

# Fourier widths of some function classes associated with $m$ -multiple Haar system

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**Abstract:** In the communication we obtain estimates sharp in order for Fourier widths of the Nikol'skii – Besov and Lizorkin – Triebel type classes associated with  $m$ -multiple Haar system in the space  $L_r([0, 1]^k)$  for a number of relations between the parameters of classes and space.

**Keywords:**  $m$ -multiple Haar system, Fourier width, the Nikol'skii – Besov type space, the Lizorkin – Triebel type space

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