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Search for extended gamma-ray emission around the Geminga pulsar with H.E.S.S.

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The Geminga pulsar is one of the closest pulsars to Earth and as such is a potential local source of cosmic ray positrons and electrons. TeV emission around the Geminga pulsar has been detected by HAWC and MILAGRO, and found to be significantly extended. This makes detection of the gamma-ray emission challenging for IACTs due to their limited field of view. HAWC observations of the Geminga and Monogem regions found a low diffusion coefficient in the immediate pulsar environment, challenging the local source hypothesis.

We present a search for extended gamma-ray emission in the Geminga region with H.E.S.S. using a variety of analysis and observation strategies.

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