CONSTRUCTOR UNIVERSITY

2nd Annual Research Day

Constructor University Bremen

October 4, 2023

Theresa Roewer, Franziska Deutsch, Marc-Thorsten Hütt, Sören Petrat

Participants

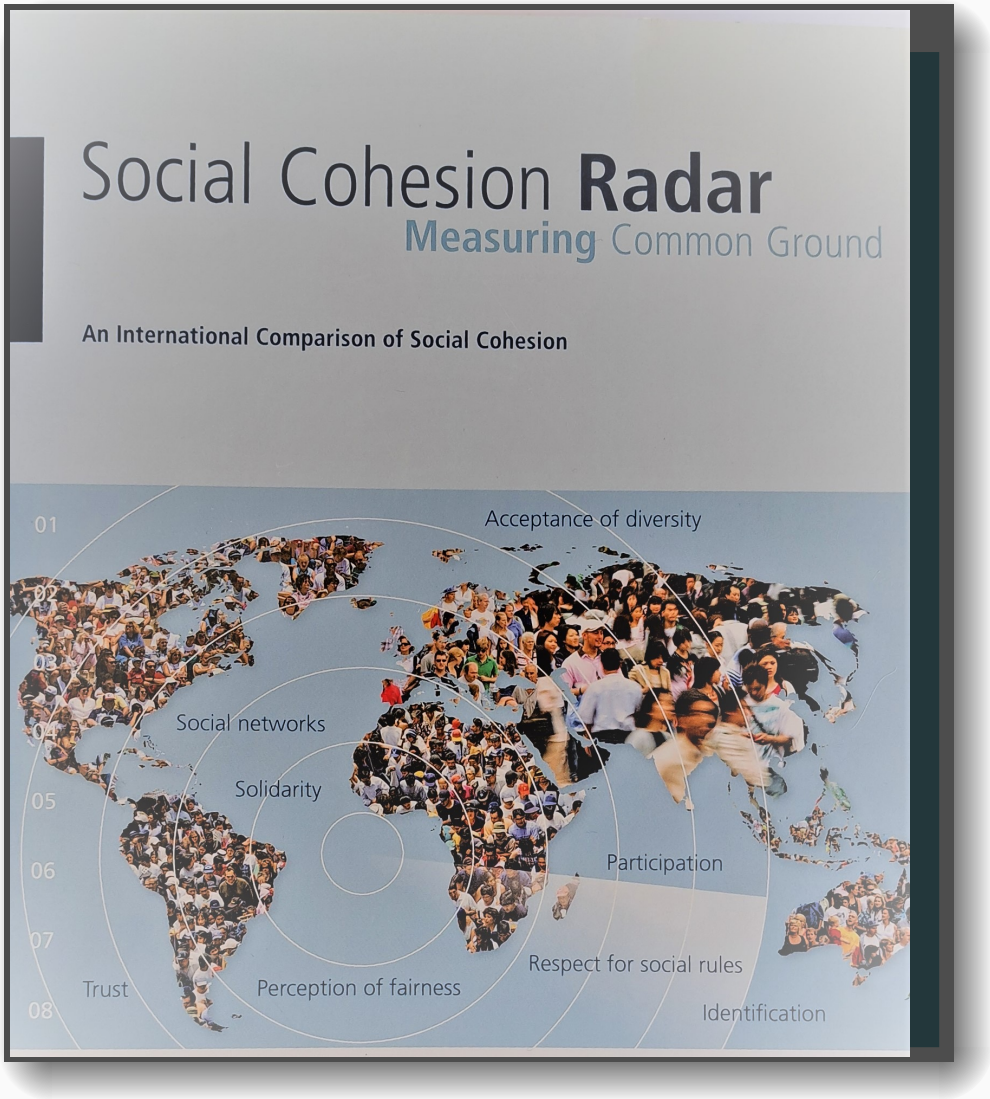
- Giuseppe Abreu
- Peter Baumann
- Andreas Birk
- Klaus Boehnke
- Klaus Boehnke, Franziska Deutsch, Ulrich Kühnen
- Klaudia Brix
- Hilke Brockmann
- Omid Fatahi Valilai
- Ben Godde
- Igors Gorbovickis
- Fangning Hu
- Marc-Thorsten Hütt
- Stephan Juricke
- Stefan Kettemann
- Ulrich Kleinekathöfer
- Ulrich Kortz
- Ulrich Kühnen, Klaus Boehnke, Franziska Deutsch, Sonia Lippke, Jan Lorenz
- Jan Lorenz
- Keivan Mallahi-Karai
- Arnulf Materny
- Armin Müller, Tobias ten Brink
- Ivan Ovsyannikov
- Sören Petrat
- Petr Popov
- Gerd-Volker Röschenthaler
- Andreas Seebeck
- Jürgen Schönwälder
- Sebastian Springer
- Anna Tevyashova
- Julia Timpe
- Matthias S. Ullrich
- Hendro Wicaksono
- Isabel Wünsche

Giuseppe Abreu
Wireless Communications and Signal Processing

Peter Baumann
Professor of Computer Science

Andreas Birk
Robotics

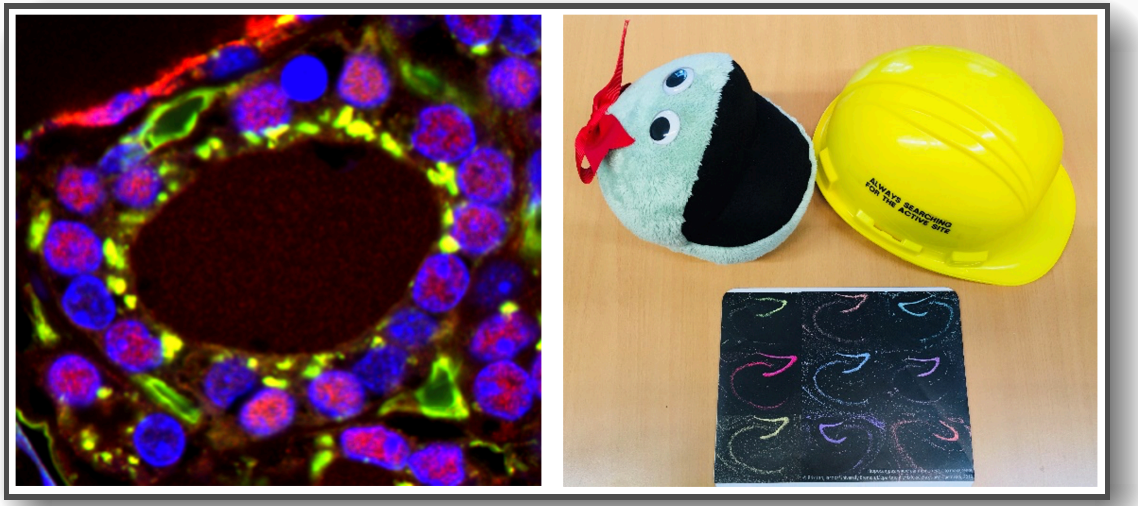
Klaus Boehnke



Klaus Boehnke, Franziska Deutsch, Ulrich Kühnen

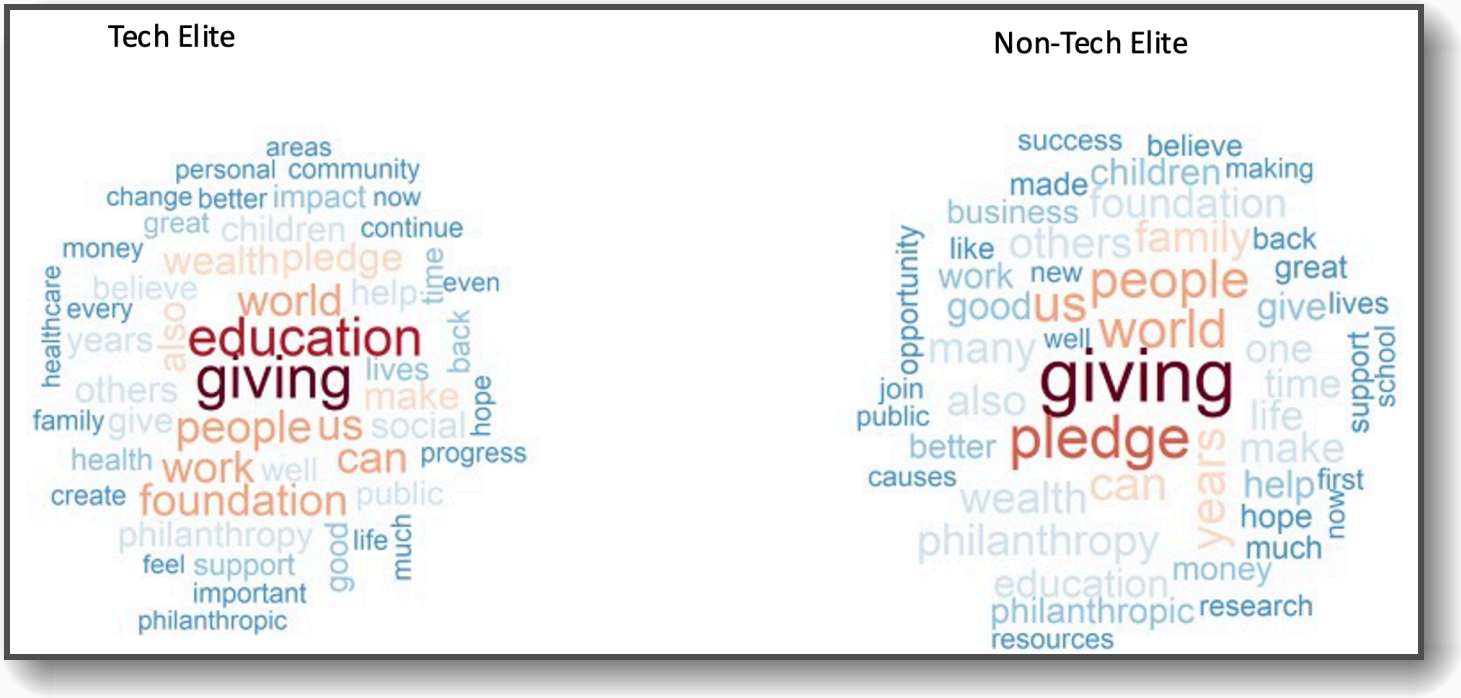
Klaudia Brix

Molecular Cell Biology – Biomedicine of Proteolysis



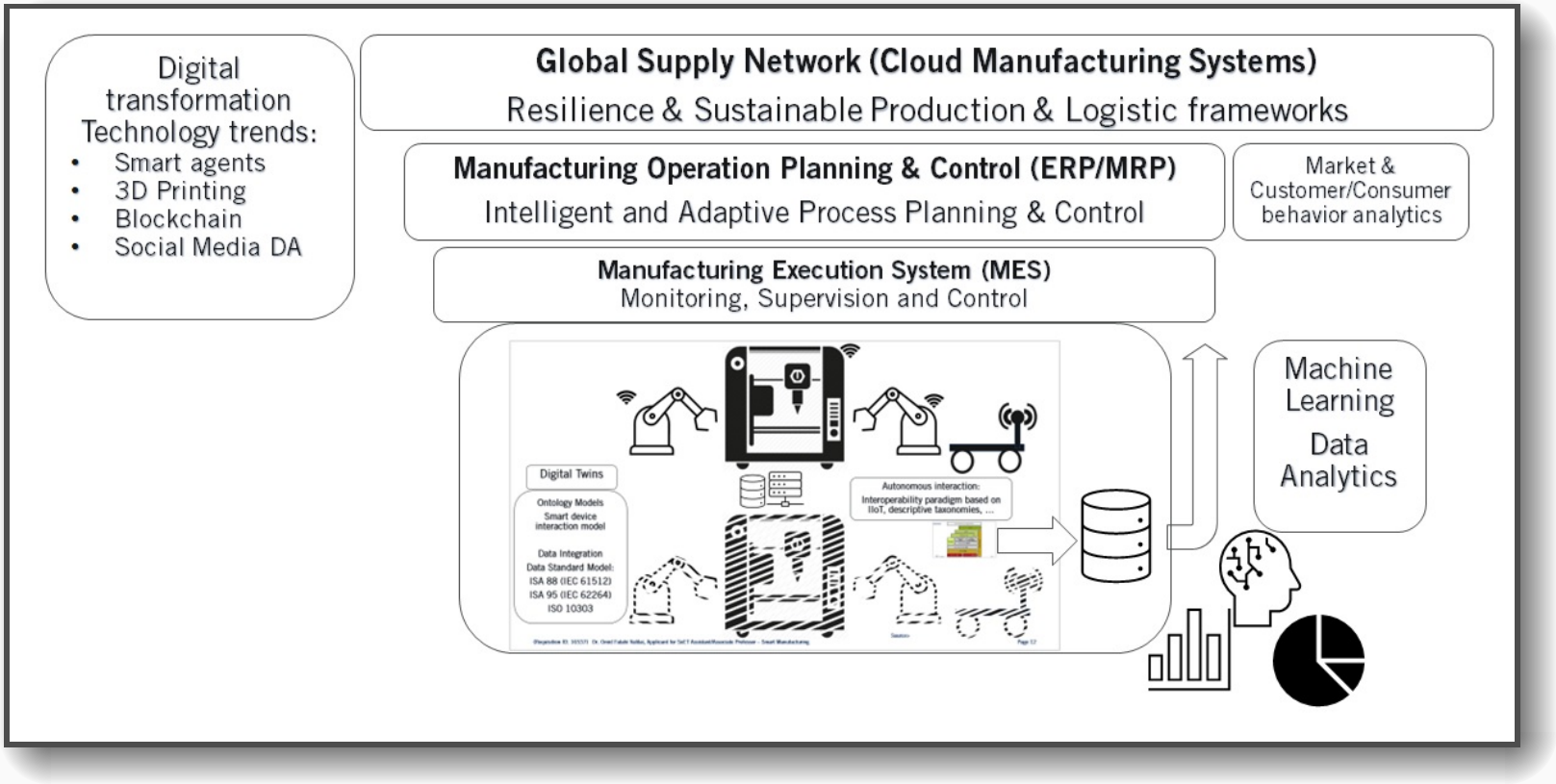
Hilke Brockmann

Professor of Sociology



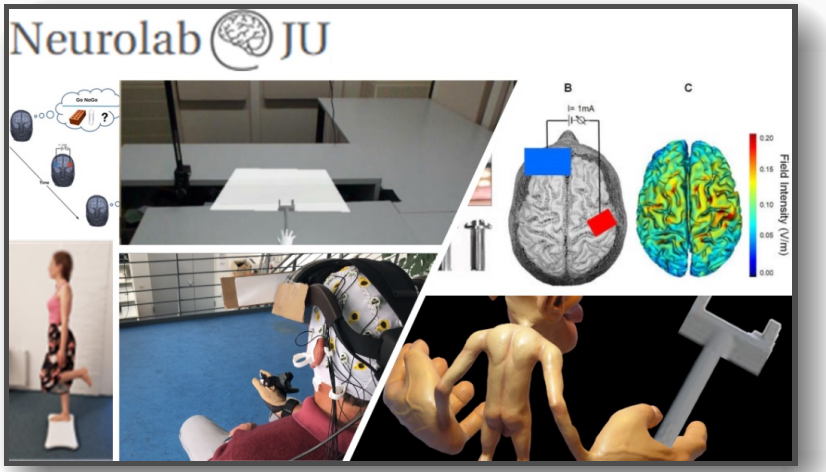
Omid Fatahi Valilai

- Computer Integrated Manufacturing & Production systems.
- Digital Transformation for production design & development.



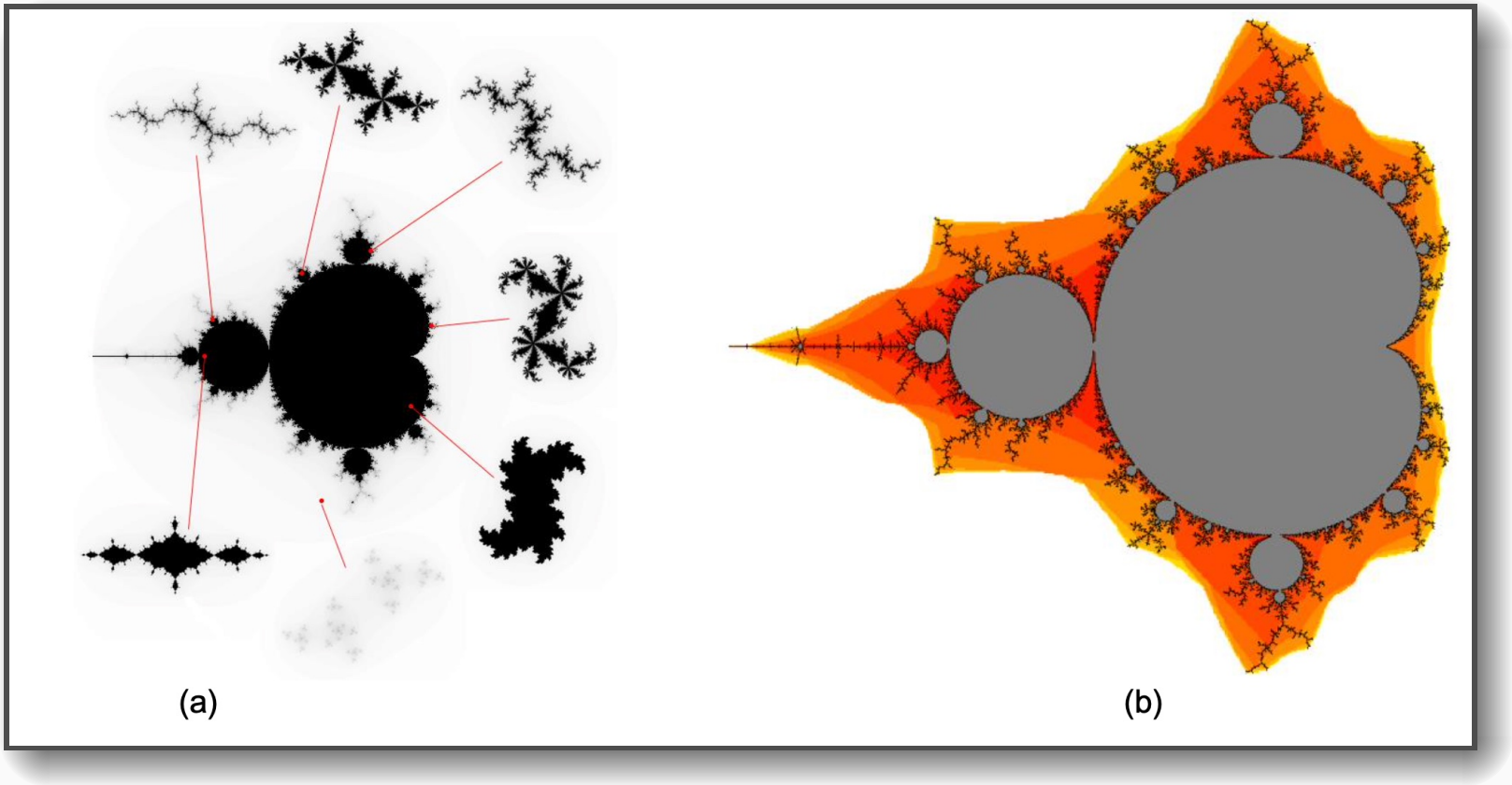
Ben Godde

Professor of Neuroscience



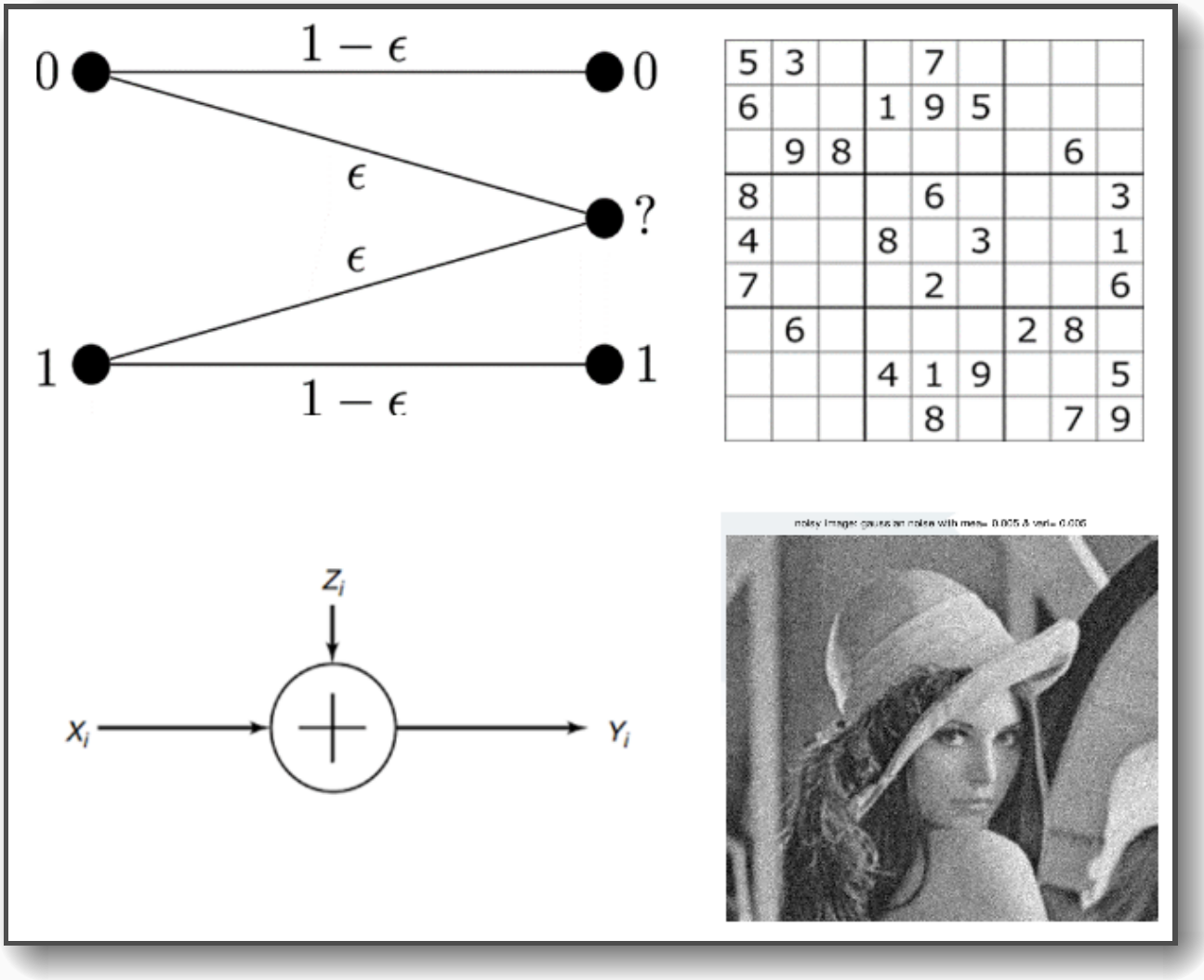
Igors Gorbovickis

Dynamical systems and their relations with complex analysis, ergodic theory and renormalization. I am also interested in some questions from metric geometry.



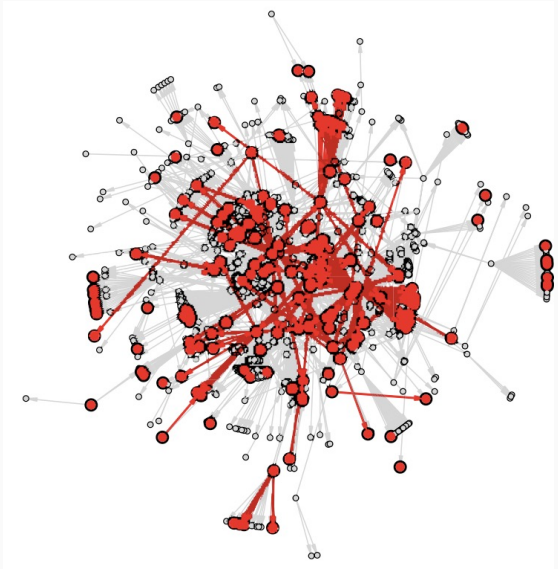
Fangning Hu

Belief Propagation Applications



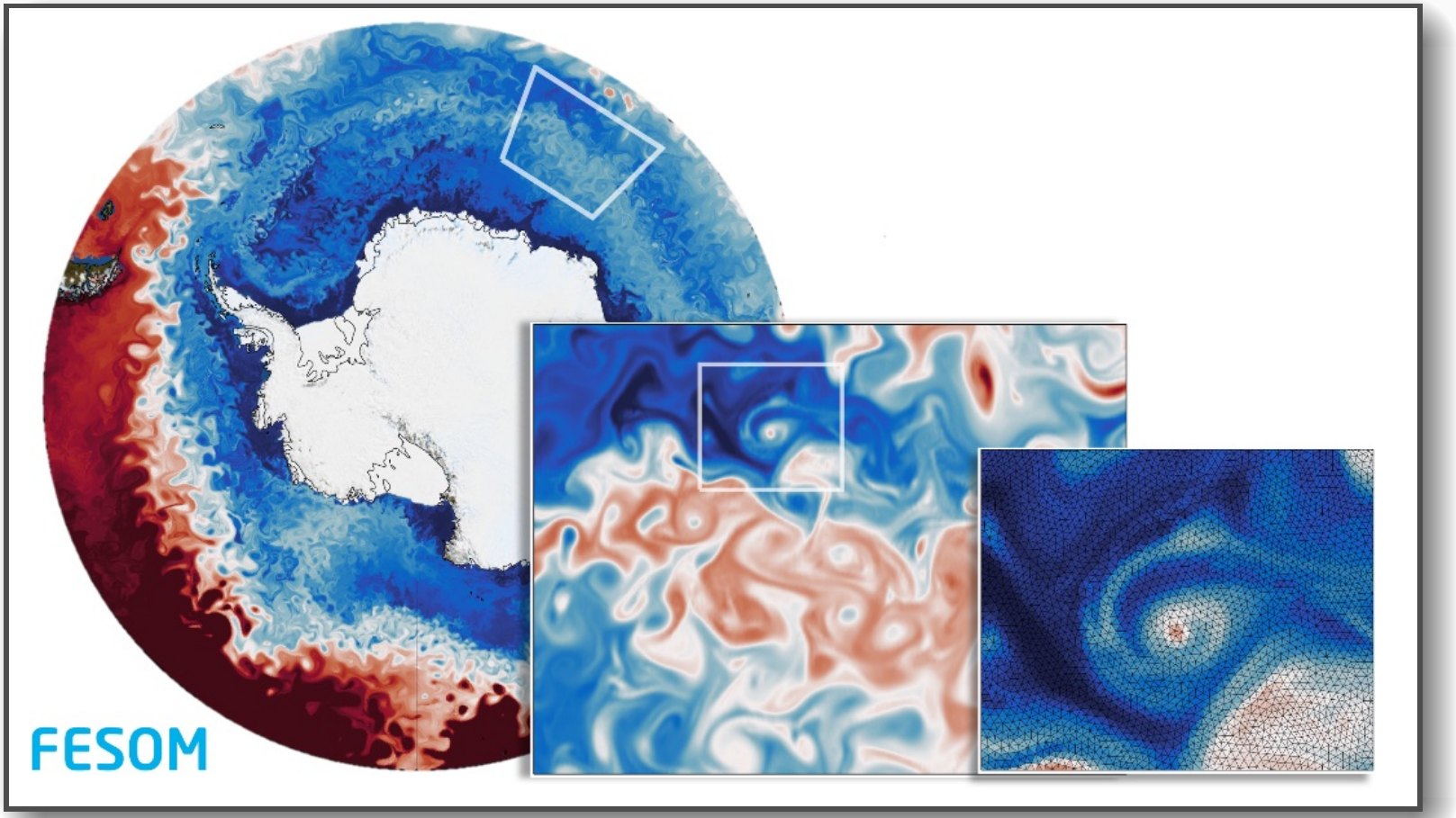
Marc-Thorsten Hütt

Professor of Computational Systems Biology



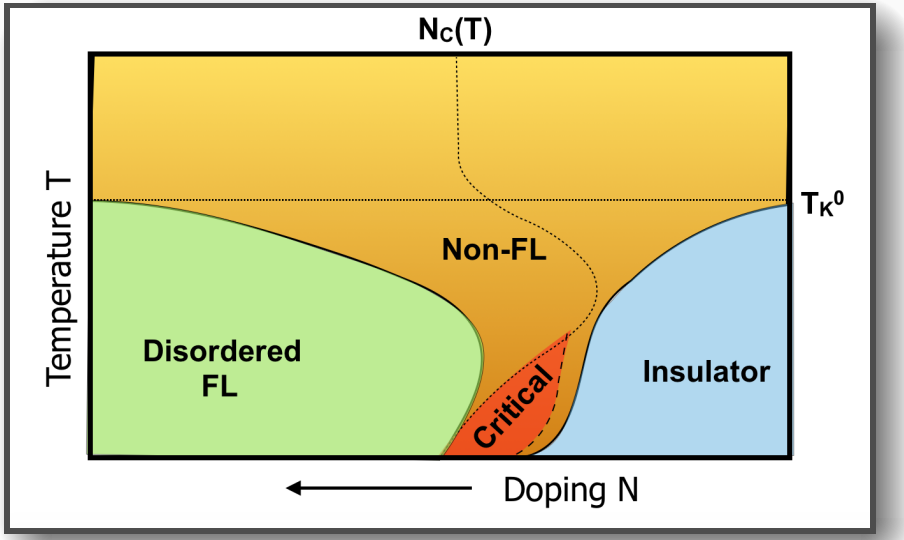
Stephan Juricke (Ekaterina Bagaeva)

Climate and ocean physics and modelling



Stefan Kettemann

Complex Systems

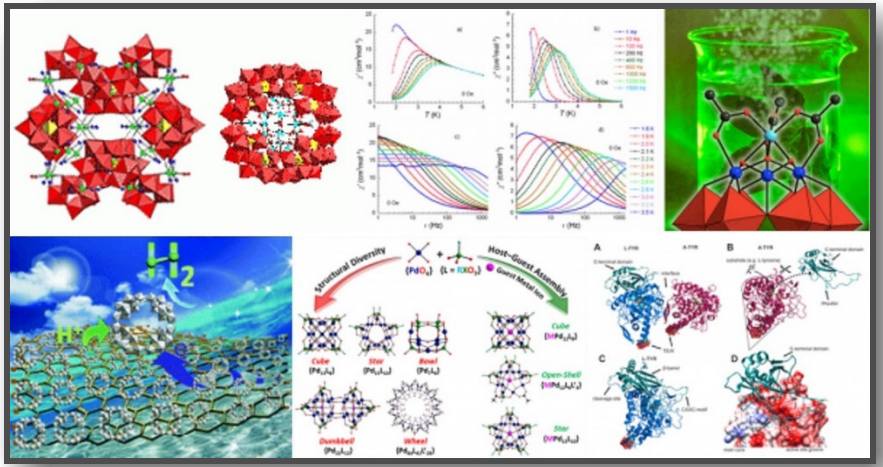


Ulrich Kleinekathöfer

Professor of Theoretical Physics

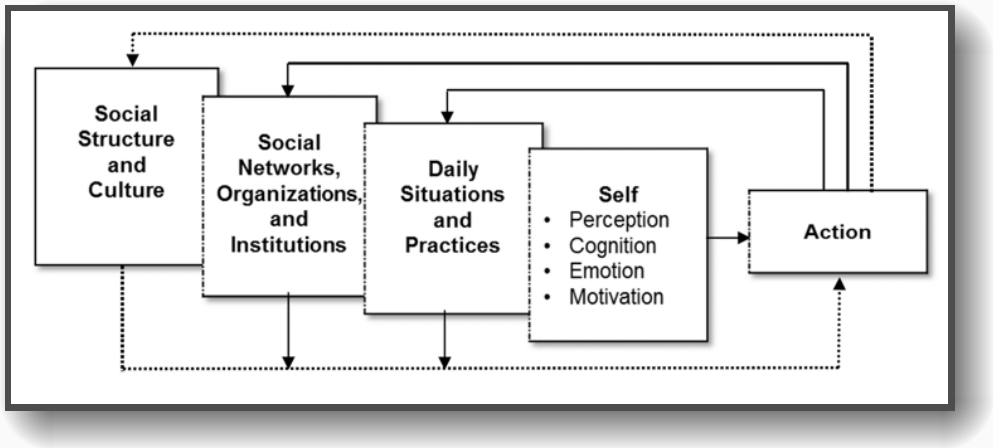
Ulrich Kortz

Synthetic inorganic chemistry, metal-oxo clusters, structural chemistry (XRD, NMR), catalysis, biomedicine, materials science



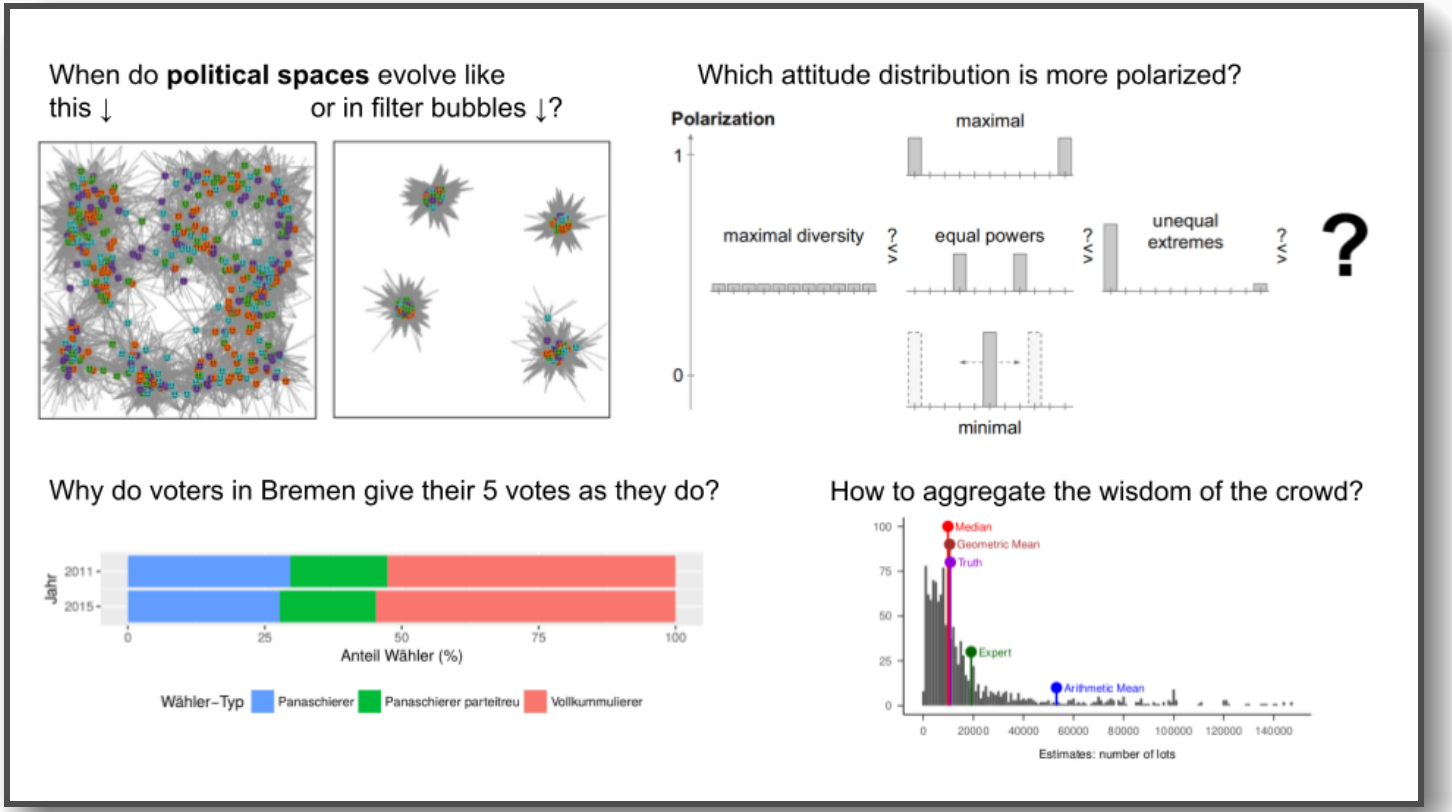
Ulrich Kühnen (speaker), Klaus Boehnke, Franziska Deutsch, Sonia Lippke, and Jan Lorenz

Research Training Group (RTG) "Social Dynamics of the Self"



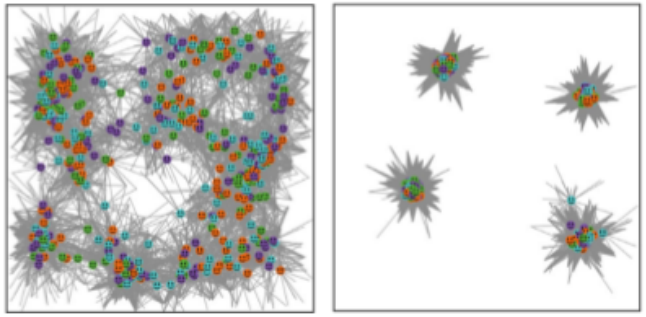
Jan Lorenz

Assistant Professor in Social Data Science, Research in Computational Social Science with a focus on agent-based models and complex socio-economic systems

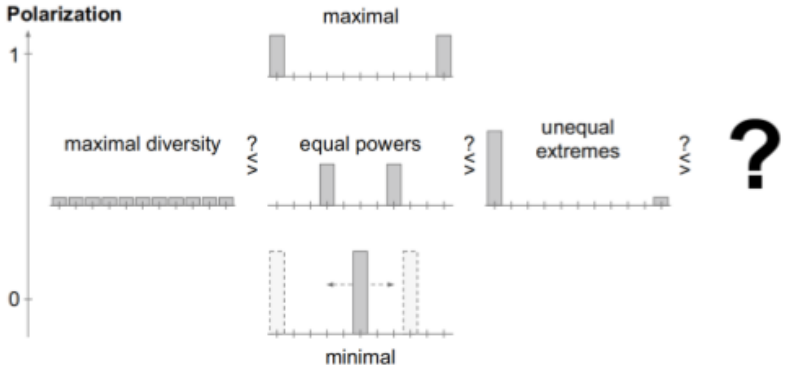


Jan Lorenz

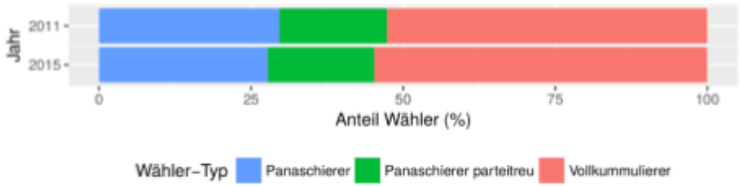
When do **political spaces** evolve like this ↓ or in filter bubbles ↓?



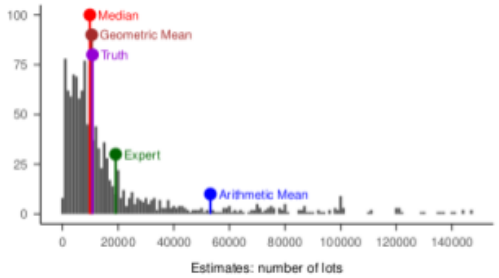
Which attitude distribution is more polarized?



Why do voters in Bremen give their 5 votes as they do?

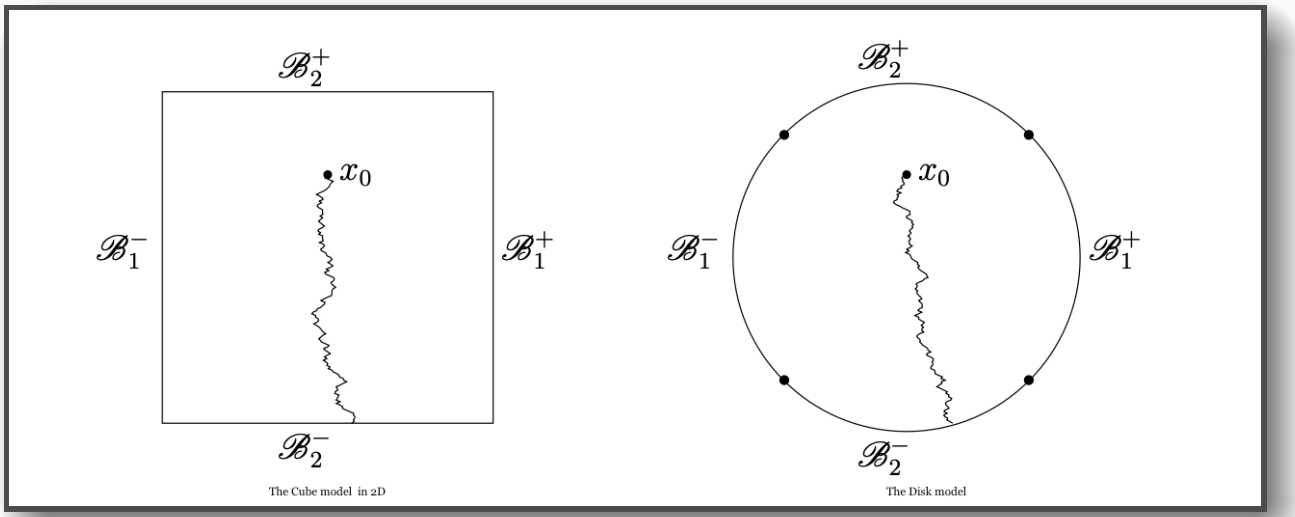


How to aggregate the wisdom of the crowd?



Keivan Mallahi-Karai

Mathematics: group theory, probability theory and application



Arnulf Materny

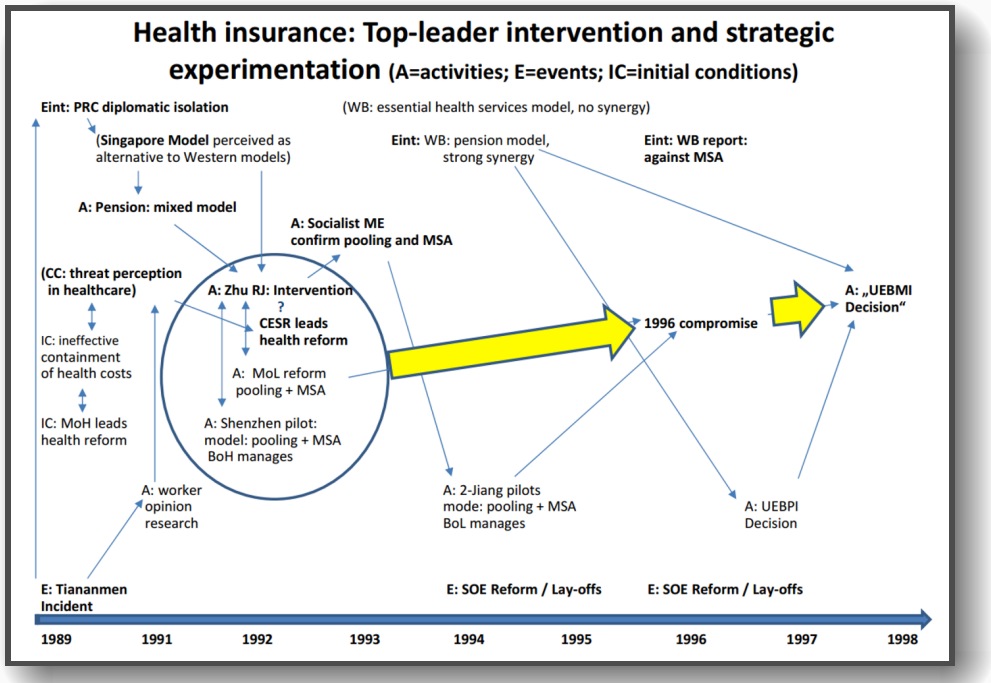
Professor or Chemical Physics

Armin Müller

Principal Investigator in Collaborative Research Center 1342 "Global Dynamics of Social Policy" of the German Research Foundation. Focus of research: political economy, social policy and education in China from a comparative perspective.

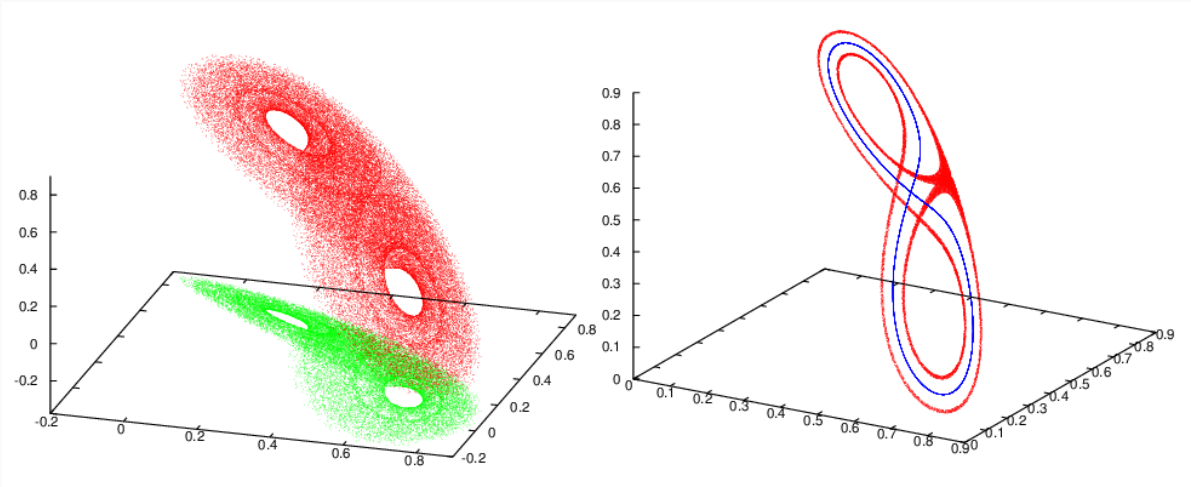
Tobias ten Brink

Professor of Chinese Economy and Society, with a focus on International and Comparative Political Economy, and Principal Investigator in Collaborative Research Center 1342 "Global Dynamics of Social Policy" of the German Research Foundation.



Ivan Ovsyannikov

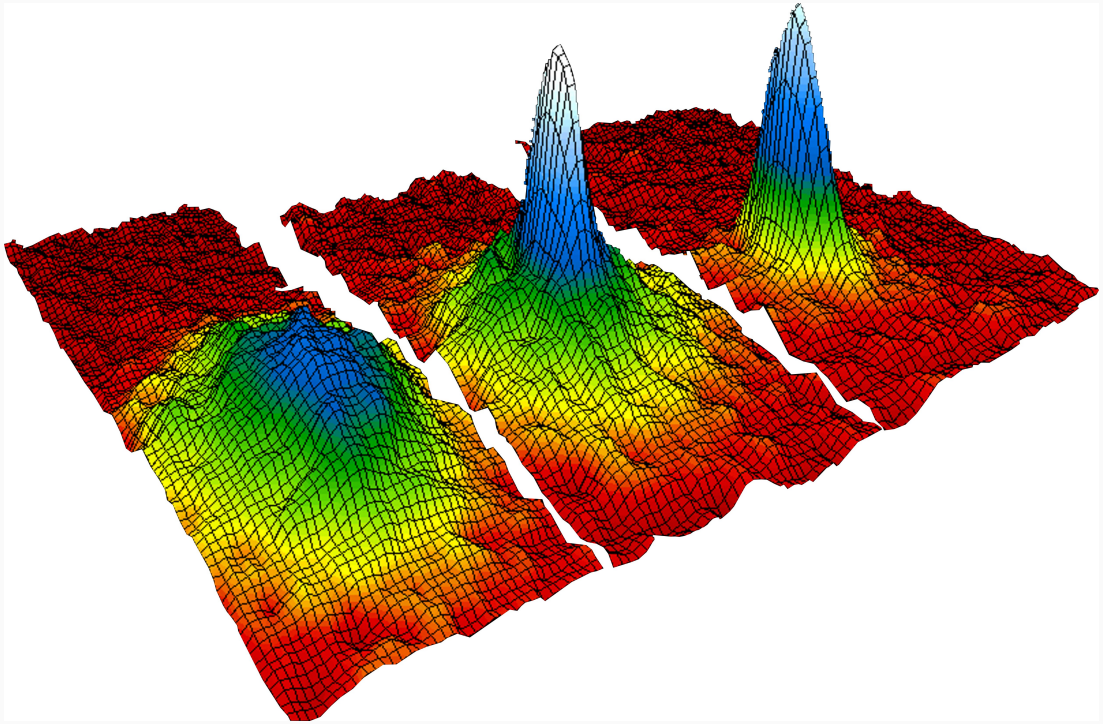
Mathematics. Research area: Dynamical systems, bifurcations, chaos



Sören Petrat

Mathematical Physics, in particular

- many-body quantum mechanics,
- Bose–Einstein condensates,
- Fermi gases.

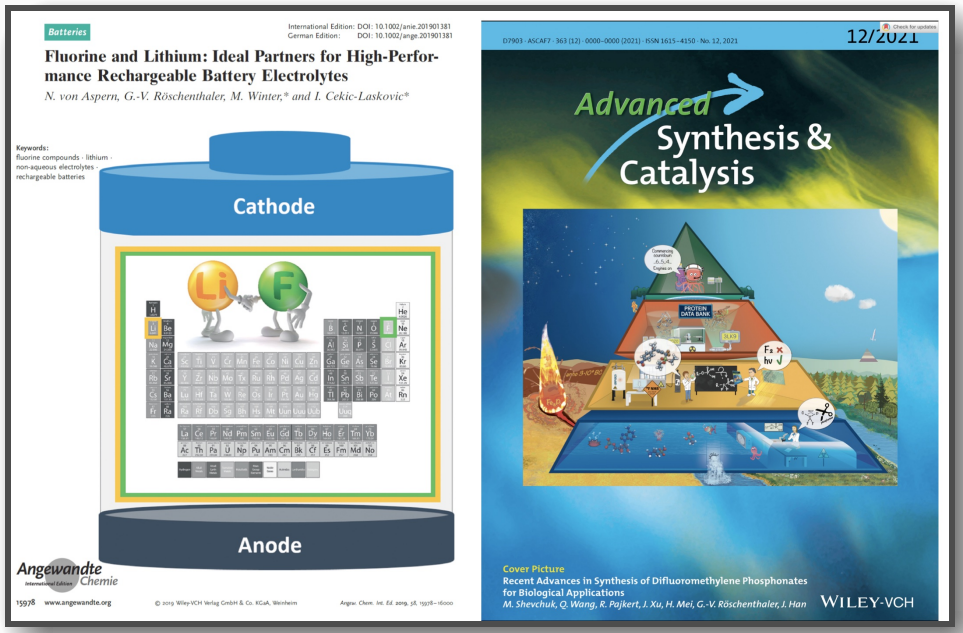


Petr Popov
Applied Mathematics

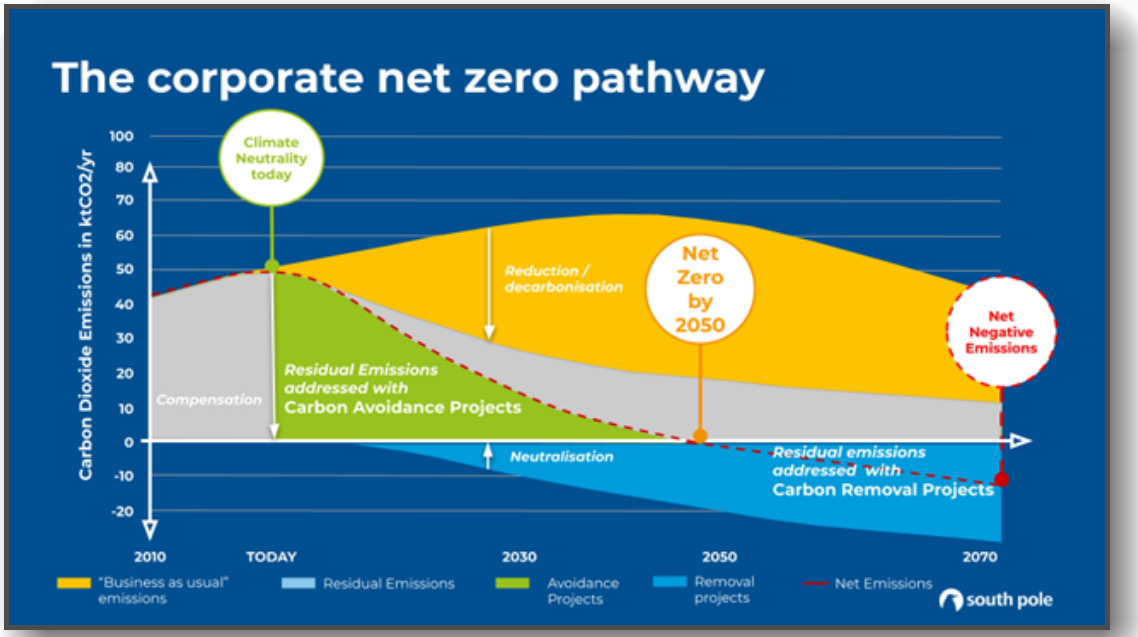
Gerd-Volker Röschenthaler

Basic and Applied Fluorine and Phosphorus Chemistry

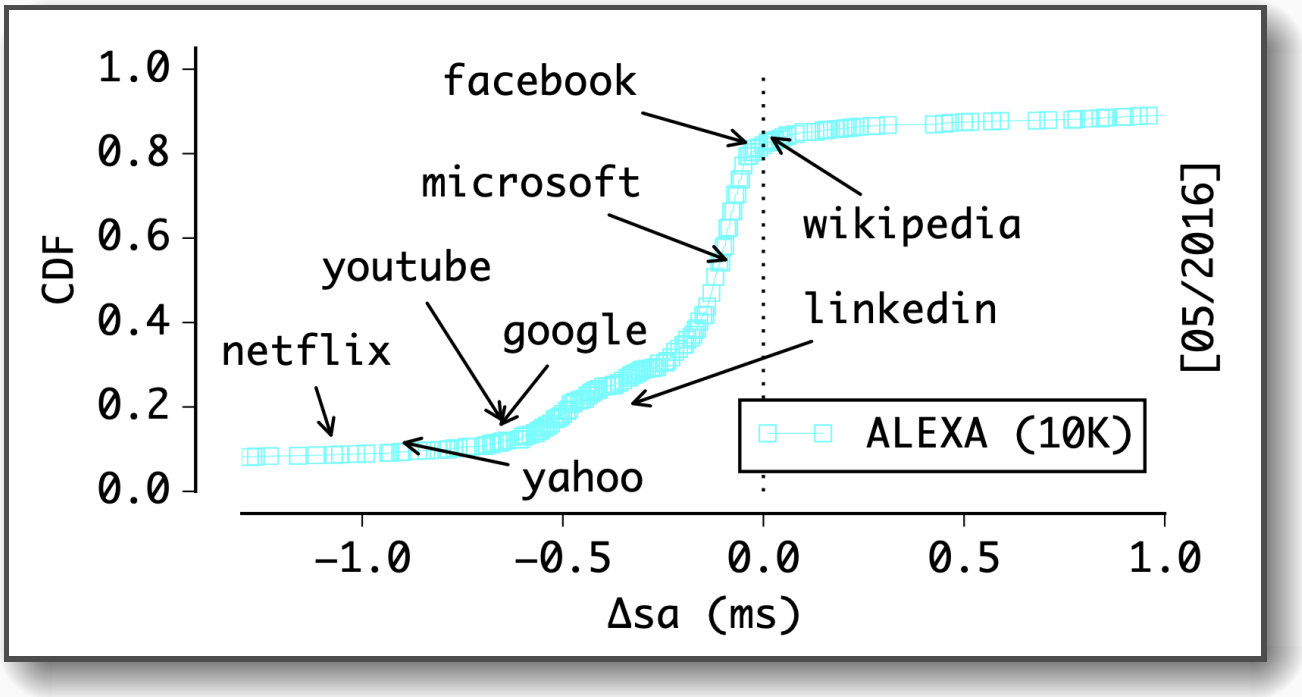
Dr. Romana Pajkert | Dr. Volodymyr Kozel | Dr. Sergey Tverdomed | Ita Hajdin, M.Sc. | Prof. Gerd-Volker Röschenthaler



Andreas Seebeck

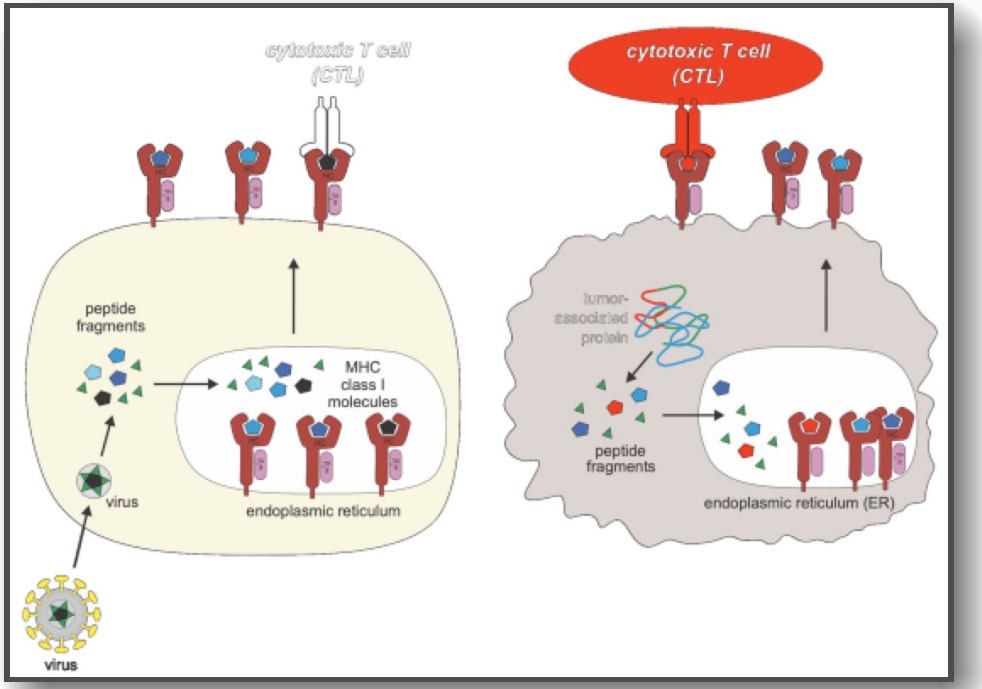


Jürgen Schönwälder
Professor of Computer Science

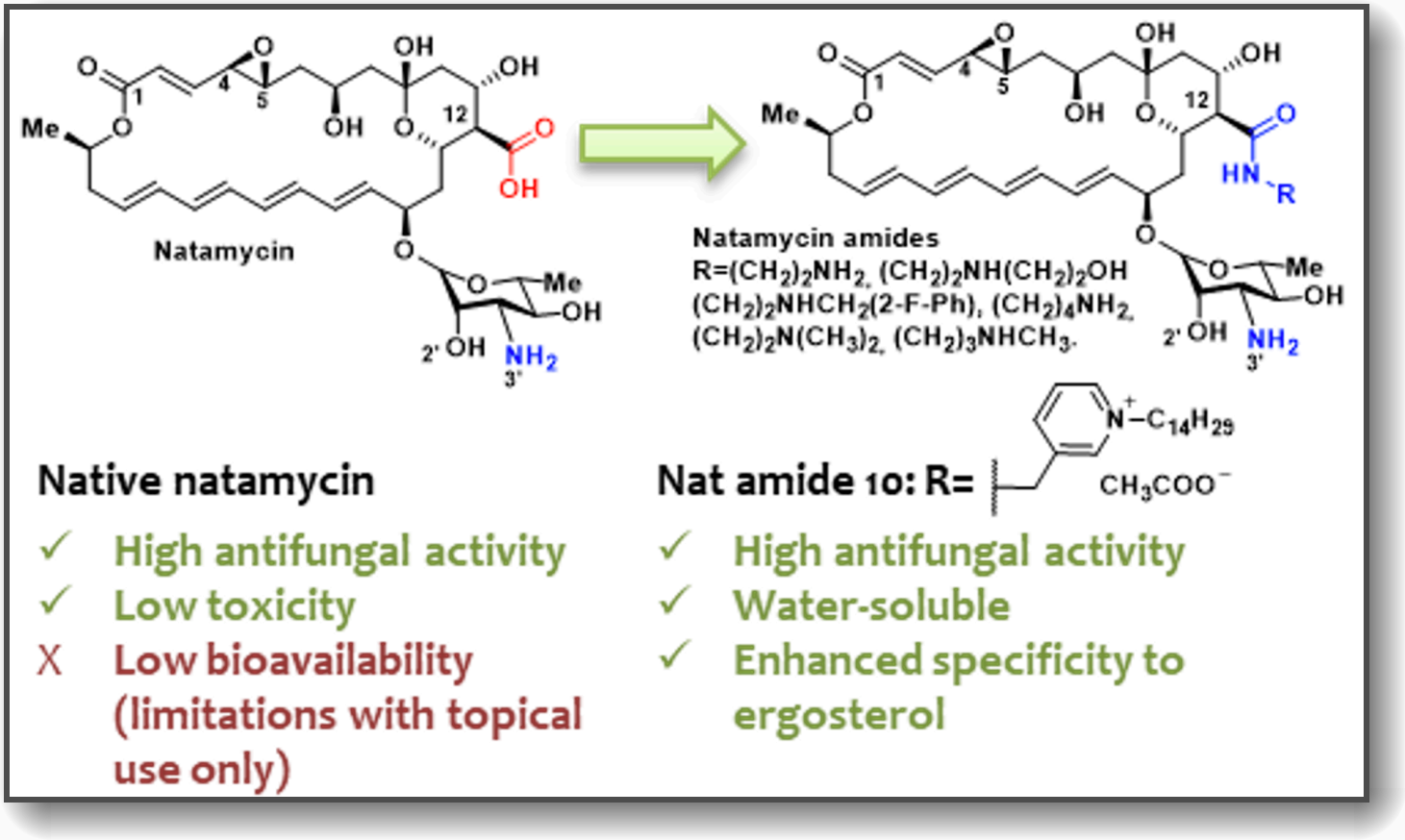


Sebastian Springer

Professor of Biochemistry and Cell Biology



Anna Tevyashova
Medicinal Chemistry



Julia Timpe
Distinguished Lecturer in History
Research Fields:

- Modern European History/ Modern German History
- History of Nazi Germany, World War II & the Holocaust/ History of Everyday Life / Digital History

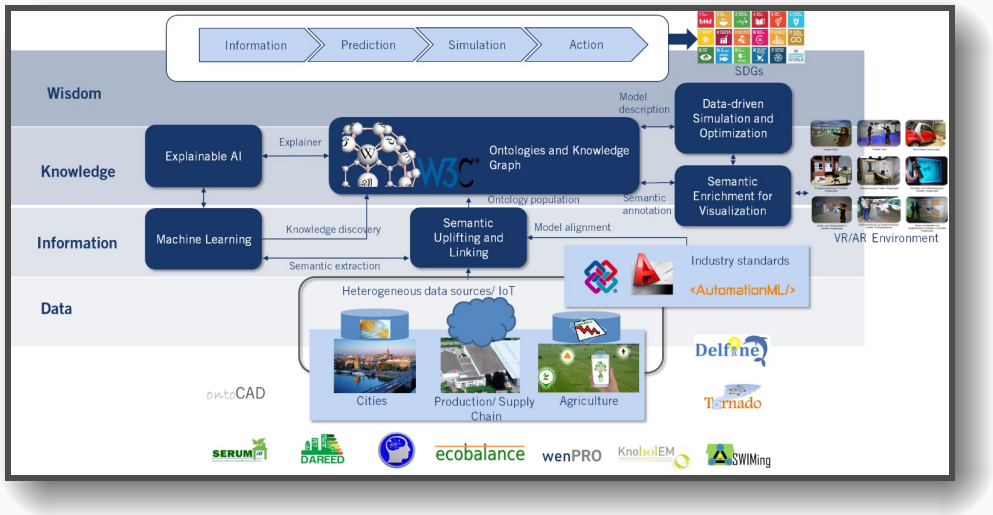
Matthias S. Ullrich

Molecular Microbiology, Marine Microbiology, Plant Microbiology

Yilmaz Uygun
Logistics Engineering and Technologies Group

Hendro Wicaksono

- *Methods*: applied machine learning, causal machine learning, explainable artificial intelligence, natural language processing, semantic data integration, linked data and knowledge graph, data-driven simulation and optimization
- *Applications:* supply chain management, sustainability management, smart cities and transportation management, smart energy systems, agriculture 4.0



Isabel Wünsche

Art & Art History, Russian Art & Culture Group

Open Forum

The Open Forum begins in the IRC Foyer and East Wing.

Coffee: Coffee Bar and Mobile Coffee Bar outside.

Cake/Cookies/Drinks: East Wing.

Tables

1. Giuseppe Abreu
2. Peter Baumann
3. Andreas Birk
4. Klaus Boehnke
5. Klaus Boehnke, Franziska Deutsch, Ulrich Kühnen
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