MAR15-2014-020575

Abstract for an Invited Paper for the MAR15 Meeting of the American Physical Society

Charge ordered normal ground state and its interplay with superconductivity in the underdoped cuprates

SUCHITRA SEBASTIAN, University of Cambridge

Over the last few years, evidence has gradually built for a charge ordered normal ground state in the underdoped region of the cuprate high temperature superconductors. I will address the electronic structure of the normal ground state of the underdoped cuprates as accessed by quantum oscillations, and relate it to complementary measurements by other experimental techniques. The interplay of the charge ordered ground state with the antinodal gapped pseudogap state, and overarching magnetic and superconducting correlations will be further explored.

This work was performed in collaboration with N. Harrison, G. G. Lonzarich, B. J. Ramshaw, B. S. Tan, P. A. Goddard, F. F. Balakirev, C. H. Mielke, R. Liang, D. A. Bonn, and W. N. Hardy