

Astroparticle Physics (Neutrinos & Cosmic Rays)

S16 — Astronomie du ciel transitoire et multi-messagers

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Abstract

In the context of the rapidly evolving field of multi-messenger astrophysics, high-energy particles such as neutrinos and cosmic rays offer unique insights into the most energetic and extreme astrophysical environments. In this talk, I will present recent developments and ongoing efforts to identify the origin of these particles and to explore their potential associations with transient sources observed across the electromagnetic spectrum and in gravitational waves. I will highlight current strategies and results from joint searches, discuss the challenges of source identification, and outline the prospects for future observations and theoretical modeling. This overview aims to foster discussion on the synergies between neutrinos, cosmic rays, gamma rays, and gravitational observations within the broader landscape of transient astrophysics.