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Axions, Neutrinos, and Rare Decay Anomaly of Belle-II

Tuesday, 17 September 2024 17:10 (5 minutes)

Motivated by recent findings from Belle II, where $\mathcal{B}(B^+ \to K^+\nu\bar{\nu}) = (2.3 \pm 0.5) \times 10^{-5}$, surpassing the Standard Model prediction by 2.7σ, we explore axion-based hypotheses to elucidate this discrepancy.
We examine a model based on the KSVZ-type axion, which not only accounts for the Belle II anomaly but also offers resolutions to the strong CP problem and neutrino mass generation through two-loop mechanisms.

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