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**DMRG simulations of a 3 band Hubbard model for the cuprates**

STEVEN WHITE, University of California, Irvine, DOUGLAS SCALAPINO, University of California, Santa Barbara — While both the hole and electron doped cuprates can exhibit  $d_{x^2-y^2}$ -wave superconductivity, the local distribution of the doped carriers is known to be significantly different with the doped holes going primarily on the O sites while the doped electrons go on the Cu sites. Here we report the results of a density-matrix-renormalization-group calculation for a three-orbital model of a  $\text{CuO}_2$  lattice. In addition to the asymmetric dependence of the intra-unit-cell occupation of the Cu and O for hole and electron doping, we find important differences in the longer range spin and charge correlations. As expected, the pairfield response has an  $d_{x^2-y^2}$ -like structure for both the hole and electron doped systems.

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