

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A & 2B, Raja S.C. Mullick Road, Jadavpur, Kolkata-700032,

India

Seminar Notice

Org. by

School of Physical Sciences

Title:	Spacetime microstructure, Gravity and the Cosmos
Speaker:	Thanu Padmanabhan, IUCAA, Pune
Date:	April 29, 2019 (Monday)
Time:	3:00 p.m.
Venue:	C.V.Raman Hall, 2nd Floor, Main Building, IACS
Abstract:	Spacetime behaves like a fluid, made of atoms of spacetime, and its dynamics can be obtained from the kinetic theory for these underlying microscopic degrees of freedom. This allows the interpretation of the field equations - as well as several geometrical variables - in a purely thermodynamic language. This is true for a large class of theories including, but not limited to, general relativity. The cosmological constant, which arises as an integration constant, can then be related to the cosmic information accessible to an eternal observer. This relation, in turn, allows the determination of its numerical value from the microstructure of the spacetime. In fact, this approach provides a refreshingly new perspective on cosmology and offers the possibility of testing quantum gravity in the sky.

All are cordially invited to attend the seminar