planck\_pr1\_allch Cosmo sample Catalogue [  $A = -0.186 \pm 0.01$  ;  $\alpha = 1.79 \pm 0.052$  ] X-ray prior [  $A = -0.196 \pm 0.012$  ;  $\alpha = 1.866 \pm 0.072$ ] X-ray prior iterative [  $A = -0.186 \pm 0.011$  ;  $\alpha = 1.851 \pm 0.073$ ] 10<sup>-3</sup> Blind [  $A = -0.147 \pm 0.021$  ;  $\alpha = 1.924 \pm 0.161$ ]  $E(z)^{-2/3}D_A^2Y_{500}$  $10^{-4}$  $E(z)^{-2/3}D_A^2Y_{500} = 10^A \left[\frac{M_{500}}{6 \times 10^{14}M_{\odot}}\right]^{\alpha}$ 10<sup>-5</sup>  $10^{15}$  $M_{500} M_{\odot}$