Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Imaging broken symmetry in the electronic structure of Bi-doped cuprates by scanning tunneling microscopy[1] YANG HE, TESS WILLIAMS, ANJAN SOUMYANARAYANAN, MICHAEL YEE, Harvard University, TAKESHI KONDO, HIROSHI IKUTA, Nagoya University, ERIC HUDSON, Pennsylvania State University, JENNIFER HOFFMAN, Harvard University — The relationship between the mysterious pseudogap phase in the cuprate superconductors and the myriad broken symmetries observed by various experimental techniques is a source of much controversy. We use low-temperature scanning tunneling microscopy and spectroscopy to image electronic nematic order in the cuprate superconductor Bi2-xPbxSr2CuO6+δ. We determine the robustness of the nematic order parameter to experimental conditions.

[1]We acknowledge funding from NSF(DMR-0847433), NDSEG, A'STAR, and NSERC.

Yang He
Harvard University

Date submitted: 11 Nov 2011 Electronic form version 1.4