Abstract Submitted
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Coupling the ORRUBA and Gammasphere Arrays[1] STEVEN HARDY, A. ADEKOLA, J.A. CIZEWSKI, M.E. HOWARD, P.D. O'MALLEY, B. MANNING, Rutgers University, D.W. BARDAYAN, S.D. PAIN, ORNL, C.J. LISTER, D. SEWERYNIAK, Argonne National Laboratory, J.C. BLACKMON, M. MATOS, Louisiana State University, K.A. CHIPPS, Colorado School Of Mines, K.L. JONES, University of Tennessee, R.L. KOZUB, Tennessee Technological University, W.A. PETERS, ORAU — The coincident detection of charged particles and gamma rays with high resolution facilitates the performance of numerous nuclear physics measurements. These include the study of the fragmentation of single-particle strengths close to shell closures, surrogate measurements to inform neutron capture, heavy-ion transfer reactions and inelastic scattering measurements to probe collective states. The large internal geometry of Gammasphere is ideally suited to coupling to a large solid-angle silicon detector array, maximizing gamma ray efficiency without compromising charged particle angular resolution. The upcoming coupling of the ORRUBA and Gammasphere arrays for the coincident measurement of charged particles and gamma rays with high-efficiency and high-resolution will be discussed.

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Steven Hardy
Rutgers University

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