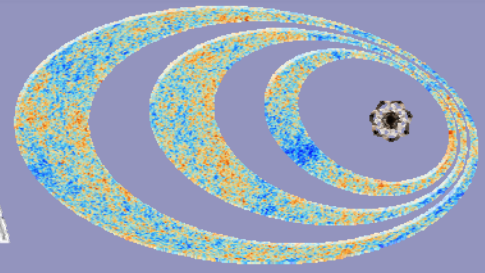


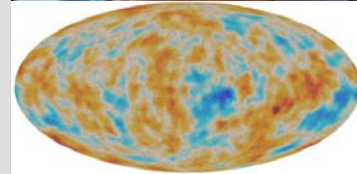
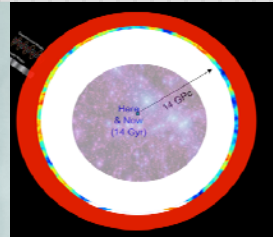
THE BRAHMAGUPTA PHYSICS COLLOQUIUM



Quest for Cosmic Origin Prof. Tarun Souradeep, IISER-Pune

Abstract: The origin of our Universe, a quest as old as humanity, is just beginning to be unraveled. Over the past few decades, spectacularly deep inroads and high precision inferences on cosmic history and origin have been made possible, largely from increasingly exquisite measurements of the cosmic microwave background (CMB). However, the emergence of a 'standard cosmological model' has relied on certain fundamental assumptions related to its origin. I review work along multiple facets, largely, from the research program of my group. The CMB sky has much more to reveal !!! I also present the case for a next-generation CMB space mission that provides a unique opportunity for India to partake in potentially path-breaking discovery, together with several guaranteed high science dividends and providing rich legacy astronomical data.

About the speaker: Tarun Souradeep graduated as an engineer from IIT Kanpur. After short stint in automobile design he decided to pursue a PhD in Gravitation and Cosmology. He has built and led a cosmology subgroup on Cosmic Microwave background (CMB) studies. Souradeep led the sole Indian group within the international team of the Planck CMB space mission of the European Space Agency. His contribution to science has received international recognition. He has been elected fellow of the International Society on General Relativity & Gravitation in 2013 and is a co-recipient of the Special Breakthrough Prize in Fundamental Physics 2016, Gruber Cosmology prize 2016 for the recent discovery of gravitational waves. He is also recipient of a number of awards in India, including, Swarnajayanti fellowship, NASI-Scopus award, B.M. Birla Prize, Vikram Sarabhai research award, a fellow of the Indian academy of Sciences and the National Academy of Sciences, India. He serves as the spokesperson for the LIGO-India mega-science project for the construction and operation of gravitational wave observatory on Indian soil and is the lead proposer of CMB-Bhārat, a proposal to ISRO for a next generation CMB satellite.



Venue: Central Lecture Theatre
Time: 5:00-6:00 PM

Wednesday September 18th, 2019
Cake at 4:45 PM



DEPARTMENT OF PHYSICS
INDIAN INSTITUTE OF TECHNOLOGY MADRAS