

Area Seminar

Title Infrared properties of cuprates in the pseudogap state: A study of Mitrovic-Fiorucci and Sharapov- Carbotte scattering rates

Date and Time 17/06/2014 11:00:00

Speaker Pankaj Bhalla

PRL

Area Theoretical Physics

Venue Room No. 469

Abstract The frequency dependent scattering rate of generalized Drude model contains important physics on the electronic structure and on scattering mechanism. In this talk, we will discuss the frequency dependent scattering rate of cuprates (Mitrovic-Fiorucci/ Sharapov-Carbotte scattering rate) in the pseudogap phase using the non-constant energy dependent Yang-Rice-Zhang (YRZ) density of states. We will see the problems observed with traditional approach in the behavior of scattering rate and how our approach has sorted these issues. We will also discuss the experimental results of behavior of scattering rate and qualitative agreement of our results with them.