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Towards the Solutions of Reactor and Gallium Anomalies

Wednesday 30 August 2023 15:00 (15 minutes)

The reactor and gallium anomalies of the electron (anti)neutrino disappearance at short baselines have attracted intensive attentions and interests, but have to be resolved yet. In this presentation, I will discuss the status of the reactor and gallium anomalies, both in the framework of 3+1 neutrino oscillation scheme and their possible nuclear-physics interpretations. Future prospect for testing the solution of these anomalies will also be discussed.

This presentation is based on the following publications:

- [1] C. Giunti, Y.F. Li, C.A. Ternes, Z. Xin, Phys.Lett.B 829 (2022) 137054, arXiv:2110.06820.
- $[2]\ C.\ Giunti,\ Y.F.\ Li,\ C.A.\ Ternes,\ O.\ Tyagi,\ Z.\ Xin,\ JHEP\ 10\ (2022)\ 164,\ arXiv:2209.00916.$
- [3] C. Giunti, Y.F. Li, C.A. Ternes, Z. Xin, arXiv:2212.09722.

Submitted on behalf of a Collaboration?

No

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