ID de Contribution: **77** Type: **Non spécifié**

LHAASO detection of Ultra-high-energy Gamma-Ray Emissions from the Giant Molecular Clouds

Gain Molecular Clouds (GMCs) are massive reservoirs of gas and dust, with masses typically around 10^5 M . GMCs are critical regions for studying Cosmic Ray (CR) interactions and their effects on interstellar medium (ISM). We selected six GMCs, which are at high galactic latitude and in the field of view of LHAASO. These GMCs are within 1 kpc distance from the Sun. By using the data from the LHAASO-WCDA and KM2A, we studied the gamma-ray emissions with energy above TeV from these GMCs. We find an excess emission in the clouds by performing a stacked analysis of GMCs. The derived spectral agreed with the expected gamma-ray flux produced via pp interactions. We also try to give a limits of the CR "knee"by measuring the UHE gamma-ray emission from the GMCs.

Affiliation

University of Science and Technology of China

Auteurs principaux: YU, Yanhong (University of Science and Technology of China); YANG, Ruizhi (USTC)