

- (1)  $D [h_{\text{cosmo}}^{-1} \text{ Mpc}] =$  luminosity distance.
- (2)  $z =$  redshift.
- (3)  $l [\text{deg}] =$  Galactic longitude.
- (4)  $b [\text{deg}] =$  Galactic latitude.
- (5)  $M_{200} [h_{\text{cosmo}}^{-1} \text{ M}_{\odot}] =$  mass defined with respect to 200 times the critical density of the Universe.
- (6)  $M_{500} [h_{\text{cosmo}}^{-1} \text{ M}_{\odot}] =$  mass defined with respect to 500 times the critical density of the Universe.
- (7)  $R_{500} [h_{\text{cosmo}}^{-1} \text{ Mpc}] =$  radius corresponding to  $M_{500}$ .
- (8)  $T_{\text{drop}} [\#] =$  central temperature drop (0.4, 0.6, 0.8, 1) that defines the type of cluster.
- (9)  $P_{500} [h_{\text{cosmo}}^{1/2} \text{ keV cm}^{-3}] =$  pressure normalisation defined with respect to  $R_{500}$ .
- (10)  $T_{\text{Mantz}} [\text{keV}] =$  temperature from the centrally-excised  $M_{500} - T$  relation of Mantz et al. (2010) or Mantz et al. (2016) depending on the catalogue.
- (11)  $T_{500} [\text{keV}] =$  final  $R_{500}$ -volume-averaged temperature (not centrally-excised) used as input for the XSPEC apec model to obtain volume-integrated fluxes, luminosities and counts.
- (12)  $\text{APEC}_{\text{norm}} [\text{cm}^{-5}] =$  XSPEC apec normalisation within  $R_{500}$ .
- (13)  $Y_{\text{SZ}} [h_{\text{cosmo}}^{-2.5} \text{ Mpc}^2] =$  Sunyaev-Zel'dovich signal within  $R_{500}$ .
- (14)  $Y_{\text{SZ,HE}} [h_{\text{cosmo}}^{-2.5} \text{ Mpc}^2] =$  Sunyaev-Zel'dovich signal within  $R_{500,\text{HE}}$  which refers to the hydrostatic-biased mass.
- (15)  $Y_{\text{X}} [h_{\text{cosmo}}^{-2.5} \text{ M}_{\odot} \text{ keV}] = M_{\text{gas}} \times T_{500,\text{HE}}$  within  $R_{500,\text{HE}}$  for comparison with Vikhlinin et al. (2009).
- (16)  $M_{\text{gas}} [h_{\text{cosmo}}^{-2.5} \text{ M}_{\odot}] =$  gas mass calculated from the gas profile integrated within  $R_{500,\text{HE}}$ .
- (17)  $F_{0.1-2.4} [\text{erg cm}^{-2} \text{ s}^{-1}] =$  XSPEC apec observer-frame unabsorbed flux within  $R_{500}$  and 0.1 – 2.4 keV energy range (metallicity is fixed to 0.3).
- (18)  $F_{0.5-2} [\text{erg cm}^{-2} \text{ s}^{-1}] =$  as above but for the 0.5 – 2 keV energy range.
- (19)  $L_{0.1-2.4} [\text{erg s}^{-1}] =$  XSPEC APEC rest-frame unabsorbed luminosity within  $R_{500}$  and 0.1 – 2.4 keV energy range.
- (20)  $L_{0.5-2} [\text{erg s}^{-1}] =$  as above but for the 0.5 – 2 keV energy range.
- (21)  $L_{\text{bol}} [\text{erg s}^{-1}] =$  as above but bolometric in the the 0.01 – 100 keV energy range.
- (22) count rate  $[\text{ph s}^{-1}] =$  observer-frame eROSITA count rate (including absorption) within  $R_{500}$  and in the 0.5 – 2 keV energy range obtained as in Pillepich et al. (2012) without Poissonian noise.
- (23) to (32)  $F_{0.5-2,\text{proj}}^{0-9} [\text{erg cm}^{-2} \text{ s}^{-1}] =$  observer-frame unabsorbed fluxes in the 0.5 – 2 keV energy range of galaxy clusters projected onto the sky corresponding to 10 spherical shells at  $r_{i=0-9} = (\Delta r \times i) + \Delta r/2$  with thickness  $\Delta r = R_{500}/10$ , used to describe the X-ray profile of each cluster, if summed return  $F_{0.5-2}$  (entry 18).
- (33) to (42)  $Y_{\text{SZ,proj}}^{0-9} [h_{\text{cosmo}}^{-2.5} \text{ Mpc}^2] =$  same as above but for the Sunyaev-Zel'dovich signal, if summed return  $Y_{\text{SZ}}$  (entry 13).