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ICF target 2D modeling using Monte Carlo SNB electron thermal transport in DRACO JEFFREY CHENHALL, University of Wisconsin, Madison, DUC CAO, Laboratory for Laser Energetics, University of Rochester, GREGORY MOSES, University of Wisconsin, Madison — The iSNB (implicit Schurtz Nicolai Busquet[1,2]) multigroup diffusion electron thermal transport method is adapted into a Monte Carlo (MC) transport method to better model angular and long mean free path non-local effects. The MC model was first implemented in the 1D LILAC code to verify consistency with the iSNB model[3,4]. Implementation of the MC SNB model in the 2D DRACO code enables higher fidelity non-local thermal transport modeling in 2D implosions such as polar drive experiments on NIF. The final step is to optimize the MC model by hybridizing it with a MC version of the iSNB diffusion method. The hybrid method will combine the efficiency of a diffusion method in intermediate mean free path regions with the accuracy of a transport method in long mean free path regions allowing for improved computational efficiency while maintaining accuracy. Work to date on the method will be presented. This work was supported by Sandia National Laboratories and the Univ. of Rochester Laboratory for Laser Energetics. [1]Schurtz et. al. Phys. Plasmas 7, 4238 (2000) [2]Cao et. al. Phys. Plasmas 22, 082308 (2015) [3]Chenhall et.al. BAPS DPP15 TP12.24 (2015) [4]Moses et.al. BAPS DPP15 TP12.25 (2015)

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