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## H.E.S.S. observations of galaxy clusters

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### Abstract content

Clusters of galaxies, the largest gravitationally bound objects in the universe, are expected to contain a significant population of hadronic and leptonic cosmic rays. Potential sources for these particles are merger and accretion shocks, starburst driven galactic winds and radio galaxies. Furthermore, since galaxy clusters confine cosmic ray protons up to energies of at least 1 PeV for a time longer than the Hubble time they act as storehouses and accumulate all the hadronic particles which are accelerated within them. Consequently clusters of galaxies are potential sources of VHE ( $> 100$  GeV) gamma rays. Motivated by these considerations, promising galaxy clusters are observed with the H.E.S.S. experiment as part of an ongoing campaign. Results from this campaign will be reported.

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

H.E.S.S. Collaboration

### 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 953-956

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