SEARCH FOR DIFFUSE TEV GAMMA-RAY EMISSION FROM GALACTIC PLANE, USING

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Diffuse high energy gamma radiation can arise from a variety of astrophysical sources, in particular from interactions between energetic cosmic rays and matter in our galaxy. Emission from the galactic plane has been detected up to GeV energies by space-based detectors. Observations at higher energies, for which the flux is too low for satellites, can be done with ground based telescopes. Milagro is a wide-aperture extensive air shower water Cerenkov detector collecting data from a solid angle of about two steradians in the overhead sky at energies near 1 TeV. We have used a 2000-2001 data set from Milagro to search for the emission of diffuse gamma rays from the galactic disk. Preliminary results of the search will be presented.