国立研究開発法人理化学研究所　仁科加速器科学研究センター
第293回 RIBF核物理セミナー
RIKEN Nishina Center for Accelerator Based Science
The 293rd RIBF Nuclear Physics Seminar

First Spectroscopy in 40Mg and the Implications for Structure Near the Dripline

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The study of nuclei far from stability is one of the most active and challenging areas of nuclear structure physics. One of the most exotic neutron-rich nuclei currently accessible to experiment is 40Mg, which lies at the intersection of the nucleon magic number N=28 and the drip line, and is expected to have a large prolate deformation similar to that observed in the neighboring lighter isotopes 32-38Mg. In addition, the occupation of the weakly bound low-l p3/2 state may lead to the appearance of an extended neutron halo. 40Mg offers an exciting possibility and rare opportunity to investigate the coupling of weakly bound valence particles to a deformed core, and the influence of near threshold effects on collective rotational motion. I will discuss the results of an experiment carried out at RIBF to study 40Mg, the unexpected excitation spectrum observed, and possible interpretations for the structure of this key nucleus.

Feb. 16th(Tue.)2021　13:30～
via Zoom meeting system

＊ The talk will be given in English language.

Contact: Nuclear Physics Seminar Organizing Committee
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