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# The muon charge ratio in cosmic ray air showers

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## Abstract content

The muon charge ratio of the lateral muon density distributions in single Extended Air Showers (EAS) is considered on basis of Monte Carlo simulations, in view of proposals to measure this observable in coincidence with EAS observations. Differences of the azimuthal variation of the muon densities of opposite charges and the azimuthal variation of the muon charge ratio appear to be very much pronounced, dependent on the direction of the EAS incidence and the position of the observer in respect to the Earth's magnetic vector. The influence of the geomagnetic field, which induces comparable effects in radio emission from EAS, is obviously of great interest for understanding the shower development.

## If this papers is presented for a collaboration, please specify the 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. 5 (HE part 2), pages 1515-1518

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