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Birds and the B(GT)s: Gamow-Teller Strengths from (t,3He) Charge Exchange Measurements MEREDITH HOWARD, S.D. REITZNER, E.E. SMITH, The Ohio State University, S. AUSTIN, D. BAZIN, A.L. COLE, M. FAMIANO, A. GADE, D. GALAVIZ REDONDO, G.W. HITT, W. MARTINEZ, M. MATOS, H. SCHATZ, B. SHERRILL, C. SIMENEL, A. STOLZ, R.G.T. ZEGERS, National Superconducting Cyclotron Laboratory, B. DAVIDS, TRIUMF, Y. SHIMBARA, RCNP/NSCL, C. SAMANTA, Saha Institute of Nuclear Physics — In pre-collapse and post-bounce stars, electrons excite Gamow-Teller (GT) resonances. Our current understanding of supernova explosion dynamics is guided by models that use data and calculations of GT strength (B(GT)) distributions for many nuclei. While measuring B(GT) for all nuclei is an unreasonable chore, limited charge exchange data can 1) reduce uncertainties for important nuclei and 2) vet assumptions/calculations used in different isotopic regions. (T,3He) experiments run at the National Superconducting Cyclotron Laboratory (NSCL) use a 450 MeV secondary triton beam to measure strengths with a resolution of about 150 keV from dispersion matching. Preliminary results from a recent experiment on ^{24}Mg , ^{63}Cu and ^{94}Mo targets are discussed. This work is supported by JINA and the NSF (PHY 0214783, 0110253, 0140255).

Prefer Oral Session
 Prefer Poster Session

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