



ICTS Seminar

Title : UV-complete descriptions of early universe cosmology

Speaker : Suddhasattwa Brahma (McGill University, Canada)

Date : Tuesday, June 29, 2021

Time : 5:00 pm (IST)

Abstract : We are yet to have a fully-consistent, quantum gravity-complete theory of the very early universe. In this talk, I shall first present some consistency conditions which are pivotal in guiding us in our quest for a UV-complete description of the early universe and show how they arise from considering effects of quantum entanglement in the early universe (solely taking into account results for QFTs in curved backgrounds). I shall then outline a couple of new examples -- one based on the "BFSS matrix model" and the other on the "no-boundary proposal" -- which attempt to describe the beginnings of our universe from some fundamental theory of nature, while introducing novel techniques to overcome long-standing technical difficulties. Some of their observable consequences shall also be briefly discussed.

Venue : Please click on the below link to join the meeting

<https://us06web.zoom.us/j/81566366185?pwd=c1NNYzBxNjYvZWFiUy9vTXFqQ0pQZz09>

Meeting ID: 815 6636 6185

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