Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

Reorientation of quantum Hall stripes within a partially filled Landau level Q. SHI, M.A. ZUDOV, University of Minnesota, J.D. WATSON, G.C. GARDNER, M.J. MANFRA, Purdue University — We investigate the effect of the filling factor on transport anisotropies, known as stripes, in high Landau levels of a two-dimensional electron gas. We find that at certain in-plane magnetic fields, the stripes orientation is sensitive to the filling factor within a given Landau level. This sensitivity gives rise to the emergence of stripes away from half-filling while orthogonally-oriented, native stripes reside at half-filling. We attribute this switching of the anisotropy axes within a single Landau level to a strong dependence of the native symmetry breaking potential on the filling factor.

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Date submitted: 06 Nov 2015 Electronic form version 1.4