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Spin order, charge order, and spin liquid in spin-fermion model of cuprates. KYUNGMIN LEE, Cornell University, OINAM NGAMBA MEETEI, American Express, STEVEN WHITE, University of California, Irvine, EUN-AH KIM, Cornell University — Recent experimental observations that intra-unit-cell structures play crucial role in the detection of charge order motivates numerical studies that can include strong correlation effects as well as multi-site unit cells. However, this costs precious Hilbert space. In this talk I will present our results using a minimal model for cuprates that can access intra-unit-cell information: multi-band spin-fermion model with spins on the copper sites and holes on oxygen sites. For this we used exact diagonalization as well as density matrix renormalization group. In addition to charge and spin order tendencies we test for evidence of the so-called FL* state.

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