

Abstract Submitted
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Spontaneous Quantum Hall States in Chirally-Stacked Few-Layer Graphene Systems FAN ZHANG, JEIL JUNG, GREGORY FIETE, QIAN NIU, ALLAN MACDONALD, PHYSICS DEPARTMENT, UNIVERSITY OF TEXAS, AUSTIN COLLABORATION — Chirally stacked N -layer graphene systems with $N \geq 2$ exhibit a variety of distinct broken symmetry states in which charge density contributions from different spins and valleys are spontaneously transferred between layers. We explain how these states are distinguished by their charge, spin, and valley Hall conductivities, by their orbital magnetizations, and by their edge state properties. We argue that valley Hall states have $[N/2]$ edge channels per spin-valley.

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