

Service de Physique Nucléaire



Séminaire

le vendredi 25 février 2011 à 11h

CEA Saclay, Orme des Merisiers, Bât. 703, Salle 135

Time-Reversal Violation in the Nucleon and Light Nuclei

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Several experiments have been proposed with significantly increased sensitivity to electric dipole moments (EDMs) of hadrons and nuclei. If a non-zero EDM is found at a level well above that expected from the CKM matrix, one would like to identify the new mechanism(s) of time-reversal violation (TV). It would be useful to have a theoretical framework to correlate low-energy TV observables involving strongly-interacting particles. We extend nuclear chiral effective field theory to include the TV operators with effective dimensions up to six. Chiral constraints are shown to be important. As an example of the formalism, we discuss TV electromagnetic form factors of the nucleon and the deuteron.

Le café sera servi 10 minutes avant

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