

Abstract Submitted
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Quantum Anomalous Hall Effect in Graphene ZHENHUA QIAO, SHENGYUAN YANG, Department of Physics, The University of Texas, Austin, Texas 78712, USA, YUGUI YAO, Institute of Physics, Chinese Academy of Sciences, Beijing, China, JIAN WANG, Department of Physics, The University of Hong Kong, HKSAR, China, QIAN NIU, Department of Physics, The University of Texas, Austin, Texas 78712, USA — The anomalous Hall-effect (AHE) in graphene is investigated using the Landauer-Buttiker formula and tight-binding method in the presence of Rashba spin-orbit interaction and exchange field M . We found that the anomalous Hall conductance could be exactly quantized to one in the unit of $e(2)/h$ by tuning the controllable substrate-induced spin-orbit interaction and M .

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