

Abstract Submitted
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ARPES study on $\text{Ca}_{1.8}\text{Sr}_{0.2}\text{RuO}_4$ MADHAB NEUPANE, Department of Physics, Boston College, MA, A.K.P. SHEKHRAN, Z.-H. PAN, J.-H. MA, H. DING, Department of Physics, Boston College, MA, R. JIN, D. MANDRUS, Condensed Matter Science Division, Oak Ridge National Laboratory, Tennessee — Owing to the discovery of triplet superconductivity in Sr_2RuO_4 , much effort has been devoted in the past few years to the understanding of the $\text{Ca}_{2-x}\text{Sr}_x\text{RuO}_4$ family. These compounds exhibit a rich phase diagram which connects the p-wave superconductor Sr_2RuO_4 to the Mott insulator Ca_2RuO_4 . Particularly, the $x = 0.2$ compound is at the boundary between a magnetic metal and a canted antiferromagnetic insulator. It has been suggested recently that this compound has d-electron heavy-fermion behavior due to modulations in the magnetic correlations induced by the structural distortion. For such behavior, flat electronic bands are expected. However, our angle resolved photoemission measurements observed only highly dispersive bands.

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