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Constraint on Neutrino Decay with Medium-Baseline Reactor Neutrino Oscillation Experiments

In this work we use the fact that JUNO has the best opportunity to put the most stringent constraint in nu_3 lifetime over others experiments which utilize artificial neutrinos source. If there is a neutrino decay into invisible states, we find, by studying the \chi^2, that the \nu_3 timelife can be constrained to \tau_3/m_3 > 7.5 (5.5) x 10^(-11) s/eV at 95%(99%) C.L. by JUNO by 100kt.years of exposure. We also discuss the effect of \nu_3 decay on the determination of neutrino mass ordering as well as the precision of oscillation parameters measured by JUNO.

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