Critical Point Symmetry in A Fermion Monopole and Quadrupole Pairing Model[1] JOSEPH N. GINOCCHIO, Los Alamos National Laboratory — Recent interest in symmetries at a critical point of phase transitions in nuclei prompts a revisit to the fermion monopole and quadrupole pairing model [1]. This model has an exactly solvable symmetry limit that is transitional between spherical nuclei and gamma unstable deformed nuclei. The eigenenergies, eigenfunctions, pairing strength and quadrupole transition rates in this limit are derived. Comparison with empirical quadrupole transition rates suggests that the Xenon isotopes may have this symmetry [2]. 1. Joseph N. Ginocchio, Ann. Phys. 126, 234 (1980). 2. Joseph N. Ginocchio, Phys. Rev. C (2005).

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