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Nuclear magnetic dipole moments from *ab initio* calculation

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A reliable prediction of electroweak processes involving a nucleus is required to further understand nuclear structure and other related topics, such as nucleosynthesis and particle physics. In the past two decades, the range of applicability of nuclear *ab initio* calculations has been rapidly extending and reaching mass number of 200 systems. Yet, the reproduction of magnetic dipole moment, especially in medium and heavy mass regions, is one of the major challenges in nuclear *ab initio* calculations. In this presentation, I will show the *ab initio* calculation results of magnetic dipole moments for medium and heavy mass nuclei and discuss the effect of the leading-order two-body current.

session

I. Nuclear Structure and Reactions

Primary author: MIYAGI, Takayuki (University of Tsukuba)

Presenter: MIYAGI, Takayuki (University of Tsukuba)

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