

Weak dipole moments of the charged leptons in models with extended scalar sectors

Abstract

Models with an extended scalar sector predict new neutral, singly, and doubly charged scalar bosons. General renormalizable scalar couplings are considered and the contributions of these hypothetical particles to the anomalous weak magnetic dipole moment (AWMDM) and weak electric dipole moment (WEDM) of a charged lepton are calculated in a model independent way. A numerical estimate is presented for the contributions of some popular models with an extended scalar sector.

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