

Abstract Submitted
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Using hard-X-ray images of ignition hohlraums on NIF to characterize hot electrons generated by laser-plasma interaction¹ LAURENT DIVOL, T. DOEPPNER, C. THOMAS, E. DEWALD, H. PARK, M. SCHNEIDER, G. LACAILE, P. MICHEL, R. TOWN, N. MEEZAN, J. MOODY, Lawrence Livermore National Laboratory, J. KLINE, Los Alamos National Laboratory, S. GLENZER, O. LANDEN, Lawrence Livermore National Laboratory — Using multi-channel hard X-ray images of an ignition hohlraum taken along two axis and the time-integrated FFLEX broadband spectrometer that measures Bremsstrahlung hard X-rays emitted in the hohlraum wall by energetic electrons, we characterize the location of hot electron generation. We distinguish two hot electron components of the spectrum: a 20 keV thermal-like component related to Stimulated Raman scattering and a “super ho” (> 60 keV) component due to LPI at higher density. In addition, the effect of the hohlraum thermal emission (with $T_{\text{hot}} \approx 2\text{-}4$ keV) on this analysis will be assessed.

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