Triaxial Nuclei Floppy or Rigid?\textsuperscript{1} \textsc{Weichuan Li}, University of Notre Dame, \textsc{Stefan Frauendorf} and \textsc{Mark Caprio} Collaboration —

Triaxial nuclear shapes are interesting since they are so unusual in the nuclear chart. But whether the triaxial nuclei are soft or rigid in shape is still a question. Softness of triaxial nuclei has primarily been studied in even-even nuclei. We study softness of triaxiality in odd-mass nuclei, using the Core Quasi-Particle Model coupling an even-even core in Algebraic Collective Model with a quasi-particle in the spherical field. We want to know if the quasi-particle outside of the core will influence the rigidness of the core or not? And how the quasi-particle influences the core’s properties.

\textsuperscript{1}Supported by the US DOE under Award Nos. DE-FG02-95ER-40934, DESC0008485 (SciDAC/NUCLEI), and DE-FG02-87ER40371 and the US NSF under Award No. 0904782. Computational resources provided by NERSC (US DOE Contract No. DE-AC02-05CH11231).

Weichuan Li  
University of Notre Dame  

Date submitted: 15 Oct 2015  
Electronic form version 1.4