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EFT of NonStandard neutrino Interactions MICHELE TAMMARO, WOLFGANG ALTMANNSHOFER, JURE ZUPAN, Univ of Cincinnati — We present an effective theory for neutrino interactions with quarks, gluons and photons that includes operators up to dimension 7. We perform a matching of these operators into nucleon operators in order to describe low energy processes as the recently observed coherent scattering on nuclei. We compare the contribution of these new interactions with the results from COHERENT and CHARM experiments to obtain bounds on the new couplings both in the low and high energy regime. We finally review different models that can give rise to such NonStandard Interactions.

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