



WOC
WORLD OF CONFERENCES

III international scientific conference
The modern vector of the development
of science

Philadelphia
02-03.03.2023



THE MODERN VECTOR OF THE DEVELOPMENT OF SCIENCE

Proceedings of the III International Scientific and Practical Conference

02-03 March 2023

Philadelphia, USA

2023

UDC 001.1

BBC 1

III International Scientific and Practical Conference «The modern vector of the development of science», March 02 – 03, 2023, Philadelphia, USA. 144 p.

ISBN 978-92-44513-38-5

DOI <https://doi.org/10.5281/zenodo.7709801>

Publisher: «World of Conferences»

Main organization: ESD GROUP

Editor: Tarmo Vesik

Layout: Asko Laar

The conference materials are in the public domain under the CC BY-NC 4.0 International license.

The publisher is not responsible for the materials published in the collection. All materials are provided in the author's edition and express the personal position of the participant of the conference.

The sample of the citation for publication is: *Neamt Radu Ionel, Ludovic-Toma Cziszter, Saplacan Silviu Ilie, Mihali Ciprian Valentin, Mizeranschi Alexandru Eugeniu, Saplacan Gheorghe THE INFLUENCE OF THE TOTAL BACTERIA COUNT ON MILK RELATED TRAITS IN SIMMENTAL COWS // The modern vector of the development of science. Proceedings of the III International Scientific and Practical Conference. Philadelphia, USA. 2023. Pp. 5-9. URL: <https://conference-w.com/>*

Contact information

Website: <https://conference-w.com/>

E-mail: usa@conference-w.com

Content

Agricultural sciences

- Neamt Radu Ionel, Ludovic-Toma Ciszter, Saplacan Silviu Ilie, Mihali Ciprian Valentin, Mizeranschi Alexandru Eugeniu, Saplacan Gheorghe**
THE INFLUENCE OF THE TOTAL BACTERIA COUNT ON MILK RELATED TRAITS IN SIMMENTAL COWS 5
- Shainidze O., Chkhubadze G., Lominadze Sh., Lamparadze Sh., Beridze N., Mamuladze M., Ebralidze L.**
CONTROL OF PHYTOPHTHORA CITROPHTHORA ASSOCIATED WITH CITRUS DECLINE IN ADJARA, GEORGIA 10

Architecture

- Borel I.V., Bogdanova G.A., Ivanova Z.V**
PRACTICE OF DIGITAL MODELING IMPLEMENTATION IN ARCHITECTURAL DESIGN WITH APPLICATION OF BIM TECHNOLOGIES 15

Arts

- Kuryk O.**
SHKRIBLYAK'S WOOD CARVING IN TODAY ENVIRONMENTAL 18

Economic sciences

- Khudaynazarova D.**
INTRODUCTION OF NEW BANKING SERVICES IN THE CONDITIONS OF INNOVATIVE ECONOMY IN UZBEKISTAN 22
- Odashev Iqboljon**
MANAGEMENT SCHOOLS AND CREATIVE THINKING IN MANAGEMENT APPROACHES 29
- Shamugia A., Chavez E.**
THE CONTENT MARKETING AS AN INNOVATIVE BRANDING 40
- Yang Qin**
THE IMPACT OF THE DEVELOPMENT OF DIGITAL RMB ON COMMERCIAL BANKS 44
- Maja Katanić, Jelena Katanić, Zoran Katanić**
5G NETWORK TECHNOLOGY AS SUPPORT TO DECISION MAKING IN HUMAN RESOURCES MANAGEMENT IN TOURISM 47

Jurisprudence

- Miroshnychenko O.**
MOBING AT WORK AS A LEGAL CATEGORY AND ANTISOCIAL PHENOMENON 54

Medical sciences

- Akynbekova N.B., Makhmudova Zh.A.**
INFLUENCE OF L-ARGININE ON LIPID METABOLISM IN EXPERIMENTAL ATHEROSCLEROSIS AND MORPHOLOGICAL CHARACTERISTICS OF THE MYOCARDIA IN ANIMALS 58

Pedagogical sciences

- Samarina V., Shakhmatova O.**
TEACHING METHODS 60

Philological sciences

- Babayev J.**
EXCLAMATORY PRONOUN 62
- Gegechkori A.**
PLACE AND ROLE OF LEGAL CULTURE IN THE GENERAL CULTURE OF MILITARY PERSONNEL 65
- Mahmudova S.A.**
THEME AND LANGUAGE STYLE IN ANVAR MAMMADKHANLI'S STORIES 67
- Samatova T.S.**
SYNONYMS AS A MEANS OF REFLECTING THE RUSSIAN MENTALITY IN THE WORK OF B. ALIMZHANOV 71
- Tokarska I.I.**
CHRISTIAN LOVE AND BETRAYAL IN LESIA UKRAINKA'S DRAMAS 78

Philosophical sciences

- Aghakishieva T.**
KARABAKH - AZERBAIJAN! THE MAIN TRENDS IN THE DEVELOPMENT OF "DARK" TOURISM, CONSIDERING THE CREATION OF AN "OPEN-AIR MUSEUM" (PHILOSOPHICAL ANALYSIS) 80

Physical sciences

- Antonov A.A.**
GEOPHYSICAL EXPLORATION OF PORTALS WILL PROVIDE NEW KNOWLEDGE ABOUT SPACE 85
- Gelkhviidze P.**
USE OF THE IONOSPHERIC CURRENT AND THE PROBLEM OF ELECTRON BEAM INSTABILITY 102
- Sobolev V.V., Kulivar V.V.**
CONVERGING CYLINDRICAL DETONATION WAVES 107

Political sciences

- Petrenko P.O.**
"UKRAINIAN TITAN" M.P. DRAHOMANOV AND HIS VIEWS ON POLITICS 114

Sociological sciences

- Chunhui Liu**
EXPLORATION OF HUMAN RESOURCE MANAGEMENT IN SMALL AND MEDIUM-SIZED PRIVATE ENTERPRISES 116
- Jing Zhang**
RESEARCH ON THE OPTIMIZATION MODE OF DIGITAL HUMAN RESOURCE MANAGEMENT 120
- Li Qi, Zhao Xinrui**
RESEARCH ON HUMAN RESOURCE MANAGEMENT INNOVATION IN SMALL AND MEDIUM-SIZED ENTERPRISES 123

Technical sciences

- Doszhanov M., Tasbolat G., Tolegenova A., Beisenbaykyzy L.**
FEATURES OF OPERATION AND CONTROL OF WELLS WITH HIGH-VISCOSITY OIL WITH THERMAL METHODS OF ENHANCED OIL RECOVERY 127
- Gurbanov A., Sardarova I., Aliyev T.**
RESEARCH GAS-DYNAMIC ANALYSIS OF NATURAL GAS SEPARATION AND OPERATION OF SEPARATION PLANTS 131
- Sametova A.A., Burgegulov A.D., Mazakova A.T., Jomartova Sh.A., Mazakov T.Zh.**
VISUALIZATION OF THE SECTION OF THE TERRAIN IN THE DIRECTION OF THE WIND 137

Veterinary sciences

- Pototskyi A., Gryshchenko V., Reshetnik Y.**
FREE FATTY ACIDS IN THE BILE OF RATS WITH EXPERIMENTAL FATTY HEPATOSIS 142

VISUALIZATION OF THE SECTION OF THE TERRAIN IN THE DIRECTION OF THE WIND

**Sametova A.A.
Burgegulov A.D.
Mazakova A.T.
Jomartova Sh.A.
Mazakov T.Zh.**

Appointment

The computer software is designed to build a one-dimensional terrain graph in the direction of the wind based on the initial terrain elevation matrix. The program is included in the Hardware and Software complex "monitoring of the fire safety system".

Scope of application

With the development of satellite technologies, geoinformatics is becoming increasingly widespread. Three-dimensional surfaces are important objects of research of modern Geographic Information Systems. In recent years, the number of works on this topic has been growing rapidly due to the deployment of information systems. Mathematical models of three-dimensional images are presented in [1-2]. Dissertations [3-6] are devoted to the problem of synthesis of realistic images. A number of works are devoted to the construction of surface models based on Delaunay triangulation [7-11].

In this connection, he is with this, he is in a new way, he is in a new way, he is in a new way, and he explores the mathematical model of mapping the terrain, taking into account its density of lines. He uses the methods of interpolation of a two-dimensional function to obtain the smoothest types of the surface. In [12], a program for interpolation of a two-dimensional function was developed.

Currently, due to the intensive development of remote sensing of the Earth and other planets, much attention is paid to the detection and analysis of ring structures based on satellite surveys. The study of ring structures is of great importance for the search for new mineral deposits.

Input and output data

Input and output data are organized as separate files and contain information of one of the following types:

- parametric data
- initial regular terrain elevation matrix
- the effective vector of the values of the cross-section of the terrain in the direction of the wind.

Description of the algorithm

To represent the relief of the surface, there is a model for displaying data in a certain format. The format supports a relatively simple description of an object as a regular list of points in the elevation of the terrain. The files are arranged in the form of a header, which defines the number of rows and columns of the original matrix and the following list of elements themselves. Elements are the height of the terrain in a regular grid of the surface.

In the ASCII version of the format, each vertex is described by a single number (z-coordinate).

In case of insufficient number of rows and columns or non-smoothness of the initial surface, the authors have developed a cubic interpolation program that calculates a new regular height matrix with large matrix sizes from the initial regular height matrix [12].

The algorithm for constructing a section of the terrain surface is based on the interpolation of the surface height matrix. In it, uniformly distributed points in three-dimensional space are interpolated by a continuous function of two independent variables. To plot the cross-section of the height matrix, the following steps are performed: the formation of reference nodes in the direction of the wind (azimuth), the calculation of the interpolation value in these nodes.

To the result file Graf1.txt the elements of the calculated section of the height matrix are written sequentially.

Numerical solution of problems with specific source data.

When accessing the mRelfVet program, the following form of the head module is displayed on the screen (Figure 1)

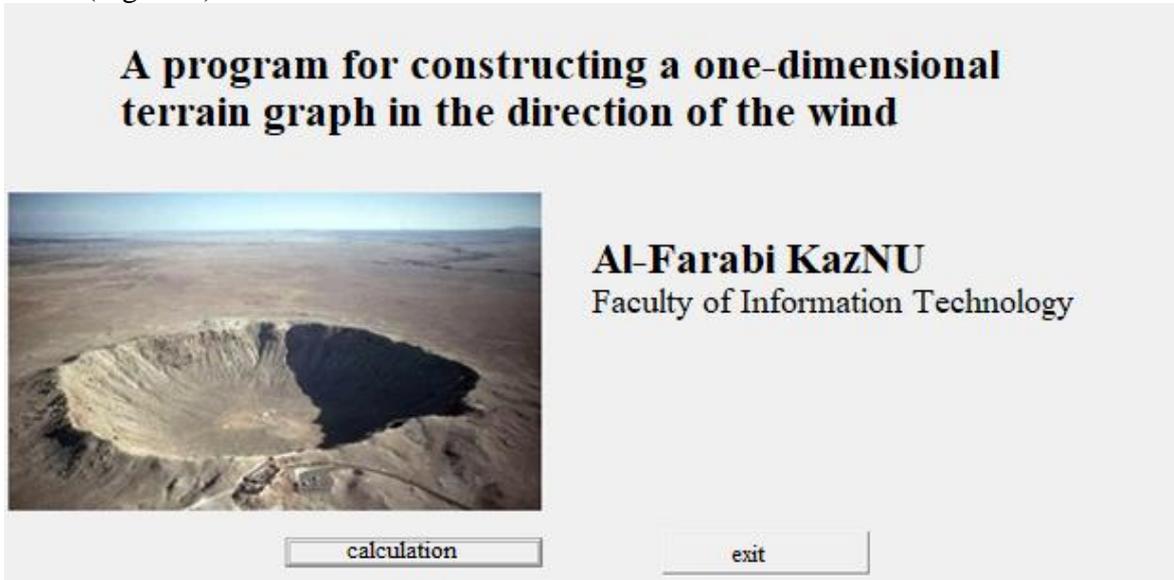


Figure 1. The head form of the mRelfVet program

When the "Calculation" button is pressed, an algorithm for constructing a section of the surface relief is performed taking into account the following parameters and assumptions:

- 1) The OX axis is directed to the east, the OU axis is directed to the north (Figure 2).
- 2) Alfa – azimuth (angle between north and wind direction) in degrees.
- 3) The points (X_n, Y_n) , (X_n, Y_k) , (X_k, Y_n) and (X_k, Y_k) define a rectangle bounding the area under study.
- 4) The point (X_d, Y_d) sets the coordinates of the wind direction and strength sensor.

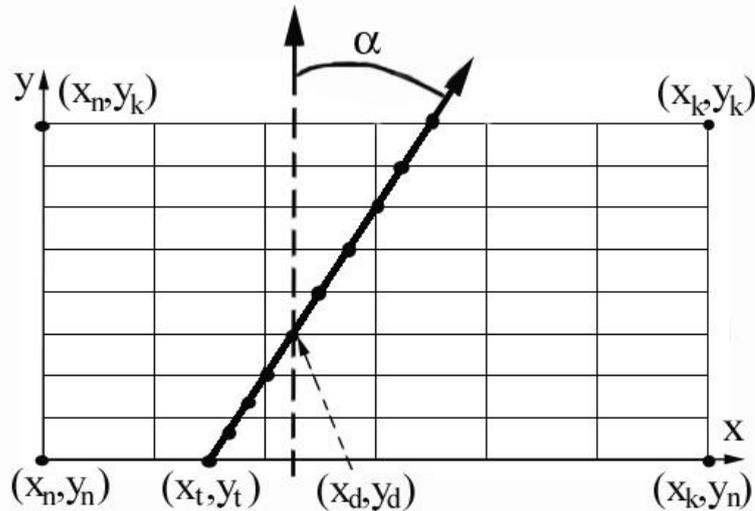


Figure 2. The layout of the main points.

Figure 3 shows the source file graphically using the Excel software Graf2.txt for the mRelVet program. As an example, data on the Shunak crater (matrix 17*17) is used.

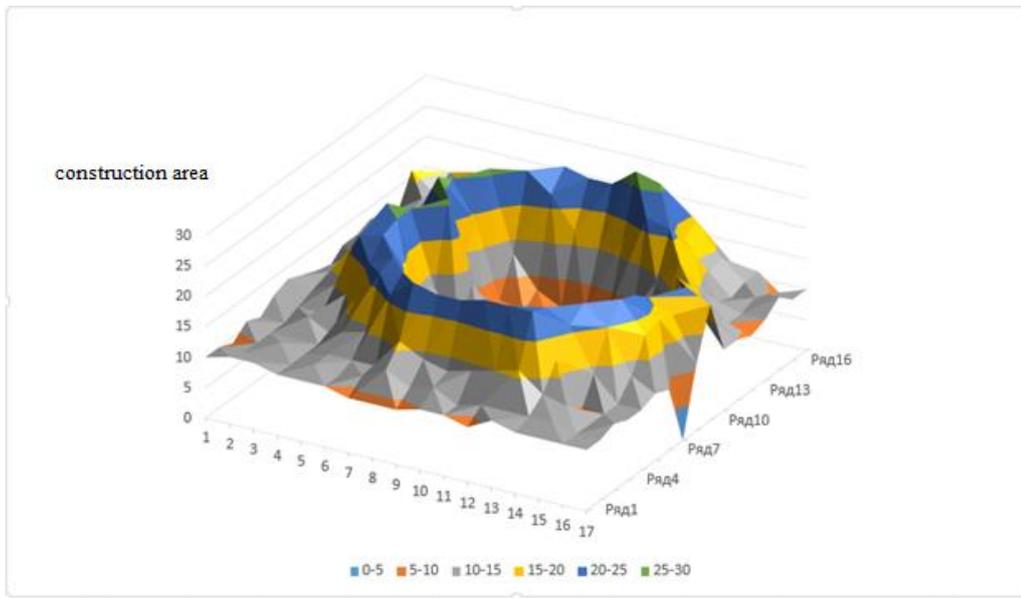


Figure 3. Source file for the mRelfVet program

The following Figures 4-7 graphically show the results of the mRelfVet program at different values of the Alfa angle.

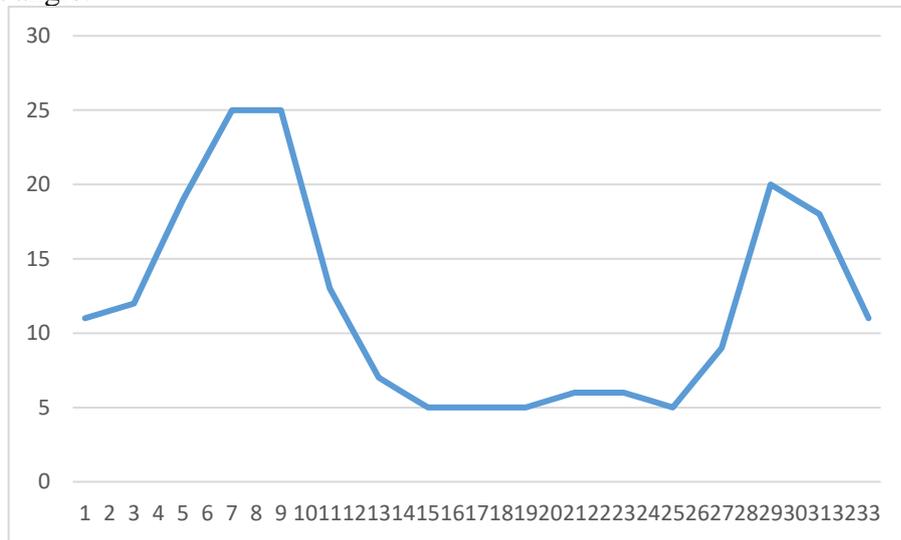


Figure 4. Section graph at Alfa = 0.

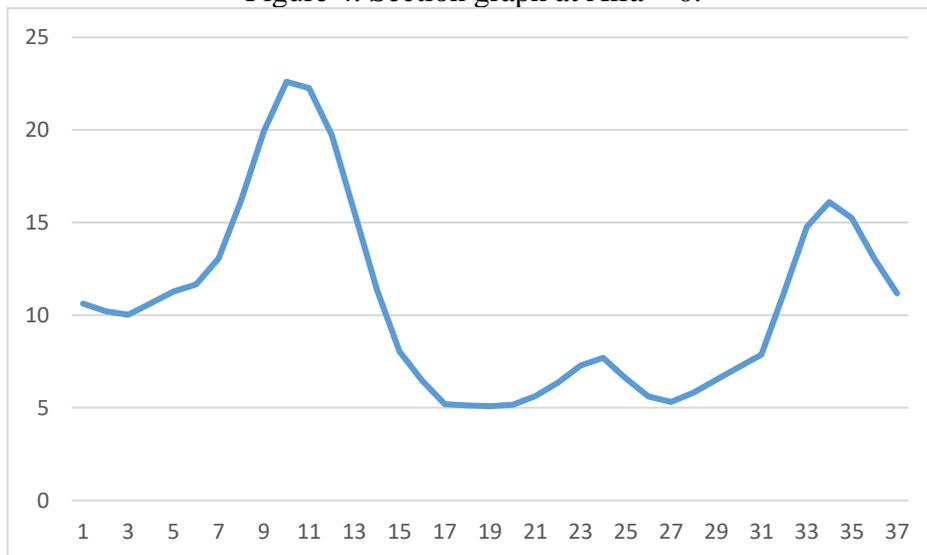


Figure 5. Section graph at Alfa = 30.

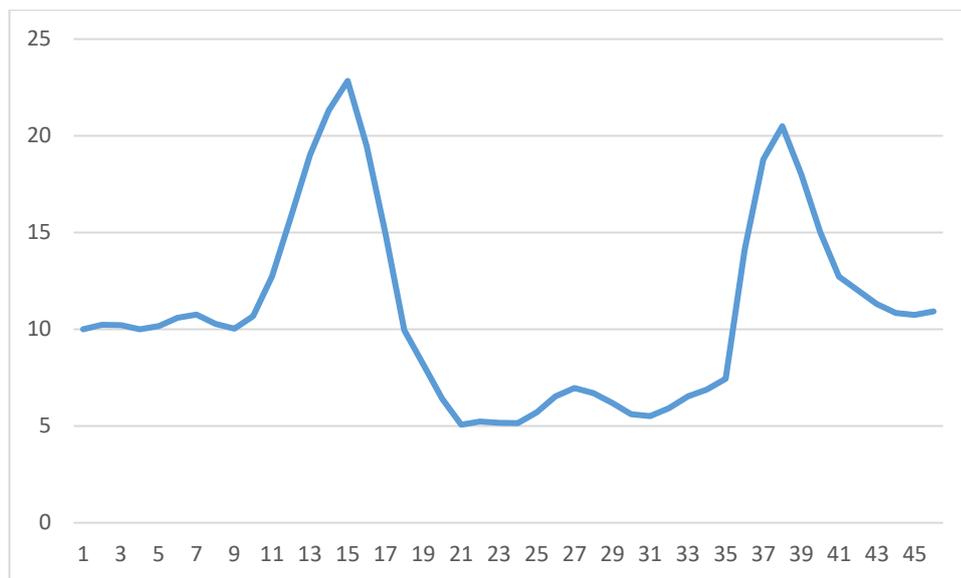


Figure 6. Section graph at Alfa = 45.

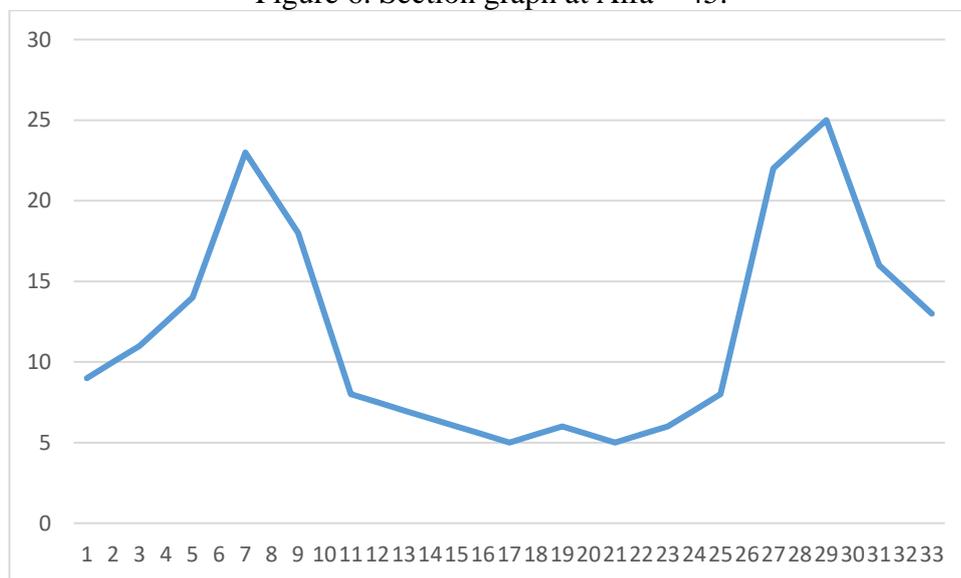


Figure 7. Section graph at Alfa = 90.

The developed program will find wide application. In particular, it is planned to develop a system for monitoring and forecasting the direction of movement of fires on its basis [13-14].

References

1. Soyfer V.A. Computer image processing. Part 1. Mathematical models //Soros Educational Journal, 1996, No. 2, pp.118-124.
2. Soyfer V.A. Computer image processing. Part 2. Methods and algorithms //Soros Educational Journal, 1996, No. 3, pp.110-121.
3. Galaktionov V.A. Software technologies for the synthesis of realistic images //Autoref. dis. doctor of physics-mat.05.13.11 – "Mathematical and software support of computers, complexes and computer networks", Moscow, 2006. – 36c.
4. Voloboy A.G. Research and development of algorithms, methods and software tools for the synthesis of realistic images //Abstract of the dissertation of the Candidate of Physics and Mathematics.05.13.11 – "Mathematical and software support of computers, complexes and computer networks", Moscow, 2005. – 28s.
5. Klimina S.I. Analysis and development of computational structures for rasterization and calculation of illumination of surfaces when generating realistic images //Abstract of the dissertation of the Candidate of Technical Sciences on spec. 05.13.13 – "Computing machines, complexes, systems and networks", St. Petersburg, 1994. – 18s.

III international scientific conference. Philadelphia. USA. 02-03.03.2023

6. Nguyen Thae Kong. Research and development of a high-performance algorithm for constructing digital terrain models //Autoref. dis. Candidate of Technical Sciences in spec. 25.05.35 –"Geoinformatics", Moscow, 2011. -24s.
7. Kuchunova E.V., Rulev A.V. Computational algorithm for constructing the terrain surface //Educational Resources and Technologies, 2016, No. 2 (14), pp.192-195
8. Skvortsov A.V. Delaunay triangulation and its application. Tomsk: Publishing House of Tomsk unt-ta, 2002. - 128s.
9. Skvortsov A.V., Mirza N.S. Algorithms for constructing and analyzing triangulation. – Tomsk: Publishing House of Tomsk unt-ta, 2006. – 168s.
10. Khlebnikov V.V., Yurov A.A. Modeling of realistic three-dimensional scenes in real time //Bulletin of TSU, 2010, volume 15, issue 1, p.320
11. Khlebnikov V.V., Yurov A.A. Modeling of realistic images of objects using various algorithms for calculating the illumination of three-dimensional scenes in real time //Bulletin of TSU, 2010, volume 15, issue 2, pp.732-735
12. Dzhomartova Sh.A., Mazakov T.Zh., Mazakova A.T. Automated search system for ring structures //Bulletin of the National Engineering Academy of the Republic of Kazakhstan, 2016, No. 1 (59), pp.59-64.
13. Dorrer G.A. Dynamics of forest fires. – Novosibirsk: SB RAS, 2008. – 404 p.
14. Perminov V.A. Mathematical modeling of the occurrence of riding and mass forest fires //Abstract of Doctor of Physical and Mathematical Sciences, Tomsk, 2010