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Exploring New Physics with PandaX-4T Low Energy Electronic Recoil Data

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The PandaX-4T experiment operates a dual-phase liquid xenon time projection chamber that is located in China Jinping Underground Laboratory. Searches for novel electronic recoil signals (NERS) in such type of detector due to solar axions, axion-like particles, dark photons, and neutrinos with an enhanced magnetic moment have attracted increasing attention as they could provide evidence for physics beyond the Standard Model and the Majorana nature of neutrinos. I will present the recent search results for NERS using both run-0 and run-1 low-energy electronic recoil data of PandaX-4T with a total exposure of 1.63 ton*year.

Collaboration (if any)

PandaX

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