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Resonant Inelastic X-ray Scattering (RIXS) Studies in the Cuprates¹ ROBERT MARKIEWICZ, ARUN BANSIL, Northeastern University — Resonant inelastic X-ray scattering (RIXS) is emerging as a probe of Mott gap physics in strongly correlated materials. Here we discuss some details of our recent three-band model[1] calculations for the cuprates. We discuss Mott vs Slater physics in the three-band model, aspects of magnetic gap collapse in the cuprates, and calculational details including polarization and initial energy dependence and relation of the band model to cluster calculations. 1: R.S. Markiewicz and A. Bansil, cond-mat/0506474.

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