

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Consequences of two-dimensionality for the quantum oscillations in underdoped YBCO NEIL HARRISON, Los Alamos National Labs, SUCHITRA SEBASTIAN, Cavendish Lab, Cambridge, MOAZ ALTARAWNEH, LANL, RX. LIANG, D.A. BONN, W.N. HARDY, UBC, Canada, GIL LONZARICH, Cavendish Lab, Cambridge — We report new high resolution measurements on underdoped YBCO over an unprecedented magnetic field range with a high signal-to-noise ratio. The reduced-dimensionality of the Fermi surface is found to strongly influence the quantum oscillations and result in unusual properties. Careful analysis of these unconventional properties is found to severely constrain the Fermi surface topology.

Neil Harrison
Los Alamos National Labs

Date submitted: 19 Nov 2010

Electronic form version 1.4