

## February 8 – Systemic Risk

10:15 – 10:30	Introduction
10:30 – 10:55	Keynote talk: Zinta Zommers
10:55 – 12:15	<p><b><i>Systems approaches</i></b></p> <p><b>11:00</b> <u>Operationalizing the concept of transformation towards sustainable development and resilience: ideas from systemic risk research</u>; Stefan Hochrainer-Stigler</p> <p><b>11:15</b> <u>The Interplay of Systemic Sociotechnical and Geopolitical Risks to Climate</u>; David Manheim</p> <p><b>11:30</b> <u>Social amplification of risk revisited - Risk perception and risk governance in the context of systemic risks</u>; Pia-Johanna Schweizer</p> <p><b>11:45</b> <u>Understanding and managing the systemic nature of risks: learnings from COVID-19</u>; Michael Hagenlocher</p> <p><b>12:00</b> <u>A comprehensive framework for mapping potential climate change impacts on fisheries socio-ecological systems</u>; Amanda Stoltz</p>
12:15 – 13:00	Lunch break
13:00 – 13:25	Keynote talk: Nick Simpson
13:25 – 14:10	<p>Parallel session:</p> <p><b>13:25</b> Introduction</p> <p><b>13:30</b> 3-min pitch from each presenter</p> <p><b>13:50</b> Break-out rooms</p> <p><b>Room1: <i>Impact metrics</i></b></p> <ul style="list-style-type: none"> <li>• <u>Reviewing burning embers from the 3 IPCC special reports in a homogenous framework</u>; Philippe Marbaix</li> <li>• <u>Contrasting biophysical and social impacts of hydro-meteorological extremes</u>; Rene Orth</li> <li>• <u>Risk Atlas of Colombia: Revealing the Latent Disasters</u>; Lina Dorado</li> </ul> <p><b>Room 2: <i>Model evaluation</i></b></p> <ul style="list-style-type: none"> <li>• <u>Underestimated teleconnectivity in CMIP6 models restrains future global crop risks estimates</u>; Kai Kornhuber</li> <li>• <u>Modelling human-water systems experiencing drought-to-flood events: is there one model that fits all?</u>; Marlies Barendrecht</li> </ul> <p><b>Room 3: <i>Compound events</i></b></p> <ul style="list-style-type: none"> <li>• <u>Assessing the nature of systemic risks and compound vulnerabilities</u>; Lisa Thalheimer</li> <li>• <u>Disentangling soil moisture and precipitation coupling over India from a compound flood risk assessment perspective</u>; Ashish Manoj</li> </ul>

14:10 – 14:20	Short Break
14:20 – 15:20	<p><b><i>Systemic risk models</i></b></p> <p><b>14:20</b> <u>Scaling behaviour in resilient social-ecological systems governance</u>; Isaak Mengesha</p> <p><b>14:35</b> <u>Long-term feedback mechanisms underlying societal collapse</u>; Sabin Roman</p> <p><b>14:50</b> <u>Using Bayesian Networks in Climate Storylines</u>; Taro Kunimitsu</p> <p><b>15:05</b> <u>The Paradox of Innovation on Systemic Risk: a System Dynamic model</u>; Francesco Bertolotti</p>
15:20 – 15:30	Short Break
15:30 – 16:15	<p><b><i>Deep Uncertainty</i></b></p> <p><b>15:30</b> <u>The Value of Noise</u>; Benjamin Blanz</p> <p><b>15:45</b> <u>A Modelling Strategy for Living with Deep Uncertainty: Steps Towards Open, Contingent, Adaptive and Reactive Resilience</u>; Bruce Edmonds</p> <p><b>16:00</b> <u>Finding Diverse Future Scenarios in Complex Systems</u>; Patrick Steinmann</p>
16:15 – 16:30	Closing

## February 9 – Advances in Modeling Socio-Economic Impacts

10:15 – 10:20	Introduction
10:20 – 10:45	Keynote talk: Francesca Pianosi
10:45 – 12:00	<p><b><i>Modeling Floods and Droughts impacts</i></b></p> <p><b>10:45</b> <u>A Gradient Boosting Framework to Quantify the Effect of Behavior, Experience and Socio-economic Factors on Flood Resilience for the Continental US</u>; Nadja Veigel</p> <p><b>11:00</b> <u>Shifting faith of coastal economies: regional evolutionary agglomeration dynamics in face of climate-induced hazards</u>; Alessandro Taberna</p> <p><b>11:15</b> <u>Integrating farmers adaptation dynamics in drought risk modelling: assessing individual vulnerability dynamics under climate change and policies in Kenya</u>; Marthe Wens</p> <p><b>11:30</b> <u>Mainstreaming non-linear positive multi-attribute utility programming into multi-agent systems to explore water trading potential under transaction costs</u>; Francesco Sapino</p> <p><b>11:45</b> <u>Extreme weather events modelling projections: a case study of indirect social impacts in Brazil</u>; Rodrigo Rudge Ramos Ribeiro</p>
12:00 – 12:45	Lunch break
12:45 – 13:10	Keynote talk: Tatiana Filatova
13:10 – 14:05	<p>Parallel session:</p> <p><b>13:10</b> Introduction</p> <p><b>13:15</b> 3-min pitch from each presenter</p> <p><b>13:45</b> Break-out rooms</p>

	<p><b>Room1: <i>Modeling indirect impacts</i></b></p> <ul style="list-style-type: none"> <li>• <u>The natural hazard risk to global critical infrastructure</u>; Sadhana Nirandjan</li> <li>• <u>Lifeline disruptions &amp; basic service losses - A globally consistent natural hazard impact model</u>; Evelyn Mühlhofer</li> <li>• <u>Effects of flood-induced individual businesses' financial distress over complex cooperative productive systems</u>; David Nortés Martínez</li> </ul> <p><b>Room 2: <i>Modeling social and ecological vulnerabilities</i></b></p> <ul style="list-style-type: none"> <li>• <u>Social vulnerability to climate disasters: if we can't model it well, can we at least model it usefully?</u>; Chris Fairless</li> <li>• <u>Vulnerabilities of a socio-ecological system through the lens of a bio-economic model</u>; Emily Quiroga</li> <li>• <u>Modelling Integrated Impacts of both Climate Change and Anthropogenic Disturbances on the Pasture Grazing Capacity and its Vulnerability in Mongolia</u>; Qinxue Wang</li> </ul> <p><b>Room 3: <i>Modeling multi-hazards</i></b></p> <ul style="list-style-type: none"> <li>• <u>A study on Climate Related Hazards in Coastal Zones of Bangladesh</u>; Hasibun Naher</li> <li>• <u>A Multi-hazard Perspective on Joint Probabilities of Historic Hazards in Europe</u>; Judith N. Claassen</li> </ul> <p><b>Room 4: <i>Modeling drought impacts</i></b></p> <ul style="list-style-type: none"> <li>• <u>A Science-Policy Assessment of the Effect of Severe Droughts Using A Decision-Theoretic Approach: Case study of Syria</u>; Rasha Hassam</li> <li>• <u>Assessing past and future drought vulnerability index over Khorasan-razavi province, Iran</u>; Iman Babaeian</li> </ul>
14:05 – 14:15	Short Break
14:15 – 15:00	<p><b><i>Modeling heat impacts on health</i></b></p> <p><b>14:15</b> <u>Projecting future myocardial infarction events under changing environmental and demographic conditions using Machine Learning</u>; Laurens Bouwer</p> <p><b>14:30</b> <u>Societal attention to heat waves can indicate public health impacts</u>; Ekaterina Bogdanovich</p> <p><b>14:45</b> <u>Demography and heat stress: the role of population dynamics in climate risk projections</u>; Iulia Marginean</p>
15:00 – 15:45	<p><b><i>Global impact modeling</i></b></p> <p><b>15:00</b> <u>Intergenerational inequalities in exposure to extreme events</u>; Wim Thiery</p> <p><b>15:15</b> <u>Global Social-systems Modelling</u>; Mike Bithell</p>

	<b>15:30</b> <u>Combined machine learning and agent-based modeling for studying environmental migration dynamics</u> ; Kelsea Best
15:45 – 16:00	Short Break
16:00 – 16:50	Parallel session: <b>16:00</b> 3-min pitch from each presenter <b>16:30</b> Break out rooms:  <b>Room 1: <i>Multi-criteria and uncertainty analysis for impact models</i></b> <ul style="list-style-type: none"> <li>• <u>Uncertainty and sensitivity analysis for natural hazard risk and adaptation appraisal modelling with CLIMADA- no more excuses</u>; Chahan Kropf</li> <li>• <u>Climate proofing of economic activities. A case study in the Dolomite</u>; Carlo Giupponi</li> </ul> <b>Room 2: <i>Modeling human-water interactions</i></b> <ul style="list-style-type: none"> <li>• <u>Modelling the human-climate feedback at different spatial-temporal scales</u>; Maurizio Mazzoleni</li> <li>• <u>A complex systems perspective on changing flood risks</u>; Andreas Paul Zischg</li> <li>• <u>Assessing the Risk and Vulnerabilities associated with the flood and COVID-19 as a compound event by using different modeling techniques in a socio-environmental system</u>; Jagriti Jain</li> </ul> <b>Room 3: <i>Modeling impacts in the transition to a green economy</i></b> <ul style="list-style-type: none"> <li>• <u>Modelling urban transition from conventional to a green economy</u>; Jiaqi Ge</li> <li>• <u>Mitigation and Adaptation Emissions Embedded in the Transition to a Stable Climate</u>; Corey Lesk</li> </ul> <b>Room 4: <i>Modeling hurricane impacts</i></b> <ul style="list-style-type: none"> <li>• <u>Skilful predictions of multi-year US hurricane damages by decadal prediction systems</u>; Julia Lockwood</li> <li>• <u>Advancing joint modeling of tropical cyclone wind, surge and rain impacts – now and in a changing climate</u>; Simona Meiler</li> </ul>
16:50 – 17:00	Closing

<b>February 10 – Resilience and Adaptation</b>	
10:00 – 10:05	Introduction
10:05 – 10:30	Keynote talk: Roger Cremades
10:30 – 11:30	<b><i>Integrated systems</i></b>  <b>10:30</b> <u>Contextualizing cross national patterns in household climate change adaptation</u> ; Brayton Noll

	<p><b>10:45</b> <u>Adaptation and resilience in regional hot spots of the climate-security nexus: Tipping between conflict and cooperation in human-environment interaction;</u> Jürgen Scheffran</p> <p><b>11:00</b> <u>Exploring the scope and strategies for achieving resilient and adaptive infrastructure in Africa: Materials, methods and the political economy;</u> Innocent Chirisa</p> <p><b>11:15</b> <u>Two unconventional projects aiming to address the root causes of disasters in South East Asia;</u> Andres Payo</p>
11:30 – 11:45	Short break
11:45 – 13:00	<p><b><i>Risk and resilience in geographical spaces (land - urban - coast)</i></b></p> <p><b>11:45</b> <u>Coastal community resilience index- A systemic framework for cascading and compounding risk;</u> Bapon Fakhruddin</p> <p><b>12:00</b> <u>Adaptive decision-making in an urban-coastal agent modeling framework;</u> Shubhankar Sengupta</p> <p><b>12:15</b> <u>Compound risks and challenges for governing resilience in cities;</u> Sara Mehryar</p> <p><b>12:30</b> <u>Risk and resilience of Australian agri-food supply chains;</u> Firouzeh Taghikha</p> <p><b>12:45</b> <u>Quantifying school community resilience in Nepal;</u> Maria Xanthou</p>
13:00 – 14:00	Lunch break
14:00 – 15:00	<p><b><i>Flood risk and resilience</i></b></p> <p><b>14:00</b> <u>Record rainfall, swelling rivers: Households' behavior and expectations in the wake of the 2021 European floods;</u> Sofia Badini</p> <p><b>14:15</b> <u>Flood transport resilience: Exeter case study;</u> Maria Pregolato</p> <p><b>14:30</b> <u>Predicting adaptive behaviour of flood prone residents in an agent-based modelling approach;</u> Lisa Berghäuser</p> <p><b>14:45</b> <u>Unraveling the complexity of human behavior and urbanization on community vulnerability to floods;</u> Mona Hemmati</p>
15:00 – 15:15	Short Break
15:15 – 15:45	<p><b><i>Insurance &amp; strategies</i></b></p> <p><b>15:15</b> <u>The role of the "Insurance value of nature" in climate and extreme weather adaptation;</u> Paul Hudson</p> <p><b>15:30</b> <u>The potential for a novel bond to safeguard communities against future locust outbreaks;</u> Michael Hinge</p>
15:45 – 16:30	<p><b><i>WCRP Lighthouse Activities</i></b></p> <p><b>15:45</b> <u>The WCRP Safe landing climates lighthouse;</u> Gabriele Hegerl</p> <p><b>16:00</b> <u>My Climate Risk;</u> Regina R. Rodrigues</p> <p><b>16:15</b> Training Schools (TBC)</p>
16:30 – 17:00	Final discussion

