ICTS Seminar

Title : Linear to Nonlinear Supersymmetry: Global, Local and Scattering Amplitudes

Speaker : Divyanshu Murli, Stanford University, USA

Date : Wednesday, January 4, 2017

Time : 3:00 PM

Venue : Nambu Discussion Room(Right), ICTS Campus, Bangalore

Abstract : I will discuss my previous work on nonlinearly realised supersymmetries in supergravity. In particular, the approach I will use will be to start with a given theory where the supersymmetry (either global or local) is linearly realised, and obtain a nonlinear supersymmetric theory in the limit when the masses of certain fields are sent to infinity. I will then discuss a couple of so-called 'constrained' multiplets, namely the nilpotent and orthogonal ones which arise from this limit. Such nonlinear supersymmetries are tantamount to embedding 4d N=1 supergravity in de Sitter space. If time permits, I will also briefly discuss scattering amplitudes in Volkov-Akulov theory, a putative model where supersymmetry is nonlinearly realised.