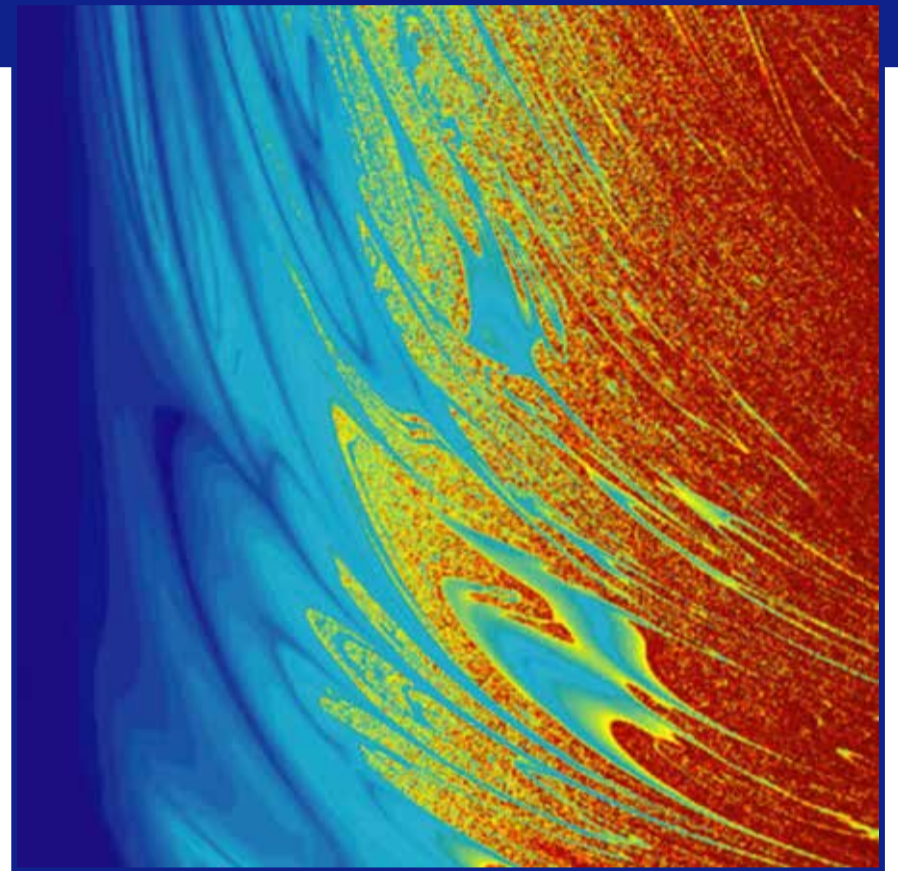




# Phase space analysis in complex systems - From quantum dynamics to turbulent flows

## International Focus Workshop 7 - 9 April 2020

The focus of this workshop is on the current state of phase space analysis in complex nonlinear systems applied to transitional and turbulent flows, active living matter and quantum systems. The meeting is held in memoriam of Prof. Bruno Eckhardt, whose pioneering work over the past decades has led to significant developments in this field.



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### Topics:

- Periodic orbit theory
- Chaotic repellers and strange saddles
- Simple quantum systems
- Synchronization phenomena
- Front propagation
- Patterns in active living matter
- Transition to turbulence
- Edge states in simple shear flows
- Exact coherent states
- Fluid turbulence
- Turbulent convection
- Turbulent superstructures

### Invited speakers:

Mahesh M. Bandi (JP)  
 Eberhard Bodenschatz (DE)  
 Guido Boffetta (IT)  
 Predrag Cvitanović (US)  
 Charles R. Doering (US)  
 Michael D. Graham (US)  
 Björn Hof (AT)  
 Rich Kerswell (UK)  
 Daniel Lathrop (US)  
 Peter Lenz (DE)  
 Moritz Linkmann (DE)  
 Detlef Lohse (NL)  
 Valerio Lucarini (UK)  
 Beverley J. McKeon (US)  
 Bernhard Mehlig (SE)  
 Jeff Moehlis (US)  
 Alexander Morozov (UK)

Arkady Pikovsky (DE)  
 Itamar Procaccia (IL)  
 Katepalli R. Sreenivasan (US)  
 Tamás Tél (HU)  
 Laurette Tuckerman (FR)  
 Holger Waalkens (NL)  
 Jakub Zakrzewski (PL)  
 Walter Zimmermann (DE)

### Scientific coordinators:

Jörg Schumacher  
 Ilmenau, Germany

Tobias Schneider  
 Lausanne, Switzerland

### Organisation:

Mandy Lochar  
 MPIPKS Dresden

Applications received before 15 December 2019 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 focus workshop is 140 Euro and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute. Limited funding is available to partially cover travel expenses.

### For further information please contact:

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