

PRISMA+ Colloquium

June 17, 2015 at 1 p.m.
Lorentz-Raum 05-127, Staudingerweg 7

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The EDELWEISS Dark Matter search with cryogenic Ge detectors

The EDELWEISS experiment is searching for signals of Dark Matter WIMPs via elastic scattering off nuclei. As target material, Germanium monocrystals are used which are cooled to an operation temperature of 18mK and biased with an external electric field. Thus, ionisation and heat signals can be extracted and an event-by-event separation of nuclear recoils from electron recoils can be achieved. In its currently running phase, EDELWEISS-III is equipped with 24 so-called FID detectors of 800g each. I will present the detector technology with its experimental setup, latest results and prospects for the future of DM search with Ge bolometers.