

Title of the article in English

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Exact-order estimates are obtained for the entropy numbers and several types of widths (Kolmogorov, linear, trigonometric and orthonormal) for the Sobolev and Nikol'skii-Besov classes of one and several variables in the space $B_{q,1}$, $1 < q < \infty$. It is shown, that in the multivariate case, in contrast to the univariate, the obtained estimates differ in order from the corresponding estimates in the space L_q .

Key words and phrases: Sobolev class, Nikol'skii-Besov class, entropy number, width.

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Introduction

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1 First section

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УДК 517.5

2010 Mathematics Subject Classification: 41A46.

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1.1 Subsection of the First Section

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Definition 1. Definition of something.

Proposition. Unnumbered proposition.

In analogous way an author can produce another environments like Theorem, Lemma, Definition etc.

To cite some publication(s) an author should use the command `\cite{k1,k2,k3}` to produce this [?, ?, ?]. Using the direct numbers in square brackets is prohibited!

Theorem 1. This is a numbered theorem with inline formula $E = mc^2$.

Proof. We are proving the theorem. We are proving the theorem. We are proving the theorem. We are proving the theorem. We are proving the theorem. We are proving the theorem.

We are proving the theorem. We are proving the theorem. We are proving the theorem. Thus, the theorem is proved. \square

The displayed equations may be presented in two versions: numbered and unnumbered. Note, that an unreferenced equation should be unnumbered!

The numbered equation is the following

$$e^x = \sum_{n=0}^{\infty} \frac{x^n}{n!}, \quad (1)$$

and unnumbered one is

$$\int_a^b f(x) dx = F(b) - F(a).$$

To cite a numbered equation an author should use the command `\eqref` to produce this (??). Using the direct numbers in round brackets is prohibited!

In multiline equations, signs like $=$, \leq , $<$, $+$, $-$ etc should be in next row, see the example:

$$\begin{aligned} \iint_{R_1 \leq x^2 + y^2 \leq R_2} e^{-x^2 - y^2} dx dy &= \int_0^{2\pi} d\varphi \int_{R_1}^{R_2} e^{-r^2} r dr \\ &= \pi \left(-e^{-r^2} \right) \Big|_{R_1}^{R_2} = \pi (e^{-R_1^2} - e^{-R_2^2}). \end{aligned}$$

Corollary 1. The text of a corollary.

Lemma 1. The text of a lemma.

Proposition 1. The text of a proposition.

Remark 1. The Text of a remark.

Example 1. Some example is presented here.

2 Formatting of the reference list

All references should be cited within the text; otherwise, these references should be removed from the reference list (see position 8 in reference list).

References must be listed in alphabetical order. The titles of journals should be abbreviated to the style used by AMS (<http://www.ams.org/msnhtml/serials.pdf>).

If the referred paper has a Digital Object Identifier (DOI) it should be indicated.

The following reference style should be used (positions [?, ?, ?, ?, ?, ?, ?] are some abstract examples, and concrete examples are presented in positions [?, ?, ?, ?, ?, ?, ?]).

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- [3] Author1 A.A., Author2 B.B., Author3 C.C. English translation of title of the book. PublishingHouse, City, Year. (in Language)
- [4] Author1 A.A., Author2 B.B., Author3 C.C. Title of the article. Title of the Journal Year, Volume (Number), PageF–PageL. doi: N/A
- [5] Author1 A.A., Author2 B.B., Author3 C.C. English translation of title of the article. Title of the Journal Year, Volume (Number), PageF–PageL. doi: N/A (in Language)

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Пожарська К.В., Романюк А.С., Романюк В.С. Поперечники і ентропійні числа класів періодичних функцій однієї та багатьох змінних у просторі $B_{q,1}$ // Карпатські матем. публ.

Одержано точні за порядком оцінки ентропійних чисел і низки поперечників (лінійний, тригонометричний та ортопоперечник) класів Соболева та Нікольського-Бесова однієї та багатьох змінних у просторі $B_{q,1}$, $1 < q < \infty$. Виявлено, що у багатовимірному випадку, на противагу одновимірному, встановлені оцінки за порядком від відповідних оцінок у L_q -просторі.