



Contribution ID: 210

Type: **Parallel session talk**

QED corrections to neutrino nucleus scattering

Friday 30 July 2021 11:10 (20 minutes)

As neutrino physics marches towards its goal of percent-level determinations of oscillation parameters, the corresponding theory of neutrinos scattering off nuclei (detector material) must be improved and developed to a sub-percent level of precision. Large logarithms, e.g. $\log(E_\nu/m_e)$, and coherent enhancements, i.e. $Z\alpha/v$, can enhance QED corrections significantly. In this talk I will discuss Coulomb corrections in detail and comment on the importance of radiative corrections for coherent elastic neutrino nucleus scattering (CEvNS).

First author

Ryan Plestid

Email

rpl225@uky.edu

Collaboration / Activity

Not applicable?

Primary authors: PLESTID, Ryan (University of Kentucky/Fermilab); Dr TOMALAK, Oleksand (University of Kentucky / Fermilab); Prof. HILL, Richard (University of Kentucky / Fermilab); Dr PANDEY, Vishvas (University of Florida); Dr MACHADO, Pedro (Fermilab)

Presenter: PLESTID, Ryan (University of Kentucky/Fermilab)

Session Classification: T04: Neutrino Physics

Track Classification: Neutrino Physics