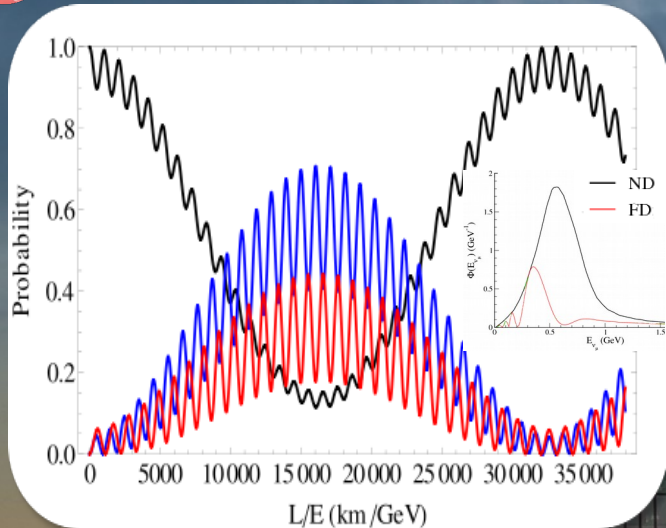
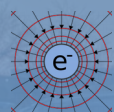


The need for Nuclear Cross-sections and Event Generators



- Oscillation: ratio of near-to-far flux, convoluted with the energy dependent interaction cross-section.

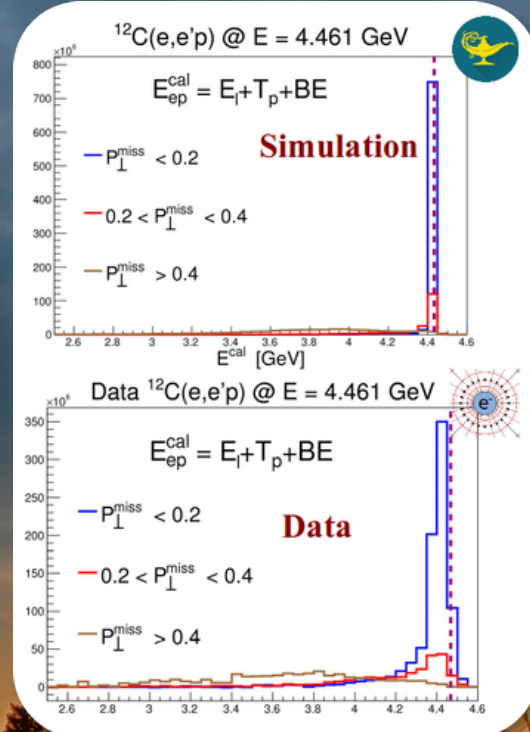
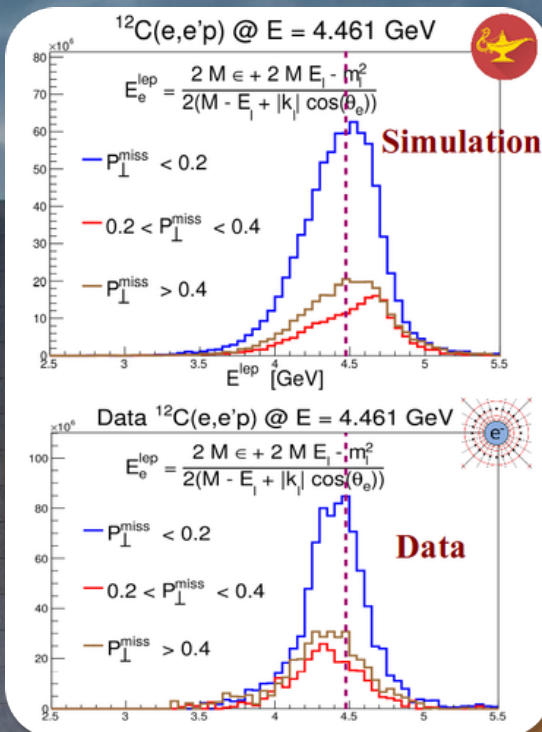


for

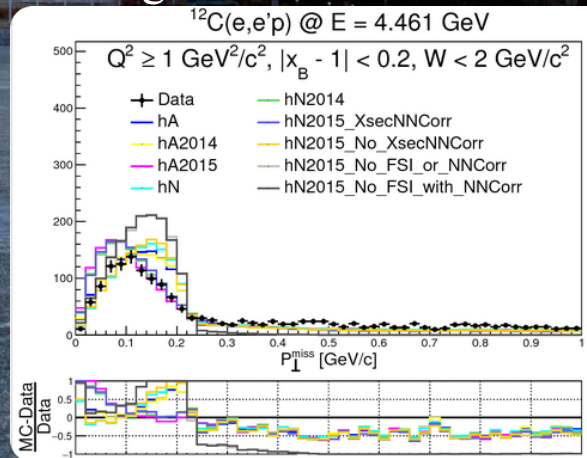


- e and ν share many common aspects of the interaction.
- CLAS@JLab has a large number of e-scattering data in a wide phase-space.
- Beam energy and EM interaction well known → good test of nuclear responses (FSI, multinucleon etc.)

Beam energy reconstruction using JLab QE (e,e'p) Data



FSI and multi-nucleon effects: Missing transverse momentum



Future Plans

- Study the (e,e'p) phase-space to identify regions with good and bad energy reconstruction & GENIE modeling.
- Expand to other reactions and study impact on bias in oscillation analyses.