Abstract Submitted
for the MAR13 Meeting of
The American Physical Society

Microwave-induced resistance oscillations in tilted magnetic fields[1] ALEX BOGAN, SERGEI STUDENIKIN, ANDY SACHRAJDA, National Research Council of Canada, Ottawa, Ontario K1A 0R6, Canada, ANTHONY HATKE, MICHAEL ZUDOV, School of Physics and Astronomy, University of Minnesota, Minneapolis, Minnesota 55455, USA, LOREN PFEIFFER, KENNETH WEST, Department of Electrical Engineering, Princeton University, Princeton, New Jersey 08544, USA — We have studied the effect of an in-plane magnetic field on microwave-induced resistance oscillations in a high mobility two-dimensional electron system. We have found that the oscillation amplitude decays exponentially with an in-plane component of the magnetic field. While these findings cannot be accounted for by existing theories, our analysis suggests that the decay can be explained by a quadratic-in-parallel-field correction to the quantum scattering rate.

[1]The work at Minnesota was supported by the DOE Grant DE-SC0002567. The work at Princeton was partially funded by the Gordon and Betty Moore Foundation and by the NSF MRSEC Program through the Princeton Center for Complex Materials (DMR-0819860).

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Date submitted: 28 Nov 2012 Electronic form version 1.4