## Belarusian State University Faculty of Mechanics and Mathematic Department of web technologies and computer modeling

Annotation to the research paper «Researching, parallelization, implementation in Wolfram Mathematica methods for constructing projections of NURBS model»

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Diploma thesis contains: 47 pages, 10 illustrations (drawings), 1 app, 10 used literature sources.

Keywords: WOLFRAM MATHEMATICA, 3D VISUALIZATION, PROJECTION, NURBS, PARALLELIZATION.

The object of investigation are projections and methods for their construction.

The aim of the thesis is to study methods for constructing projections NURBS models in the system Wolfram Mathematica

In the thesis work the following results:

- 1) describes the types of projections,
- 2) describes the tools of Wolfram Mathematica for 3D visualization, projection, parallelization,
- 3) written application in which the constructed NURBS model, implemented its 3D visualization, built its orthogonal projection on a plane in two ways: using a transformation matrix and using the Projection.

Validity and reliability of the results obtained due to test in practice in the application.

Diploma work performed by the author alone.