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**Band Splitting by Period Potential and Resultant Topological Quantum Numbers** LIANG SUN, Department of Modern Physics, University of Science and Technology of China and National High Magnetic Field Laboratory, Florida State University, KUN YANG, National High Magnetic Field Laboratory, Florida State University — When a Chern band is split into two subbands by breaking lattice translation symmetry that results in a doubled unit cell, the subbands have a set of Chern numbers whose sum has to be the same as the origin band. This, however, does not uniquely determine the Chern numbers of individual subbands. We show how the subbands Chern numbers are related to the structure of the original band, as well as the details of the periodic perturbation. We also generalize this one-to-two band splitting case to one-to-many splitting, as well as the case with time-reversal symmetry, where the Chern number is zero but the bands can carry  $Z_2$  topological quantum numbers.

Liang Sun  
Department of Modern Physics,  
University of Science and Technology of China

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