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Neutrino Opportunities at a Muon Collider

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Muon decay is a well understood, equal numbers of electron/muon (anti)neutrinos and muon neutrinos with precisely known energy spectra. Also, with Very high luminosity for both muon and electron flavor content, Well known neutrino energy spectra, as well as very well determined beam intensity. These all make a muon colliders an ideal place to investigate rare or new neutrino interactions. I will briefly remark some of these opportunities that a muon collider can provide. These include (but are not limited to) i) precision in neutrino Cross Section Measurements at TeV energy ranges; ii) precision in Weak Mixing Angle; iii) Indirect BSM Searches (SMEFT) related to 4-fermion interactions that include neutrinos; iv) Direct searches of new physics related to neutrinos.

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Muon Collider

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