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Effect of adiabatic breathing and half-breathing phonons on striped ground states. YUCEL YILDIRIM, ADRIANA MOREO, UT, ORNL, FSU — A spin-fermion model for high Tc cuprates is studied using numerical simulations. For certain dopings, stripes are observed in the ground state [1]. Different modes of adiabatic phonons are added to the Hamiltonian, among them the breathing and half-breathing modes. Diagonal and off-diagonal couplings are also considered. It is observed that increasing diagonal electron-phonon couplings tends to stabilize the stripes, while the off-diagonal terms destabilize them creating inhomogeneous ground states [2]. References: [1] C. Buhler, S. Yunoki and A. Moreo, Phys.Rev.Lett. 84, 2690 (2000). [2] Y. Yildirim and A. Moreo, in preparation.

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