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## A Direct Cerenkov Observatory for High-Energy Cosmic Rays

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### Abstract content

A design concept for a future ground-based cosmic-ray observatory using the Direct Cerenkov technique will be presented. This technique can provide high precision, largely model-independent, measurements of the energy and charge of heavy cosmic-ray primaries in the region of the knee. It does so by exploiting the direct component of Cerenkov radiation emitted by these primaries prior to their first hadronic interaction in the atmosphere. The promise of the technique has recently been verified with measurements made by gamma-ray observatories.

**If this paper 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. 2 (OG part 1), pages 349-352

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