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Complete dipole strength distribution in ^{208}Pb — •Iryna Poltoratska for the EPPS0-Collaboration — Institut für Kernphysik, TU Datmstadt, Deutschland

Recent experimental progress and development at RCNP Osaka, Japan [1], allows measurements with intermediate-energy polarized beams at very forward angles combined with high energy resolution of the order $\Delta E/E \approx 8 \cdot 10^{-5}$. The data in ^{208}Pb shows strong Coulomb excitation of the 1^- states at very forward angles. For the separation of E1/M1 contributions two different independent methods are applied, viz. a multipole decomposition of the angular distribution of the cross sections utilizing DWBA calculations and a model-independent analysis based on polarization transfer coefficients. Such experiments allow the simultaneous extraction of the photon strength function below and above neutron separation energy. Utilizing fluctuation analysis, one can extract level densities from the fine structure of the giant dipole resonance.

[1] A. Tamii et al., Nucl. Inst. Meth. A 605, 326 (2009).

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