Abstract Submitted for the MAR09 Meeting of The American Physical Society

Effects of the electron-phonon interaction on spectroscopies of graphene E.J. NICOL, University of Guelph, J.P. CARBOTTE, McMaster University, S.G. SHARAPOV, Bogolyubov Institute for Theoretical Physics — We examine the effect of the electron-phonon interaction in graphene on the electronic density of states, the quasiparticle spectrum and the optical conductivity. A simplified model of coupling to an Einstein mode at 200 meV is employed and self-consistent calculations are performed. The results will be discussed in relation to tunneling, ARPES and optical conductivity experiments on graphene.

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Date submitted: 20 Nov 2008

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