

Results from the Milagrito TeV Observatory

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The Milagro water Čerenkov detector near Los Alamos, New Mexico will be the first air shower detector capable of continuously monitoring the sky at energies between 500 GeV and 20 TeV. Preliminary results of the Milagro experiment will be presented. A prototype of the Milagro detector, Milagrito, was operational from February 1997 to May 1998. Milagrito consisted of 228 8" photomultiplier tubes (PMTs) arranged in a grid with a 2.8 meter spacing and submerged in 1-2 meters of water. During its operation, Milagrito collected in excess of 9 billion events with a median energy of about 3 TeV. The detector's sensitivity extends below 1 TeV for showers from near zenith. The results of an all sky search for the Milagrito data for both transient and DC sources will be presented, including the Crab nebula and active galaxies Markarian 501 and 421, which are known sources of TeV gamma-rays.