

CONSTRAINTS ON THE SNR ORIGIN OF COSMIC RAYS FROM GAMMA-RAY OBSERVATIONS IN THE TEV REGION

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If supernova remnants (SNRs) are the acceleration site of cosmic rays, the associated interactions should result in a detectable flux of gamma-rays for nearby SNRs. Many searches for gamma-ray emission have been made with imaging Cherenkov telescopes and air-shower arrays in the TeV and/or supra-TeV region. However, most of measurements failed in observations of significant emission. We set the flux limits on gamma-ray emission from nearby SNRs in the TeV region by using these data. These results impose restrictions on the model of shock acceleration of cosmic rays.