

Abstract Submitted
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A Data-Model Comparison Using a Novel X-Ray Thomson Scattering Diagnostic¹ M.R. TRANTHAM, E.J. GAMBOA, R.P. DRAKE, University of Michigan, CRASH TEAM — We have developed a novel X-ray Thomson scattering diagnostic capable of creating high-resolution spatially resolved one-dimensional profiles while spectrally resolving the scattered radiation (see poster by Gamboa, et al). This instrument will collect spatially-resolved data profiling the temperature, density, and ionization state of a radiation-driven wave in low-density carbon foam. This data set will be compared to results from CRASH, a numerical model for radiation-hydrodynamics. We expect this study to be very important in analyzing the overall model performance, but also potentially important in refining equation of state and opacity information.

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