

Giant Magnetodrag in Graphene at Charge Neutrality

(Dr. Boris Narozhny, KIT, Karlsruhe)

Abstract:

We report experimental data and theoretical analysis of Coulomb drag between two closely positioned graphene monolayers in a weak magnetic field. Close enough to the neutrality point, the coexistence of electrons and holes in each layer leads to a dramatic increase of the drag resistivity. Away from charge neutrality, we observe nonzero Hall drag. The observed phenomena are explained by decoupling of electric and quasiparticle currents which are orthogonal at charge neutrality. The sign of magnetodrag