

Abstract Submitted  
for the CAL11 Meeting of  
The American Physical Society

**The VERITAS Extragalactic Sky: Contemporaneous Modeling of Very High Energy Blazars with Constraints from Swift** AMY FURNISS, UC Santa Cruz, VERITAS COLLABORATION — In the past decade, remarkable progress has been made in very high energy (VHE;  $E > 100$  GeV) gamma-ray astrophysics. The VHE source catalog currently contains 48 extragalactic objects. VERITAS has detected 23 of these, including 10 VHE blazar discoveries, and many of the detected blazars have exhibited significant VHE variability. TeV blazars have spectral energy distributions (SEDs) with a synchrotron peak in the X-ray/UV/optical bands and a second peak at GeV energies, often thought to be due to inverse Compton emission. Each VERITAS blazar discovery, as well as each observed VHE flaring episode, was promptly followed up with Swift target-of-opportunity observations. These data allow the investigation of flux and spectral variability patterns of the highest energy particles, strongly constrained by the Swift XRT and UVOT exposures. Broadband SED modeling of these data has provided insights into the energetics and timescales of particle acceleration and cooling, which are critical to understanding the physics of jets in these VHE blazars.

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Date submitted: 03 Oct 2011

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