



DEPARTMENT OF PHYSICS INDIAN INSTITUTE OF TECHNOLOGY KANPUR



Multimessenger Astroparticle Physics with High Energy Photons and Neutrinos

Understanding the sources of cosmic rays has been one of the most outstanding problems of cosmic-ray astrophysics since the discovery of cosmic rays more than 100 years ago. Only recently, with the advent of new generation of telescopes and detectors, this field has got a boost in understanding the origin of cosmic rays and acceleration of particles in astrophysical sources. Primarily the origin of cosmic rays has been studied through the eyes of high energy non-thermal photons but it is increasingly becoming clear that it is not enough to look at only non-thermal photons emitted from these sources in order to understand the origin of cosmic rays, but a comprehensive understanding can be obtained by looking at other messengers, namely high energy neutrinos. In this talk, I will discuss the connection between the high energy neutrinos and high energy photons in understanding the sources of cosmic rays and also outline the future directions in multi-messenger astroparticle physics.



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VENUE

Friday, Feb 14, 2025 at
5:15 PM (refreshments at 5:00 PM)
at FB-382 (Amal Kumar
Raychaudhuri Seminar Room)



WEBSITE



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