

Supersolidity 2010: topics

This workshop is mainly focused on the properties of real quantum solids where the translation symmetry is spontaneously broken by interatomic interactions. In this sense, the Mott localisation of cold atoms in optical lattices is excluded. As a consequence, most communications, although not all of them, should deal with solid helium.

Among various topics, are the following usual ones:

- Microscopic mechanisms of supersolidity
- First principles simulations of solid helium
- Torsional oscillator experiments: NCRI, dissipation, frequency and amplitude effects
- Flow, elastic, heat capacity and other measurements
- Dislocations, supersolidity and "quantum metallurgy"
- Glassy behavior of solid helium
- Experimental probes of microscopic structure and disorder in helium
- 2D supersolid systems