Abstract Submitted
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Doping dependence of the charge-density-wave order in $HgBa_2CuO_{4+\delta}$[1] BIQIONG YU, School of Physics and Astronomy, University of Minnesota — Following the original discovery of short-range charge-density-wave (CDW) order in the orthorhombic double-layer cuprate $YBa_2Cu_3O_{6+\delta}$ (YBCO) below optimal doping, resonant X-ray scattering measurements have revealed that the simple tetragonal single-layer compound $HgBa_2CuO_{4+\delta}$ (Hg1201; Tc = 71 K) exhibits short-range CDW order as well [1]. Here we report on the doping dependence of the CDW order in Hg1201 and contrast our results with the extensive data available for YBCO [2]. Work done in collaboration with: W. Tabis, G. Yu, M.J. Veit, N. Barišić, M.K. Chan, C.J. Dorow, X. Zhao, M. Greven (University of Minnesota); M. Bluschke, E. Weschke (BESSY, Berlin); T. Kolodziej, I. Bialo, A. Kozlowski (AGH, Krakow); M. Hepting, H. Gretarsson, M. Le Tacon, M. Minola, B. Keimer (MPI, Stuttgart); Ronny Sutarto (CLS, Saskatoon); Y. Li (PKU, Beijing); L. Braicovich, G. Dellea, G. Ghiringhelli (CNR-SPIN, Milano); A. Kreyssig, M. Ramazanoglu, A.I. Goldman (Iowa State University and Ames Lab); T. Schmitt (PSI, Switzerland). [1] W. Tabis et al., Nature Comm. 5, 5875 (2014), [2] R. Comin and A. Damascelli, arXiv:1509.03313.

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