

Symposium Facets of many-body quantum chaos (SYQC)

jointly organised by
the Low Temperature (TT),
the Dynamics and Statistical Physics Division (DY), and
the Magnetism Division (MA)

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Many-body systems share the essential and surprising property that often simple effective descriptions emerge as a result of complex chaotic dynamics. Recent years have seen significant progress in the understanding of such complex dynamics in the quantum many-body context, both theoretically and experimentally, with impact onto areas as diverse as quantum gravity (via ADS/CFT dualities) or quantum information theory. It is the central goal of this Symposium to embody a broad spectrum of these recent developments with a particular focus on its cross-disciplinary aspects ranging from quantum statistical mechanics, atomic and condensed matter physics to high-energy physics.

Overview of Invited Talks and Sessions

(Lecture hall Audimax 2)

Invited Talks

SYQC 1.1	Tue	13:30–14:00	Audimax 2	Holographic interpretation of SYK quantum chaos — •ALEXANDER ALTLAND
SYQC 1.2	Tue	14:00–14:30	Audimax 2	Non-Fermi liquids and the lattice — •SEAN HARTNOLL
SYQC 1.3	Tue	14:30–15:00	Audimax 2	Dual-unitary circuits: non-equilibrium dynamics and spectral statistics — •BRUNO BERTINI
SYQC 1.4	Tue	15:15–15:45	Audimax 2	Post-Ehrenfest many-body quantum interferences in ultracold atoms — •STEVEN TOMSOVIC
SYQC 1.5	Tue	15:45–16:15	Audimax 2	Dynamics in unitary and non-unitary quantum circuits — •VEDIKA KHEMANI

Sessions

SYQC 1.1–1.5	Tue	13:30–16:15	Audimax 2	Facets of many-body quantum chaos
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