## **ETH** zürich

for Theoretical Studies

## Out-of-equilibrium and collective dynamics of quantum many-body systems

## June 27 – July 1, 2022 ETH Hönggerberg

In recent years, experimental progress on quantum simulations has stimulated a strong theoretical interest in the non-equilibrium dynamics of quantum many-body systems. The collective character of these systems gives rise to novel non-equilibrium phenomena, such as pre- or non-thermal phases of matter and forms of dynamical criticality, without classical counterparts. The goal of this workshop is to bridge the various theoretical perspectives from different research communities, including integrable systems, quantum information, hydrodynamics, cold-atom theory, and mathematical physics, and to nurture inter-communal and inter-disciplinary collaborations.

**Registration** Until May 31, 2022**Organizers** N. Defenu, G. M. Graf, and P. Moosavi



**Speakers include Denis Bernard Bruno Bertini** Pasquale Calabrese Adolfo del Campo Olalla Castro-Alvaredo **Benjamin Doyon** Thierry Giamarchi Michael Kastner **Christian Maes** Jamir Marino Vieri Mastropietro Aditi Mitra Tomaž Prosen Paola Ruggiero Shinsei Ryu Lea Santos Tomohiro Sasamoto Imke Schneider Dries Sels **Spyros Sotiriadis** Gábor Takács



## Credit: ETH Zürich / Alessandro Della Bella



**D**PHYS