Abstract Submitted
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**Laser/x-ray coupling in the first NIF beryllium implosions**[1] D.C. WILSON, J.L. KLINE, S.A. YI, A.N. SIMAKOV, R.E. OLSON, G.A. KYRALA, T.S. PERRY, S. BATHA, Los Alamos National Laboratory, D.A. CALLAHAN, E.L. DEWALD, O. JONES, D.E. HINKEL, O.A. HURRICANE, N. IZUMI, A.G. MACPHEE, J.L. MILOVICH, J.E. RALPH, J.R. RYGG, M.B. SCHNEIDER, D.J. STROZZI, C.A. THOMAS, R. TOMMASINI, Lawrence Livermore National Laboratory — The x-ray flux driving a capsule is currently overestimated in standard Hydra high-flux model (Rosen *et al.,* HEDP **7**,180 (2011)) calculations of gas-filled hohlraums. Jones *et al.* (Phys. Plasmas,**19**,056315 (2012)) introduced time dependent multipliers to reduce the laser drive and achieve an appropriate radiation drive on NIF capsules. Using shock velocities from VISAR capsule experiments, symmetry capsule implosion times with truncated laser pulses, and time dependent DANTE X-ray flux measurements from 1D and 2D convergent ablator implosions, we derived a set of time dependent flux multipliers for the first NIF cryogenically layered beryllium capsule implosion. The similarity between these multipliers for both plastic and beryllium capsules suggests that they are primarily correcting for improper modeling of the hohlraum physics, with possibly some residual contribution from capsule modeling deficiencies. Using Lasnex we have adjusted hohlraum physics and resolution in an attempt to model these implosions without drive multipliers.

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