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【344】Invisible Nucleon Decays in the XENON1T experiment

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In the Standard Model (SM) of particle physics the conservation of baryon number (B) is an empirically observed symmetry. However, B could be an approximate symmetry of Nature, and violated by small amounts as predicted by many SM extensions. Using XENON1T/nT data we can search for inclusive radiogenic nucleon decays: model-independent $N \rightarrow X + \textit{anything}$ channels, also called \textit{invisible decays}, that are feebly dependent on the details of final state. Preliminary results of \textit{p}, \textit{nn}, and \textit{pp} decays of ^{129}Xe from XENON1T data will be presented and compared with current limits.

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