Abstract Submitted for the MAR09 Meeting of The American Physical Society

Spectral Function of Manganite Systems JUAN SALAFRANCA, EL-BIO DAGOTTO, Dept. of Physics and Astronomy, University of Tennessee and Materials Science and Technology Division, Oak Ridge National Laboratory — Using a double exchange model with Jahn Teller distortions, we calculate the one particle spectral function of manganite systems. The relative contribution of the different interactions is established by means of Monte Carlo and self consistent mean field calculations. In particular, we examine the effects of electron-electron and electron-phonon couplings. We discuss the relevance of our results in relation to recent Photoemission experiments on layered manganites [1], where similarities of manganites spectra with that of cuprates was observed.

[1] N. Mannella et al. Nature **438** 474 (2005)

Juan Salafranca Dept. of Physics and Astronomy, University of Tennessee and Materials Science and Technology Division, Oak Ridge National Laboratory

Date submitted: 17 Dec 2008 Electronic form version 1.4