

Abstract Submitted  
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**A phenomenological study of photon production in low energy neutrino nucleon scattering** JAMES JENKINS, Los Alamos National Laboratory — Low energy photon production is an important background to many current and future precision neutrino experiments. I present a phenomenological study of t-channel radiative corrections to neutral current neutrino nucleus scattering. After introducing the relevant processes and phenomenological coupling constants, I will explore the derived energy and angular distributions as well as total cross section predictions along with their estimated uncertainties. This is supplemented throughout with comments on possible experimental signatures and implications. I conclude with a general discussion of the analysis in the context of complimentary methodologies.

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