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## Probing Dissipation and Majorana CP phase with MINOS Experiment

In this work, we apply quantum dissipation to analyze the MINOS data. We perform this analysis considering neutrino and antineutrino beam and the global hypothesis where neutrinos are equivalents to antineutrinos. In the analysis, we use two different quantum dissipation models, where the first take into account only decoherence effects and second considers more general dissipative effects. In this approach, dissipative effects are described for only one parameter. However, when we consider Majorana neutrinos in the second dissipative model, there is possible to study CP Violation phase even in two neutrino families. Interesting enough, our global analysis show that considering a certain energy dependence on dissipative parameter, the CP violation phase has a non-zero value.

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