

Neutrino electromagnetic properties

A review on neutrino electromagnetic properties is given. The problem of the neutrino form factors (in particular, the neutrino electric charge form factor and charge radius, dipole magnetic and electric and anapole form factors) definition and calculation within different gauge models is considered. The neutrino magnetic (diagonal and transition) moments in the Standard Model and beyond are discussed in detail. Available experimental constraints on neutrino electromagnetic properties and the most recent experimental limits on neutrino magnetic moments are also reviewed. The important neutrino electromagnetic processes involving neutrino couplings with photons and possible astrophysical applications are discussed.

Summary

The proposed talk is based on the review paper by

C.Giunti (INFN, Turin, Italy and myself

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