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Exotic Particles Searches with IceCube

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Abstract content

The IceCube neutrino observatory, currently under construction at the South Pole, offers a novel environment to search for particles beyond the Standard Model. With IceCube nearly 20% complete it is currently the largest neutrino telescope. The large instrumented volume and relatively clear glacial ice allows for the improvement of detection limits (in the absence of discovery) on many types of exotic cosmological relics. Exotic particles that IceCube is sensitive to include Monopoles, Nuclearites, and Q-Balls. Preliminary results from searches for relativistic Monopoles and subrelativistic particles using the data collected in 2006 as well as expected sensitivities for future searches with IceCube will be presented.

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

IceCube

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 795-798

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