Seminar/Talk

Virtual seminar with Adam Smith

Adam Smith
TUM - Technische Universität München

Host: Maksym Serbyn

Studying condensed matter physics on NISQ quantum computersQuantum computers promise to perform computations beyond the reach of modern computers with profound implications for scientific research. Due to remarkable technological advances, small scale devices are now becoming available for use. In our work we investigate the applications of noisy intermediate scale quantum (NISQ) devices in the study of condensed matter systems. These range from the digital simulation of non-equilibrium Hamiltonian dynamics, finding many-body ground states, crossing topological phase transitions, and analogue simulation of time-dependent Hamiltonians. Using the IBM Q quantum computers we demonstrate that, through the use of new quantum algorithms, these devices may in the near future provide a powerful toolset for studying complex quantum systems.ReferencesarXiv: 2008.10322arXiv: 1910.05351arXiv: 1906.06343Join Zoom Meetinghttps://istaustria.zoom.us/j/95897872315?pwd=M1NZdk9UeVdVS0l5KzRUZ2V4aFVSdz09Meeting ID: 958 9787 2315Passcode: 835393

Wednesday, December 9, 2020 03:00pm - 05:00pm
via Zoom

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.
Please find a schedule of the ISTA Shuttle on our webpage:
https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.