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ERRATUM: HYDRODYNAMIC SIMULATIONS OF THE SUNYAEV-ZEL'DOVICH EFFECT(S)

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Due to an error in converting units, the values presented for "y" and "b" in the paper "Hydrodynamic Simulations of the Sunyaev-Zel'dovich effect(s)" by V. Springel, M. White and L. Hernquist (ApJ 549, 618 [2001]), were in fact "y/h" and "b/h", where $h = 0.67$ is the Hubble constant in units of $100\,\mathrm{km\,s^{-1}Mpc^{-1}}$. This implies that our published results for the mean comptonization $\langle y\rangle$ have been too high by a factor $1/h$, and our power spectra for thermal and kinetic effect were too high by $1/h^2$, respectively. In detail, the following corrections apply to the published paper: In Fig. 2, the labels on the gray-scale bars should be y/h and b/h, respectively. In Fig. 3 and 5, the label of the vertical axes should be $l(l+1)C_l/2\pi h^2$. The horizontal scale in Fig. 7 (top panel) and in Fig. 8 should be $|S_\nu|/h$ [mJy], and the vertical scale in Fig. 8 should read $S_\nu/h\,\mathrm{d}N/\mathrm{dlog}$ [Jy deg^{-1}]. Our correct result for the mean comptonization is $\langle y\rangle = 2.6\times10^{-6}$ (see sections 3.1 and 4), in better agreement with the results of previous authors. Similarly, the values for the mean comptonization for our simulations with energy injection are in fact 6.9×10^{-6}, 16.6×10^{-6}, and 38.0×10^{-6}, respectively (see end of section 3.1).

Despite the above quantitative corrections, all qualitative conclusions in Springel, White & Hernquist (2001) remain valid. We note that the error was fully restricted to a linear scaling of our final y- and b-maps, and that other aspects of the computation, including our SPH simulations, were completely unaffected.

Finally, we regret that we made a second mistake in the paper: In Fig. 4, we misrepresented the result by Holder & Carlstrom (1999) by a factor 2.73^2. Below, we present a corrected version of this Figure. We note that after correcting the mistake, our result is now closer to the mesh-based computations of Seljak et al. (2000), with the remaining difference being only a factor 1.5-2, rather than 3-4 as was stated in the published paper.

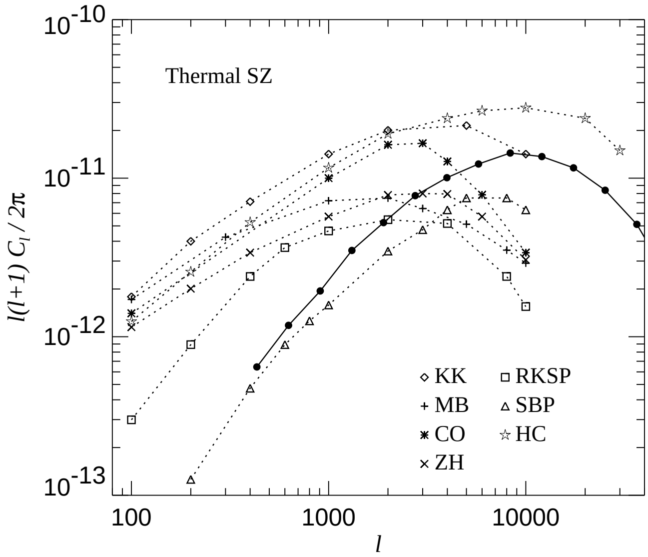

Fig. 4.— Published estimates of the thermal SZ power spectrum compared to the result of this work. Filled circles show our measurement, while other symbols give computations by the following authors: KK (Komatsu & Kitayama 1999), MB (Molnar & Birkinshaw 2000), CO (Cooray et al. 2000), ZH (Zhang & Pen 2000), RKSP (Refregier et al. 2000), SBP (Seljak et al. 2000), and HC (Holder & Carlstrom 1999).