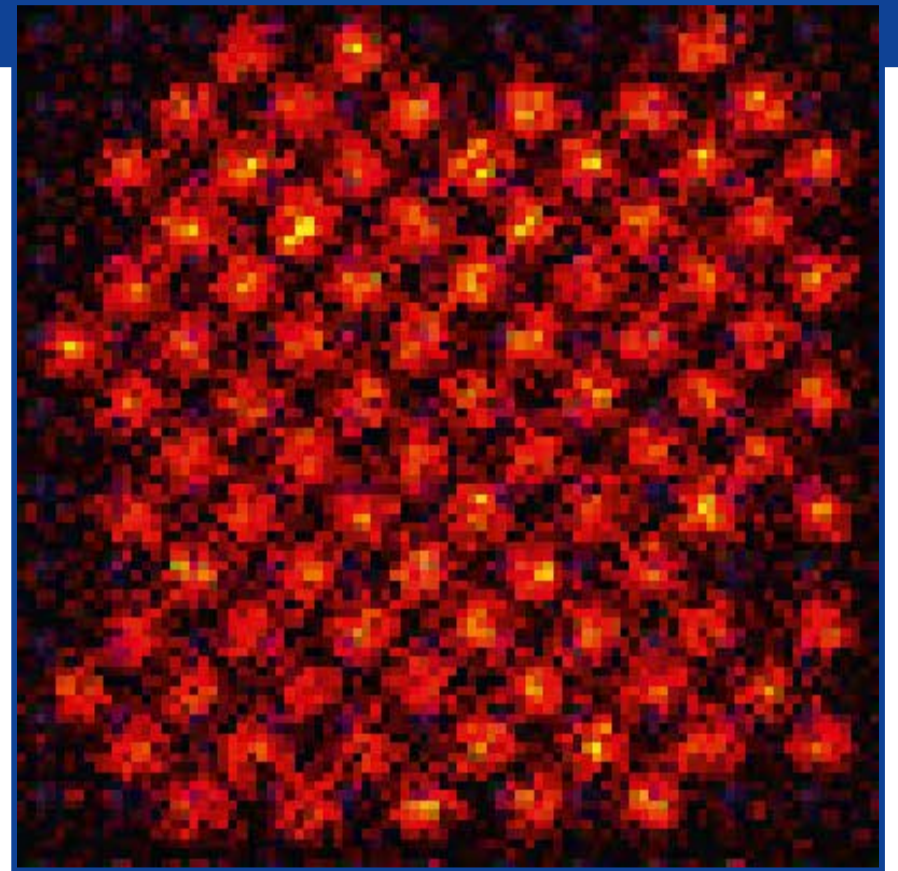




Boundaries of quantum thermalization

PhD Retreat 21 - 23 January 2025

The behavior of (isolated) quantum many-body systems taken out-of-equilibrium is an open question of great interest for many experimental and theoretical studies. The DFG research unit FOR 5522 investigates this physics in a close collaboration between experiments using ultracold atoms and theoretical approaches. This PhD retreat is a platform to encourage discussions and networking between students from the FOR 5522 research unit. Two invited lectures will further students' knowledge of current experimental developments and deepen their theoretical understanding of the field.



Topics:

- out-of-equilibrium quantum many body systems
- Hilbert space fragmentation
- many body localization
- quantum many body scars
- kinetic constraints
- numerical methods
- ultracold quantum gases
- quantum simulation
- thermalization
- ergodicity
- eigenstate thermalization hypothesis

Invited Lecturers:

Philipp Preiss, MPQ Garching

Maxim Serbyn, IST Austria

Scientific coordinators:

Daniel Adler
(Max-Planck-Institut für
Quantenoptik Garching, DE)

Suchita Agrawal
(Max-Planck-Institut für
Quantenoptik Garching, DE)

Fabian Heidrich-Meisner
(Georg-August-Universität
Göttingen, DE)

Organisation:

Mandy Lochar
MPIPKS Dresden

Participating members of the FOR5522 are asked to register by 24th November 2024.

Costs for accommodation and meals will be covered by the FOR5522.

Registration is only possible for members of FOR5522 and invited speakers.

The registration link will be sent by email as participation will be possible upon invitation only.

The number of attendees is limited.

For further information please contact:

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