



Welcome to the Workshop on Neutrino Event Generators

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Past Workshops

- ECT* (July 2018):
 - Indico Link: <https://indico.ectstar.eu/event/19/>
 - Topics:
 - Review of different nuclear models on the market
 - Review of nuclear models in generators
- ECT* (June 2019):
 - Indico Link: <https://indico.ectstar.eu/event/53/>
 - Topics:
 - Generators (Universal theory API)
 - Final state discussions
 - Ab Initio calculations comparison with generators
 - Nuclear models (SuSA, SF, etc.)
 - Unified electron and neutrino models
- FNAL (January 2020):
 - Indico link: <https://indico.fnal.gov/category/724/>
 - White paper link: <https://arxiv.org/pdf/2008.06566.pdf>
 - Topics:
 - Flux and geometry drivers / input formats
 - Structural problems for common flux / geometry
 - Output formats
 - Initial- and final-state interaction modeling
 - Theory interfaces

Focus areas for this workshop

- Theory interface (Wednesday afternoon)
- Common flux/geometry drivers (Thursday morning)
- Common event format (Thursday morning)
- **Systematic uncertainties** (Thursday afternoon)
- **Data comparison tools** (Friday)

Full agenda on Indico: <https://indico.fnal.gov/event/57388/>

Remote Zoom connection information emailed to all registrants. Please email Steven Gardiner (gardiner@fnal.gov) if you need it and did not receive it.

Meal logistics

- Daily coffee breaks at 10:40 am and 2:40 pm daily
- Lunch on your own at noon
 - Fermilab cafeteria orders can optionally be placed in advance via the website: <https://www.clover.com/online-ordering/fermilab-caf---taher-batavia>
- Social dinner on Thursday at 6 pm
 - **Venue: Two Brothers Tap House in Warrenville**
 - Website: <https://twobrothersbrewing.com/restaurants/tap-house/>
 - **Important note:** Not to be confused with Two Brothers Round House in Aurora
 - Please email Minerba Betancourt (betan009@fnal.gov) to RSVP

White Paper Plans

- Goals:
 - Similar scope to white paper from 2020 workshop
 - List a set of action items to accomplish in a one to two year time span (aim to meet again to evaluate status as well)
 - Hope to maintain working groups after the workshop to work on action items
 - Notes for during the workshop can be made at:
 - <https://docs.google.com/document/d/1wFUCu4o1pkBsvsUW6iQRIQ81rbEjM7qo3Xm6yMnwg64/edit?usp=sharing>
 - Is there interest in setting up a slack channel for future discussions and planning?