

High-Precision Neutrino Measurements

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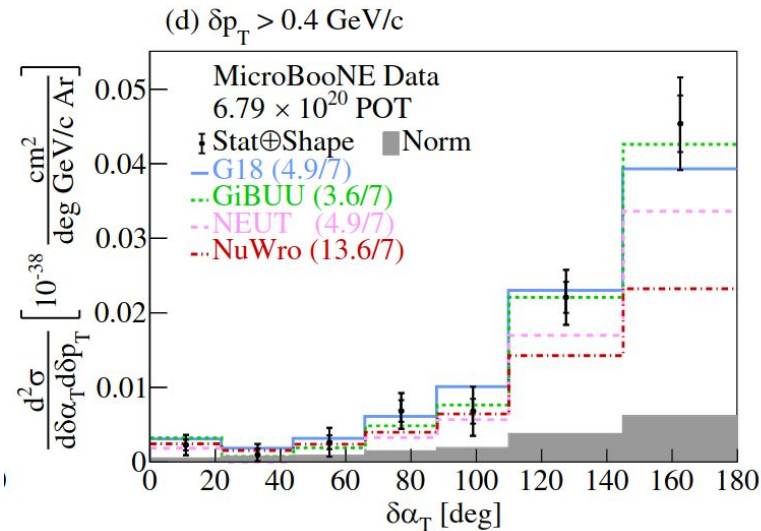
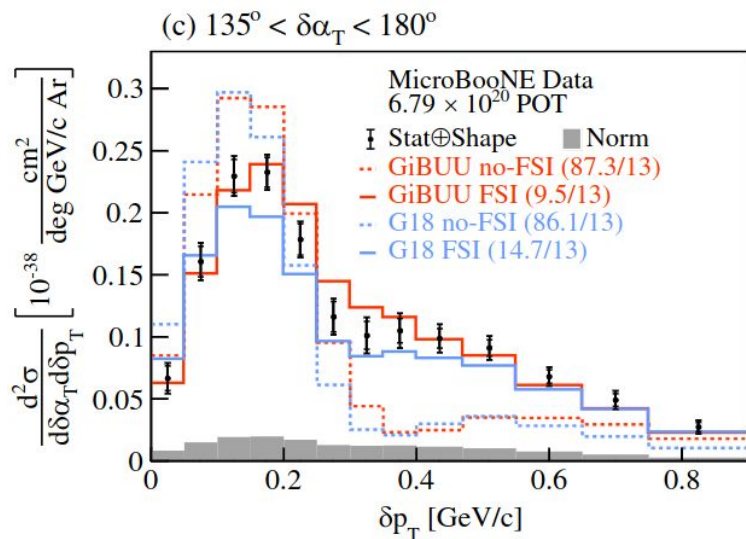
MicroBooNE/ $e4\nu$ /GENIE collaborator since 2016
SBND/DUNE collaborator since 2022

MicroBooNE cross section convener



Neutrino Interaction Expertise

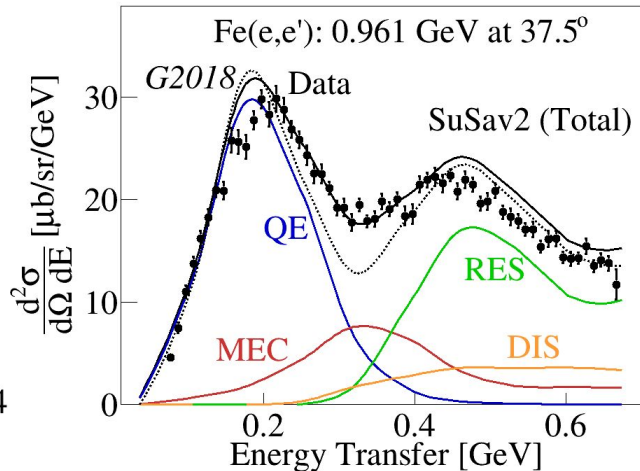
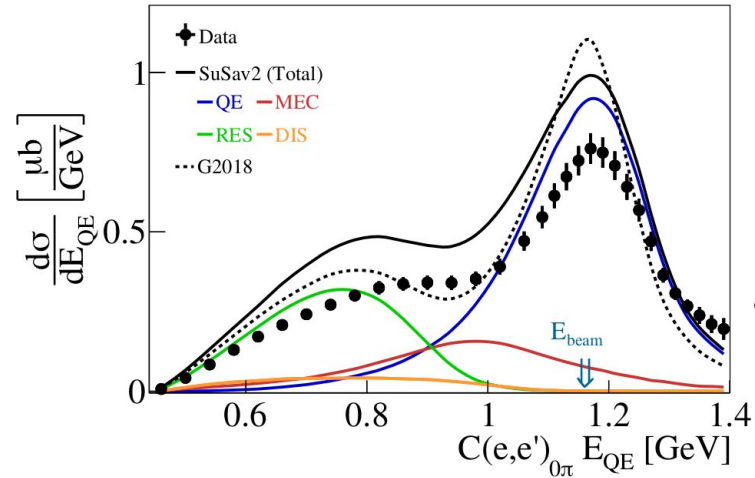
- Cross section measurements with single-proton neutrino-argon interactions with MicroBooNE
- Extend to first multi-variable kinematic imbalance measurements and to higher-statistics



[Phys. Rev. Lett. 131, 101802 \(2023\)](#), [Phys. Rev. D 108, 053002 \(2023\)](#), [arXiv:2310.06082](#)

Electron Interaction Expertise And Plans

- Leveraging high statistics/monoenergetic beams to constrain common modeling aspects with neutrinos
- Led $e4\nu$ analysis focusing on neutrino energy reconstruction, while performing a number of modeling comparisons



CLAS / $e4\nu$ Collaborations

- [Nature 599, 565–570 \(2021\)](#)
- [Phys. Rev. D 103, 113003 \(2021\)](#)