

Area Seminar

Title Understanding Holography

Date and Time 18/03/2014 14:30:00

Speaker Dr. Arjun Bagchi

IISER Pune

Area Theoretical Physics

Venue Room No. 469

Abstract The formulation of a quantum theory of gravity remains one of the principle challenges of theoretical physics today. The holographic principle is a unique route to address this problem. It relates a theory of gravity to a theory without gravity in one lower dimension thereby paving the way for "understanding gravity without gravity". In my talk, I present an introduction to this intriguing principle. The studies of the holographic principle has been mainly confined to Anti de Sitter spacetimes though the celebrated AdS/CFT correspondence. After mentioning this briefly, I go on to my own work which describes how one should formulate holography for the more physically relevant flat spacetimes. Our discussions would be principally based on symmetries. We will formulate flat holography as a limit of usual AdS/CFT and derive some very surprising and interesting results for 3d flat spacetimes.