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Study of the performance and capability of the new ultra-fast 2 GSamples/s FADC Data Acquisition System system of the MAGIC telescope.

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Abstract content

In February 2007 the MAGIC Air Cherenkov Telescope for gamma-ray astronomy was fully upgraded with a ultra fast 2GSamples/s digitization system. Since the gamma-ray signals are very short, a fast readout can minimize the influence of the background from the light of the night sky. Also, the time structure of the event is an additional parameter to reduce the background from unwanted hadronic showers. An overview of the performance of the new system and its impact on the sensitivity of the MAGIC instrument will be presented. A study of the capability to resolve the time properties of air-showers will also be shown.

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

On behalf of the MAGIC 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 1393-1396

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