

Abstract Submitted  
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**Electron energy transport in Laser Produced Plasmas Using a Velocity Dependent Krook (DVK) Model in one and two dimensions<sup>1</sup>** WALLACE MANHEIMER<sup>2</sup>, RSI Corporation, Lanham, Md, DENIS COLOMBANT, Naval Research Laboratory, Washington, DC — We have extended our VDK model for nonlocal electron energy transport to two dimensions, using a simple extension of our one dimensional model. There are various simplifications one can make to reduce the computer time involved in a calculation. For instance, there is often a dominant direction for the heat flow, axial in foil acceleration calculations, and radial in spherical implosion calculations. One option is to consider the VDK model in only the dominant direction. Furthermore, one can apply the VDK model at a subset of points in the transverse (to the dominant) direction and use interpolation. To do a two dimensional calculation, it is possible to use a VDK model independently in each direction. In this model as well, we can employ the VDK model at every point in each direction, or at a subset.

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