

# VERITAS Observations of Starburst Galaxies

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**Abstract.** Starburst galaxies are thought to form when two galaxies interact and sometimes merge. These unique objects have high star-formation rates and hence high supernova rates, as well as large reservoirs of very dense gas. Assuming galactic cosmic rays originate in supernovae, starburst galaxies should contain copious quantities of cosmic rays that produce diffuse VHE ( $E > 100$  GeV) gamma-ray emission via their interaction with the gaseous material. This VHE radiation should be detectable by the VERITAS array of 12-m atmospheric-Cherenkov telescopes in Southern Arizona. VERITAS has devoted  $\sim 10\%$  of its total observations in the past two years towards the VHE detection of starburst galaxies. Results from these data will be presented at the conference.

**Keywords:** VERITAS Gamma-ray Starburst

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