Abstract Submitted
for the HAW14 Meeting of
The American Physical Society

SuperORRUBA in the JENSA Gas Target NATA FRANCO SOARES DE BEM, Tennnessee Technological University and CEFET-MG (Brazil), KELLY A. CHIPPS, ORNL, RAYMOND L. KOZUB, Tennnessee Technological University, JENSA COLLABORATION — The Jet Experiments in Nuclear Structure and Astrophysics (JENSA) gas jet target is a state-of-the-art device for performing beam experiments with gas targets.[1] Experiments with pure hydrogen and helium targets are especially useful for astrophysics studies. JENSA can accommodate a large silicon detector array, such as SuperORRUBA (Oak Ridge Rutgers University Barrel Array) so that a large angular range for detecting charged particles can be covered in any experiment. A structure to hold such an array is being designed using modeling and CAD software. The structure can be rotated and translated relative to the beam axis. A number of designs are being considered, the status of which will be presented. This work was supported by the U.S. Department of Energy and CNPq - Brazil (National Council for Scientific and Technological Development).

[1]K. A. Chipps et al., NIM A, in press (2014).

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Date submitted: 21 Jul 2014 Electronic form version 1.4