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Neutrino and antineutrino disappearance in the Booster Neutrino Beamline KENDALL MAHN, Columbia University, MINIBOONE COLLABORATION, SCIBOONE COLLABORATION — To search for neutrino oscillations in the few eV^2 Δm^2 region, the MiniBooNE experiment can either look for electron neutrino appearance or muon neutrino disappearance. Disappearance measurements are an uniquely sensitive probe of oscillations to sterile neutrinos or other exotic processes such as neutrino decay. The 74% pure, high statistics CCQE muon neutrino sample in MiniBooNE can be used to make sensitive searches for disappearance of muon neutrinos and for the first time antineutrino disappearance in the few eV^2 Δm^2 range. By combining MiniBooNE with SciBooNE, a near detector recently added to the beamline, even better sensitivity to disappearance can be achieved. Results for the MiniBooNE neutrino and antineutrino disappearance measuremens will be presented along with the prospects for a combined MiniBooNE/SciBooNE measurements.

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