Abstract Submitted
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Double Folding Analysis of ^{6}Li Elastic and Inelastic Scattering on ^{208}Pb[1] B. PINEYRO, J.T. MATTA, D. PATEL, University of Notre Dame — Nuclear incompressibility is an important parameter of the nuclear equation of state; but, it is not well constrained. The Isoscalar Giant Monopole Resonance (ISGMR), a compressional mode of the nucleus, can be used to probe nuclear incompressibility. Radioactive Ion Beam (RIB) facilities are becoming more common thus it would be interesting to measure ISGMR energies and strength distributions far from stability. In inverse kinematics the most appropriate solid target probe is ^{6}Li because it is light, T=0, and can be made thin enough for recoils to escape. Given the paucity of information of ^{6}Li as an ISGMR probe, a measurement of the ^{208}Pb ISGMR was performed at RCNP, Osaka University, Japan with ^{6}Li at 60 MeV/A. Elastic scattering and small angle inelastic data were obtained. Optical model parameters were acquired by fitting the elastic data and used to extract the energy and strength distribution of the ISGMR via a multipole decomposition analysis.

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Benedict Pineyro
University of Notre Dame

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