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Transport properties of 2DEG with spin-orbit coupling in a strong magnetic field M.G. VAVILOV, Yale University , I.L. ALEINER, Columbia University — We derive a Boltzmann equation for a disordered 2DEG with a spin-orbit coupling in a strong magnetic field (large Hall angle). This equation allows us to describe relations between spin magnetization and dc electric current. We also investigate effects of microwave radiation on the magnetization and conductivity. Particularly, we discuss the beats in the microwave-induced oscillatory part of the dc conductivity originating due to the spin orbit coupling.

Maxim Vavilov
University of Minnesota

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