

Contribution ID: 68

Type: **not specified**

Solar neutrinos with CEvNS and flavor-dependent radiative correction

Monday, June 26, 2023 9:00 AM (45 minutes)

We examine solar neutrinos in dark matter detectors including the effects of flavor-dependent radiative corrections to the CEvNS cross section. Working within a full three-flavor framework, and including matter effects within the Sun and Earth, detectors with thresholds $\gtrsim 1$ keV and exposures of ~ 100 ton-year could identify contributions to the cross section beyond tree level. The differences between the cross sections for the flavors, combined with the difference in fluxes, would provide a new and unique method to study the muon and tau components of the solar neutrino flux. Flavor-dependent corrections induce a small day-night asymmetry of $< |3 \times 10^{-4}|$ in the event rate, which if ultimately accessible would provide a novel probe of flavor oscillation

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