S N BOSE NATIONAL CENTRE
FOR BASIC SCIENCES
Block JD, Sector III, Salt Lake, Kolkata 700 106

DEPARTMENTAL SEMINAR

Department of Astrophysics and High Energy Physics

18th November, 2026 **11.30 am** **FERMION**

SPEAKER



Dr. Sachin Jain,
Dept. of Physics,
IISER Pune

TITLE OF THE TALK

Towards a Parke–Taylor Analogue in AdS/dS

ABSTRACT

The remarkable simplicity of the Parke–Taylor formula revealed that quantum field theory could be understood far beyond conventional Feynman-diagram expansions. This insight led to BCFW recursion, geometric formulations of scattering amplitudes, and many related developments. A longstanding question is whether comparable structures exist for observables in AdS/dS and conformal field theories. Despite substantial progress, these correlators are generally far more complicated than their flat-space counterparts, and compact expressions remain rare even for four point function. In this talk, I will present a framework that exposes their underlying geometric structure and provides a BCFW-like construction of higher-point correlators. I will conclude by describing how close we are to a Parke–Taylor-like formula for AdS/dS correlators.

HOST FACULTY

Dr. Parijat Dey, Assistant Professor
Dept. of ASTROPHYSICS AND HIGH ENERGY PHYSICS

****