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GAW - An Imaging Atmospheric Cherenkov Telescope with Large Field of View

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Abstract content

GAW, acronym for Gamma Air Watch, is a Research and Development experiment in the TeV regime, whose main goal is to explore the feasibility of large field of view Imaging Atmospheric Cherenkov Telescopes. GAW is an array of three relatively Cherenkov telescopes (2.13 m diameter) which differentiate from the existing and presently planned projects for two main features: the adoption of a refractive optics system as light collector and the use of single photoelectron counting as detector working mode. The optics system allows to achieve large field of view (24 degrees x 24 degrees) suitable for surveys of large sky regions. The single photoelectron counting mode respect to the charge integration mode improves the sensitivity by permitting also the reconstruction of events with poor collected Cherenkov light. GAW, that is a collaboration effort of Research Institutes in Italy, Portugal and Spain, will be erected in the Calar Alto Observatory (Sierra de Los Filabres - Andalucía, Spain), at 2150 m a.s.l.. The first telescope will be settled within Autumn 2007. In this talk, the main characteristics of the experiment and the expected performance are presented.

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 1317-1320

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