

The Crab Nebula : an electron PeVatron or super Pevatron of cosmic rays?

Monday 10 October 2022 14:00 (30 minutes)

Detection of 1.1 PeV photons from the Crab poses challenges to even classical electrodynamic theory and pure magnetohydrodynamics. Or, an accelerator that boosts protons to at highest energy of 30 PeV may be at the center of the nebula? LHAASO has found the most fascinating object, which was recorded as the first recognized supernova by Chinese in Song dynasty, so attractive that it may hint the origin of cosmic rays above the knee or an extreme electron accelerator with the acceleration rate approaching 1. More statistics is needed to unveil it. LHAASO's observation is updated.

Track

SNR/PWNe

Author: CAO, Zhen (Institute of High Energy Physics, CAS, China)

Presenter: CAO, Zhen (Institute of High Energy Physics, CAS, China)

Session Classification: Plenary 2