Abstract Submitted for the MAR05 Meeting of The American Physical Society

Fermi liquid description of the helical magnetism, phase transitions, and collective modes in MnSi. JASON JACKIEWICZ, KEVIN BE-DELL, Boston College — We look at a model for the helical magnet MnSi that incorporates the use of Fermi liquid parameters to describe the magnetic interactions. The novel phases of this material can be well described in this context, as well as the phase transitions between them. We also solve the Landau kinetic equation in the regimes of interest to develop the collective mode dispersions and show that there is interesting non-trivial behavior beyond the usual Goldstone mode.

> jason Jackiewicz Boston College

Date submitted: 06 Dec 2004

Electronic form version 1.4