

ANGLE RESOLVED PHOTOEMISSION AND HIGH T_c SUPERCONDUCTIVITY

Mohit Randeria

*Department of Physics, The Ohio State University
Columbus, Ohio 43210*

The high T_c cuprate superconductors are systems of strongly interacting electrons that show unusual phases, phase transitions and crossovers, whose theoretical description poses a challenge for the existing paradigms of condensed matter physics. In this talk I will describe a few key ARPES results to illustrate how and why this technique has played such a preeminent role in shaping our understanding of these novel materials.

For recent reviews, see:

[1] J. C. Campuzano, M. R. Norman and M. Randeria; in "Physics of Conventional and Unconventional Superconductors", edited by K. H. Bennemann and J. B. Ketterson, (Springer Verlag, 2004); cond-mat/0209476.

[2] A. Damascelli, Z. Hussain and Z. X. Shen, Rev. Mod. Phys. 75, 473 (2003).