

Abstract Submitted  
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**Ultra-High Resolution Time- and Angle-Resolved Photoemission Experiments on High Temperature Superconductor  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$**  WENTAO ZHANG, Materials Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, CA 94720, USA, CHRIS SMALLWOOD, TRISTAN MILLER, Department of Physics, University of California, Berkeley, CA 94720, USA, CHRIS JOZWAIK, Advanced Light Source, Lawrence Berkeley National Laboratory, Berkeley, CA 94720, USA, HIROSHI EISAKI, Nanoelectronics Research Institute (NeRI), National Institute of Advanced Industrial Science and Technology (AIST) Umezono 1-1-1 Tsukuba, Ibaraki 305, DUNG-HAI LEE, ALESSANDRA LANZARA, Department of Physics, University of California, Berkeley, CA 94720, USA — Ultra-high resolution laser-based time- and angle-resolved photoemission measurements have been carried out on various dopings of  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$  high temperature superconductor. In this talk, we will report on the study of the dynamical quasiparticle excitation and recombination of the nodal electronic states in cuprate.

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