

# The cosmological analysis of X-ray cluster surveys

## IV. Testing ASpiX with template-based cosmological simulations

### (Corrigendum)

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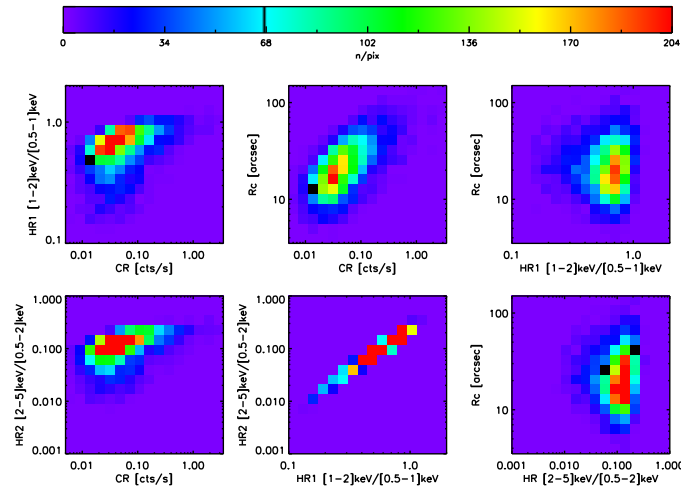
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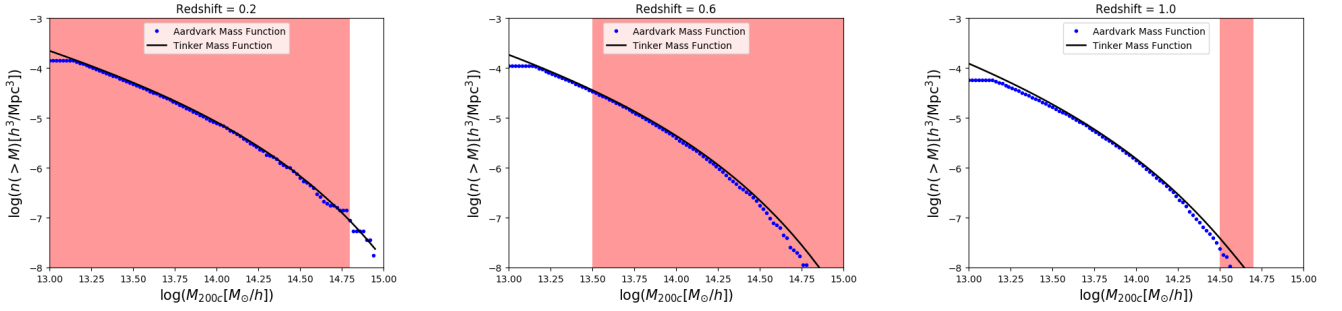
A&A, 614, A72 (2018), <https://doi.org/10.1051/0004-6361/201731445>

**Key words.** X-rays: galaxies: clusters – cosmological parameters – methods: statistical – errata, addenda

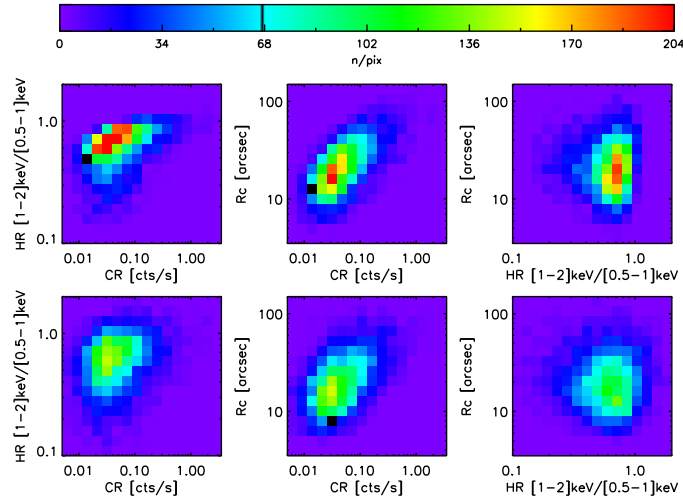
In the Valotti et al. (2018) paper, Figs. 2, 3, and 10 were published at low resolution, resulting in images that are not easy to read. We provide higher-quality figures here in the downloadable pdf.



**Fig. 2.** X-ray observable diagram computed for a 700 deg<sup>2</sup> cluster survey, observed with 10 ks XMM exposures. *Panels 1-6:* 2D projections of the distribution of the four cluster parameters involved in the present study: CR in [0.5–2] keV, HR<sub>1</sub> ([1–2]/[0.5–1] keV), HR<sub>2</sub> ([2–5]/[0.5–2]) keV, angular cluster size  $r_c$ . The diagrams are integrated over the  $0 < z < 2$  range, but this fifth dimension can be uncompressed if redshifts are available, which significantly increases the cosmological constraining power of the ASpiX method. Error measurements are not implemented in this example.



**Fig. 3.** Cumulative dark matter halo number density as a function of mass at different epochs. Blue dots show Aardvark simulations. The pink areas show the mass range encompassed by the C1 selection. The mass scale of  $10^{13.2} M_{\odot}$  represents the halo mass resolution limit of the simulations.



**Fig. 10.** Effects of measurement errors on the C1 CLEAN sample. The plots show *from left to right* the 2D diagrams CR-HR, CR- $r_c$ , and HR- $r_c$ . The *first row* stands for the nominal CR, HR, and  $r_c$  values stored in the Aardvark catalogues. The *second row* shows the result of the implementation of the error model displayed in Fig. 9.