



भारतीय खगोलभौतिकी संस्थान  
**INDIAN INSTITUTE OF ASTROPHYSICS**  
कोरमंगला Koramangala, बेंगलूरु Bengaluru – 560034.

स्नातक अध्ययन मंडल **Board of Graduate Studies.**

## **Visiting Student's Programme Seminar**

[Science Academies Summer Research Fellowship - 2025]

**Title:** Impacts and their likely Impactors: Catalysts of Planetary Evolution and Life

**Speaker:** Mr. Kumar Twarit  
(IISER Mohali)

### **सार Abstract**

Impacts are one of the most common phenomena of this universe. They play an important role in planetary evolution and biological evolution, especially during the early stages. These events cause a massive energy and mass injection in the lithosphere as well as the biosphere of Earth, which leads to major reformations. In this project, I studied and simulated 8 of the major impact events that have shaped the local and, in some cases, global direction of the Earth. I first understood the geological and physical conditions at the time of impact to estimate the size, density, mass and other parameters for the likely impactor at those sites and then for simulating the cratering process and getting subsequent results, I used the iSALE hydrocodes and pySALEPlot, which are widely used for studies in this domain.

सोमवार Monday 14, जुलाई July 2025

Time: 2:30 PM

प्रेक्षागृह Auditorium

सभी का स्वागत है All are welcome.