

Abstract Submitted  
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**Designs and Plans for MAIZE: a 1 MA LTD-Driven Z-Pinch** R.M. GILGENBACH, M.R. GOMEZ, J. ZIER, W. TANG, D.M. FRENCH, B.W. HOFF, N. JORDAN, E. CRUZ, Y.Y. LAU, T. FOWLER-GUZZARDO, J. MEISEL, University of Michigan, M.G. MAZARAKIS, M.E. CUNEO, M.D. JOHNSTON, T.A. MEHLHORN, Sandia National Laboratories, A.A. KIM, V.A. SINEBRYUKHOV, Institute for High Current Electronics — We present designs and experimental plans of the first 1 MA z-pinch in the USA to be driven by a Linear Transformer Driver (LTD). The Michigan Accelerator for Inductive Z-pinch Experiments, (MAIZE), is based on the LTD developed at the Institute for High Current Electronics, utilizing 80 capacitors and 40 spark gap switches to deliver a 1 MA, 100 kV pulse with <100 ns risetime. Designs will be presented of a low-inductance MITL terminated in a wire-array z-pinch. Initial, planned experiments will evaluate the LTD driving time-changing inductance of imploding 4-16 wire-array z-pinches. Wire ablation dynamics, axial-correlations and instability development will be explored. \*This work was supported by U. S. DoE through Sandia National Laboratories award number 240985 to the University of Michigan. Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under Contract DE-AC04-94AL85000.

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