

ICTS Astrophysical Relativity Seminar

Title : A multi-messenger view into Cosmic Dawn

Speaker : Hamsa Padmanabhan (University of Geneva, Switzerland)

Date : Wednesday, 31st March 2021

Time : 02:00 pm

Abstract : Over the last decade, considerable effort has gone into investigating the physics of baryonic (normal) matter in the Universe, particularly after the epoch of Cosmic Dawn, viz. the birth of the earliest stars and galaxies --- widely considered the ‘final frontier’ of cosmological surveys today. The technique of intensity mapping (IM) has emerged as the powerful tool to explore this phase of the Universe by measuring the integrated emission from sources over a broad range of frequencies, unlocking significantly more information than traditional galaxy surveys. Astrophysical uncertainties, however, constitute an important systematic in attempts to constrain cosmology with IM. I will describe an innovative approach which allows us to fully utilize our current knowledge of astrophysics to develop cosmological forecasts from IM. This framework can be used to exploit synergies with other complementary surveys, opening up the fascinating possibility to constrain Fundamental Physics from the Cosmic Dawn.

Venue : Please click on the link to join the seminar

<https://zoom.us/j/97823694836?pwd=ZUIJcm8xRkFvaWNSZi9TbWxiZmpwUT09>

Meeting ID: 978 2369 4836

Passcode: 871270