

独立行政法人理化学研究所 仁科加速器研究センター 第192回 RIBF核物理セミナー

RIKEN Nishina Center for Accelerator Based Science The 192nd RIBF Nuclear Physics Seminar

ガウス展開法における軽い原子核の電気双極子モーメントの研究

Nuclear electric dipole moment of 3-body systems in the Gaussian expansion method

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The nuclear electric dipole moment is a very sensitive probe of CP violation beyond the standard model, and for light nuclei, it can be evaluated accurately using the few-body calculational methods. In this work, we evaluate the electric dipole moment of 3-body nuclear systems using the Gaussian expansion method with realistic nuclear force, and assuming the one-meson exchange model for the P, CP-odd nuclear force. We then give the future prospects for BSM models such as the supersymmetry within the prospective experimental sensitivity.

* The talk will be given in English.

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