (Warsaw local) time is used

The numbering of the abstracts corresponds to the numbering in the book of abstracts

Partners:







Monday 20-09-2021

10:00	11:30	Workshop I	Patrycja Antosz, Gary Polhill, Tatiana
		Simulating social innovation and	Filatova, Wander Jager and Roman
		systemic changes	Seidl
10:00	14:00	Workshop II	Bogumił Kamiński and Przemysław
		An introduction to agents-based	Szufel
		simulations in Julia language	
10:00	15:00	Workshop III	Timo Szczepanska, Federico
		PhD colloquium	Andreotti, Leonard Higi and Diego
			Dametto
12:00	13:30	Workshop IV	Wander Jager
		ACTISS at SC2021 Cracow	

Tuesday 21-09-2021

09:15	09:45	Opening	Petra Ahrweiler, Marcin Czupryna, Bogumił Kamiński
10:00	11:00	Key-note presentation I	Alexis Drogoul: Modelling for Sustainability
			Chair - Petra Ahrweiler
11:30	13:00	Parallel sessions I	
13:45	15:45	Parallel sessions II	
16:00	17:00	Key-note presentation II	Alan Edelman: Julia and simulations
			Chair - Bogumił Kamiński
17:30	19:00	Roundtable I	Integrating Evidence Using Agent-Based
			Modelling
			Chairs - Bruce Edmonds, Melania Borit

Wednesday 22-09-2021

09:00	10:00	Key-note presentation III	Charlotte K. Hemelrijk: Dynamics of dominance between the sexes
			Chair – Harko Verhagen
10:15	12:15	Parallel sessions III (incl. ESSA@work)	
12:20	12:40	Poster Session I	
12:40	13:00	Poster Session II	
13:45	15:45	Parallel sessions IV	
16:00	17:00	Key-note presentation IV	Leigh Tesfatsion: Agent-Based Modeling: The Right Mathematics for Social Science?
			Chair - Marcin Czupryna
17:15	18:15	ESSA General Assembly	
17.13	10.13	233A Octicial Assembly	
18:30	20:00	Roundtable II	The Future of Experiments in ABM
			Chairs: Nanda Wijermans, Edmund Chattoe- Brown

Thursday 23-09-2021

09:00	11:00	Parallel sessions V	
11:30	13:30	Parallel sessions VI	
14:30	16:30	Parallel sessions VII	
17:00	18:00	Key-note presentation V	Li An: Advancing agent-based complex
			systems science with data science and
			artificial intelligence
			Chair: Flaminio Squazzoni
18:15	19:15	Meeting JASSS Editor	Flaminio Squazzoni
19:15	21:15	Roundtable III	Increasing Rigour of ABM
			Chair: Bruce Edmonds

Friday 24-09-2021

09:00	10:00	Key-note presentation VI	Katarzyna Sznajd-Weron: Towards understanding of the social hysteresis: an agent-based approach
			Chair: Gary Polhill
10:30	12:30	Parallel sessions VIII	
12:30	13:00	Closing	Petra Ahrweiler, Marcin Czupryna, Bogumił Kamiński

Parallel sessions I Tuesday, 11:30-13:00

A: Social identity approach modeling

Chairs: Nanda Wijermans, Geeske Scholz

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92	Social Identity in Agent-based Models: A	Geeske Scholz,	Extended
	Systematic Review	Nanda Wijermans,	Abstract
		Rocco Paolillo,	
		Torsten Masson,	
		Martin Neumann,	
		Émile Chappin,	
		Anne Templeton	
		and Geo Kocheril	
50	Towards more realism in pedestrian behaviour	Nanda Wijermans	Full Paper
	models First steps and considerations in	and Anne	
	formalising social identity	Templeton	
27	Social Identity and Management Control: A Social	Friederike Wall	Extended
	Simulation Perspective		Abstract

B: Heterogeneous and diverse economic agents

Chairs: Stephan Leitner

11	On the Role of Incentives in Evolutionary	Stephan Leitner	Full Paper
	Approaches to Organizational Design		
73	Exploring Coevolutionary Dynamics of	Nik Alexandrov,	Full Paper
	Competitive Arms-Races Between Infinitely	Dave Cliff and	
	Diverse Heterogenous Adaptive Automated	Charlie Figuero	
	Trading Agents		
70	Inequality in the COVID-19 Pandemic and the	Patrick Mellacher	Extended
	Containment Measures: An Agent-based		Abstract
	Exploration		

C: General Track

Chairs: Małgorzata Snarska

8	Building An Opinion Dynamics Model From Experimental Data	Dino Carpentras, Michael Quayle and Paul J Maher	Full Paper
29	Young Liberals? An Agent-Based Model of Opinion Shifts among Cohorts	Ivan Puga-Gonzalez and F. Leron Shults	Full Paper
31	The Dynamics of Follower Networks and Spread of Opinion in a Twitter Agent Based Model	Stephen Dipple and Kathleen Carley	Extended Abstract

Parallel sessions II Tuesday, 13:45-15:45

A: Artificial Sociality

Chairs: Gert Jan Hofstede

14	Simulating social reality	Martin Neumann	Full Paper
		Rob Nelissen, Ivet	
		Andres Munoz,	
		David Cristobal	
		Munoz, Mark	
	Efficient Redistribution of Scarce Resources	Kramer and Gert	
6	Favours Hierarchies	Jan Hofstede	Full Paper
		Hideyuki Nagai	
	Evaluation of measures to prevent and control	and Setsuya	
33	COVID-19 compatible with the local economy	Kurahashi	Full Paper
		Patrycja Antosz,	
	Modelling social innovation with empirical	Wander Jager and	
96	calibrated models using HUMAT	Loes Bouman	Full Paper

B: Heterogeneous and diverse economic agents

Chairs: Stephan Leitner, Friederike Wall

17	Effects of limited and heterogeneous memory in hidden-action situations	Patrick Reinwald, Stephan Leitner and Friederike Wall	Full Paper
23	Autonomous group formation of heterogeneous agents in complex task environments	Dario Blanco Fernandez, Stephan Leitner and Alexandra Rausch	Full Paper
87	Exploring regional agglomeration dynamics in face of climate-driven hazards: insights from an agent-based computational economic model	Alessandro Taberna, Tatiana Filatova, Andrea Roventini and Francesco Lamperti	Full Paper
3	Pay-for-Performance and Emerging Search Behavior: When Exploration Serves to Reduce Alterations	Friederike Wall	Full Paper

C: General Track

Chairs: Dino Carpentras

48	Comparison of Viral Information Spreading Strategies in Social Media	Sri Sailesh Meegada and Subu Kandaswamy	Full Paper
104	An Evidence-Driven Model of Voting and Party Competition	Ruth Meyer, Martin Dolezal, Marco Fölsch and Reinhard Heinisch	Full Paper
18	Facing the election prediction problem with agent- based models using particle filtering	Ernesto Carrella	Extended Abstract

66	Conspiracy network in Facebook pages during	Vanessa Russo,	Extended
	pandemic outbreak: An Agent Based Model of	Federico Cecconi,	Abstract
	misleading information in an echo chamber	Eugenia Polizzi di	
		Sorrentino, Mario	
		Paolucci, Giulia	
		Andrighetto and Mara	
		Maretti	

Parallel sessions III, Wednesday 10:15 - 12:15

A: Norms and institutions in the social environment

Chair	rs: Amineh Ghorbani, Christopher Frantz		
54	DIPP: Diffusion of Privacy Preferences in Online Social Networks	Albert Mwanjesa, Onuralp Ulusoy and Pinar Yolum	Full Paper
91	How do value prioritization of nations relate to shared strategies for combatting the pandemic? An ABM approach	Molood Ale Ebrahim Dehkordi, Anna Melnyk, Amineh Ghorbani and Paulien Herder	Extended Abstract
78	PANDORA - an Agent-Based-Model to analyze acceptance of (energy) policies, applied to policies targeting the German heating sector	Alexandra Pröpper and Friedrich Krebs	Extended Abstract
112	The effects of incentives, social norms, and employees' values on work performance	Michael Roos, Jessica Reale and	Full Paper

Frederik Banning

B: Heterogeneous and diverse economic agents

Chairs: Stephan Leitner, Friederike Wall

95	Dynamics of Wealth Inequality in Simple Artificial Societies	John Stevenson	Extended Abstract
19	Agent based model for establishing and maintaining social relationships by heterogeneous actors	Katarzyna Growiec, Beata Łopaciuk- Gonczaryk and Bogumił Kamiński	Extended Abstract
47	On the dynamics of relative prices and the relationship with inflation: an empirical approach	Emiliano Alvarez, Juan Gabriel Brida and Pablo Mones	Full Paper
74	A bibliometric survey of macroeconomic topics in ABM	Emiliano Alvarez , Juan Gabriel Brida and Silvia London	Extended Abstract

C: ESSA@work

Chairs: Dino Carpentras, Natalie Davis, Silvia Leoni, Kavin Narasimhan

80	Supporting the use of agent-based simulation models by non-modeller urban planners and architects	Liu Yang , Yuan Zhu and Koen van Dam	Full Paper
113	Automation-induced Reshoring - An Agent-based Model of the German Manufacturing Industry	Laura Merz	Full Paper

9	Whose Law? Social Movement Influence on International Law Making: An Agent-based Perspective	Katharina Luckner	Extended Abstract
94	Resource Distribution in Supply & Demand Systems	Laurin Hagemann	Extended Abstract

Parallel sessions IV Wednesday 13:45 – 15:45

A: Norms and institutions in the social environment

Chair	s: Amineh Ghorbani, Christopher Frantz		
46	Local Reputation, Local Selection and the Leading Eight Norms	Shirsendu Podder, Simone Righi and Karoly Takacs	Full Paper
51	Explaining and resolving norm-behavior inconsistencies – A theoretical agent-based model	Marlene Batzke and Andreas Ernst	Extended Abstract
4	Reputation and punishment sustain cooperation in the Optional Public Goods Game	Simone Righi, Shirsendu Podder and Francesca Pancotto	Extended Abstract
109	Modelling the effect of pricing on district heat network adoption in Aberdeen	Doug Salt and Gary Polhill	Full Paper

B: Computational approaches to management and organisation theory

Chairs: Davide Secchi, Cesar Garcia-Diaz, Abhijit Sengupta

40	Institutional Emergence: A study on French Business Schools	Siavash Farahbakhsh and Davide Secchi	Full Paper
45	Understanding Evaluation Mechanisms of Online Community-based Information and Knowledge	Chenlong Wang and Pablo Lucas	Full Paper
15	Simulating the role of leadership in artifacts- enabled formation of organizational routines	Dehua Gao , Yumei Yang and Jiangfeng Ni	Full Paper
59	Balancing the Vicious Circle of Organizational Resistance to Change: An Agent-Based Approach	Orsolya R. Szabó and Davide Secchi	Extended Abstract

C: General Track

Chairs: Dino Carpentras

56	From the lab to the model: Exploring the dynamics of a social norm of honesty in a participative budgeting setting	Matthias Meyer and Jannick Plähn	Extended Abstract
13	Shrinking housing's size: Using agent-based modelling to explore measures for a reduction of floor area per capita	Anna Pagani, Francesco Ballestrazzi and Claudia R. Binder	Full Paper
20	The Problem with Bullying: Lessons Learned from Modelling Marginalization with Diverse Stakeholders	Themis Dimitra Xanthopoulou, Andreas Prinz and F. Leron Shults	Full Paper
38	How task complexity affects group performance and motivation: the comparison between self-organising and top-down task allocation	Shaoni Wang , Kees Zoethout and Wander Jager	Full Paper

Parallel sessions V Thursday 09:00 - 11:00

Chairs: Melania Borit, Bruce Edmonds

A: Using qualitative data to inform behavioral rules

108 A methodology to develop agent-based models for

policy design in socio-technical systems based on

Momentum selection, distance decay and the fate of

98	Documenting Data Use in a Model of Pandemic	Patrycja Antosz,	Full Paper
	"Emotional Contagion" Using the Rigour and	Justin Lane, Ivan	•
	Transparency Reporting Standard (RAT-RS)	Puga-Gonzalez,	
		Roger Normann and	
		Leron Shults	
102	Understanding complexities in small-scale fisheries:	Emilie Lindkvist, Tim	Extended
	Combining stories and simulations	Daw, Elizabeth Drury	Abstract
		O'Neill, Rosemarie	
		Mwaipopo, Andrew	
		Wamukota and Maja	
		Schlüter	

Vittorio Nespeca,

Tina Comes and

Frances Brazier

Henri Kauhanen

Full Paper

Full Paper

B: High performance computing challenges in social simulation

Chairs: Bogumił Kamiński

77

qualitative inquiry

linguistic innovations

10	An Introduction to HANS Solver - Julia powered toolbox for heterogeneous agents static equilibrium agents static equilibrium models with discrete choice and incomplete markets	Mateusz Szetela	Full Paper
65	Surrogate agent-based models via gradient boosting tree, a preliminary analysis	Francesco Mattioli and Mario Paolucci	Extended Abstract
34	An Application of Agent-Based Models to an Evolutionary Game	Jacobus Smit and Edward Plumb	Extended Abstract
84	Improving speed of models for improved real- world decision-making	Jason Thompson, Haifeng Zhao, Sachith Seneviratne and Rohan Byrne	Extended Abstract

C: General Track

Chairs: Dino Carpentras

55	On the impact of misvaluation on bilateral trading	Sacha Bourgois- Gironde and Marcin Czupryna	Full Paper
58	Consumer Participation in Demand Response Programs: Development of a Consumat-based Toy Model	Judith Schwarzer and Dominik Engel	Full Paper

67	Using MBTI agents to simulate human behavior in a work context	Luiz Braz and Jaime Sichman	Full Paper
64	COMMONSIM A commons-grounded multi-sector agent-based political economic utopia	Ernest Aigner, Lena Gerdes, Stefan Meretz, Hanno Pahl, Annette Schlemm, Manuel Scholz- Wäckerle, Jens Schröter and Simon Sutterlütti	Full Paper

Parallel sessions VI Thursday 11:30 – 13:30

A: Social simulation for local actors empowerment

Chai	rs: Kevin Chapuis, Arthur Perrotton		
61	Support local empowerment using various modeling approaches and model purposes: a practical and theoretical point of view	Kevin Chapuis, Marie-Paule Bonnet, Neriane Da Hora, Christophe Le Page, Jôine Cariele Evangelista-Vale and Gustavo Melo	Full Paper
5	Developing a stakeholder-centric simulation tool to support integrated mobility planning	Diego Dametto, Gabriela Michelini, Leonard Higi, Tobias Schröder, Daniel Klaperski, Roy Popiolek, Anne Tauch and Antje Michel	Full Paper
105	An agent-based model to operationalize actor responsibilities and distributive justice in a stylized social system	Aashis Joshi, Emile Chappin and Neelke Doorn	Extended Abstract

B: Social simulation and games

Chairs: Melania Borit, Timo Szczepanska, Harko Verhagen

53	How perceived complexity impacts on comfort zones in social decision contexts - Combining gamification and simulation for assessment	Frederick Herget, Benedikt Kleppmann, Petra Ahrweiler, Martin Neumann and Jan Gruca	Full Paper
110	A hybrid agent-based model to simulate and rethink post-COVID-19 use processes in educational facilities	Davide Simeone, Sara Comai, Silvia Ventura Mastrolembo and Angelo Luigi Camillo Ciribini	Full Paper
16	Cruising Drivers' Response to Changes in Parking Prices in a Serious Game	Sharon Geva and Eran Ben-Elia	Extended Abstract
32	Quantum Leaper: A Methodology Journey From a Model in NetLogo to a Game in Unity	Timo Szczepanska, Andreas Angourakis, Shawn Graham and Melania Borit	Extended Abstract

C: General Track

Chairs: Silvia Leoni

39	WATERING: An Agent-based Model of Community Water Governance	Kavin Narasimhan, Nigel Gilbert, Corinna Elsenbroich, Roshan Adhikari, Emmanuel Obuobie, Samuel Guug, Nathan Forsythe and Sarah Redicker	Full Paper
25	SESAMSIM: understanding dynamics in tropical agro-	Paulina Rosero	Full Paper
	forestry	Anazco, Margaret	
		Githinji, Mark R.	
		Kramer and Gertjan	
		Hofstede	
86	Exploring cross-scalar interactions in innovation	Udita Sanga and Maja	Extended
	processes in agricultural social-ecological systems	Schlueter	Abstract
21	Exposure to Traffic-related Air Pollution(Non- exhaust Emission) in Central Seoul using an Agent- based Framework	Hyesop Shin and Mike Bithell	Full Paper

Parallel sessions VII Thursday 14:30 – 16:30

A: General Track

Chair	s: Silvia Leoni		
37	Simulating Delay in Seeking Treatment for Stroke due to	Elizabeth Hunter,	Full Paper
	COVID-19 Concerns with a Hybrid Agent-Based and	Bryony McGarry and	
	Equation-Based Model	John Kelleher	
81	CINCH: Agent-Based Modelling of Physical Distancing in	Nick Gotts, Jared	Full Paper
	Hospital Staff Facilities Using the COM-B Behaviour	Wilson-Aggarwal,	
	Change Framework	Elise Crayton, Carly	
		Meyer and Ed	
		Manley	
89	Explaining Polarization by Coupling Dynamics of	Tanzhe Tang,	Extended
	Opinions and Behaviors Under Conformity: A case study	Amineh Ghorbani	Abstract
	of face mask wearing during the COVID-19 pandemic	and Caspar Chorus	
101	CAFCA in a Pandemic	Corinna Elsenbroich	Extended
		and Harko Verhagen	Abstract

B: General Track

Chairs: Marcin Czupryna

93	Purposes of and Principles for ABM's in Policy Development: A Proposal	Alexander Melchior, Frank Dignum and Pinar Yolum	Extended Abstract
1	Theoretical Sampling and Qualitative Empirical Model Validation	Georg Mueller	Full Paper
68	SEM2Agent - A Scheme for the Use of Structural Equation Model Data in Agent-Based Models	Lilian Kojan , Laura Burbach, Ziefle Martina and André Calero Valdez	Full Paper
79	Exploring the effect of external influences on model parameterization	Gary Polhill, Keith Matthews, Jiaqi Ge, Alison Heppenstall and Nick Malleson	Full Paper

C: General Track

Chairs: Przemysław Szufel

26	The Large-Scale, Systematic and Iterated Comparison of Agent-Based Policy Models	Bruce Edmonds, Edmund Chattoe- Brown and Mike Bithell	Full Paper
85	Open, Contingent, Adaptive and Reactive Resilience – using ABM and other tools to facilitate our collective survival in an uncertain world	Bruce Edmonds and Vahid Yazdanpanah	Full Paper

7	The psychometric house-of-mirrors: the effect of measurement distortions on agent-based models	Dino Carpentras and Michael Quayle	Extended Abstract
24	Pandemic dynamics determinants in multi-layered urban transportation networks	Mahsa Kazeminooreddinvand, Nykyta Polituchyi, Paweł Prałat, Kinga Siuta and Przemysław Szufel	Extended Abstract

Parallel sessions VIII Friday 10:30 – 12:30

A: General Track

Chairs:	Kavin	Narasim	han
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12	Agent-based model of pedestrian movements in the build environment	Michal Dziecielski and Marcin Wozniak	Full Paper
30	Exploring energy security of Dutch urban energy communities: an exploratory agent-based modelling approach	Javanshir Fouladvand, Deline Verkerk, Igor Nikolic and Amineh Ghorbani	Full Paper
82	Towards Efficient Context-Sensitive Deliberation	Maarten Jensen, Harko Verhagen, Lois Vanhée and Frank Dignum	Extended Abstract
22	Decisions, decisions the complex issue of representing human behavior in social-ecological systems	Beatrice Christa Nöldeke, Etti Winter, Elisée Bahati Ntawuhiganayo and Ulrike Grote	Extended Abstract

B: High performance computing challenges in social simulation

Chairs: Przemysław Szufel

28	Simulating Human Movement in a National-Scale Individually-Based Model of Malaria in Burkina Faso	Robert Zupko, Trần Đăng Nguyên and Maciej Boni	Full Paper
107	On running massive scale agent based simulation of a virtual city using Julia language	Przemyslaw Szufel	Extended Abstract
36	Articial Benchmark for Community Detection algorithm for simulation of social networks	Bogumił Kamiński, Pawel Pralat, François Théberge and Tomasz Olczak	Extended Abstract

C: General Track

Chairs: Natalie Davis

83	Better representing the diffusion of innovation through the theory of planned behavior andformal argumentation	Loïc Sadou , Stephane Couture, Rallou Thomopoulos and Patrick Taillandier	Full Paper
52	Modeling Households' Technology Adoption. A Contribution to the Co-Simulation of a Socio-Technical Multi-Level Energy System	Sebastian Hoffmann and Fabian Adelt	Extended Abstract

57	Toward Capturing the Underlying Offensive Mechanisms of Social Manipulation: A Data Model	Amir Ebrahimi Fard and Clara Maathuis	Full Paper
	Approach		

Poster sessions I Wednesday, 12:20 12:40

ΙA	111	Differences in sociality may heaviliy influence	Katinka Den Nijs,
		resource sharing success	Victor Vasconcelos
			and Gertjan Hofstede
ΙB	60	Environmental tax reforms: From general	Franziska Klein,
		equilibrium to agent-based modelling	Jeroen van den Bergh,
			Théo Konc and Joël
			Foramitti
I C	63	Decreased enrollment in public schools in Chile:	Catalina Canals,
		Using Agent-Based Models (ABM) to understand	Enrique Canessa,
		temporal trends	Spiro Maroulis,
			Alejandra Mizala and
			Sergio Chaigneau
I D	103	Modeling popularity dynamics on GitHub	Nikolas Zöller

Poster sessions II Wednesday, 12:40 13:00

II A	42	Queueing for Themis: an agent-based model of adjudication in Polish Supreme Court	Jan Majewski
II B	100	Explaining the relationship between Agency and Communion using Implicit Personality Theories and Connectionist Modelling	Piotr Dragon, Rob Holland, Ewa Szumowska, Małgorzata Kossowska and Daniël H. J. Wigboldus
II C	62	The effect of heterogeneous distributions of health social norms on pandemics	Daniele Vilone and Giulia Andrighetto