Spatial Variations in the Fermi Surface of Bi-2212\textsuperscript{1} ELIZABETH MAIN, A.E. PIVONKA, I. ZELJKOVIC, Harvard, G. GU, Brookhaven, E.W. HUDSON, MIT, J.E. HOFFMAN, Harvard — In cuprate superconductors, scanning tunneling microscopy can be used to see variations in the Fermi surface on a nanometer length scale caused by doping inhomogeneity. Prior STM studies show that the local wavelength of the checkerboard, a weak charge modulation ascribed to antinodal Fermi surface nesting, varies with the size of the pseudogap in Bi$_2$Sr$_2$CuO$_{6+\delta}$ (Bi-2201) [1]. Here we report similar STM measurements in Bi-2212. We therefore confirm the local relationship between pseudogap energy and charge ordering wavevector in a second high-Tc superconductor.


\textsuperscript{1}We acknowledge support from AFOSR PECASE grant FA9550-06-1-0531, AFOSR DURIP grant FA9550-06-1-0359, NSF Career grant DMR-0847433 and NSF grant DMR-0904400.

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Date submitted: 03 Jan 2011