Extreme Universe Colloquium

March 14th (Thu.) ONLINE

TALK 16:00 - 17:00 (JST)

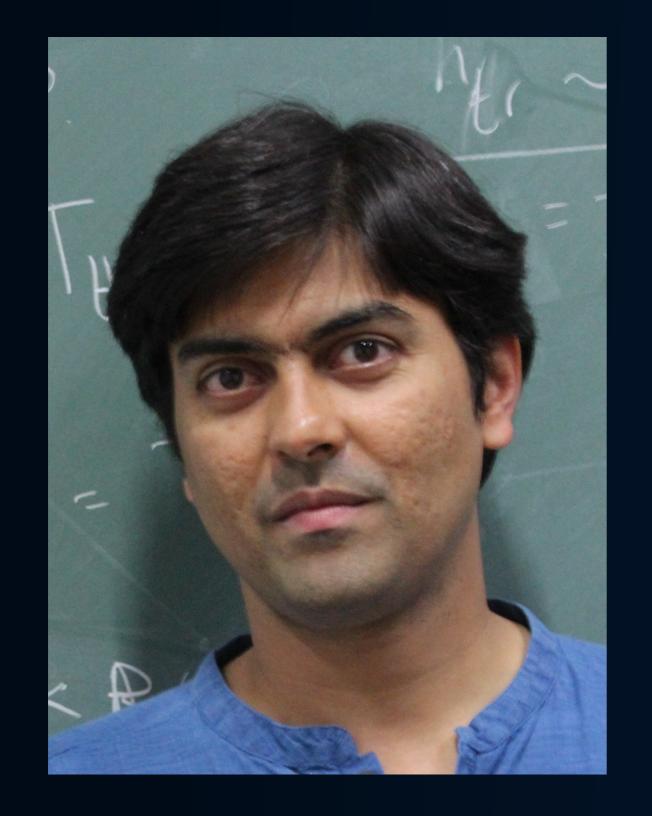
March 14th (Thu.) 12:30 - 13:30 (IST) March 14th (Thu.) 7:00 - 8:00 (UTC)

ONLINE COFFEE TIME 17:00 - 18:00 (JST)

Registration required (click HERE)

Extreme Universe, JAPAN

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Speaker
Prof. Suvrat Raju

ICTS TIFR Bengaluru

Title How is quantum information localized in quantum gravity?

Abstract

A careful analysis of the gravitational constraints reveals that quantum gravity localizes information differently from ordinary quantum field theories --- an effect called the holography of information. We review the results obtained so far for asymptotically flat spacetimes, asymptotically anti-de Sitter spacetimes, and asymptotically de Sitter spacetimes. About some simple states, it is surprising that these effects are visible in perturbation theory. In a different regime, we explain the significance of the holography of information for understanding black-hole evaporation and the information paradox. We discuss several interesting open questions.



