

# ASET FORUM OF TIFR

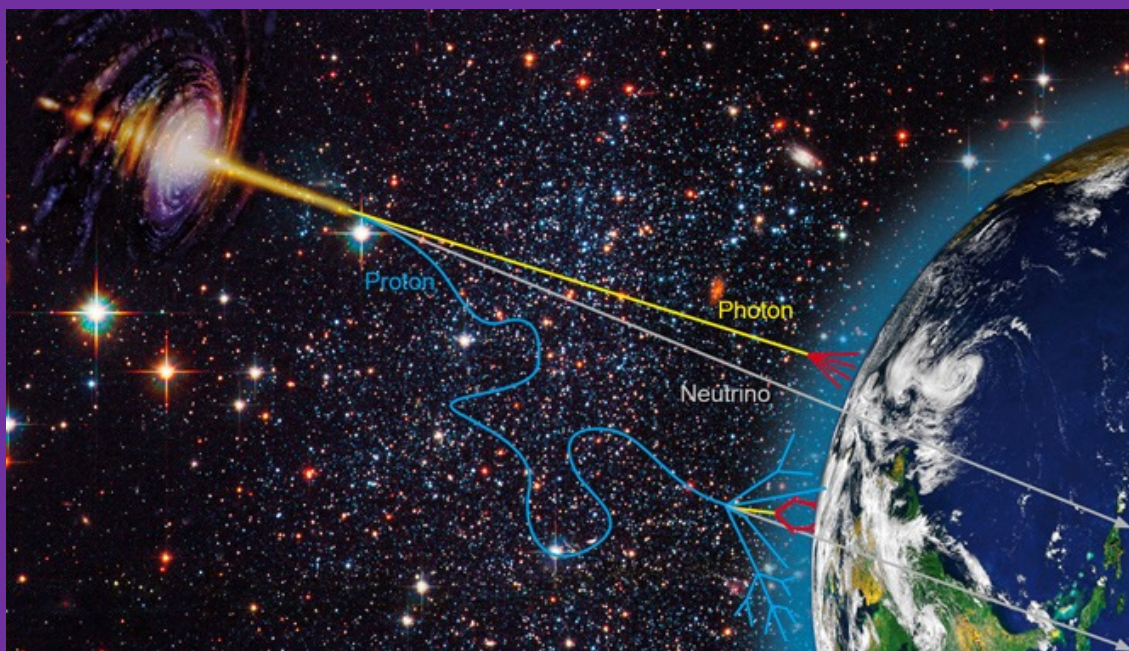
Revealing the "High Energy Universe" with multi-messenger observations

Prof. Paolo Lipari, INFN, Sapienza University of Rome

Friday, December 15, 2023, at 4 p.m.

Hybrid: Lecture Theatre AG 66, TIFR

YouTube Live: <https://tinyurl.com/ASETon15Dec>



This talk will review what is today known about the "High Energy Universe", that is the ensemble of the astrophysical objects, environments and mechanisms that generate and store high energy particles in the Milky Way and in the entire universe, and outline the main questions that remain open in the field. Answers to these questions are searched by a broad program of "multi-messenger" observations that "look" at the sky with cosmic rays, gamma rays, neutrinos and gravitational waves.

Prof. Paolo Lipari embarked on his research journey as a high-energy phenomenologist, earning his PhD degree from the University of Rome in 1980 with his thesis titled "Possible Experimental Studies in an e-p Colliding Beam Machine, Using a Hadron Calorimeter in the Direction of the Proton Beam". In 1986, Prof. Lipari transitioned to the field of cosmic rays, joining the MACRO experiment at the underground Gran Sasso laboratory. In 1988, he obtained a permanent researcher position in the section of Roma I of the National Institute for Nuclear Research (INFN) and he became its Research Director in 2000. Throughout his distinguished career, Prof. Lipari has authored over 350 research papers spanning areas such as high-energy physics, gamma astronomy, cosmic rays, neutrino physics, dark matter searches, and multi-messenger phenomena. His remarkable achievements were recognized during the 37th International Cosmic Ray Conference (ICRC) in Berlin, where Prof. Lipari was honored with the O'Ceallaigh Medal. This prestigious award acknowledged his outstanding contributions to cosmic ray physics, encompassing neutrinos, high-energy interactions, and his ability to elucidate complex problems for non-experts through pedagogy. Prof. Lipari is currently visiting TIFR as an adjunct faculty member in the Department of High Energy Physics at TIFR.



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