

Accepted Manuscript

Strain induced novel quantum magnetotransport properties of topological insulators

Ning Ma, Shengli Zhang, Daqing Liu

PII: S0003-4916(16)30204-4

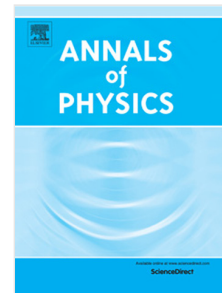
DOI: <http://dx.doi.org/10.1016/j.aop.2016.10.003>

Reference: YAPHY 67221

To appear in: *Annals of Physics*

Received date: 3 June 2015

Accepted date: 2 October 2016



Please cite this article as: N. Ma, S. Zhang, D. Liu, Strain induced novel quantum magnetotransport properties of topological insulators, *Annals of Physics* (2016), <http://dx.doi.org/10.1016/j.aop.2016.10.003>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights:

1. The strain removes the degeneracy in inversion symmetric Dirac cones.
2. The strain gives rise to the splitting and mixture of the Landau levels.
3. The strain leads to the asymmetric spectrum of the dc conductivity.
4. Shubnikov de Haas oscillations are shown to be superimposed on Weiss oscillations for small enough Fermi energy.
5. Interplay between electric field and inversion symmetry breaking causes different occupancy of the electron and hole states.

Download English Version:

<https://daneshyari.com/en/article/5496029>

Download Persian Version:

<https://daneshyari.com/article/5496029>

[Daneshyari.com](https://daneshyari.com)