



Figure 3.4 Composite plots of entropy profiles for varying cluster temperature ranges. Profiles are color-coded based on average cluster temperature. Units of the color bars are keV. The solid line is the pure-cooling model of Voit et al. (2002), the dashed line is the mean profile for clusters with $K_0 \leq 50 \text{ keV cm}^2$, and the dashed-dotted line is the mean profile for clusters with $K_0 > 50 \text{ keV cm}^2$. *Top left:* This panel contains all the entropy profiles in our study. *Top right:* Clusters with $kT_X < 4 \text{ keV}$. *Bottom left:* Clusters with $4 \text{ keV} < kT_X < 8 \text{ keV}$. *Bottom right:* Clusters with $kT_X > 8 \text{ keV}$. Note that while the dispersion of core entropy for each temperature range is large, as the kT_X range increases so to does the mean core entropy.