Neutrinoless double-β decay and the challenge it poses for nuclear physics

Friday 10 May 2024 16:20 (30 minutes)

In this talk, I will demonstrate the impact from nuclear structural aspects on the $0\nu\beta\beta$ matrix element calculations. Especially, I will outline recent works on neutrinoless double-beta ($0\nu\beta\beta$) decay nuclear matrix elements by using the Hamiltonian-based generator coordinate method, which enables the treatment of collective and non-collective correlations on the same footing. In addition, I will discuss some strengths and weaknesses and give a prospectus for future improvements.

Collaboration (if any)

Jiangming Yao, Jonathan Engel

Primary author: 焦, 长峰 (中山大学)

Presenter: 焦, 长峰 (中山大学)

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