Abstract Submitted
for the MAR05 Meeting of
The American Physical Society

Bosonic Mode Coupling in the Single-Layer Bi-Cuprate, Bi2201

WORAWAT MEEVASNA, Department of Physics, Stanford University, Stanford, CA, NICHOLAS INGLE, Department of Physics and Astronomy, University of British Columbia, Vancouver, Canada, XINGJIANG ZHOU, Advanced Light Source, Lawrence Berkeley National Lab, Berkeley, CA, DONGHUI LU, Stanford Synchrotron Radiation Laboratory, SLAC, Stanford University, Stanford, CA, FELIX BAUMBERGER, Department of Applied Physics, Stanford University, Stanford, CA, WANLI YANG, Advanced Light Source, Lawrence Berkeley National Lab, Berkeley, CA, KYLE SHEN, Department of Applied Physics, Stanford University, Stanford, CA, WEI-SHENG LEE, Department of Physics, Stanford University, Stanford, CA, JUREN SHI, Department of Physics, University of Texas, Austin, TX, HIROSHI EISAKI, Nanoelectronic Research Institute, AIST, Tsukuba, Japan, ZHIXUN SHEN, Department of Physics, Applied Physics, and Stanford Synchrotron Radiation Laboratory, Stanford University, Stanford, CA — In the study of the high-Tc superconductors, one of the recent highlights is the observation of the electron self-energy renormalization effect in the form of a "kink" in the dispersion. This kink is interpreted as the signature of a collective bosonic mode coupling to the electrons. In our study,high-resolution-angle-resolved-photoemission-spectroscopy data is collected with good statistics to reveal the fine structure in the electron self-energy of the single-layer Bi-cuprate, Pb0.55Bi1.5Sr1.6La0.4CuO6. The fine structure will be discussed.

Worawat Meevasana
Department of Physics, Stanford University, Stanford, CA 94305

Date submitted: 01 Dec 2004 Electronic form version 1.4