

Numerical simulations of 3D recoil responses of Solar B-8 neutrinos in directional direct Dark Matter detectors

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In this talk, we will present our numerical simulation results of 3D recoil distributions of coherent elastic Solar B-8 neutrino-nucleus scattering events, which could be observed by future directional direct Dark Matter detectors. These results are achieved by our 3D Monte Carlo scattering-by-scattering simulation package, built originally for 3D elastic WIMP-nucleus scattering events. Dependence on detector material, laboratory location as well as annual/diurnal observation period will be discussed.

Primary author: Dr SHAN, Chung-Lin

Presenter: Dr SHAN, Chung-Lin

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