

ICTS Colloquium

Title : Cosmic Neutral Hydrogen as a Probe of the First Stars in the Universe

Speaker : Tirthankar Roy Choudhury, National Centre for Radio Astrophysics,
Maharashtra

Date : Monday, November 13, 2017

Time : 3:00 PM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : One of the most efficient ways of probing the very first stars in the Universe is through their signatures on the cosmological hydrogen distribution. The method is based on the idea that the ultra-violet photons from these stars photoionize the otherwise neutral hydrogen atoms in the surrounding medium, a process known as "reionization". Detecting the epoch of reionization thus can be quite useful in probing the Universe when the first stars were forming. In this talk, we will review the current status of the observational probes related to reionization along with the most recent progress achieved in the theoretical model building. We will also discuss the future plans for detecting signatures of the first stars, highlighting some the recent results obtained by our group.