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Disorder-induced inhomogeneity in bilayer graphene¹ DAVID ABERGEL, University of Maryland — We describe the effect of charge density inhomgeneity (electron and hole puddles) and a spatially fluctuating band gap caused by charged impurity disorder in bilayer graphene. We derive a phenomenological averaging technique to calculate $\frac{d\mu}{dn}$ in the presence of this disorder and apply it recent experimental measurements in suspended bilayer graphene. This work was done in collaboration with S. Das Sarma, E. Hwang, and H. Min.

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