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Search for neutralino dark matter with the AMANDA neutrino telescope

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Abstract content

If non-baryonic dark matter exists in the form of neutralinos, a neutrino flux is expected from the decay of neutralino pair annihilation products inside heavy celestial bodies. Data taken with the AMANDA-II neutrino telescope located at the South Pole can be used in a search for this indirect dark matter signal. We will present current results from searches for neutralinos accumulated in the Sun and the centre of the Earth, using AMANDA data from 2001-2003. We will present new limits on the flux of muons from neutralino annihilations. We also discuss future improvements for higher statistics data samples acquired during recent years.

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

IceCube 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. 4 (HE part 1), pages 709-712

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