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A Two-Dimensional Analysis of XENON100 Data Using the Ionization Channel as the Energy Estimator KEVIN LUNG, UCLA, XENON100 COLLABORATION — The recent results from 225 days of XENON100 data have culminated in the world's best WIMP limits across essentially the full mass range probed. The analysis presented here goes a step further and demonstrates the utility gained from parametrizing the ionization energy scale for use as the energy estimator instead of the primary scintillation. This has the effect of increasing detector resolution and allowing a lower energy threshold, thereby improving the limits significantly at low WIMP masses.

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