

Abstract Submitted
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Sensitivity of the XENONnT experiment KNUT DUNDAS MORÅ,
Columbia University, XENON COLLABORATION — The XENONnT experiment
is under construction and commissioning at the LNGS underground lab, Italy. It
aims to detect dark matter particles scattering on a liquid xenon target, particu-
larly weakly interacting massive particles (WIMPs). The increased fiducial volume,
increased self-shielding and new neutron veto subsystem will reduce both extrin-
sic and intrinsic background rates, reaching 0.04 ev/ty for the signal-like neutron
background. The ultimate aim of the experiment will be to achieve a sensitivity
of 2×10^{-48} cm² at 30 GeV. In this talk I will present estimated backgrounds
and sensitivities for the benchmark spin-independent and spin-dependent WIMP
searches.

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