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Search for nu_mu -> nu_e oscillations with the OPERA experiment

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The main goal of the OPERA experiment is the direct observation of $\nu_{\mu} \to \nu_{\tau}$ oscillations in the appearance mode in the quasi pure ν_{μ} CNGS beam. Profiting of the tracking capabilities of the OPERA active target it is possible to detect and reconstruct ν_e interactions and, therefore, study the subdominant $\nu_{\mu} \to \nu_e$ oscillation channel. Current results on this channel in the three-flavour mixing model are presented. The same data allow to constrain the non-standard oscillation parameters indicated by the LSND and MiniBooNE experiments.

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