Abstract Submitted
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Bremsstrahlung and KA Measurements of Laser to Hot Electron Coupling in Fast Ignition Conical Geometries[1] CLIFF CHEN, LLNL, F.N. BEG, UCSD, J.R. DAVIES, Instituto Superior Technico, L. DIVOL, LLNL, R. FEDOSJEVS, University of Alberta, R.R. FREEMAN, OSU, H. FRIESEN, University of Alberta, A.J. KEMP, M.H. KEY, LLNL, K. LI, Instituto Superior Technico, A. LINK, OSU, H. MCLEAN, LLNL, A. MORACE, Univeristy of Milan, V. OVCHINNIKOV, OSU, P.K. PATEL, Y. PING, LLNL, H. SAWADA, A. SOROKOVIKOVA, UCSD, R. STEPHENS, General Atomics, M. STREETER, Imperial College London, L. VAN WOERKOM, D. WERTEPNY, OSU, B. WESTOVER, UCSD, S.C. WILKS, LLNL — The laser coupling efficiency into forward going relativistic electrons was studied on the Titan laser (1054 nm, 150 J, 0.7 p.s., 10^{20} W/cm^2) at LLNL in a conical geometry using two separate techniques: an array of absolutely calibrated Bremsstrahlung spectrometers (differential sensitivity up to 700 keV) measuring emission from an Al cone-multilayer foil target, and a spherical Bragg crystal imager to image the Cu KA emission from the 1-D electron transport along an Al cone-Cu wire target. The electron transport and x-ray emission is modeled with the hybrid-PIC code LSP.

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