planck pr3 allch inpainted data Cosmo sample Catalogue [  $A = -0.186 \pm 0.01$  ;  $\alpha = 1.788 \pm 0.054$ ] X-ray prior [  $A = -0.189 \pm 0.01$  ;  $\alpha = 1.813 \pm 0.064$ ] X-ray prior (NEM) [  $A = -0.186 \pm 0.01$  ;  $\alpha = 1.778 \pm 0.059$ ]  $10^{-3}$ X-ray prior iterative [  $A = -0.17 \pm 0.01$  ;  $\alpha = 1.749 \pm 0.057$ ] X-ray prior iterative (NEM) [  $A = -0.17 \pm 0.01$  ;  $\alpha = 1.742 \pm 0.058$ ] Blind [  $A = -0.125 \pm 0.017$  ;  $\alpha = 1.714 \pm 0.118$  ] Blind (NEM) [  $A = -0.123 \pm 0.016$  ;  $\alpha = 1.671 \pm 0.108$ ]  $E(z)^{-2/3}D_A^2Y_{500}$  $10^{-4}$  $E(z)^{-2/3}D_A^2Y_{500} = 10^A \left[\frac{M_{500}}{6 \times 10^{14} M_{\odot}}\right]^{\alpha}$ 10<sup>-5</sup>  $10^{15}$ 

 $M_{500} M_{\odot}$