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Observations of SNR Cassiopeia A with VERITAS BRAD SMITH, DONGQING HUANG, ALEXANDER KONOPELKO, Pittsburg State University — We report on observations of very high-energy gamma rays from the shell-type supernova remnant Cassiopeia A with the VERITAS stereoscopic array of four imaging atmospheric Cerenkov telescopes in Arizona. The total exposure time for these observations accounts for 21 hrs. The gamma-ray source associated with the SNR Cassiopeia A was decisively resolved above 200 GeV with a high statistical significance. The estimated integral flux for this gamma-ray source is about 5% of the Crab-Nebula flux. The photon spectrum is compatible with a power law. Along with a detailed description of the analysis results we present a short discussion of the physical mechanisms that may be responsible for the observed gamma-ray emission.

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