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Sparse trigonometric approximation of Nicol'skii-Besov classes of generalized mixed smoothness

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Investigations are devoted to finding the order estimates of the best m -term trigonometric approximation (is a type of sparse approximation) of Nicol'skii-Besov classes of generalized mixed smoothness in integral and uniform metrics. Obtained estimates in integral metric have the exact order. Mentioned investigations originate from the author's papers [1, 2]. The estimates from above in [1, 2] were not obtained by constructive method. But now is it possible to obtain the estimates from above by constructive method. These estimates are achieved by a constructive greedy-type algorithm. Initially, such type of algorithm was developed by Temlyakov [3]. After that we have generalized and applied it to our problem.

- [1] S. A. Stasyuk, *Ukrainian Math. J.* **54** (3), (2002), p. 470-486.
- [2] S. A. Stasyuk, *Ukrainian Math. J.* **54** (11), (2002), p. 1885-1896.
- [3] V.N. Temlyakov, *arXiv:1412.8647v1 [math.NA]*, p. 37.