Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Non-Fermi-liquid phase in a frustrated Kondo trimer[1] KEVIN INGERSENT, DOHYUNG SEO, U. of Florida, ANDREAS LUDWIG, U. of California, Santa Barbara, IAN AFFLECK, U. of British Columbia — The Kondo model for three antiferromagnetically coupled half-integer spins exhibits a non-Fermi-liquid phase that is stable against magnetic fields and against particle-hole symmetry breaking [1,2]. This phase has been argued [3] to describe the low-energy physics of equilateral Cr trimers on Au (111) surfaces [4]. It also has potential realizations in quantum-dot devices of triangular symmetry. We report properties of this phase obtained using the boundary conformal field-theory (CFT) technique, including characteristic signatures in the conductance, and apply CFT and renormalization-group methods to examine the phase's behavior under various perturbations. [1] B. C. Paul and K. Ingersent, cond-mat/9607190. [2] K. Ingersent, A. W. W. Ludwig, and I. Affleck, cond-mat/0505303 (Phys. Rev. Lett., in press). [3] B. Lazarovits et al., Phys. Rev. Lett. 95, 077202 (2005). [4] T. Jamneala, V. Madhavan, and M. F. Crommie, Phys. Rev. Lett. 87, 256804 (2001).

[1]Supported by NSF, NSERC, and the Canadian Institute for Advanced Research

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Date submitted: 30 Nov 2005 Electronic form version 1.4