

VERITAS Observations of a Very High Energy Gamma-ray Flare from the Blazar 3C 66A

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The intermediate-frequency peaked BL Lacertae (IBL) object 3C 66A is detected during 2007-2008 in VHE (very high energy; $E > 100$ GeV) γ rays with the VERITAS stereoscopic array of imaging atmospheric Cherenkov telescopes. An excess of 1791 events is detected, corresponding to a significance of 21.2 standard deviations (σ), in these observations (32.8 hr live time). The observed integral flux above 200 GeV is 6% of the Crab Nebula's flux and shows evidence for variability on the timescale of days. The measured energy spectrum is characterized by a soft power law with photon index $\Gamma = 4.1 \pm 0.4_{\text{stat}} \pm 0.6_{\text{sys}}$. The radio galaxy 3C 66B is excluded as a possible source of the VHE emission.