Abstract Submitted for the MAR09 Meeting of The American Physical Society

Thermal transport properties of two-dimensional Dirac fermion

YOUSEF ROMIAH, Department of Physics and Texas Center for Superconductivity, University of Houston, XIN-ZHONG YAN, Chinese Academy of Science, CHIN-SEN TING, Department of Physics and Texas Center for Superconductivity, University of Houston — The self consistent Born approximation is utilized to obtain an expression for the electric and thermal currents needed for the calculation of thermal transport properties, including the Seebeck coefficient and the thermal conductivity. The validity of the Wiedemann-Franz law is checked.

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Date submitted: 17 Dec 2008 Electronic form version 1.4