

Remarks on the forces generated by two-neutrino exchange

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We have evaluated the effect of neutrino masses on the long-range potential due to the exchange of a neutrino-antineutrino pair between two particles carrying weak charge. We considered in particular two electrons. This brings up-to-date calculations present in the literature for massless neutrinos. We considered for the first time the effect of a hypothetical neutrino magnetic moment on the potential. We noted that these terms are very often dominant over the weak contribution to the potential but it still remain too small to be observable.

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