

Abstract Submitted  
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**Systematics of Giant Electric Dipole Resonances in Hot, Rotating Nuclei**<sup>1</sup>

KATHERINE MCALPINE, Department of Physics & Astronomy, Michigan State University, ANDREAS SCHILLER, National Superconducting Cyclotron Laboratory, Michigan State University, MICHAEL THOENNESSEN, Department of Physics & Astronomy, Michigan State University — The dependence of hot Giant Dipole Resonance (GDR) widths on spin, temperature, and mass is an exciting field of study. In 2001, Kusnezov et al. [1] developed a scaling law to predict the width as a function of these parameters. The law is a reliable description of their data set. Recently, Schiller and Thoennessen [2] prepared a compilation of GDR parameters built on excited states. The scaling law is tested over this larger data set, about five times the number of entries utilized by Kusnezov. Beyond a more detailed study of the dependence of the width on temperature and spin, the compiled data can be broken into subsets with common characteristics. By analyzing subsets of the data, we hope to gain a clearer understanding of the influence of shell effects, deformation, and gating conditions on the GDR width.

[1] D. Kusnezov et al., Phys. Rev. Lett. **81**, 542 (1998).

[2] A. Schiller and M. Thoennessen, nucl-ex/0605004.

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