

# MAGIC observations of HESS J1809-193 using the Very Large Zenith Angle technique at energies above TeV

Zaric, D.<sup>1</sup>, Green, D.<sup>2</sup>, Strzys, M.<sup>3</sup>, Vovk, I.<sup>3</sup>

on behalf of the MAGIC Collaboration

<sup>1</sup>University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture (FESB), 21000 Split, Croatia

<sup>2</sup>Max-Planck-Institut für Physik, 80805 München, Germany

<sup>3</sup>Institute for Cosmic Ray Research(ICRR), The University of Tokyo, Kashiwa 277-8582, Chiba, Japan

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In this contribution we report about the observational campaign performed by the MAGIC telescopes on HESS J1809-193 since 2019 in the very-high-energy gamma-ray domain ( $E > 100$  GeV)

The current multi-wavelength data indicate that HESS J1809-193 is one of the most promising Galactic PeVatron candidates. So far, no firm identification on the source nature has been established as there are several possible counterparts at lower energies; one of them being SNR G11.00.0.

The data were obtained with the Very Large Zenith Angle (VLZA) technique, which increased the collection area significantly to about one square kilometer. We used 60 hours of collected VLZA data to explore the spectrum and the morphology of the source at energies above several TeV.

The best fit spatial model was found to be a symmetric 2D Gaussian and we show the results for the source extension in different energy ranges. For the spectral model the Power Law with Exponential Cutoff was preferred over the Power Law and in the IACT energy range we see signs of energy turnover. The obtained flux results are most in line with the recent eHWC catalogue measurements.