



भारतीय खगोलभौतिकी संस्थान  
**INDIAN INSTITUTE OF ASTROPHYSICS**  
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स्नातक अध्ययन मंडल **Board of Graduate Studies.**

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

[Science Academies Summer Research Fellowship - 2025]

**Title:** Estimation of orbital parameters of binary stars from speckle interferometry data

**Speaker:** Mr. Rudra Pratap Jha  
(IIT –Gandhinagar)

#### **सार Abstract**

Speckle interferometry uses image post-processing to achieve diffraction-limited autocorrelation of an object. It has been widely applied to detect binary and triple stars from ground-based telescopes. In this project, a few examples of this technique are shown with the data obtained from the Vainu Bappu Telescope at VBO, Kavalur. If such data (separation of components of a binary) is available at multiple epochs, it would be possible to estimate the orbital parameters of the binary system. We developed a tool to determine the binary orbital parameters from data obtained in five epochs.

मंगलवार Tuesday 22, जुलाई July 2025

Time: 2:30 PM

प्रेक्षागृह Auditorium

सभी का स्वागत है All are welcome.