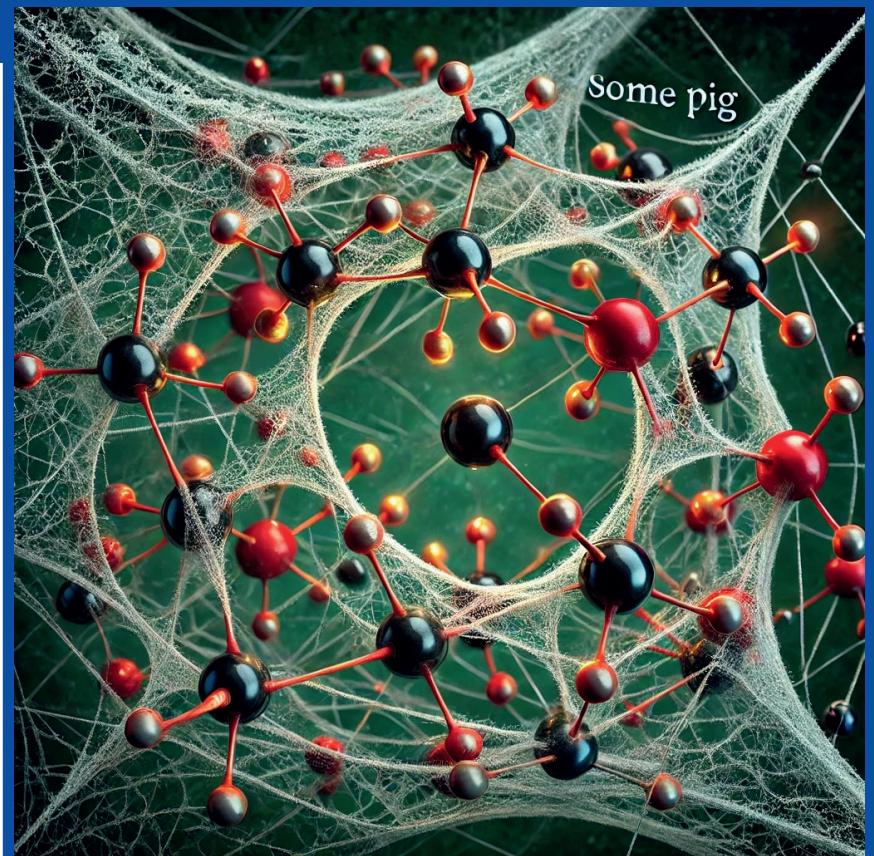




New frontiers in out-of-equilibrium quantum many-body dynamics

International Workshop 11 - 15 August 2025

The "New Frontiers in Out-of-Equilibrium Quantum Many-Body Dynamics" workshop aims to foster collaboration between experts in condensed matter physics, quantum optics, quantum information, and statistical mechanics. It will explore topics including entanglement dynamics, quantum simulation, and disorder effects, focusing on current challenges and future directions in the field.



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Topics:

- entanglement dynamics
- Hamiltonian and unitary dynamics with and without feedback
- digital and analog quantum simulation
- periodically, quasi-periodically and hyper-periodically driven systems
- disorder effects in many-body dynamics
- order, phases of matter, and phase transitions away from equilibrium
- numerical techniques for out-of-equilibrium quantum many-body dynamics

Confirmed participants:

- | | |
|-----------------------|------------------------|
| D Abanin (DE) | A Polkovnikov (US) |
| M Aidelsburger (DE) | F Pollmann (DE) |
| E Altman (US) | P Preiss (DE) |
| C Artiaco (SE) | T Rakovsky (HU) |
| J Bardarson (SE) | N Rivera (US) |
| A Browaeys (FR) | P Sala (US) |
| A Chan (GB) | A Scardicchio (IT) |
| A Chandran (US) | F Schindler (GB) |
| P Claeys (DE) | U Schneider (GB) |
| W de Roeck (BE) | D Sels (US) |
| B Fine (DE) | M Serbyn (AT) |
| S Gopalakrishnan (US) | S Sondhi (GB) |
| M Greiner (US) | F Surace (US) |
| D Hahn (GB) | R Vasseur (US) |
| J Hallen (US) | S Vijay (US) |
| R Hamazaki (JP) | C von Keyserlingk (GB) |
| M Heyl (DE) | J Zeiher (DE) |
| WW Ho (SG) | H Zhao (CN) |
| F Huveneers (GB) | |
| C Jonay (US) | |
| V Khemani (US) | |
| A Lazarides (GB) | |
| Z Lenarcic (SI) | |
| A Lerose (BE) | |
| D Long (US) | |
| F Machado (US) | |
| A Mitra (US) | |
| R Moessner (DE) | |
| A Nahum (FR) | |
| S Parameswaran (GB) | |
| A Pizzi (GB) | |
| B Placke (GB) | |

Scientific coordinators:

- Marin Bukov (DE)
MPIPKS Dresden

David Huse (US)
Princeton University

Chris Laumann (US)
Boston University

Organisation:

Kristina Aliabiev
MPIPKS Dresden

Applications received before 30 April 2025 are considered preferentially.

Applications are welcome and should be made by using the application form on the website of the event. The **application deadline** is **30th April 2025**. 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:
Visitors Program – Kristina Aliabiev
MPI for the Physics of Complex Systems
Nöthnitzer Str. 38, D-01187 Dresden
Tel: +49-351-871-1932
qudyn25@pks.mpg.de
www.pks.mpg.de/qudyn25/

