

The Crab Nebula: observations and a search for gamma-ray flares at UHE with LHAASO

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The Crab Nebula is a steady radiation source, which has been used as a reference source in very high energy gamma-ray astronomy for calibration and verification of detectors, however the gamma-ray flares around GeV from the Crab Nebula have been observed many times by AGILE and Fermi-LAT since 2007. These observations challenge the standard models for particle acceleration in pulsar wind nebula. One square kilometer detector array (KM2A) of the Large High Altitude Air Shower Observatory (LHAASO) is designed to detect gamma ray sources with high sensitivity at 100 TeV. Half of the LHAASO-KM2A array has been running stably since the end of 2019. In this work, the observations of the Crab Nebula in energy range above 10 TeV and the results of searching for gamma-ray flares will be reported by using about 1-year data of the half-array LHAASO-KM2A

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Subcategory

Experimental Results

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