

Abstract Submitted
for the DPP20 Meeting of
The American Physical Society

Cross-Beam Energy Transfer in Simulations of NIF-Scale Shock-Ignition Experiments KENNETH ANDERSON, WOLFGANG THEOBALD, JOHN MAROZAS, Lab for Laser Energetics, ROBERT SCOTT, KEVIN GLIZE, STFC Rutherford Appleton Lab — Recent experiments at the National Ignition Facility (NIF) have characterized the laser energy coupling to the strong shock at shock-ignition-relevant laser intensities. Analysis of these experiments has shown that a significant amount of energy is scattered away from the target due to cross-beam energy transfer (CBET). This effect has generally not been accounted for in previous simulations of shock-ignition implosions. This talk will present results from 2-D DRACO simulations of these experiments using a pump-depletion model of CBET to compare with data from these experiments. Implications for previous shock-ignition designs for the NIF will be discussed. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0003856.

Kenneth Anderson
Lab for Laser Energetics

Date submitted: 26 Jun 2020

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