独立行政法人理化学研究所　仁科加速器研究センター
第92回RIBF核物理セミナー
RIKEN Nishina Center for Accelerator Based Science
The 92nd RIBF Nuclear Physics Seminar

Toward an accurate understanding of optical models and single-particle states in exotic nuclei

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To understand and predict the properties of exotic nuclei, it is important to investigate *both* single-particle states and scattering processes at the driplines.

This talk will cover on-going developments in the dispersive optical model (DOM) and microscopic many-body Green's function theory. The DOM is a global parameterization that employs both experiments and microscopic theory to seek for the best possible constraints in extrapolations to the driplines. Microscopic calculations, based on realistic forces, are being employed to learn how nuclear structure should evolve at the drip lines (including single-particle energies, spectroscopic factors, effective charges, and so on...)

Recent applications include a DOM fit for the chain of Ca isotopes and calculations of spectroscopic factors in ^{48}Ca and ^{56}Ni.

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RIBF Conf. Hall, RIKEN

The seminar will be given in English.

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