

Abstract Submitted
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High-sensitivity interlayer tunneling study of Bi-2212 TIMOTHY BENSEMAN, JOHN COOPER, Physics Department, University of Cambridge, GEETHA BALAKRISHNAN, Physics Department, University of Warwick — We have performed interlayer tunneling measurements on the high- T_c superconductor $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$, using micron-scale ‘mesa’ structures containing a few intrinsic Josephson junctions in series. The dI/dV spectra of these devices were studied with high resolution at closely-spaced temperatures ranging from 1.2K to 300K. Interesting new aspects of our data are compared with the results of spatially resolved STM measurements reported recently by Lee *et al.* [1]. The authors would like to acknowledge Professor Vladimir Krasnov of the University of Stockholm, and Professor Jeff Tallon of Victoria University of Wellington, for helpful discussions and advice regarding this work. [1] Lee et al. Nature Vol. 442/3, 546-550 (2006)

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