Search for VHE gamma-ray emission from the Geminga pulsar and nebula with the MAGIC telescopes

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Geminga pulsar appears to be one of the most promising candidates to emit VHE gamma-ray pulsed emission. In order to detect the third pulsar with power-law spectral component above of the measured cutoff, after Crab and Vela, we analyzed 63 hours of data taken with MAGIC. To discuss the connection with HE gamma rays, 6 years of Fermi-LAT data were also analyzed. No significant pulsation was found with MAGIC observations.

The obtained flux upper limits above 50 GeV are above the power law extrapolation above 10 GeV based on Fermi-LAT data.

We also searched for steady emission from the pulsar wind nebula in the same dataset, resulting in no significant detection.

Collaboration

MAGIC

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