Chirality Sum Rule in Graphene Multilayers\textsuperscript{1} HONGKI MIN, AL-LAN H. MACDONALD, The University of Texas at Austin — We show that the low energy electronic structure of arbitrarily stacked graphene multilayers with nearest-neighbor interlayer tunneling consists solely of chiral pseudospin doublets. Although the number of doublets in an \(N\)-layer system depends on the stacking sequence, the pseudospin chirality sum is always \(N\). It follows that \(N\)-layer stacks always have \(N\) distinct Landau levels at \(E = 0\) for each spin and valley, and that the quantized Hall conductivity \(\sigma_{xy} = \pm(4e^2/h)(N/2 + n)\) where \(n\) is a non-negative integer.

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