Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Doping evolution of bilayered colossal magnetoresistive manganites: bilayer splitting and c-axis coupling CHRIS JOZWIAK, Department of Physics, UC Berkeley, JEFF GRAF, Materials Science Division, LBNL, SHUYUN ZHOU, Department of Physics, UC Berkeley, AARON BOSTWICK, ELI ROTENBERG, Advanced Light Source, LBNL, HONG ZHENG, Materials Science Division, ANL, JOHN MITCHELL, Materials Sciences Division, ANL, ALESSANDRA LANZARA, Department of Physics, UC Berkeley; MSD LBNL — We present a detailed momentum, doping and temperature dependent study of the electronic properties of bilayer manganites, $La_{2-2x}Sr_{1+2x}Mn_2O_7$, by means of angle-resolved photoemission spectroscopy. In particular, we will address both the in-plane bilayer splitting, as well as the out-of-plane band, as a function of doping. We will discuss possible implications for the role of inter-plane coupling in the CMR manganites.

Christopher Jozwiak
UC Berkeley

Date submitted: 27 Nov 2007 Electronic form version 1.4