

The cosmological analysis of X-ray cluster surveys

IV. Testing ASpiX with template-based cosmological simulations

(Corrigendum)

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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.

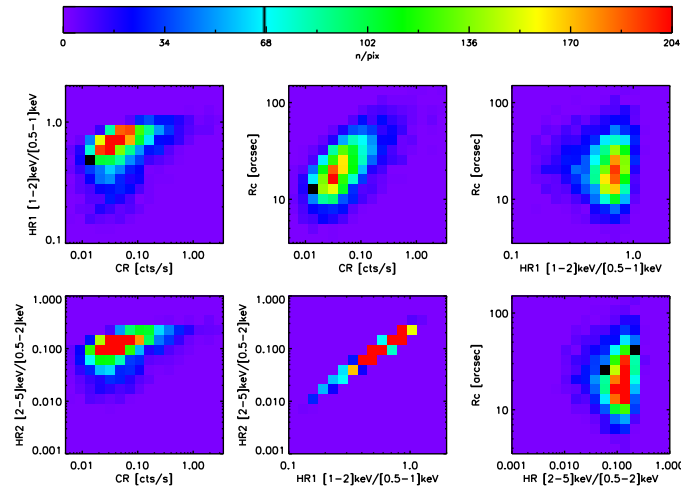


Fig. 2. X-ray observable diagram computed for a 700 deg² cluster survey, observed with 10 ks XMM exposures. *Panels 1-6:* 2D projections of the distribution of the four cluster parameters involved in the present study: CR in [0.5–2] keV, HR₁ ([1–2]/[0.5–1] keV), HR₂ ([2–5]/[0.5–2]) keV, angular cluster 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.

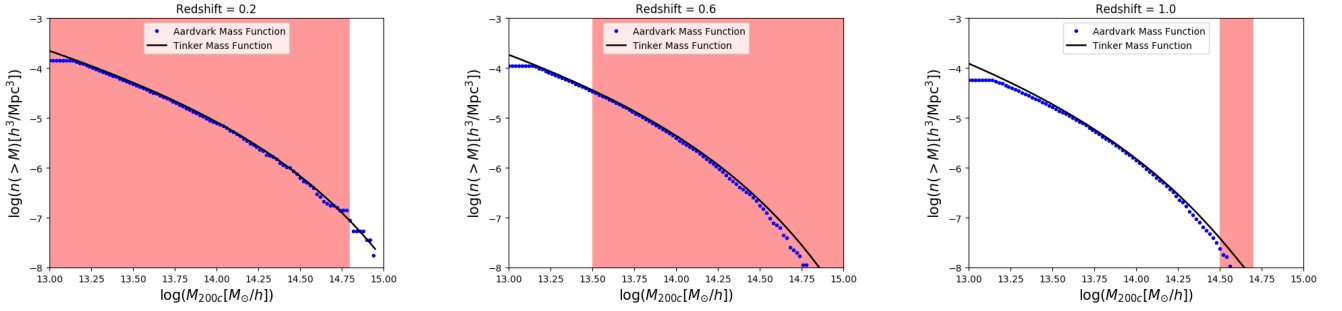


Fig. 3. Cumulative dark matter halo number density as a function of mass at different epochs. Blue dots show Aardvark simulations. The pink areas show the mass range encompassed by the C1 selection. The mass scale of $10^{13.2} M_{\odot}$ represents the halo mass resolution limit of the simulations.

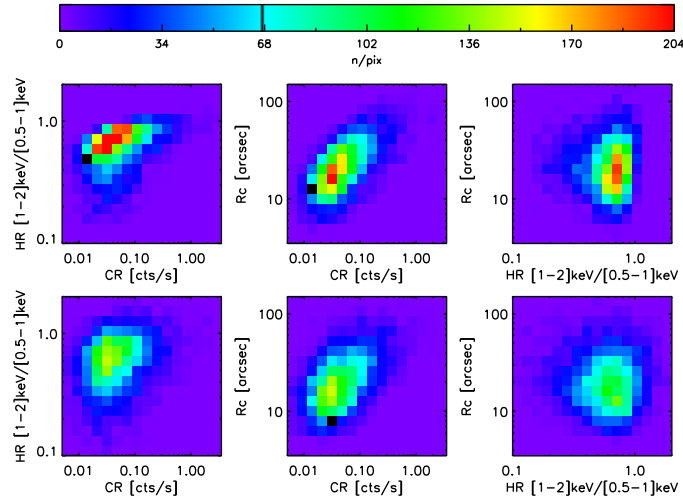


Fig. 10. Effects of measurement errors on the C1 CLEAN sample. The plots show *from left to right* the 2D diagrams CR-HR, CR- r_c , and HR- r_c . The *first row* stands for the nominal CR, HR, and r_c values stored in the Aardvark catalogues. The *second row* shows the result of the implementation of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