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На правах рукописи

Фамилия Имя Отчество

Тема диссертации

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Autonomous Non-Profit Organization for Higher Education “Skolkovo Institute of
Science and Technology”

As a manuscript

Lastname Name Patronymic

Your thesis title

Speciality **1.2.1.** Artificial intelligence and machine learning

Dissertation for the Academic Degree of
Doctor of Philosophy in **Physics and Mathematics**

Supervisor:
academic degree, academic rank
Lastname Name Patronymic

Moscow — **2025**

Аннотация

Версия аннотации диссертации на русском.

Abstract

English version of abstract (if defense is planned in English).

Content

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Introduction

I highly recommend reading a guide by Professor Oleg V. Vasilyev on dissertation writing (added in the repository), especially before you start to write the Introduction part. The Introduction part in a VAK-alike dissertation has a rigorous structure, comprising a particular set of paragraphs. This part typically completely repeats the introductory part from the Synopsis. Below is the example how to use the keywords for dissertation characteristics description.

The aim of the work is to develop blablabla. To achieve the stated aim, it is necessary to solve the following **problems**:

1. Problem 1.

Scientific novelty. There is such a research gap, such a research gap, and one more research gap. The gaps mentioned above in the current research area stage lead to the claim of the following novelty of the results:

1. I do cool things because it bridges this gap;

Theoretical and practical significance. Bla Bla

Methodology and research methods. Bla Bla

Propositions submitted for the defense:

1. The most important part of your dissertation. Each of the def-position should be clear, concise, measurable, and novel.

Validity of the obtained results Bla Bla.

Approbation of the results. The results and main provisions of the work were presented at international conferences:

1. Name of conference, Date;

Personal contribution of the author. Bla Bla.

Publications. The dissertation materials were published in X works, including X papers in Q1 scientific journals indexed by Web of Science and Scopus. In X publications, the author of the dissertation is the first author.

The volume and structure of the work. The dissertation consists of an abstract, introduction, 1 chapter, conclusions, lists of abbreviations, figures, tables and 1 appendix. The full thesis' volume is 18 pages, including 2 figures and 0 table. The list of references consists of 0 source.

abbreviations

Chapter 1. Some useful tips on your thesis

Below, I describe several technical moments on formatting your thesis.

1.1 Fontsize

Keep the fontsize in the dissertation settings. You can use a font size of 12 pt for tables, but smaller sizes are not permitted.

The rules do not standardize the font on the figures, but all inscriptions on the figures must be clearly readable.

1.2 Equations

All equations should be numbered, even if you do not plan to refer to them.

The **wrong** version:

$$2 + 2 = 4$$

The **correct** version:

$$2 + 2 = 4 \tag{1.1}$$

1.3 Figures

All figures should be **referred in the text body**. The reference should appear **before** the figure. The figure must not interrupt the paragraph.

Wrong version. The Skolkovo Institute of Science and Technology (Skoltech) is a private graduate research university in Moscow that has rapidly emerged as a key player in Russia's drive for scientific and technological advancement. Established



Figure 1.1 — Skoltech. The figure appears before the corresponding reference. This figure interrupts the paragraph.

in 2011 in collaboration with the Massachusetts Institute of Technology (MIT), Skoltech was conceived as the cornerstone of the Skolkovo Innovation Center, a high-tech business area aimed at fostering a vibrant ecosystem of entrepreneurship and innovation.

Correct version. Instruction at Skoltech, depicted on Figure 1.2, is conducted entirely in English, attracting an international body of students and faculty. The university offers Master of Science (MSc) and Doctor of Philosophy (PhD) degrees across a range of fields, including data science, artificial intelligence, mathematics, physics, materials science, life sciences, and engineering systems. A strong emphasis is placed on integrating research, education, and innovation.



Figure 1.2 — Skoltech. The figure appears after the corresponding reference. This figure do not interrupt the paragraph.

1.4 Tables

If your table does not fit on the page in portrait format, you can use **landscape** format. Do not try to reduce table size by reducing font size or by using something like `adjustbox` instead.

1.5 References

Here is the text for references generation [1–3].

Firstly, sometimes you can see [0] instead of all references. Just rerun the compilation. You probably need to do it several times. It is also useful to delete the `dissertation.aux` file and rerun the compilation "from scratch".

The next one is that the automatic generation of a list of an author's publication work is poor; thus, it is probably better to create the list manually.

Then, you should refer to Russian-language literature [3] separately from non-Russian language literature [1; 2] (first non-Russian, then all Russian). This tool was not implemented in the original template, so I have implemented it crudely (check TODOs in `biblio/biblatex`). If you know how to improve it, please feel free to share your suggestions.

Another issues is a weird format of references (see comments). For publications with fewer than three authors [1], you will see their names at the beginning of the reference. If there are more than three authors [2], you will see the title of the paper before the names of the authors. Although it is somewhat a GOST format, I was recommended to fix this behaviour. Unfortunately, I was not able to find how to do it. So, feel free to share your solutions.

Last but not least is the automatic reference counting for the Introduction section. Due to the poor realization of the separation of Russian-language literature, it is broken. I did it just manually.

1.6 List of abbreviations

Check **this one** on discussion of different ways to generate list of acronyms.

1.7 Final words

You can find more useful tips and scenarios in the original **repository**. Feel free to improve this version; please do not hesitate to raise any issues or ask questions.

Conclusion

All conclusions are here.

Acknowledgements

TODO

List of Abbreviations

| | |
|-----------|-------------------------|
| AI | Artificial Intelligence |
|-----------|-------------------------|

References

1. *Lorden, G.* Procedures for reacting to a change in distribution / G. Lorden // The annals of mathematical statistics. — 1971. — P. 1897—1908.
2. Self-supervised learning for time series analysis: Taxonomy, progress, and prospects / K. Zhang [et al.] // IEEE Transactions on Pattern Analysis and Machine Intelligence. — 2024.
3. *Ширяев, А. Н.* Некоторые точные формулы в задаче о «разладке» / А. Н. Ширяев // Теория вероятностей и ее применения. — 1965. — Vol. 10, no. 2. — P. 380—385.

List of figures

- 1.1 Skoltech. The figure appears before the corresponding reference. This
figure interrupts the paragraph. 9
- 1.2 Skoltech. The figure appears after the corresponding reference. This
figure do not interrupt the paragraph. 9

List of tables

Appendix A

Some extra information

TODO