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Is the NOVA-T2K tension pointing towards new physics beyond SM ?

The NOvA and T2K electron neutrino appearance data, show a persisting tension in the determination of the CP-phase δ_{CP} . We quantify the statistical level of the tension and point out that it may represent a hint of new physics BSM. In particular, we find a preference for flavor-changing non-standard neutrino interactions (NSI) at the non-negligible 2 sigma level. In addition, we point out that, in contrast to what happens within the standard 3-flavor scenario (where NOvA and T2K jointly prefer the inverted neutrino mass ordering), in the presence of NSI the two experiments jointly prefer the normal neutrino mass ordering, thus returning in agreement with all the remaining oscillation data, which favor the normal neutrino mass ordering.

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