

Cosmic Ray Studies with MAGIC

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Galactic sources of cosmic rays might be gamma ray emitters, if interactions of cosmic ray protons and nuclei yielding high energy photons occur in the source ambient.

In the very high energy regime, photons can be detected with the Cherenkov Imaging technique through the light produced by their extensive air showers in the atmosphere.

MAGIC is a system of two such imaging air Cherenkov telescopes situated on the Canary island of La Palma. The MAGIC collaboration has performed several observations of galactic sources, including supernova remnants, X-ray binaries, pulsars, pulsar wind nebulae, as well as a search for diffuse cosmic ray electrons and positrons. A special focus was placed on observations of supernova remnants embedded in molecular clouds, which are promising sites for detecting the gamma ray production from cosmic ray interactions. Here we report on the status of this projects and highlight recent results.

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