

1G13 Experimental Observations on Formation of Rotating Electron Beams and Effects of Gas Loading in the Maryland ERA. * W.W. DESTLER, D.W. HUDGINGS, J.G. LINHART, P.K. MISRA, M.P. REISER, M.J. RHEE, and G.T. ZORN. Univ. of Maryland.-- The properties of a hollow, intense, relativistic electron beam after passing through a narrow magnetic cusp have been studied using a variety of diagnostics. Typical beam energies and currents are in the range 1-2 MeV and 2-10 kA, respectively; the pulse width is between 5 and 50 ns. Total beam current transmitted through the cusp and the radial cross section of the rotating