Abstract Submitted
for the MAR07 Meeting of
The American Physical Society

Helical and stripe vortex phases in non-centrosymmetric superconductors ZHICHAO ZHENG, DANIEL AGTERBERG, RAMINDER KAUR, University Of Wisconsin-Milwaukee — When magnetic fields are applied to non-centrosymmetric superconductors, helical or stripe vortex phases are formed. We develop a quasiclassical microscopic theory for these phases. We will study the resulting phase diagrams and physical properties of these phases as a function of the relative density of states of the two spin-split bands and with varying Zeeman-field strength. We apply these results to CePt3Si, CeRhSi3, CeIrSi3, KOs2O6, Li2Pt3B and Li2Pd3B.

Zhichao Zheng
University Of Wisconsin-Milwaukee

Date submitted: 21 Nov 2006 Electronic form version 1.4