



Contribution ID: 401

Type: Talk

Search for Stable States in Two-Body Excitations of the Hubbard Model on the Honeycomb Lattice

Tuesday, 30 July 2024 16:55 (20 minutes)

We present one- and two-body measurements for the Hubbard model on the honeycomb (graphene) lattice from ab-initio HMC. Excitons, or particle/hole excitations in low-dimensional systems are analogous to the pion in QCD, but without confinement whether they are bound is a dynamical question. By measuring one- and two-body correlators across various spin- isospin channels we can compute energy shifts, and check for stable states.

Primary author: SINILKOV, Petar

Co-authors: BERKOWITZ, Evan (Forschungszentrum Jülich); LUU, Thomas (Forschungszentrum Jülich / University of Bonn)

Presenter: SINILKOV, Petar

Session Classification: Applications outside particle physics

Track Classification: Applications Outside Particle Physics