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Noise properties of graphene films NAN SUN, XINYU LIU, GERALD ARNOLD, STEVEN RUGGIERO, University of Notre Dame, DEPARTMENT OF PHYSICS TEAM — We present results for the noise characteristics of graphene flakes on SiO_2 as a function of gate bias. Our results are in accord with a new tunnel/trap model based on the interaction of graphene carriers with the underlying substrate, which incorporates trap position, energy, and barrier height for tunneling into a given trap, along with the band-structure of the graphene. We will also discuss recent work on the properties of MBE-grown GaAs on graphene, in the context of noise in spin transport.

Nan Sun
University of Notre Dame

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