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CORRECTION TO "A GENERALIZED LOCAL LIMIT THEOREM FOR LASOTA-YORKE TRANSFORMATIONS"

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Definition 1.1 of a Lasota-Yorke transformation in [1, p. 580] is incomplete because it is not consistent with the assertion of Remark 1.1. Therefore we have to change the condition (iii) of (1) as follows:

(iii) The set of the images $\{T(\mathrm{Int}\, I_j)\}_j$ consists of only a finite number of distinct kinds of intervals.

In virtue of this improvement, Proposition 1.2 in p. 582 and its proof will be changed as follows.

Proposition 1.2. (Lasota-Yorke type inequality). *Let T be an L-Y transformation which satisfies the expanding condition* (1.2) *for $N=1$. Let $\mathcal{L}$ be the P-F operator of T with respect to m. Then for any $n\in N$ and $f_0, f_1, \cdots, f_{n-1}\in BV(I\to S^1)$, we have*

$$V(\mathcal{L}^n((\prod_{k=0}^{n-1} f_k\circ T^k)g))\leq(2+\sum_{k=0}^{n-1} Vf_k)[c^n Vg+2(l_n^{-1}+R_n(T))\|g\|_{1,m}], \tag{1.5}$$

where $l_n=\min\{m(T^n J_j); J_j$ is the element of a defining partition of $T^n\}$ and

$$R_n(T)=\sup_x \frac{|(T^n)''(x)|}{|(T^n)'(x)|^2}.$$

Sketch of Proof: Noting that $S_j=T^n|\mathrm{Int}\, J_j$ is a homeomorphism from $\mathrm{Int}\, J_j$ onto its image for each j, we have, for any right continuous version of $g\in BV$,

$$\begin{aligned}
&V(\mathcal{L}^n((\prod_{k=0}^{n-1} f_k\circ T^k)g)) \\
&\leq \sum_j V_j[|(T^n)'|^{-1}(\prod_{k=0}^{n-1} f_k\circ T^k)g]+\sum_j \sup_{(j)}|(T^n)'|^{-1}[|g(a_j)|+|g(b_j)|] \\
&=\sum_j I_j+\sum_j II_j,
\end{aligned}$$

where $J_j=(a_j, b_j)$, V_j denotes the total variation on J_j, and $\sup_{(j)}$ is the supre-