

Erratum to
Preimage Entropy for Mappings
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pp.1815-1843

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Two sets of corrections need to be made to our paper.

pp. 1824-5: We missed some typographical errors which might make the proof of Prop. 3.3 difficult to read:

- p. 1824, left column:
 - line -19** in two places in the display, "if $i \in$ " should read "if $p_i \in$ "
 - line -15** " $f_0^{-N}(i)$ " should read " $f^{-N}(x_i)$ "
 - line -12** " $f_0^{-N}(1)$ " should read " $f^{-N}(p_1)$ "
 - line -10** " $f_0^{-N}(2)$ " should read " $f^{-N}(p_2)$ "
- p. 1825, right column, line 6: " $< \frac{1}{2}$ of δ_2 " should read " $< \frac{\delta_2}{2}$ "

pp.1838-9: We thank Yujun Zhu (Hebei Normal University, Shijiazhuang, PR China) for pointing out to us an error in the proof of theorem 6.4: On page 1839, left column, third display, the inequality

$$N(\mathcal{P}_n) \leq (4E + 2)^n N(\mathcal{P}_0)$$

is wrong. Here is a correction—in fact, an improvement, based on his (or her) suggestions:

1. In the definition of *division* (first full paragraph, p. 1838 left) we can add the condition that for each atom, at least one endpoint is not a vertex, and hence belongs to at most two distinct atoms. Then any assignment of a non-vertex endpoint to each atom is at most two-to-one, so that in the last sentence, we can say that a division by N points has at most $2N$ atoms.

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2. On p. 1839 left, the first display can now read

$$A(\mathcal{P}_n) \leq 2N(\mathcal{P}_n)$$

and in the second, $[N(\mathcal{P}_n) + 1]^2$ can be replaced by $3N(\mathcal{P}_n)$,

3. We then have, by construction of \mathcal{P}_n and lemma 6.2, the inequality

$$N(\mathcal{P}_{n+1}) \leq 4E \cdot A(\mathcal{P}_n) + 2N(\mathcal{P}_n) \leq (8E + 2)N(\mathcal{P}_n)$$

and the third display on p. 1839 left can read

$$N(\mathcal{P}_n) \leq (8E + 2)^n N(\mathcal{P}_0)$$

so the next-to-last line in the fifth display now reads

$$\leq \frac{1}{k} \lim_{N \rightarrow \infty} \frac{1}{N} \log[3N(\mathcal{P}_N)].$$

Thus, in the last line of the fifth display, and in the sixth display,

$$\frac{2}{k} \log(4E + 2)$$

can be replaced by

$$\frac{1}{k} \log(8E + 2).$$

The end of the proof remains intact.

4. A similar change should be made in Remark 6.5: $2 \log(4E + 2)$ should be replaced by $\log(8E + 2)$ in the last display left and the first display right on p. 1839. (Of course, the next-to-last line in the first display right should have $3N(\mathcal{P}_n)$ in place of $[N(\mathcal{P}_n) + 1]^2$ as well.)