

Abstract Submitted
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Discrete Diffusion Monte Carlo for Electron Thermal Transport

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University of Wisconsin, Madison — The iSNB (implicit Schurtz Nicolai Busquet¹
electron thermal transport method of Cao et. al.² is adapted to a Discrete Dif-
fusion Monte Carlo (DDMC) solution method for eventual inclusion in a hybrid
IMC-DDMC (Implicit Monte Carlo) method. The hybrid method will combine the
efficiency of a diffusion method in short mean free path regions with the accuracy
of a transport method in long mean free path regions. The Monte Carlo nature of
the approach allows the algorithm to be massively parallelized. Work to date on
the iSNB-DDMC method will be presented. This work was supported by Sandia
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¹Schurtz et. al. Phys. Plasmas **7**, 4238 (2000)

²Cao et. al. J. Comput. Phys. (Submitted 2014)

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