

Low-mass WIMP results and prospects with the EDELWEISS-III experiment

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The EDELWEISS-III collaboration is operating an experiment for the direct detection of WIMP dark matter in the low radioactivity environment of the Modane Underground Laboratory. It consists of 36 advanced “FID” germanium detectors operating at 18 mK in a dilution refrigerator in order to identify eventual rare nuclear recoils induced by elastic scattering of WIMPs from our Galactic halo.

After a brief discussion on the backgrounds and rejection method with the FID detectors, a first low-mass WIMP search using data acquired in a long-term campaign will be presented. I will also present the prospects for these detectors to explore uncharted parameter space for WIMPs in the GeV - 10 GeV domain.

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