

Abstract Submitted  
for the MAR16 Meeting of  
The American Physical Society

**Magneto-optical transitions in bilayer graphene nanoribbons<sup>1</sup>**

HSIEN-CHING CHUNG, MING-FA LIN, Natl Cheng Kung Univ — We utilize the tight-binding theory to study the magneto-optical transitions in bilayer graphene nanoribbons. The magneto-absorption spectra highly depend on the stacking, edge orientation, ribbon width, and strength of magnetic field. The competition between the magnetic quantization and lateral confinement results in the coexistence of edge-dependent selection rules and magneto-absorption selection rule. The magneto-electronic properties, including energy dispersions, density of states, and wave functions, are also discussed in detail.

<sup>1</sup>One of us (Hsien-Ching Chung) thanks Ming-Hui Chung and Su-Ming Chen for financial support. This work was supported in part by the National Science Council of Taiwan under grant number NSC 102-2112-M-006-007-MY3.

Hsien-Ching Chung  
Natl Cheng Kung Univ

Date submitted: 30 Oct 2015

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