Boulder School for Condensed Matter and Materials Physics Non-Equilibrium Quantum Dynamics

July 3-28, 2023

The field of non-equilibrium quantum dynamics has rapidly progressed in recent years due to a confluence of interdisciplinary advances. These include developments in the theory of random quantum circuits, and experimental breakthroughs in engineering highly controllable, quantum coherent simulators. This school aims to cover a variety of topics at the intersection of modern condensed matter, AMO physics and quantum information including: the dynamics of quantum information, quantum entanglement and thermalization, non-equilibrium phases of matter, open quantum systems, quantum simulations on near-term synthetic quantum platforms, classical simulation of quantum dynamics, quantum error correction, and quantum complexity.

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*to be confirmed



(Top Left) From Boyers et al, PRL 125, 160505 (2020); (Bottom left) Google Quantum Al's Sycamore Chip; (Bottom right) From Long et al, PRL 126, 106805 (2021)

Scientific Organizers: Anushya Chandran (Boston University) Matthew Fisher (UCSB) Vedika Khemani (Stanford) Sagar Vijay (UCSB) Director: Leo Radzihovsky (CU Boulder)

The school will pay for most local expenses, and there are travel grants available for participants from U.S. universities. Students and postdocs interested in participating should submit an electronic application by the January 15 deadline. The application form, and detailed information regarding housing, travel and financial support are available at

http://boulderschool.yale.edu/

The Boulder School in Condensed Matter and Materials Physics provides expert training, not usually available within the traditional system of graduate and postgraduate education, for advanced graduate students and postdoctoral researchers working in condensed matter physics, materials science and related fields. The School is supported by the National Science Foundation and meets annually during July in Boulder, Colorado.