

## Symposium Resilience and Diversity in Complex Systems

9 - 10 December 2022

Warburg Haus, Hamburg

### Program

*(as of 23 November 2022)*

#### December 9 - Day 1

- 9:00 Welcome remarks
- 9:30 – 11:00 **SESSION 1: Resilience, diversity, complexity - overarching perspectives in sciences**
- Fridolin Gross** Between mechanical clocks and emergent flocks. A biological perspective on complexity
- Antje Wiener** Deep Contestation of the Liberal International Order
- 11:00 – 11:15 Coffee Break
- 11:15 – 12:45 **SESSION 2: Diversity as an economic factor: growth, productivity and innovation**
- Paula Prenzel** Regional inclusiveness: institutional factors and the innovative effects of cultural diversity in European regions
- Silje Haus-Reve** Exposure to diverse knowledge as driver of innovation and productivity
- Max Nathan** The economics of diversity in firms and cities
- 12:45 – 13:45 Lunch Break
- 13:45 – 15:15 **SESSION 3: (Neuro-)Biological concepts of resilience**
- Charlotte Schubert** The concept of cell type-specific vulnerability and resilience in neurological diseases
- Jonathan Turner** Early life adversity and inflammatory diseases: stress, guts and bugs make you who you are
- Sandra van der Auwera-Palitschka** The concept of gene-environment interactions in the light of depression and resilience
- 15:15 – 15:30 Coffee Break
- 15:30 – 17:00 **SESSION 4: Diversity as a driver of ecosystem functioning and resilience**
- Peter Müller** Biodiversity and ecosystem functioning - a brief introduction
- Yvonne Oelmann** Biodiversity as a driver of nutrient cycling
- Lotte Korell** Integrating experiments and synthesis to understand climate change effects on diversity and ecosystem functioning

**Madhav P. Thakur** Terrestrial ecology in an extreme world

17:00 – 17:15 Wrap up Day 1

19:00 Dinner for Speakers

## **December 10 - Day 2**

8:30 – 10:00 **SESSION 5: Measuring the diversity of microbial communities**

**Johannes Hertel** The microbiome - lessons from characterising ecological diversity and functional diversity

**Almut Heinken** Using genome-scale models to analyze systems-level metabolism in the human microbiome

**Stefano Campanaro** From Genome-centric Metagenomics to Metabolic Flux Balance Analysis: Tackling the Complexity of the Anaerobic Microbiomes

10:00-10:15 Coffee Break

10:15 – 11:45 **SESSION 6: Resilience and diversity in social sciences and humanities**

**Cordula Dittmer** Resilience in Social-Science Disaster Research

**Henrik Thorén** Resilience and Diversity in Ecology and the Social Sciences: Lessons and Warnings

**Corinna de Guttery** Is Resilience the Sum of Responses to Risk?

11:45 – 12:00 Coffee Break

12:00 – 13:30 **SESSION 7: Resilience and Law**

**Anne Dienelt** Resilience and Law - Some Critical Reflections

**Silvia Steininger** Against the Resilience Equilibrium: Lessons from Regional Human Rights Regimes

**Niko Soininen** Resilience of Legal Systems

13:30 Wrap up and closing comments

13:40 Lunch

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The symposium is organized by the Young Academy Fellows of the Academy of Sciences and Humanities in Hamburg. For questions, please contact:

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