

Observation of the galactic PeVatron candidate LHAASO J2108+5157 with the Large-Sized Telescope for the Cherenkov Telescope Array

The Cherenkov Telescope Array (CTA) Observatory will be the next generation ground-based very-high-energy gamma-ray observatory, sensitive from 20 GeV up to 300 TeV. The Large-Sized Telescope prototype (LST-1), currently in the commissioning phase, was inaugurated in October 2018 on La Palma (Spain). It is the first of four LST telescopes for CTA, to be built on La Palma. In 2021, LST-1 performed observations of one of the Galactic PeVatron candidates, LHAASO J2108+5157, recently discovered by the LHAASO collaboration. In our contribution, we will present results of our analysis of the LST-1 data, putting strong constraints on the emission of the source in the multi-TeV band. We will also present results of multi-wavelength modeling, we will test different scenarios for the parent particles producing the high energy emission and put constraints on their spectra.

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