

Abstract Submitted  
for the MAR17 Meeting of  
The American Physical Society

**Spin liquid and strip solid phases in the extended XXZ model on the Kagome lattice** YANCHENG WANG, Beijing National Laboratory for Condensed Matter Physics, and Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China, XUE-FENG ZHANG, FRANK POLLMANN, Max Planck Institute for the Physics of Complex Systems Nthnitzer Str. 38, 01187 Dresden, Germany, ZI YANG MENG, Beijing National Laboratory for Condensed Matter Physics, and Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China — Employing large-scale quantum Monte Carlo simulations, we investigate the ground state phase diagram of an extended XXZ model on kagome lattice focusing on the magnetization at  $m = 1/6$ . As the spin exchange interactions are reduced towards the Ising limit, the system undergoes a first order phase transition from ferromagnetic ordered phase to a strip solid phase that only breaks the lattice rotational symmetry. Further reducing the transverse interaction, a  $Z_2$  spin liquid phase emerges. We introduce an additional fourth-neighbor interaction that allows to tune transitions between strip solid and spin liquid. The properties of the phase transitions are investigated.

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Date submitted: 22 Nov 2016

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