

Seminar Schedule

Dr. S. Yunoki

(SISSA, Italy)

Date: Apr. 23 (Wed.) 16:00 ~

Room: Seminar room, 2nd floor, prefab bldg

“ Superconductivity in 2-dimensional t - J model:
a role of the second nearest neighbor hopping ”

Abstract

Motivated by recent photoemission experiments for n -type high- T_c cuprates, providing a clear microscopic evidence for the electron-hole asymmetry in the electronic structures, here we study the origin of this asymmetry and the consequences theoretically using recent developed variational quantum Monte Carlo method. We first show the existence of the antiferromagnetic long-range order extending away from zero doping and the asymmetry of the regions in the phase diagrams. Next we will present the momentum distribution functions as a function of doping to examine the evolution of the shape of Fermi surface. Our results will be compared with the photoemission experiments.

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