Abstract Submitted
for the APR20 Meeting of
The American Physical Society

Structure of ^{41}K and ^{41}Ca[1] ELIZABETH RUBINO, SAMUEL TABOR, VANDANA TRIPATHI, Florida State Univ, REBEKA LUBNA, TRIUMF, BRITTANY ABROMEIT, Pacific Northwest Natl Lab, JAMES ALLMOND, Oak Ridge Natl Lab, LAGY BABY, Florida State Univ, KONSTANTINOS KRAVVARIS, Lawrence Livermore Natl Lab — The nuclei of interest, ^{41}K and ^{41}Ca, straddle the N/Z = 20 shell gap and subsequently give insight into the evolving shell structure surrounding this region. The addition to the high-spin structure of these nuclei results from the augmented FSU high purity germanium detector array. The nuclei were produced by bombarding a ^{26}Mg target with a 50 MeV ^{18}O beam from the John D. Fox Superconducting Linear Accelerator Laboratory at Florida State University. Several new levels and gamma decays have been observed. Additionally, spins and parities have been measured. The structure of these nuclei will be compared with predictions of the spsdpf cross-shell FSU shell model interaction.

[1]This material is based upon work supported in part by the U.S. National Science Foundation under grant No. 1712953. Supported in part by the Stewardship Science Academic Alliance through the Centaur Center of Excellence under Grant No. NA0003841. Also supported in part by U.S. Department of Energy, office of Science, under Award No.DE-AC05-00OR22725 (ORNL).

Elizabeth Rubino
Florida State Univ

Date submitted: 07 Jan 2020 Electronic form version 1.4