

Electric Dipole Moment searches

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Collaboration

Abstract content

Since the 1950's people search for permanent Electric Dipole Moments (EDM) of fundamental systems, as a non-zero EDM would be an unambiguous manifestation of parity (P) and time reversal symmetry (T) violation. Assuming conservation of CPT, T violation in a fundamental system also means CP violation. EDMs are considered promising candidate systems, as this turns out to be a natural consequence of many theories beyond the SM. Different systems used to search for EDMs are the neutron, atomic and molecular systems, as well as charged particles. They all provide complementary information on beyond the SM physics. In the recent years, various new ideas have been developed and also existing concepts have undergone significant technical improvements. An overview of different strategies and their implications, as well as recent developments and results will be discussed in this talk.

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