



Nishikanta Khandai  
NISER

## Cosmological Hydrodynamical Simulations of Galaxy Formation

Monday, 26 September 2016, 10:00  
Room A304

We will briefly review some problems in galaxy formation in the context of the standard model of cosmology. We then look at recent attempts in understanding them with the aid of cosmological simulations of galaxy formation which incorporate gravity, hydrodynamics and subgrid models for star formation and feedback processes both from supernovae and supermassive blackholes. The hope is to capture the rich processes of galaxy formation so as to make more accurate predictions for their formation and evolution. We will then discuss our success and limitations in reproducing observables. Finally we will discuss some other applications of these simulations in the context of lensing and the lyman-alpha forest.