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【352】 Xenon1T results

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The XENON project aims to directly detect Dark Matter, employing a dual-phase TPC (Time Projection Chamber) with a xenon target. Located at the Gran Sasso National Laboratory (LNGS), the XENON project began in 2006 with the prototype XENON10, followed by XENON100 in 2008. The third phase, XENON1T, has already achieved the highest sensitivity to the elastic scattering of nucleons and WIMPs (weakly interactive massive particles). Most recently, following an exposure of $1.0 \text{ tonne} \times \text{years}$, XENON1T has set the strongest limits on WIMP-nucleon spin-independent elastic scattering cross section for WIMP masses above 6 GeV, with a minimum of $4.1 \times 10^{-47} \text{ cm}^2$ at $30 \text{ GeV}/c^2$ and 90% confidence level. In addition to this benchmark WIMP search, the results of complementary physics channels will be reported.

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