



**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

04th September, 2023

4.00 PM

ONLINE/ FERMION

SPEAKER

**Dr. Dibya Chakraborty,
Post-Doc, Ashoka University**

TITLE OF THE TALK

The Conspiracy of dS Space in String Theory (?)

ABSTRACT

In this talk, I will discuss various string-loop, warping, and curvature corrections, which are expected to appear in type IIB moduli stabilization scenarios. It has recently been a topic of active debate whether these corrections can be consistently as well as simultaneously ignored for concrete de Sitter constructions. We study this question in the presence of a new weakly-warped LVS de Sitter vacua, which represents a distinctive branch in the parameter space, featuring small conifold fluxes.

We have found that the warping corrections are less problematic and few corrections help us to land in this regime of parameter space. I will end my talk with a detailed description of how to avoid these corrections, if at all possible, in order to not destroy the consistency of the weakly-warped LVS de Sitter solution.

HOST FACULTY

**Prof. Amitabha Lahiri, Senior Professor
Dept. of ASTROPHYSICS AND HIGH ENERGY PHYSICS**
