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Latest results of the Edelweiss-II experiment

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The EDELWEISS-II collaboration has performed a direct search for WIMP dark matter with an array of ten 400 g heat-and-ionization cryogenic detectors equipped with interleaved electrodes for the rejection of near-surface events. Results from eleven months of continuous operation at the Laboratoire Souterrain de Modane will be shown and their interpretation in terms of limits on the cross-section of spin-independent elastic and inelastic interactions of WIMPs and nucleons will be presented. The result obtained demonstrates the excellent background rejection capabilities of these simple and robust detectors in an actual WIMP search experiment. Some first results with 800 g detectors will be also presented together with the prospects for this experiment and the ton scale EURECA project.

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Classification de Session: Astroparticles - Dark Matter

Classification de thématique: Experiment