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Low Mass WIMP Directional Detection

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Can directional detection provide any input to the low mass WIMP region? We will show results from measurements of low energy recoils using a low pressure optical TPC which demonstrates the capabilities of a realistic directional detector. Results from those measurements are extrapolated to find the detector characteristics most suitable for low mass WIMP searches. Finally, some preliminary directional measurements of low energy nuclear recoils in the pressure regime required for those searches will be presented.

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