



Non-equilibrium Many-body Physics Beyond the Floquet Paradigm

International Workshop 24 - 28 June 2024

Understanding the complex behavior of non-equilibrium quantum many-body systems is a prominent challenge in modern physics. A paradigmatic approach to exploring non-equilibrium dynamics is through periodic (Floquet) drives. In the past decades, extensive research has delved into this field, uncovering intriguing Floquet phases of matter with unique spatio-temporal order or topological properties. Recent advancements have expanded the study beyond the Floquet paradigm, investigating quasi-periodic and structured-random driving protocols, as well as the interplay between Floquet driving and dissipation. This workshop aims to bring together researchers in this vibrant field to discuss foundational concepts and share the latest ideas. Specifically, it will focus on identifying universal classification of non-thermal pathways in driven systems and expanding the zoo of non-equilibrium phases of matter beyond Floquet phases.

Topics:

- Quasi-periodic driving
- Open quantum systems
- Floquet heating
- Noise
- Floquet theory
- Ergodicity
- Quantum thermalization
- Prethermalization
- Spatio-temporal order
- Topological phases



Invited speakers:

D. Abanin (US) A. Ajoy (US) Z. Cai (CN) S. Choi (US) P. Crowley (US) E. Demler (CH) I. Esin (US) C. Fulga (DE) S. Gopalakrishnan (US) M. Heyl (DE) W.W. Ho (SG) J. Knolle (DE) C. Kokail (US) N. Linke (US) D. Long (US) M. Michael (DE) F. Mintert (UK)

M. Rudner (US) I. Sodemann (DE) R. Vasseur (US) K. Viebahn (CH) Z. Yang (CN) N. Yao (US)

Scientific coordinators:

Roderich Moessner MPIPKS Dresden

Gil Refael CALTECH

Hongzheng Zhao Peking University

Organisation:

Y. Peng (US) H. Pichler (AT) A. Pizzi (US)

Claudia Domaschke **MPIPKS** Dresden

Applications received before 30th April 2024 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 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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We also offer individual fellowships (phd, postdoc, sabbatical). Applications are accepted continuously. For details, please check www.pks.mpg.de/visitors