

## Neutrino oscillation as a probe of new physics

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While the standard 3-flavor neutrino oscillation scenario is well-established, the mechanism behind neutrino mass is not yet pinned down experimentally. In fact, some new physics (related or not related to new physics behind neutrino mass) can modify the standard 3-flavor neutrino oscillation paradigm. We introduce an analytical solution for  $n$ -flavor neutrino oscillation in an arbitrary matter potential, which allows us to study effects beyond the standard paradigm. In particular, we highlight the difference between low-scale “nonunitary” scenario and nonstandard neutrino interactions. This solution is implemented in a public code NuProbe.

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