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## Discovery of fast variability of the TeV gamma-ray flux from the radio galaxy M87 with H.E.S.S.

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### Abstract content

The giant radio galaxy M87 was observed at GeV/TeV gamma-ray energies with the H.E.S.S. (High Energy Stereoscopic System) Cherenkov telescopes in the years 2003-2006. The observations confirm M87 as the first extragalactic TeV gamma-ray source not of the blazar type (first indications of a signal were reported by the HEGRA collaboration earlier). The TeV gamma-ray flux from M87 as measured with H.E.S.S. was found to be variable on time-scales of years and surprisingly also of days which strongly constrains the size of the emission region. The results (position, energy spectrum and light curve) as well as theoretical interpretations will be presented.

### If this papers is presented for a collaboration, please specify the collaboration

H.E.S.S.

### Summary

### Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 3 (OG part 2), pages 937-940

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