ICTS Seminar

Title : The Late-time Cosmology of f(R) Theory of Modified Gravity

Speaker : Avani Vikrambhai Patel, Indian Institute of Science Education and Research, Bhopal

Date : Monday, July 24, 2017

Time : 3:00 PM

Venue : Amal Raychaudhuri Meeting Room, ICTS Campus, Bangalore

Abstract : Dark Energy models and modified gravity theories are two major alternative approaches to the explaination of accelerating expansion of the universe. We will discuss theoretical background of f(R) theory of modified gravity in the first part of the talk. The second part comprises of discussion of a model proposed by Miranda et al. 2009. We will discuss investigations carried out on this model to check whether it satisfies fifth-force constraints and becomes free from curvature singularity simultaneously or not. We will also discuss the viability tests of the arctan model given by Kruglov 2013. We will find that it violates the fifth-force constraints. In the third and last part of the talk, we will discuss a new f(R) model, constructed by modifying Kruglov's arctan model, and study its cosmological viabilities.