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The ANTARES experiment:sensitivity to dark matter candidates

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Abstract content

The ANTARES collaboration is building an undersea neutrino telescope at 2400 m depth in the Mediterranean Sea. The experiment aims to detect high-energy cosmic neutrinos using a 3D array of 900 photomultipliers (PMTs) arranged in 12 strings. The advantages of neutrinos as astrophysical and cosmic messengers are that they open a new window to observe known astrophysical objects as well as to look for new Physics, such as dark matter. In many supersymmetric models, the favourite dark matter candidate is the lightest neutralino whose annihilation in the core of massive celestial objects can lead to the emission of neutrinos in the subsequent decay chains. The expected performance of ANTARES is discussed.

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

ANTARES

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olive, 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 1217-1220

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