

Introduction

The observations of very high energy gamma astronomy based on the WCDA will contribute to the observation of the cosmic ray energy spectrum, the limiting model of active galactic nuclei, and the understanding of extreme celestial activity.

Based on the data of WCDA-1, the significance and excess over background of Mrk421 are measured and compared with the observation by the satellite-borne experiment Fermi-LAT in the GeV flux to analyze the flux variations in different wavebands. Based on the light curves of different energy interval, the evolution of the spectrum energy distribution is also investigated by measuring spectral indices at two different flux levels. we find the GeV gamma-ray flux appears to be roughly correlated with TeV gamma-ray flux. According to the observed light curves we divided this period into steady phase and flaring phase, it is found that there is no distinct difference in the energy spectrum index between the different activity states.