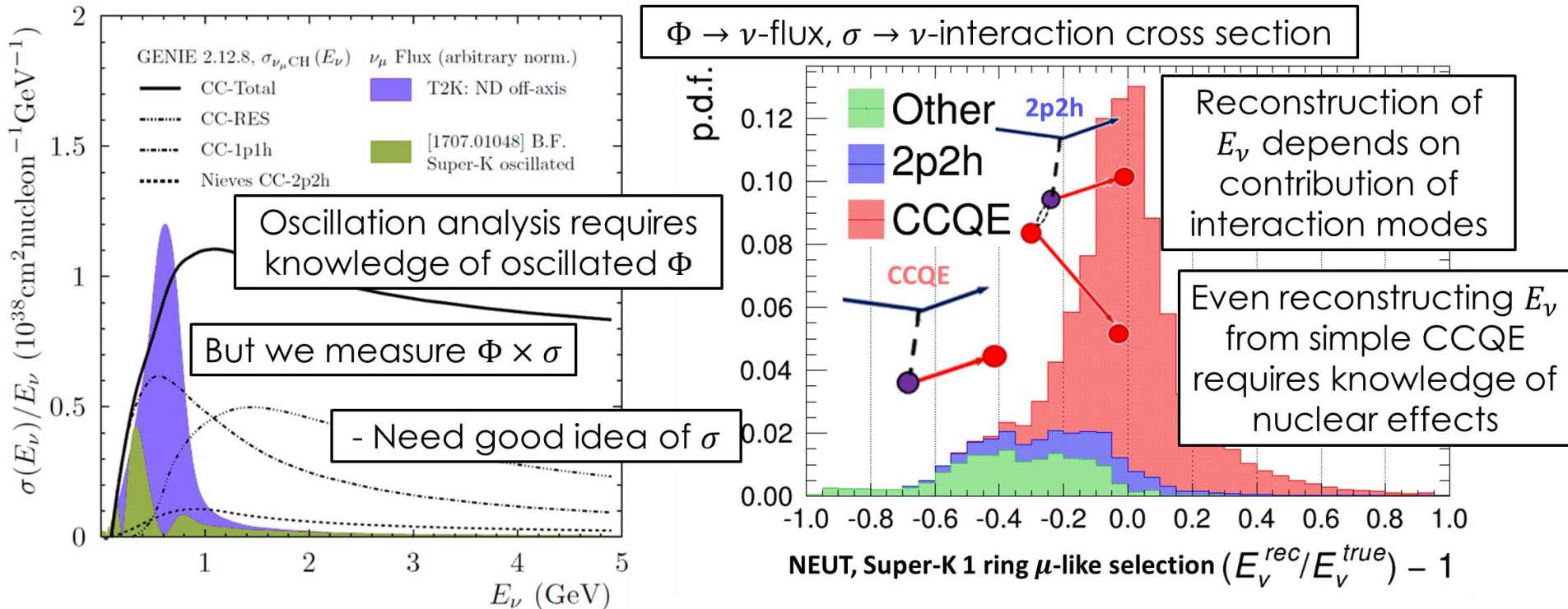
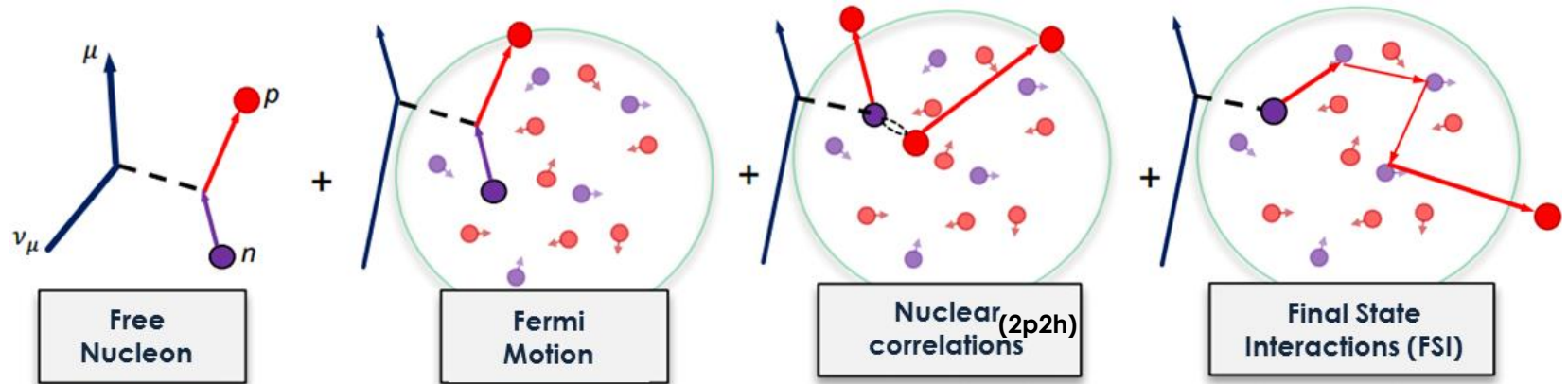


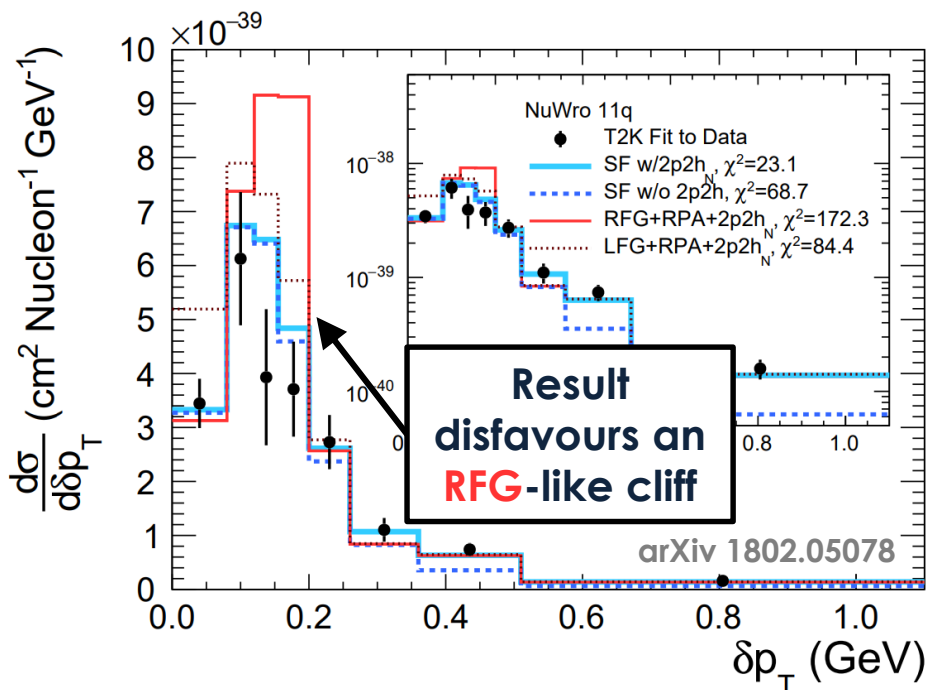
Nuclear effects are important!

Cause of **dominant systematics** in ν oscillation analyses



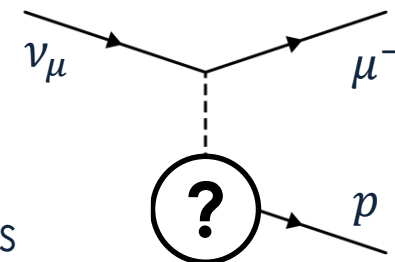
Transverse Kinematic Imbalance

δp_T - Missing transverse momentum between μ and p in: $\nu_\mu + N \rightarrow \mu^- + p + N'$



RFG - Widely used* model of **Fermi motion**

LFG/SF - Sophisticated but lesser used* models



Clear requirement for 2p2h contribution in tail

*In the context of inputs to oscillation and cross-section analyses.

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These measurements probe the aspects of ν -interactions **most important for oscillation analyses:**

- Understanding the **Fermi motion**
- Characterising **2p2h**

