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Extraction of Absolute Electron Self-Energy from Angle-Resolved Photoemission Measurements on Pb-Bi220 L. ZHAO, J. WANG, W.T. ZHANG, H.Y. LIU, G.D. LIU, J.Q. MENG, W. LU, X.L. DONG, J.R. SHI, G.L. WANG, Y. ZHU, H.B. ZHANG, Y. ZHOU, X.Y. WANG, C.T. CHEN, Z.Y. XU, X.J. ZHOU, NATL LABORATORY FOR SUPERCONDUCTIVITY, INSTITUTE OF PHYSICS AND BEIJING NATIONAL LABORATORY TEAM, TECHNICAL INSTITUTE OF PHYSICS AND CHEMISTRY, CHINESE ACADEMY OF SCIENCES, BEIJING 100190, CHINA COLLABORATION — VUV Laser-based angle-resolved photoemission spectroscopy measurements with super-high resolution have been carried out on heavily over-doped Pb-Bi2201 high temperature superconductors with Tc<5K. Along nodal direction, a new approach is developed to determine the real bare band which makes it possible to determine the absolute electron self-energy and abstract the real bare band.

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