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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 $f : [0,1] \to [0,1]$ be piecewise monotonic with $N \geq 2$ intervals of monotonicity and $\phi : [0,1] \to \mathbb{R}$ 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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