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## Search for the Galactic accelerators of Cosmic-Rays up to the Knee with the Pevatron Test Statistic

The recently introduced PeVatron Test Statistic (PTS) method in the framework of Cherenkov Telescope Array (CTA) PeVatrons study offers a new approach to detect spectral signatures of hadronic PeVatrons. The PTS is, for the first time, applied to PeVatron candidate sources' data from gamma-ray observatories to test for the origin of Cosmic Rays (CRs) at energies around and above the knee of the CR spectrum. Public data from gamma-ray observatories are analyzed jointly within hadronic emission models, assuming conservative systematic errors. It is outruled with a high statistical significance of more than  $5\sigma$  that the two shell type Supernova remnants (SNRs) RX J1713.7-3946 and Vela Jr., as well as the gamma-ray source HESS J1745-290, which is spatially coincident with the dynamical center of the Galaxy, are PeVatrons. These results were previously derived by other means but the analyses confirm the performance and reliability of the PTS. Assuming that the gamma-ray emission from the region which contains the SNR G106.3+2.7 and the Boomerang nebula has a single component, a PeVatron hypothesis can be outruled with a statistical significance of more than  $5\sigma$ . No statistically significant conclusion with respect to an association to a PeVatron is drawn for the diffuse gamma-ray emission around the Galactic Center (GC), and the two unidentified gamma-ray sources LHAASO J2108+5157 and HESS J1702-420A. However, it is argued that data from the Northern CTA and the Southern Wide-field Gamma-ray Observatory (SWGO) will respectively allow to decide whether these two sources are associated to a PeVatron or not. Based on the straw-man design sensitivity for SWGO, the experiment is expected to have sufficient point source sensitivity to probe large parts of the relevant parameter space for PeVatrons after 5 years of observations.

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