

ERRATUM TO
“NUMBER OF EQUILIBRIUM STATES
OF PIECEWISE MONOTONIC MAPS OF THE INTERVAL”

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The bound $B \leq N - 1$ on the number of non-trivial branches in the Markov diagram in the continuous case (stated at the end of section 3) is valid only under the following additional assumption: the image of every monotonicity interval is not included in any one monotonicity interval. In the general continuous case, one can prove the bound $B \leq \frac{3}{2}(N - 1)$ (see [2], chapter 12). It is sharp. In any case the bound $B \leq 2(N - 1)$ holds.

Therefore the corollary on page 2905 becomes:

Corollary. *Let $f : [0, 1] \rightarrow [0, 1]$ be piecewise monotonic with $N \geq 2$ intervals of monotonicity and $\phi : [0, 1] \rightarrow \mathbb{R}$ be regular with bounded f -distortion. Set $r = h(f)/(P(f, \phi) - \sup \phi)$. The number of equilibrium states is then bounded by $2(r + 1)(N - 1)$.*

If f is continuous, the bound reduces to $\frac{3}{2}(r + 1)(N - 1)$ [and not $(r + 1)(N - 1)$].

Hence the number of ergodic and invariant probability measures (i.e., equilibrium states for $\phi = 0$) have their number bounded by $4(N - 1)$ in any case [as stated in the introduction of the paper] and by $3(N - 1)$ in the continuous case. These bounds are not believed to be sharp.

REFERENCES

- [1] J. Buzzi, *Number of equilibrium states of piecewise monotonic maps of the interval*, Proc. A.M.S. **123** (1995), 2901–2907. MR **95k**:58091
- [2] J. Buzzi, *Entropies et représentation markovienne des applications régulières de l'intervalle*, Thèse, Université Paris-Sud, Orsay, 1995.

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