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A search for short-baseline muon neutrino disappearance with MiniBooNE and SciBooNE KENDALL MAHN, TRIUMF, MINIBOONE COLLABORATION, SCIBOONE COLLABORATION — Neutrino mixing is consistent with three generations of neutrinos and a unitary mixing matrix. However, there is tension between the LSND experiments result of antineutrino oscillation at short baseline and the lack of such observation with the analogous result of the MiniBooNE experiment with neutrinos, indicating a possible third Δm^2 around $1eV^2$ due to more than three neutrino generations or other exotic physics. A complementary way to access the same physics as ν_e appearance is ν_μ disappearance. The MiniBooNE-only ν_μ and $\overline{\nu}_\mu$ disappearance search was limited by flux and cross section uncertainties, which are reduced with the addition of data from the SciBooNE experiment, also present in the Fermilab Booster Neutrino beamline. This talk will describe the current picture of short-baseline neutrino disappearance, the flux constraint provided by SciBooNE, and the status of the joint MiniBooNE-SciBooNE analysis.

Kendall Mahn
TRIUMF

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