ERRATUM TO "ENTROPY FOR GROUP ENDOMORPHISMS AND HOMOGENEOUS SPACES"

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The conclusion of Proposition 4(ii) on p. 403 should read: $b_d(T_1 \times T_2) \leq b_{d_1}(T_1) + b_{d_2}(T_2)$. The second paragraph of the proof of 4(ii) should be deleted and in the first paragraph the formula $r_n(\epsilon, K_1 \times K_2, T_1 \times T_2) \leq r_n(\epsilon, K_1, T_1) + r_n(\epsilon, K_2, T_2)$ should be replaced by

$$r_n(\epsilon, K_1 \times K_2, T_1 \times T_2) \leq r_n(\epsilon, K_1, T_1) \cdot r_n(\epsilon, K_2, T_2).$$

The proof of Theorem 15 on p. 409 should read from the fifth line on as follows:
By Proposition 4(ii) and Corollary 14 one has

$$b_d(T) \leq \sum_{j=1}^s b_d(T_j) \leq \sum_{|\lambda_i| > 1} \log |\lambda_i|.$$

Letting $V = \prod_{\alpha_j > 1} E_j$ one has $b_d(T) \geq b_d(T|V)$ and $b_d(T|V) = k(\mu, T|V)$ where μ is Haar measure on V (by Example 8 and Proposition 7). But $D_n(0, \epsilon, T|V) \subset (T|V)^{-n} B_\epsilon(0, V)$ implies

$$\mu(D_n(0, \epsilon, T|V)) \leq \mu(B_\epsilon(0, V)) |\det(T|V)|^{-n} = \mu(B_\epsilon(0, V)) / |\det(T|V)|^n$$

and so

$$k(\mu, T|V) \geq \log |\det(T|V)| = \sum_{|\lambda_i| > 1} \log |\lambda_i|.$$

The proof of Theorem 19 needs some revision. For compact X let

$$\begin{aligned} \underline{b}_d(T) &= \lim_{\epsilon \rightarrow 0} \liminf_{n \rightarrow \infty} \frac{1}{n} \log r_n(\epsilon, X) \\ &= \lim_{\epsilon \rightarrow 0} \liminf_{n \rightarrow \infty} \frac{1}{n} \log s_n(\epsilon, X). \end{aligned}$$

H. Keynes pointed out that $\underline{b}_d(T) = b_d(T)$ for X compact. For this one uses that $S_{nN}(\epsilon, X) \leq r_n(\frac{1}{2}\epsilon, X)^N$ (for E (nN, ϵ) -separated and F $(n, \frac{1}{2}\epsilon)$ -spanning, pick $g_j: E \rightarrow F$ with $d(T^{nj+k}x, T^k g_j x) \leq \frac{1}{2}\epsilon$ for $0 \leq k < n$; then $(g_0, \dots, g_{n-1}): E \rightarrow F^N$ is one-to-one). The last line of the proof of Theorem 19 on p. 411 should

read: It follows that $\underline{h}_d(T) \geq \underline{h}_e(S) + \underline{h}_d(\tau)$ and hence $h_d(T) \geq h_d(S) + h_d(\tau)$ as the spaces are compact.

REFERENCE

1. R. Bowen, *Entropy for group endomorphisms and homogeneous spaces*, Trans. Amer. Math. Soc. 153 (1971), 401–414.

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