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The CONUS+ experiment

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The CONUS+ experiment is a new project which aims to detect coherent elastic neutrino-nucleus scattering (CEvNS) of reactor antineutrinos on germanium nuclei in the fully coherent regime, continuing in this way the CONUS physics program. The CEvNS signature will possibly be measured with the four 1 kg point-contact high-purity germanium (HPGe) detectors of the former experiment, which have been refurbished, further improving their energy thresholds. The CONUS+ experiment was installed during summer 2023 in the Leibstadt nuclear power plant, Switzerland, at a distance of about 20 m from the 3.6 GWth reactor core. The experiment is fully operational since end of 2023 and it is currently in the physics data taking phase.

The CONUS+ design will be shown, together with the background characterization of the new experimental location and the commissioning phase of the experiment at reactor place. Finally, the physics potential of the project will be presented.

Poster prize

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