

## ICTS Seminar

Title : A new  $N=2$  density formula in four dimensions with applications to Real Scalar/Tensor Multiplet

Speaker : Subramanya Hegde, Indian Institute of Science Education and Research, Thiruvananthapuram

Date : Monday, January 28, 2019

Time : 11:00 AM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : Superconformal multiplet calculus provides a systematic method to construct quadratic as well as higher derivative invariants in Poincare supergravity. In this context, matter multiplets in conformal supergravity are of interest. We will discuss the construction of a  $24+24$  real scalar multiplet in  $N=2$  conformal supergravity in four dimensions. We will see the reduction of this multiplet to an  $8+8$  restricted multiplet and a precise embedding of the  $8+8$  tensor multiplet inside this multiplet. We will then discuss a new density formula in  $N=2$  supergravity which has applications to the real scalar/tensor multiplets, and potential applications.