



**S N BOSE NATIONAL CENTRE
FOR BASIC SCIENCES**

Block JD, Sector III, Salt Lake, Kolkata 700 106

DEPARTMENTAL SEMINAR

Astrophysics and Cosmology

07th January, 2022

3.30PM

ONLINE

SPEAKER



Dr. Arghajit Jana,
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TITLE OF THE TALK

Exploring the Changing-Look AGNs

ABSTRACT

Changing-look (CL) AGNs are the new subset of AGNs that challenges the current understanding of the unification model of AGNs. The optical CLAGNs or changing-state (CS) AGNs switch between type-1 and type-2 AGNs with the appearance/disappearance of the broad emission lines. Although the exact reason is debated, various models are proposed to explain the CS event. Disk-instability, tidal disruption event, changes in accretion rate, obscuration are thought to be the reason for CS events. Moreover, a different kind of changing-look event or changing-obscuration (CO) event is observed in the X-ray wavebands, when the line of sight hydrogen column density (NH) changes from the Compton-thin to Compton-thick state, or vice-versa. Obscuration in the line-of-sight is believed to be the cause for the CO-event. Here, we will discuss the changing-look phenomena (CL and CO events) and explore the possible reason.

HOST FACULTY

Dr. Ramkrishna Das

Associate Professor & Seminar Coordinator, Astrophysics & Cosmology
