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ICTS Astrophysics & Relativity Seminar

Title : Unveiling statistical properties of Galactic Synchrotron Emission

Speaker : Aniket Nath (ICTS-TIFR, Bengaluru)

Date : Thursday, 13 November 2025

Time : 3:30 PM (IST)

Abstract : We present a statistical analysis of the Galactic synchrotron emission for our own Galaxy. We have tried to characterise the effect of the turbulent component of the Galactic magnetic field on the synchrotron intensity by simulating synchrotron maps assuming a regular magnetic field model and adding a varying amount of turbulent magnetic field to it. We then studied the statistical properties of the simulations and tried to correlate the underlying physics with the evaluated statistical properties in each case. Finally, we have an approach that can be generalised to study and constrain the properties of turbulent galactic magnetic fields in different galaxies, thereby developing an understanding of the physics that gives rise to the corresponding statistical properties.

Venue : Feynman Lecture Hall

Zoom Link: <https://icts-res-in.zoom.us/j/98465263435?pwd=xWz0zFlBOv7p8KgpeGBbgwons1eYUg.1>

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