Abstract Submitted
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Twisted Van der Waals Systems[1] SATRIO GANI, ENRICO ROSSI, William and Mary College — Van der Waals systems formed by two-dimensional (2D) crystals and nanostructures possess electronic properties that make them extremely interesting for basic science and for possible technological applications. By tuning the relative angle (the twist angle) between the layers, or nanostructures, forming the Van der Waals systems experimentalists have been able to control the stacking configuration of such systems. We study the dependence on the twist angle of the electronic properties of two classes of Van der Waals systems: double layers formed by two, one-atom thick, layers of a metal dichalcogenide such as molybdenum disulfide (MoS_2), and graphene nanoribbons on a hexagonal boron nitride substrate. We present results that show how, for both classes of systems, the electronic properties can be strongly tuned via the twist angle.

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