

Abstract Submitted  
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**Spatial manipulation of massless Dirac fermions in ballistic graphene devices** PIRANAVAN KUMARAVADIVEL, XU DU, Department of Physics and Astronomy, Stony Brook University — Pseudo-spin conservation of the chiral quasi-particles in graphene, governed by the Dirac-Weyl equation, has resulted in interesting study of transport phenomena such as their selective transmission across potential barriers. Utilizing these properties to spatially manipulate the electrons in graphene devices require ballistic samples with well-defined, sharp junctions. We report our current work on the fabrication and characterization of such ballistic devices that will enable us to guide and control electron flow in 2D.

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