

Simulations of Radiative Effects on Rayleigh-Taylor using CRASH

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Abstract

Future experiments at NIF will be able to create conditions relevant to Rayleigh-Taylor instabilities in a radiatively shocked environment, such as in a supernova. In preparation for these experiments we are using the CRASH code to explore the behavior of these instabilities. Previous simulations of high-energy-density Rayleigh-Taylor instabilities in the presence of a radiative shock demonstrate a different behavior when compared to non-radiative cases.