Abstract Submitted for the MAR09 Meeting of The American Physical Society

Dirac Quasiparticle Interference in Graphene in External Magnetic Field¹ RUDRO BISWAS, Harvard University, LAILA MATTOS, HARI MANOHARAN, Stanford University, ALEXANDER BALATSKY, Los Alamos National Laboratory — Recent experiments [1] on graphene have been able to probe impurity scattering effects locally using scanning tunneling microscopy. The spatial Fourier transforms of the local density of states (FT-STS) display prominent features corresponding to both intervalley and intravalley scattering of massless Dirac quasiparticles. We provide low energy calculations using the effective mass model to describe these experimental observations. In addition, we are able to explain the striking change in the shape of the chiral scattering peaks when graphene is placed in a perpendicular magnetic field. [1] L.S. Mattos, et al., unpublished.

¹Work at Los Alamos and Stanford was supported by US DOE

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Date submitted: 10 Dec 2008

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