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## Dark Matter Direct(ional) Detection at Neutrino Experiments

Wednesday, 23 September 2020 13:40 (10 minutes)

I will show that, via dedicated selection triggers for track signatures, dark matter with per-nucleon scattering cross sections above 10^-28 cm^2 can be discovered at liquid scintillator neutrino detectors such as BOREX-INO, SNO+, and JUNO. Thanks to the large fluxes allowed, masses well beyond the Planck mass can be probed. The tracks observed would also directly reconstruct the dark matter velocity distribution, hence determine the dispersion speed, escape speed, and velocity anisotropies of the Galactic halo.

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