

MAGIC telescopes: the Gathering

Tuesday, October 26, 2021 9:00 PM (30 minutes)

MAGIC (Major Atmospheric Gamma-ray Imaging Cherenkov telescopes) is a system of two Cherenkov telescopes located on the Canary island of La Palma (Spain), at the Roque de Los Muchachos Observatory. MAGIC telescopes are operating in stereo mode since 2009. Their design and configuration, together with a dedicated trigger system developed ad-hoc, allows us to reach an energy threshold of 15GeV. This made it possible to observe high redshift sources at the limit of detection for Imaging Atmospheric Cherenkov telescopes and to deeply study the Geminga pulsar tail emission. A careful strategy of alert follow-ups from other facilities and the fast reposition of the telescopes made possible the detection of the first (and only so far) neutrino blazar and of gamma-ray bursts in the VHE gamma-ray band, respectively. Moreover, the GRB detection of 190114C allowed a test of general relativity through the study of the Lorentz Invariant Violation. I will gather here the recent highlights from MAGIC, in the study of galactic and extragalactic sources, spanning from multimessenger astronomy to astroparticle and fundamental physics.

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Plenary talk

Summary

Highlights from the MAGIC (Major Atmospheric Gamma-ray Imaging Cherenkov telescopes) Collaboration

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Session Classification: Plenary