# **Distinguished Visitor Lecture Series**





# Ashoke Sen Harish-Chandra Research Institute, India

Professor Ashoke Sen is a distinguished Professor at the Harish-Chandra Research Institute, India. His major area of research has been superstring theory -- a theory that attempts to unify all the forces of nature into a single quantum theory. His work covers several aspects of superstring theory including strong-weak coupling dualities, black hole entropy, superstring perturbation theory and superstring field theory. For his contribution to the field he was awarded the Breakthrough Prize in Fundamental Physics, Dirac medal and the civilian award Padma Bhushan by the government of India.

# **Developments in Superstring Perturbation Theory**

#### Abstract

Superstring theory is an attempt to address one of the most outstanding problems in theoretical physics -- finding a quantum theory of gravity. In this talk I shall describe the problem of quantizing gravity using the usual approaches that have been so successful for other forces of nature and how superstring theory solves these problems. I shall then describe some of the recent developments in this subject.

# Analyticity and Crossing Symmetry in Superstring Theory

Dec 2018 (Tuesday) 5.10 – 6.00pm

IMS Auditorium

Free Admission



### Abstract

In this talk I shall describe how some of the old results in axiomatic quantum field theory can be used to analyze the analyticity properties and crossing symmetry of the S-matrix of superstring theory.

Dec 2018 (Thursday) 9.00 – 9.50am

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