

## ON BEHAVIOR OF FOURIER COEFFICIENTS AND UNIFORM CONVERGENCE OF FOURIER SERIES IN THE HAAR SYSTEM

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ABSTRACT. Suppose that  $\hat{b}_m \downarrow 0$ ,  $\{\hat{b}_m\}_{m=1}^\infty \notin l^2$ , and  $b_n = 2^{-\frac{m}{2}} \hat{b}_m$  for all  $n \in (2^m, 2^{m+1}]$ . In this paper, it is proved that any measurable and almost everywhere finite function  $f(x)$  on  $[0, 1]$  can be corrected on a set of arbitrarily small measure to a bounded measurable function  $\tilde{f}(x)$ ; so that the nonzero Fourier–Haar coefficients of the corrected function present some subsequence of  $\{b_n\}$ , and its Fourier–Haar series converges uniformly on  $[0, 1]$ .

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