

THE X-RAY PROPERTIES OF NEARBY ABELL CLUSTERS FROM THE ROSAT ALL-SKY-SURVEY

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Using the *ROSAT* All-Sky-Survey (RASS), we examine the X-ray properties of a statistically complete sample of 294 nearby ($z < 0.09$) Abell clusters from our VLA 20cm survey (Ledlow & Owen 1995) and 49 Poor Groups ($z < 0.03$) (Burns et al. 1996). Our analysis includes a catalog of all significant ($> 3\sigma$) X-ray peaks, an analysis of the X-ray extents, identification of ICM emission, comparison to optical cluster properties, and a cross-correlation with our radio galaxy catalogue. We will make optical/X-ray overlays of the cluster fields available over the WWW in the near future (see <http://astro.nmsu.edu/~mledlow> for updates).

References

- Burns, J.O., et al. 1996, *ApJ*, **467**, L49
Ebeling, H., et al. 1997, *ApJ*, **479**, 101
Ledlow, M.J., & Owen, F.N. 1995, *AJ*, **110**,1959

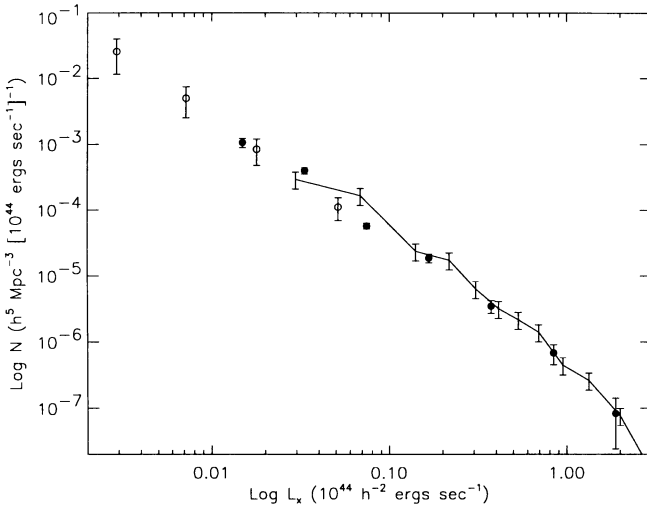


Figure 1. The X-ray luminosity function for our nearby rich clusters sample (solid circles), the poor clusters from Burns et al. (1996) (open circles), and the data points from the Brightest Cluster Sample of Ebeling et al. (1997) - solid line. We use $H_0 = 100 \text{ km sec}^{-1} \text{ Mpc}^{-1}$.