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Towards the measurement of the charged-current electron-neutrino inclusive cross-section on argon in MicroBooNE using the NuMI beam.

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The MicroBooNE experiment is an 87 t active mass Liquid Argon Time Projection Chamber (LArTPC) located on the Booster Neutrino Beam (BNB) at Fermilab, Chicago. The primary physics goals of this experiment are to investigate the excess of low energy electron-like events observed by MiniBooNE, perform precise measurements of neutrino on argon cross sections, and provide research and development for future liquid argon experiments such as SBN and DUNE. MicroBooNE also receives a significant neutrino flux from the highly off-axis NuMI beam. This flux can be utilised due to its high electron neutrino component (5%) to perform independent cross section measurements. This talk will cover the current status of the flux integrated inclusive charged-current electron-neutrino cross section measurement on argon performed using data from the NuMI beam collected during MicroBooNE's first run period.

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