Center for Theoretical Physics of Complex Systems

Institute for Basic Science

International Workshop

Quantum Many-Body Dynamics: Thermalization and its Violations

May 24 — 28, 2021

All time give in the workshop program refer to the time zone KST

Program

Monday, May 24

15:40 – 16:00 Sergej Flach, PCS IBS
Opening address

16:00 – 16:50 Marcello Dalmonte, ICTP, Italy
Ergodicity breaking in Abelian lattice gauge theories

17:00 – 17:50 Alexios Michailidis, IST Austria, Austria
Area-law entangled eigenstates from nullspaces of local Hamiltonians

18:00 – 18:50 Arijeet Pal, University College London, UK
Quantum Scars with Frustration and Topological order

Tuesday, May 25

16:00 – 16:50 Marcin Mierzejewski, WUST, Poland

Phenomenology of spectral functions in finite disordered spin chains

17:00 – 17:50 Jens Bardarson, Royal Institute of Technology, Sweden

Time-evolution of local information - thermalization dynamics of local observables

18:00 – 18:50 David J Luitz, Max Planck Institute, Germany

Avalanches and resonances in MBL systems

Wednesday, May 26

16:00 – 16:50 Tomaž Prosen, University of Ljubljana, Slovenia

Exactly solved models of chaotic many-body dynamics

17:00 – 17:50 Silvia Pappalardi, ENS, France

Dynamics, entanglement, and chaos in systems with collective and long-range interactions

18:00 – 18:50 Jakub Zakrzewski, Jagiellonian University, Poland

Many-body localization without disorder

Thursday, May 27

16:00 – 16:50 Frank Pollmann, TU Munich, Germany

Far-from-equilibrium dynamics of systems with conservation laws

16:50 – 16:55 *Group picture*

17:00 – 18:00 *IBS Physics Colloquium @ Daejeon*

David Logan, Oxford University, UK

Fock-space correlations and many-body localisation

Friday, May 28

16:00 – 16:50 Naoto Shiraishi, Gakushuin University, Japan

Some anomalous thermalization phenomena

17:00 – 17:50 Sumilan Banerjee, Indian Institute of Science, India

Quantum to classical crossover in many-body chaos in a glass

18:00 – 18:50 Takahiro Sagawa, University of Tokyo, Japan

Characterizing complexity of many-body quantum dynamics by higher-order eigenstate thermalization