

Abstract Submitted  
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**Universal 115meV Feature and High Energy Spectral Weight Transfer in  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\Delta}$  Superconductor Revealed by Laser ARPES** JUNFENG HE, XINGJIANG ZHOU, The Institute of Physics, Chinese Academy of Sciences — Quasiparticle dispersion and spectral weight transfer have been investigated by laser-based angle-resolved photoemission spectroscopy in  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\Delta}$ . A universal energy scale near  $\sim 115\text{meV}$  can be clearly identified in superconducting state which is insensitive to momentum and doping levels. A concomitant observation with this energy scale is the spectral weight transfer over a large energy range when the sample goes from the normal state to the superconducting state. The origin and implications of these observations will be discussed.

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