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Vertical Transport Properties of Graphene/h-BN Hetrostructures[1] SHAYAN HEMMATIYAN, XINGYUAN PAN, Department of Physics, Texas A&M University, College Station, Texas 77843-4242, USA, MARCO POLINI, NEST-CNR-INFM and Scuola Normale Superiore, I-56126 Pisa, Italy, ALLAN MACDONALD, Department of Physics, University of Texas at Austin, Austin, Texas 78712, USA, JAIRO SINOVA, Department of Physics, Texas A&M University, College Station, Texas 77843-4242, USA — We present results of extensive first principles, studying the scaling behaviour of inter-layer tight-binding hopping parameters in vertical graphene/h-BN heterostructures. We focus, in particular, on the dependence of these parameters on orientational disorder and inter-layer distances. We will report relevant inputs for numerical studies of the vertical transport in graphene/h-BN heterostructures.

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