

Abstract Submitted
for the DPP16 Meeting of
The American Physical Society

Interfacial mixing in high energy density matter with a new kinetic model JEFFREY HAACK, Los Alamos National Laboratory, CORY HAUCK, Oak Ridge National Laboratory, MICHAEL MURILLO, Michigan State University — We apply a new conservative multi-species multi-temperature BGK model to study interface mixing in a dense plasma with ICF applications. This model conserves mass, momentum, and kinetic energy and allows for a more clear connection to the underlying cross sections and inter-species collision rates. In particular, this example exhibits hydrogen jetting into the fusion fuel. We compare with molecular dynamics results.

Jeffrey Haack
Los Alamos National Laboratory

Date submitted: 15 Jul 2016

Electronic form version 1.4