Contribution ID: **123** Type: **Oral Presentations**

Dipole response in neutron rich nuclei

Thursday 10 July 2025 17:30 (20 minutes)

This study investigates the dipole response of neutron rich nuclei with a focus on the role played by the symmetry energy, particularly its density dependence below saturation. Employing several theoretical approaches, linear response theory and the Migdal model, semiclassical simulations based on the Vlasov equation and Random Phase Approximation with separable interactions, we explore the evolution of dipole polarizability across the chain of nickel and tin isotopes as a function of symmetry energy parametrization with density. Our studies, by comparing with the experimental data, may provide additional constraints on the nuclear equation of state below saturation density.

Primary authors: CIPU-DRĂGHICI, Cosmin-Marian (University of Bucharest); BARAN, Virgil (University of Bucharest)

Presenter: CIPU-DRĂGHICI, Cosmin-Marian (University of Bucharest)

Session Classification: Nuclear Physics, Energy Science and Technology, Accelerators and beams

Track Classification: S07 –Nuclear Physics, Energy Science and Technology, Accelerators and beams