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Imaging Quantum Confinement in Multiple Graphene Quantum Dots DILLON WONG, JAIRO VELASCO, JUWON LEE, Univ of California - Berkeley, JOAQUIN RODRIGUEZ-NIEVA, Massachusetts Institute of Technology, SALMAN KAHN, Univ of California - Berkeley, PHONG VO, Massachusetts Institute of Technology, HSINZON TSAI, Univ of California - Berkeley, TAKASHI TANIGUCHI, KENJI WATANABE, National Institute for Materials Science, ALEX ZETTL, FENG WANG, Univ of California - Berkeley, LEONID LEVITOV, Massachusetts Institute of Technology, MICHAEL CROMMIE, Univ of California - Berkeley — Quantum dots provide a useful means for controlling the electronic and spin degrees of freedom of mesoscale and nanoscale materials. Here we demonstrate a new method for fabricating interacting graphene quantum dots that is compatible with electrostatic gating and visualization by way of scanning tunneling microscopy (STM). Using this new technique we have created and spatially characterized systems of two or more interacting quantum dots. Our results show that it is possible to engineer electronic wave functions in graphene with a high degree of spatial control.

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