ICTS String Seminar

Title : A non-perturbative construction of de Sitter late-time boundary

Speaker : Kamran Salehi Vazir (University of Amsterdam, Netherlands)

Date : Monday, 10 March 2025

Time : 3:30 PM (IST)

Abstract : In this talk, I will review some of the recent progress in non-perturbative quantum field theory in de Sitter such as Kallen-Lehmann and partial wave expansion. I will start by explaining why we are interested in de Sitter and pointing out some of the differences and similarities between anti-de Sitter and de Sitter spacetimes. With the goal of bootstrapping de Sitter's conformal boundary, I will propose a de Sitter-specific bulk-to-boundary expansion, with a continuous family of boundary operators. In the end, I will derive an inversion formula for the bulk-to-boundary expansion, where, given a bulk theory, the boundary operator content is constructed as an integral of the bulk operator times the bulk-to-boundary propagator. These boundary operators exhibit two-point functions that include contact terms alongside standard CFT two-point functions.

Venue : Online
Zoom Link: https://icts-res-in.zoom.us/j/88092766911?pwd=R3ZrVk9yeW96ZmQ4ZG9KRzVhenRKZz09
Meeting ID: 880 9276 6911
Passcode: 232322