

Enhancements and suppressions of CP violating effect in the nucleons, nuclei, and atoms: role of the spin

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The electric dipole moment (EDM) is a very sensitive probe of CP violation beyond the standard model, and it is measured in many systems such as atoms, neutrons, etc.

The EDM of composite systems may be sensitive to several CP violating processes at the elementary level, but the theoretical evaluations of the CP violation at different physical (atomic, nuclear, hadronic) hierarchies are required to unveil them.

In this context, we are particularly interested in which CP violating processes are enhanced in a given system, or vice versa.

In this talk, I will give an overview of the enhancement and suppressions of CP violation in processes contributing to the EDMs of composite systems.

It is inferred that the spin of the constituent is playing a crucial role in those mechanisms.

Primary author: Dr YAMANAKA, Nodoka (IPN Orsay)

Presenter: Dr YAMANAKA, Nodoka (IPN Orsay)

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