**Belarusian state university**

**The Mechanics and mathematics faculty**

**Department of nonlinear analysis and analytical economics**

**Annotation for the graduate work**

 **«Order continuous operators»**

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The graduate work is written on 43 pages, contains 1 figure, 3 sources.

Keywords: POSITIVE OPERATOR, EXTENSION OF POSITIVE OPERATOR, RIESZ SPACE, ORDER PROJECTION, ORDER CONTINUOUS OPERATOR.

In the graduate work, positive operators on Riesz spaces are considered.

The aim of the graduate work is to study order continuous operators on Riesz spaces and to determine their properties.

To achieve this goal, we considered:

* properties of Riesz spaces, their examples, Dedekind completeness of Riesz spaces;
* order-bounded operators, their vector space, Dedekind completeness of the vector space of order-bounded operators, and the Riesz-Kantorovich theorem;
* positive operators and their continuations;
* connected subsets and ideals of Riesz spaces;
* order dense subspaces of Riesz spaces, order-dense ideals, groups generated by ideals;
* order projectors, projector groups and the main projector property.

The graduate work is theoretical. The results can be used in further studies of Riesz economy and its applications.

All results of the thesis are rigorously proved according to the rules of mathematics. Validity and reliability of the results is due to the strict mathematical proofs formulated in the lemmas and theorems and consistency with the results previously known for certain particular cases.