

Erratum: The *XMM* Large-Scale Structure survey: an initial sample of galaxy groups and clusters to a redshift $z < 0.6$

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The paper ‘The *XMM* Large-Scale Structure Survey: An initial sample of galaxy groups and clusters to a redshift $z < 0.6$ ’ was published in *Mon. Not. R. Astron. Soc.*, **363**, 675–691. The values of bolometric luminosity computed within an aperture of radius r_{500} for each cluster, and the associated uncertainty, were obtained using fluxes that were not corrected for Galactic neutral hydrogen absorption. This error affects the results presented in Table 6 and Figs 5, 6 and 7, revised versions of which are presented here. The typical absorption correction per cluster results in a luminosity change of factor 1.5 and this results in a minor modification of our original conclusions.

In the original paper we compared the luminosity of the *XMM*–LSS group and cluster sample to local X-ray groups and clusters by means of a luminosity enhancement factor. The median luminosity enhancement factor of the clusters with reliable temperature information is now $F = 1.46$ (the previous value based upon unabsorbed luminosities was 1.09) – indicating that the systems we are observing are slightly brighter than the expectation for self-similar evolution from systems at $z = 0$ displaying the same temperature, i.e. $F_{ss} = 1.23$. However, we repeat the caveat that these initial trends require further confirmation within a larger, more complete sample, the compilation of which is currently underway.

Table 6. Spectral X-ray parameters determined for confirmed groups and clusters. Values for exposure time, t_{exp} , and total counts are summed over all three detectors. Where the letter ‘F’ follows a tabulated temperature (T) value, this indicates that the value was fixed in the fitting procedure. The definition of the aperture correction factor, A , is provided in the original paper text. Displayed errors are 1σ .

| Cluster | t_{exp} seconds | total counts | r_{spec} arcsec | T keV | C–stat (per d.o.f.) | r_{500} Mpc | A | $L_{\text{bol}}(r_{500})$ $\times 10^{43} \text{ erg s}^{-1}$ |
|-----------|-----------------------------|-----------------|-----------------------------|------------------------|------------------------|------------------|------|--|
| XLSSC 006 | 17789 | 1943 | 82.5 | $4.80^{+1.12}_{-0.84}$ | 0.85 | 0.809 | 1.29 | 44.8 ± 2.8 |
| XLSSC 007 | 28094 | 138 | 90 | 1.5F | 1.10 | 0.284 | 0.65 | 1.9 |
| XLSSC 008 | 32358 | 94 | 60 | $1.25^{+1.44}_{-0.38}$ | 1.04 | 0.393 | 1.62 | 0.8 ± 0.3 |
| XLSSC 009 | 10709 | 112 | 90 | $0.91^{+0.20}_{-0.17}$ | 1.12 | 0.292 | 0.93 | 2.0 ± 0.5 |
| XLSSC 010 | 22635 | 505 | 67.5 | $2.40^{+0.82}_{-0.53}$ | 1.00 | 0.539 | 1.50 | 6.5 ± 0.7 |
| XLSSC 012 | 37726 | 635 | 60 | $2.00^{+1.28}_{-0.51}$ | 1.20 | 0.462 | 1.52 | 4.5 ± 0.6 |
| XLSSC 013 | 34383 | 133 | 35 | $1.03^{+0.18}_{-0.25}$ | 0.92 | 0.437 | 1.38 | 0.9 ± 0.2 |
| XLSSC 014 | 14801 | 286 | 50 | 1.5F | 1.26 | 0.404 | 1.59 | 0.6 |
| XLSSC 016 | 27202 | 25 | 30 | 1.5F | 0.99 | 0.432 | 1.76 | 0.6 |
| XLSSC 017 | 25506 | 79 | 30 | 1.5F | 1.14 | 0.456 | 1.50 | 1.0 |
| XLSSC 018 | 62573 | 295 | 45 | $2.66^{+2.47}_{-0.91}$ | 1.40 | 0.558 | 2.32 | 1.8 ± 0.3 |
| XLSSC 020 | 16770 | 61 | 37.5 | 1.5F | 1.09 | 0.305 | 1.01 | 3.4 |

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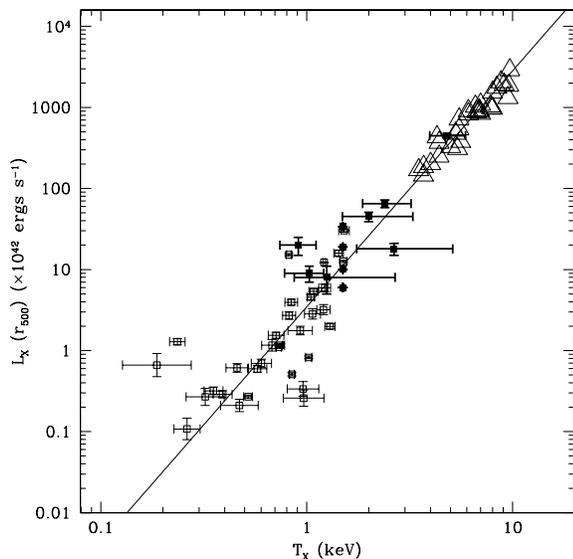


Figure 5. Distribution of X-ray luminosity computed within a scale radius r_{500} and temperature for all *XMM*–LSS groups and clusters currently identified at $z \leq 0.6$ (solid squares). Also indicated are values of X-ray luminosity and temperature determined for the low-redshift group sample of Osmond & Ponman (2004) (open squares) and for the cluster sample of Markevitch (1998) (open triangles). The solid line indicates an orthogonal regression fit to the L_X versus T_X relation for both the group and cluster sample incorporating a treatment of the selection effects present in each sample – see original paper text for details.

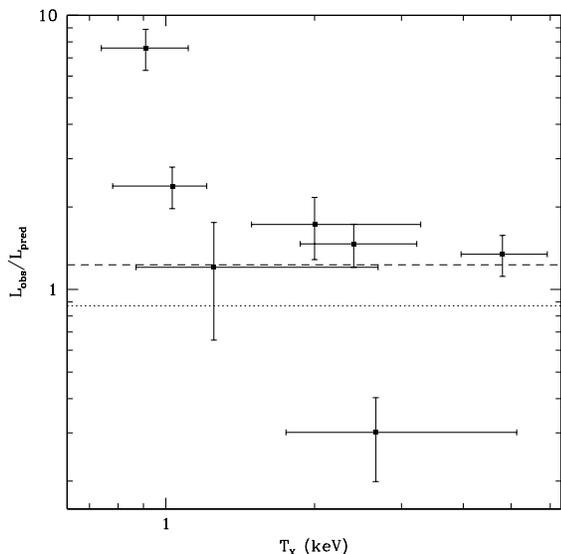


Figure 6. Enhancement factor, $F = L_{\text{obs}}/L_{\text{pred}}$, computed for six *XMM*–LSS groups and clusters located at $z \leq 0.6$ plotted versus the X-ray temperature of each system (see original paper text for additional details). Horizontal lines indicate expected values of F : the short dashed line indicates the value $F = 1.23$ expected from self-similar considerations. The dotted line indicates the value of F expected at $z = 0.4$ based upon Ettori et al. (2004).

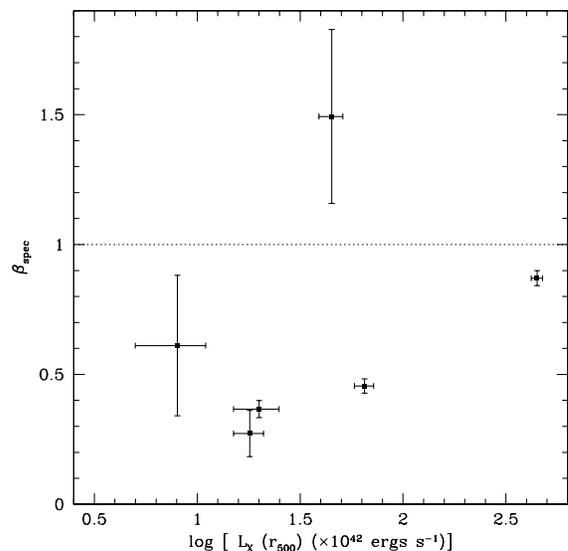


Figure 7. Values of β_{spec} computed for six *XMM*–LSS groups and clusters at $z \leq 0.6$ (see original paper text for details) plotted versus the X-ray luminosity for each system. The horizontal dashed line indicates the value $\beta_{\text{spec}} = 1$.

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