

Abstract Submitted  
for the DNP07 Meeting of  
The American Physical Society

**Shell structure near  $^{42}\text{Si}$ : one proton knockout from  $^{44}\text{S}$ <sup>1</sup>** L.A. RILEY, T.R. BAUGHER, K.E. KOSIER, Ursinus College, P.D. COTTLE, K.W. KEMPER, Florida State University, P. ADRICH, D. BAZIN, J.M. COOK, C. AA. DIGET, A. GADE, D.A. GARLAND, T. GLASMACHER, A. RATKIEWICZ, K.P. SIWEK, D. WEISSHAAR, National Superconducting Cyclotron Laboratory, Michigan State University — The  $d_{5/2}$  proton strength in  $^{43}\text{P}$  was studied via the one-proton knockout reaction  $^9\text{Be}(^{44}\text{S}, ^{43}\text{P})\text{X}$ . Gamma rays were measured in coincidence with the knockout products. We extracted spectroscopic factors of states populated in the reaction from measured parallel momentum distributions. An expanded level scheme will be presented and the size of the  $Z = 14$  proton subshell closure will be discussed.

<sup>1</sup>Supported by NSF grant nos. PHY-0606007, PHY-0355129, and PHY-0653323.

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Date submitted: 02 Jul 2007

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