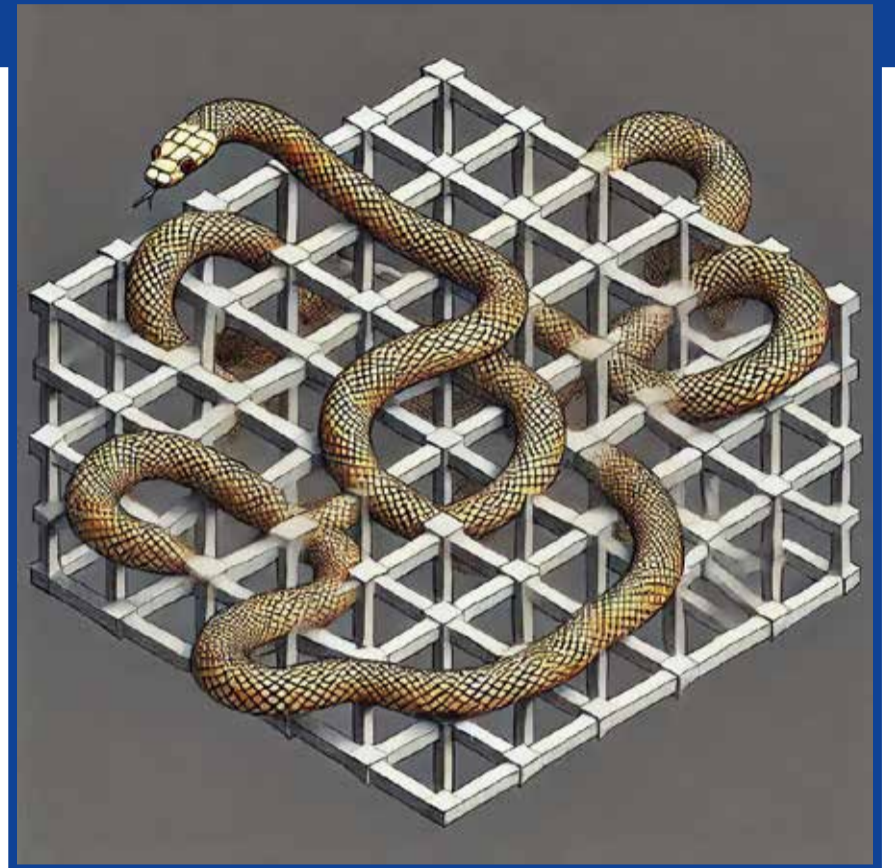




Efficient Numerical Analysis in Complexity Science

International Workshop 19 - 23 May 2025

This workshop will review past achievements, novel approaches, and future directions in computational aspects of complexity science and their applications to specific systems. It will be held also in honor of Peter Grassberger, who has tremendously driven this field in the past 50 years, and who will celebrate his 85th anniversary in 2025.



Topics

- Percolation theory
- Sampling techniques of rare events
- Data analysis with fast and stable algorithms
- Statistical inference of power laws and their physical origins
- Sub-diffusion and ultra-slow diffusion
- Machine learning from the dynamical systems' point of view
- Networks and dynamics on networks

Invited speakers:

Nuno A.M. Araújo (PT)
 Christian Beck (UK)
 Liz Bradley (US)
 Hugues Chaté (FR)
 Joern Davidsen (CN)
 Doyne Farmer (UK)
 Peter Grassberger (DE)
 Hsiao-Ping Hsu (DE)
 Wolfhard Janke (DE)
 Alexander Kraskkov (UK)
 Katharina Krischer (DE)
 Klaus Lehnertz (DE)
 Ralf Metzler (DE)
 Arkady Pikovsky (DE)
 Antonio Politi (IT)
 Édgar Roldán (IT)
 Friederike Schmid (DE)
 Thomas Schreiber (DE)
 Julien Tailleur (FR)
 Robert M Ziff (US)

Scientific coordinators:

Fakhteh Ghanbarnejad
 Leipzig, DE

 Holger Kantz
 Dresden, DE

Organisation:

Christina Kuß
 MPIPKS Dresden

Applications received before 15 February 2025 are considered preferentially.

Applications are welcome and should be made by using the application form on the event's web page. The number of attendees is limited. The registration fee for the international workshop is 200 Euro and should be paid by all on-site participants. Costs for accommodation and meals for on-site participants will be covered by the Max Planck Institute.

For further information please contact:

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