Erratum to

“The ergodic theorem with time compression”

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There is an error in the proof of Lemma 3 (the maximal inequality). It is not true as asserted that $\|f_r\|_1 = \|f\|_1$; actually, $\|f_r\|_1$ could be on the order of $r\|\phi\|_\infty$. Consequently, the proofs of Theorems 1 and 2 are not valid. In fact, V. Bergelson, M. Boshernitzan and J. Bourgain [1] have now shown that in some circumstances the conclusion of Theorem 1 fails. Nonetheless, convergence for a dense set of functions, and hence convergence in the mean of order p , $1 \leq p < \infty$, still hold.

REFERENCE

1. V. Bergelson, M. Boshernitzan and J. Bourgain, *Remarks on nonlinear recurrence*, J. Analyse Math. **56** (1991), to appear.