

VERITAS: THE VERY ENERGETIC RADIATION IMAGING TELESCOPE ARRAY SYSTEM

J. Buckley and for the VERITAS Collaboration

Physics Department, Washington University, One Brookings Dr, St. Louis, Mo 63130.

buckley@wuphys.wustl.edu

The Very Energetic Radiation Imaging Telescope Array System (VERITAS) combines the power of the atmospheric Cherenkov imaging technique using a large optical reflector with the power of stereoscopic observatories using arrays of separated telescopes looking at the same shower. The seven identical telescopes in VERITAS will be patterned on the Whipple 10 m optical reflector but with significant differences. The optical support structure will be rectangular and will support 315 hexagonal mirrors, giving an equivalent aperture of 12 m. The focal length will be 12 m. The telescopes will be deployed in a filled hexagonal pattern of side 80m; each telescope will have a camera consisting of 499 pixels with a field of view of 3.5° . The array will be designed so that it can be also operated as two independent arrays of three and four telescopes as well as seven independent telescopes.