

The NuSTEC Cross Experiment Working Group (CEWG)



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NuSTEC Board Meeting
December 6th, 2021

CEWG Organization

- Leadership:
 - Conveners: Kirsty and Myself
 - Representatives from major experiments: (T2K, NOvA, MINERvA, MicroBooNE, SBND, ICARUS, DUNE)
- Communication:
 - Slack channel on the NuSTEC workspace (for conveners and representatives)
 - Email list (open to all; currently at 49 members)
 - Indico folder (meeting pages)
 - Page on NuSTEC website (sorely needed)
- Monthly meetings:
 - Rotate though experiments
 - Identify topics of interest to cross section experts
 - “Deep dive” presentations followed by discussion
 - First “working” Thursday of each month at 10:00 CT for roughly 90 minutes

CEWG Meeting Tenets

- CEWG presentations are open to all.
- They are NOT intended for announcing new results.
- They are for delving more deeply into techniques used in analyses with an expert audience.
- Help the community understand:
 - Full impact and limitations of methods
 - Debate best practices
 - Discuss details that don't make it into publications and higher-level talks
- Discussion and questions are highly encouraged!

2020 Meetings

- MINERvA: Data preservation
 - Speaker: Kevin McFarland
 - [Recent update](#)
- T2K: Flux error shape intricacies
 - Speakers: Lukas Koch and Stephen Dolan
 - [The paper](#)
 - [The talk](#)
- MicroBooNE: $CC0\pi Np$ measurement technique
 - Speaker: Andy Furmanski
 - [The paper](#)
 - [The talk](#)
- Next Meeting:
 - NOvA: Evaluating goodness-of-fit
 - Speaker: Matthew Muether

2021 Meetings

- Topic: Comparing Data to Generators
 - Experiment: NOvA
 - Speaker: Mat Muether, Linda Cremonesi, Jon Paley
 - Date: March 4th, 2021
 - Reading Material: NOvA CC-inc, PDG Stats section
 - Link: <https://indico.fnal.gov/event/48063/>
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- Topic: T2K Method for Xsec Extraction
 - Experiment: T2K
 - Speakers: Andrew Cudd, Stephen Dolan, Ciro Riccio, Ka Ming Tsui
 - Date: April 8th, 2021
 - Reading Material: Two T2K CC0pi and the T2K CC1pi+ TKI papers
 - Link: <https://indico.fnal.gov/event/48064/>
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- Topic: SBND-PRISM
 - Experiment: SBND
 - Speaker: Marco Del Tutto, Vishvas Pandey
 - Date: June 3rd, 2021
 - Reading material: Previous talk
 - Link: <https://indico.fnal.gov/event/48066/>
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- Topic: Unfolding (Weiner-SVD and Other Thoughts)
 - Experiment: MicroBooNE and T2K
 - Speaker: Hanyu Wei, Lukas Koch
 - Date: December 2nd, 2021
 - Reading material: Weiner_SVD paper
 - Link: <https://indico.fnal.gov/event/48072/>

Potential Topics for 2022

- e4nu
- 2p2h roundup
- Nuclear models for Ar
- More techniques from the latest MicroBooNE results
- Minerva MAT in action
- NUISANCE
- Understanding and characterizing fluxes
- Lepton sign tagging w/o a magnetic field
- ML based reconstruction
- The continuing unfolding saga
- Pion secondary interactions