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Magneto-Coulomb Drag in Double Layer Graphene[1] WANG-KONG TSE, A. H. MACDONALD, University of Texas at Austin — We report on our theoretical investigations on the Coulomb drag in double-layer graphene in strong magnetic fields. Using diagrammatic perturbation theory, we obtain explicit analytical expressions for the nonlinear susceptibility and the drag conductivity. At low temperatures T, the drag conductivity behaves as $\exp(-\Delta/\mathrm{T})/\mathrm{T}$, where Δ is the inter-Landau level transition energy nearest to the Fermi level. For full filling at the zeroth Landau level, we find a non-vanishing drag that arises from the intrinsic contribution of filled Landau levels below the Dirac point.

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Wang-Kong Tse
University of Texas at Austin

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