

Abstract Submitted
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Signatures of Stimulated Raman and Brillouin Scattering in Direct-Drive National Ignition Facility Experiments W. SEKA, M.J. ROSENBERG, M. HOHENBERGER, J.F. MYATT, J.G. SHAW, A.A. SOLODOV, R.W. SHORT, P.B. RADHA, S.P. REGAN, Laboratory for Laser Energetics, U. of Rochester — Stimulated Raman and Brillouin scattering (SRS and SBS, respectively) have been identified in polar-direct-drive (PDD) implosion experiments at the National Ignition Facility. The SBS spectra primarily represent cross-beam energy transfer with low SBS gain and good agreement between experiments and simulations have been obtained. The SRS spectra are also multibeam interactions and reflect the evolution of density scale length in the corona. Two-dimensional *DRACO* simulations of these experiments have been used to generate simulated SBS spectra and SRS gains. A quantitative comparison of the simulations with the experimental results will be presented. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0001944.

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