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Gaseous Detector R&D aimed at Recoil Imaging

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Directional detectors of low-energy nuclear and electronic recoils would enable unique dark matter searches and neutrino experiments. I will introduce the motivation and the CYGNUS proposal to build a large-scale detector of this type, and review R&D on gaseous detectors that achieve directionality by reconstructing the detailed topology of recoils in gas. If time allows, I will also comment briefly on broader impacts and other applications of the detectors being developed.

Early Career

No

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