## Abstract Submitted for the DPP13 Meeting of The American Physical Society

The Magnetic

Field Distribution of Single Exploding Wire Aluminum Plasmas¹ KATE BLESENER, SERGEI PIKUZ, TANIA SHELKOVENKO, DAVID HAMMER, Cornell University, YITZHAK MARON, RAMY DORON, VLADIMIR BERNSHTAM, LEONID WEINGARTEN, YURI ZARNITSKY, Weizmann Institute of Science — The exploding wires were driven by the 13 kA Low Current Pulser LCP3 at Cornell University, employing high-resolution time-gated emission spectroscopy at visible wavelengths to determine the plasma parameters as a function of radial position and time. The distribution of current through single exploding aluminum wires was determined through time resolved studies of the magnitude of the magnetic field as a function of position. To study the magnetic field we used the Zeeman Broadening technique developed at the Weizmann Institute of Science [1].

[1] E. Stambulchik, et al. Phys. Rev. Lett. 98, 225001 (2007).

<sup>1</sup>This research is supported by the DOE/NNSA joint program in HEDLP under contract DE-SC0002263 and by the NNSA SSAA program under DOE Cooperative Agreement DE-NA0001836.

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Date submitted: 12 Jul 2013 Electronic form version 1.4