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ADDENDUM TO THE ARTICLE "GENERAL AND WEIGHTED AVERAGES OF ADMISSIBLE SUPERADDITIVE PROCESSES"

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There is a gap in the proof of the main result (Theorem 2.1) in [C]. As it is, the inequality $\int_X b_k^p dm \leq C_p \lim_{j\to\infty} \|f_j\|_p^p$ (and consequently the inequality $D_n(x) \leq \sum_{i=0}^{\infty} \mu_n(i) T^i b_k$) is valid only for $p = 1$. The argument showing the existence of $b_k \in L_p$ with the same properties is missing in the case $1 < p < \infty$. The following observation (which was used in the proof of Theorem 3.1 in [C] in showing that $\mathbf{w} \in W_p$) fills this gap.

Let $1 < p < \infty$, and define a sequence $\{v_n\} \subset L_p^+$ by $v_n = T^{-n} f_n,\ n \geq 0$. From the T-admissible property of F, $v_n \leq v_{n+1}$ for all n. Thus, since F is strongly bounded, by the monotone convergence theorem there exists $v \in L_p^+$ such that $\|v\|_p = \lim_n \|v_n\|_p$. Clearly, $v_n \leq v$, and hence $f_n \leq T^n v$ for all $n \geq 0$. Therefore, for $n > k$, except for the first k terms (which are 0), we have $0 \leq f_n - g_n^k \leq T^n(v - T^{-k} f_k) = T^n(v - v_k)$ and

$$D_n(x) = \sum_{i=0}^{\infty} \mu_n(i)(f_n - g_n^k) \leq \sum_{i=0}^{\infty} \mu_n(i) T^i b_k,$$

where $b_k = v - v_k$. Furthermore, $\|b_k\|_p = \|v - v_k\|_p \downarrow 0$ as $k \to \infty$, as needed to be shown.

Remark. This argument should also be included in the proofs of Theorems 3.1 and 3.2 when $1 < p < \infty$ (for showing that $0 \leq f_n - g_n^k \leq T^n b_k$).

References

[C] D. Çömez, *General and weighted averages of admissible superadditive processes*, Illinois J. Math **43** (1999), 582–591. MR **2000i:**47013

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