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Latest results from XENON100 electronic recoil modulation

Tuesday, 20 June 2017 17:00 (15 minutes)

The XENON100 experiment is designed to search for dark matter in the form of weakly interacting massive particles (WIMPs) by detecting WIMP-induced nuclear recoils (NRs) with a liquid xenon (LXe) time projection chamber. The modulation of the low energy (low-E), (2–6) keV event rate in the DAMA/LIBRA experiment is currently the only long-standing claim for a positive dark matter detection. One possible reasons of this modulation is due to electronic recoils (ERs) from WIMPs. The stable performance of XENON100 over a period of 4 years offers the opportunity to test this hypothesis with a different detector operated for the first time in the same underground site. In this talk I will report about the latest XENON100 results of the test of the periodic variations of the electronic recoil hypothesis.

Presentation type

Parallel talk

Primary author: Dr BENABDERRAHMANE , Mohamed Lotfi (New York U., Abu Dhabi)

Presenter: Dr BENABDERRAHMANE , Mohamed Lotfi (New York U., Abu Dhabi)

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