

Abstract Submitted  
for the MAR14 Meeting of  
The American Physical Society

**Dynamic Structure Factor in BCC Helium from Quantum Monte Carlo**<sup>1</sup> DANIEL AROVAS, Univ of California - San Diego, SNIR GAZIT, DANIEL PODOLSKY, ASSA AUERBACH, HELOISE NONNE, Technion — An unexpected optic-like mode has been observed by inelastic neutron scattering in BCC Helium-4. We report on worm algorithm quantum Monte Carlo calculations of the dynamic structure factor in order to compare with experiment. A theoretical model based on a dynamical Landau-Ginzburg action is also analyzed.

<sup>1</sup>Israel Science Foundation, US-Israel Binational Science Foundation

Daniel Arovas  
Univ of California - San Diego

Date submitted: 14 Nov 2013

Electronic form version 1.4