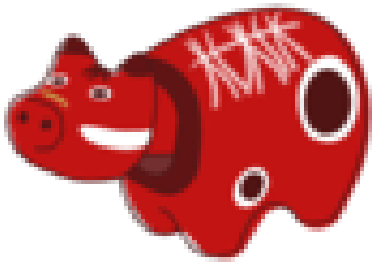

Contribution ID: **50** Type: **not specified**

CP-odd nuclear moments evaluated by nuclear shell model

Thursday, 6 March 2025 14:35 (20 minutes)

Permanent electric dipole moment (EDM) of elementary or composite particle is one of the promising probe for CP violation in beyond the standard model. In particular, the EDMs of diamagnetic atoms including ^{129}Xe and ^{199}Hg are sensitive to the CP-odd interactions in the hadronic sector. The hadronic CP-odd interactions can induce the nuclear Schiff moment, which induces the atomic EDM through the interactions with electrons. We compute the Schiff moments of ^{129}Xe and ^{199}Hg by using the nuclear shell model. It is found that the theoretical uncertainty can be reduced by considering the apparent correlation with other observables like isoscalar dipole resonance, electric transition strengths, and magnetic moment.

Type of contribution

Are you a student or postdoc?

yes

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