Abstract Submitted
for the MAR05 Meeting of
The American Physical Society

Comparative study of physical properties of ferromagnetic-superconducting (FS) system for different pairing symmetries HARI DAHAL, JASON JACKIEWICZ, KEVIN BEDELL, Boston College — We study the physical properties of a F-S system described by mean field model. We compare the results of two different models*. Both of the models are comprised of long range ferromagnetic order due to spontaneously broken spin rotation symmetry but have different pairing symmetries to deal with superconducting properties, namely singlet (s-wave) and triplet (p-wave) pairing. We will present a comparative study of differences in the physics due to the difference in the nature of the pairing symmetry. We will mainly focus on the nuclear relaxation rate. The results will be useful in understanding the nature of superconducting pairing in ferromagnetic compounds such as UGe2. *Karchev et al. (PRL, 86, 846(2001)) *Zhang et al. (Cond-matt/0306691 V1 27June 2003)

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Date submitted: 29 Nov 2004 Electronic form version 1.4