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Recent Low Energy Results from the Recoil Directionality (ReD) Experiment

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The Recoil Directionality Experiment (ReD) aims at understanding if liquid Argon (LAr) experiments can determine the directionality of Dark Matter, as well as improving the measurement of very low energy nuclear recoils. For the latter, we study interactions of neutrons in our dual-phase LAr Time Projection Chamber, in the 2 - 10 keV recoil energy region, determining its charge yield. This is a crucial measurement for the WIMP searches in LAr below 10 GeV. In this talk it will be shown the preliminary results of our recent measurements in this low energy region, using a ^{252}Cf fission radioactive source. We will also discuss our prospects to improve this measurement even further, using a neutron generator as the source. The ReD experiment is part of The Global Argon Dark Matter Collaboration, which aims to directly probe Dark Matter.

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