Erratum: Order by disorder in spin-orbit-coupled Bose-Einstein condensates [Phys. Rev. A 85, 023615 (2012)]

Ryan Barnett, Stephen Powell, Tobias Graß, Maciej Lewenstein, and S. Das Sarma (Received 13 April 2012; published 26 April 2012)

DOI: 10.1103/PhysRevA.85.049905 PACS number(s): 67.85.Fg, 03.75.Mn, 05.30.Jp, 67.85.Jk, 99.10.Cd

The purpose of this Erratum is to correct an algebraic error in our recent paper. In Sec. V of the paper we erroneously stated that the thermal depletion in three dimensions has a logarithmic infrared divergence. The corresponding depletion integral is in fact convergent. The other results in the depletion section, as well as the central result of our paper, are unchanged. The convergence of the depletion integral makes the system we proposed (selected by fluctuations) stable at finite temperatures in the thermodynamic limit, thus making our work relevant and interesting even for arbitrarily large systems.

We thank Tomoki Ozawa and Gordon Baym for pointing out this error to us.