

Seminar Fizičkog odsjeka

Time (s.t.)

Place

Wednesday 9th November, 11 h

room **F-201**

Neutron electric dipole moment from flavor changing Higgs couplings

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We consider neutron electric dipole moment contributions induced by flavour changing Higgs boson couplings to quarks. Previously one loop diagrams with such couplings were considered in order to constrain such couplings. In the present paper the analysis is extended to the two loop level, where the large SM Yukawa coupling for Higgs to top as well as the large SM Higgs coupling to the W-boson compensates for the loop suppression factor.

Unfortunately, some of the contributing diagrams have logarithmically divergent subloops, and this theory is not renormalizable. The logarithmically divergent terms are parametrized in terms of a cut-off of order 1 to 3 TeV. Given the experimental bound of the neutron electric dipole moment, we obtain a bound on the flavor changing Higgs coupling of same order of magnitude as the one reported by other authors from $B-\bar{B}$ -mixing.

Voditelji seminara FO

Damir Pajić i Ivica Smolić