Area Seminar

Title	Fluctuations in Relativistic Causal Hydrodynamics
Date and Time	11/08/2014 16:00:00
Speaker	Avdhesh Kumar PRL
Area	Theoretical Physics
Venue	Room No. 469
Abstract	Hydrodynamic fluctuations arise due to finite particle number fluctuations in a given fluid cell. Intensity of these fluctuations is determined by equal time correlation functions which represents the correlation between the value of a given quantity to one space-time point to another. The dynamical properties of these fluctuations can be studied by time dependent correlation functions. In this seminar I shall discuss how the general theory of quasi stationary fluctuation can be used to calculate the hydrodynamic fluctuations in several relativistic causal hydrodynamics and Navier-Stokes hydrodynamics (acausal). We shall also discuss the time dependent nature of the hydrodynamic fluctuations for case of different relativistic hydrodynamics using one dimensional boost invariant (Bjorken) flow.