

Abstract Submitted
for the DPP11 Meeting of
The American Physical Society

LSP simulations of the effect of scattering on hot electron transport¹ A.G. KRYGIER, S. JIANG, V. OVCHINNIKOV, D.W. SCHUMACHER, R.R. FREEMAN, Ohio State University, A. LINK, LLNL — Characterization of the hot electron source in ultra-intense laser-plasma interactions (LPI) is important to fast ignition. The transport of hot electrons in plasma involves self-generated fields and scattering which modify the electron transport. The apparent divergence of the electrons is typically measured by imaging K-alpha fluorescence from metal targets created by the transporting electrons. The modifications due to hot electron scattering are considered using the PIC code LSP where the electron source has been generated by simulating the LPI for a range of intensities and materials and are compared to results from Monte Carlo simulations. We report on the results of these simulations.

¹This work was supported by the U.S. Department of Energy under contracts DE-FC02-04ER54789, DE-FG02-05ER54834, and allocations of computing time from the Lawrence Livermore National Laboratory Institutional Computing Grand Challenge program.

Andrew Krygier
Ohio State University

Date submitted: 19 Jul 2011

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