

Abstract Submitted
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Design of Platforms for Backlighting Spherical Implosions on OMEGA and the National Ignition Facility R.S. CRAXTON, M. HOHENBERGER, W.E. KEHOE, F.J. MARSHALL, D.T. MICHEL, P.B. RADHA, M.J. ROSENBERG, Laboratory for Laser Energetics, U. of Rochester — A common problem when backlighting implosions on OMEGA and at the National Ignition Facility (NIF) is that the implosion uniformity can be compromised by the loss of those beams used to drive the backlighter. The 2-D hydrodynamics code *SAGE*,¹ which includes 3-D laser ray tracing, has been used to design irradiation configurations in which beam pointings and energies are adjusted to restore optimal implosion uniformity. Experimental x-ray self-emission images have demonstrated the effectiveness of these configurations for an OMEGA platform in which six beams are removed to drive the backlighter and a polar-drive NIF platform in which two quads are removed. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0001944.

¹R. S. Craxton and R. L. McCrory, J. Appl. Phys. **56**, 108 (1984).

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