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Design Study of a Future Low Energy IACT Array for Ground-Based Gamma-ray Astronomy

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Abstract content

Recently, ground-based very high-energy gamma-ray astronomy achieved a remarkable advancement in the development of the observational technique for the registration and study of gamma-ray emission above 100 GeV. Construction of telescopes of substantially larger size than the currently used 12 m class telescopes can drastically improve the sensitivity of ground-based detectors for gamma rays of energy from 10 GeV to 100 GeV. Based on Monte Carlo simulations we have studied the response of an array of three 20 m imaging atmospheric Cherenkov telescopes (IACT) as a prototype for a future low energy system. The sensitivity of a three-telescope array as a function of optical reflector size and telescope separation in the array was investigated in detail. The results of this study will be presented at the symposium.

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. 3 (OG part 2), pages 1429-1432

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