

Abstract Submitted  
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**Non-Maxwellian Effects for ICF**<sup>1</sup> SETH DAVIDOVITS, NATHANIEL FISCH, Princeton Plasma Physics Laboratory, Princeton University, Princeton NJ — While in collisional plasma the bulk of the distribution function is driven toward Maxwellian in a few collision times, the high velocity tails can take much longer to form. The fast ions in these tails have much larger fusion cross sections than thermal ions, and contribute substantially to fusion production. We investigate the possibilities for enhancement or depletion of these tails in regimes applicable to ICF capsule implosions, and the corresponding effects on fusion reactivity. There are a number of possible scenarios that might yield such non-Maxwellian tails, including, for example, hydrodynamic flows or Knudsen layer effects.

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Seth Davidovits  
Princeton Plasma Physics Laboratory, Princeton University, Princeton NJ

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