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**Doping dependence of the band structure of Bi2212** ADAM KAMINSKI, Ames Lab and Department of Physics and Astronomy Iowa State University, STEPHAN ROSENKRANZ, MIKE NORMAN, Argonne National Lab, HELEN FRETWELL, Ames Laboratory, UTPAL CHATERJEE, University of Illinois at Chicago, JUAN CARLOS CAMPUZANO, Argonne National Lab/ University of Illinois at Chicago, MOHIT RANDERIA, Ohio State University, HELENE RAFFY, Z. Z. LEE, Laboratoire de Physique des Solides, Universite Paris-Sud, KAZUO KADOWAKI, University of Tskuba — We present careful study of doping dependence of the band structure of Bi2212 high temperature superconductor. Our study reveals many fine details that were not noticed before. We use this data to understand the spectrum of collective excitations present in this and other cuprate materials.

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