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ICTS Astrophysics & Relativity Seminar

Title : Tracing the First Stars: Insights from Observations and Theoretical Models

Speaker : Tirthankar Roy Choudhury (NCRA-TIFR, Pune)

Date : Friday , 28 August 2026

Time : 3:00 PM (IST)

Abstract : Detecting the signatures of the first stars in the Universe provides a crucial window into cosmic evolution. These primordial stars influence the large-scale distribution of cosmological hydrogen through the process of reionization, in which ultraviolet photons ionize neutral hydrogen. Understanding the evolution of reionization not only sheds light on the properties of early galaxies but also offers key constraints on cosmological models. In this presentation, we will review ongoing and upcoming observational efforts to study reionization, along with recent advancements in theoretical modeling. Additionally, we will discuss current and future prospects for detecting the signatures of the first stars using state-of-the-art telescopes such as JWST and SKA, highlighting key findings from our research group.

Venue : Feynman Lecture Hall

Zoom Meeting: <https://icts-res-in.zoom.us/j/96046237272?pwd=YawWKCFmnyCpiYSoLfy8SyptAbLSCg.1>

Meeting ID: 960 4623 7272

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