



UC SANTA BARBARA
Kavli Institute for
Theoretical Physics

[HOME](#)
[DIRECTORY](#)
[ACTIVITIES](#)
[PROPOSE ACTIVITY](#)
[APPLY](#)
[FOR VIS](#)

KITP Conference: Non-Equilibrium Universality in Many-Body Physics

(Sep 27-30, 2021)

Coordinators: Letitia F. Cugliandolo, Kaden Hazzard, Mohammad Maghrebi, and Jörg Schmiedmayer

Monday, Sep 27, 2021

8:50am Mark Bowick (KITP)	Introduction
9:00am Tomaz Prosen (U Ljubljana)	Exact spectral form factors in interacting lattice systems
9:30am Frank Pollmann (TUM)	Non-Equilibrium Dynamics in Dipole- and Higher-Moment Conserving Systems
10:00am Dmitry Abanin (U Geneva)	Influence matrix approach to ergodic and non-ergodic quantum dynamics
10:30am	Coffee Break
	Lunch
1:30pm Ehud Altman (Berkeley)	TBD
2:15pm Benjamin Lev (Stanford)	An optical lattice with sound
3:00pm	Coffee break
3:30pm Anatoli Polkovnikov (BU)	Adiabatic flows and many-body dark states in a non-integrable Ising model
4:15pm Sebastian Erne (TU Wien)	Universal dynamics and non-thermal fixed points
5:00pm Jon Simon (U Chicago)	TBD
5:45pm	Dinner
8:00pm	SHUTTLE TO BWSCI

Tuesday, Sep 28, 2021

9:00am Matteo Mitrano (Harvard)	Dynamical control of electronic interactions in quantum materials
9:30am Camille Aron (ENS Paris)	Non-Analytic Non-Equilibrium Field Theory
10:00am Giulio Biroli (ENS Paris)	Dynamical Mean-Field Theory in Non-Equilibrium Many-Body Statistical Physics:

	aging, glassy dynamics, and high-dimensional chaos
10:30am Anushya Chandran (BU)	Quantized energy pumps far out of equilibrium
11:00am	Coffee break
	Lunch
1:30pm Ana Rey (CU Boulder)	Simulating dynamical phases of BCS superconductors with cavity QED systems and trapped ion arrays
2:15pm Guido Pagano (Rice U)	Out-of-Equilibrium Phenomena in Trapped-Ion Spin Systems
3:00pm	Coffee break
3:30pm Aditi Mitra (NYU)	Critical Properties of the Prethermal Floquet Time Crystal
4:15pm Chong Yu Ruan (MSU)	Nonequilibrium dynamics following an interaction quench in quantum materials
5:45pm	Dinner
8:00pm	SHUTTLE TO BWSCI

Wednesday, Sep 29, 2021

9:00am Marzena Szymanska (UCL)	TBD
9:30am Zala Lenarcic (Jožef Stefan Inst.)	Extracting complexity of quantum dynamics using machine learning
10:00am Sebastian Diehl (U Cologne)	Measurement induced phase transitions in fermion systems
10:30am Raju Venugopalan (BNL)	Thermalization in quantum chromodynamics: Ab initio approaches and interdisciplinary connections
11:00am	Coffee break
	Lunch
1:30pm Andy Lucas (CU Boulder)	Breakdown of hydrodynamics below four dimensions in a fracton fluid
2:15pm Thomas Schaefer (NC State)	Quantum transport in ultracold atomic Fermi gases
3:00pm	Coffee break
3:30pm Sarang Gopalakrishnan (Penn State)	Superdiffusion in spin chains
4:15pm Vedika Khemani (Stanford)	TBD
5:00pm Austen Lamacraft (Cambridge)	Absence of superdiffusion in certain random spin models
5:45pm	Dinner

8:00pm

SHUTTLE TO BWSCI**Thursday, Sep 30, 2021**

9:00am Herbert Spohn (TUM) Hydrodynamic scale for integrable classical many-body systems

9:30am Benjamin Doyon (King's College) Correlation functions from hydrodynamics beyond the Boltzmann-Gibbs paradigm

10:00am David Weiss (Penn State) Practical integrability

10:30am Jerome Dubail (Inst. Jean Lamour) Quantum fluctuations around Generalized Hydrodynamics

11:00am

Coffee break**Lunch**

1:30pm Pedram Roushan
(Google Inc - Santa Barbara) Observation of Time-Crystalline Eigenstate Order on a Quantum Processor

2:15pm Natan Andrei (Rutgers) Quench dynamics of an optical lattice - local and global aspects

3:00pm

Coffee break

3:30pm Julian Leonard (Harvard) Many-body localization under the microscope

4:15pm Zhihong You (UCSB) Nonreciprocity as a generic route to traveling and oscillatory states

5:00pm **CONFERENCE END-SHUTTLE TO BWSCI *Also available to SB Airport and SB Airbus, Goleta location. (See Registration Desk BEFORE THURSDAY to sign up.)**