APR08-2008-000760

Abstract for an Invited Paper for the APR08 Meeting of the American Physical Society

Very High Energy Gamma Ray Astronomy. JORDAN GOODMAN, University of Maryland

In the last decade the number of detected TeV gamma ray sources has gone up by more than an order of magnitude. This is due to the increased sensitivity of the current generation of telescopes. Imaging Atmospheric Cherenkov Telescopes such as HESS, Magic and VERITAS have exploited their high sensitivity and excellent angular resolution to discovered and map new classes of galactic gamma ray sources while continuing to discover and monitor extra-galactic AGN. In addition, Milagro, using water Cherenkov technology, has used its large field of view and continuous exposure to observe large scale diffuse emission from the Galactic plane and extended sources. In addition it has detected galactic sources with flat spectra extending beyond 100 TeV. The combination of these techniques are giving us a new view of the TeV sky and providing tantalizing evidence of the sources of Galactic cosmic rays. This talk will review recent results and discuss prospects for future detectors.