

Belarusian State



University



The leading educational center in Belarus, founded on October 30, 1921



1 November 1921, 1390 students started attending classes in its three faculties: labor, medical and social sciences. Only 14 professors and 25 candidates of sciences (Ph.D) were among first lecturers.



BSU today

- 20 faculties and educational institutes
- lyceum
- college
- 3 scientific-experimental stations
- 3 museums
- 4 scientific-research institutes
- 115 scientific-research laboratories
- 25 scientific centers
- 12 unitary enterprises





BSU today



The BSU student community comprised of almost 29000 under-graduate and Master degree students, 663 Post-Graduate (Doctoral) and 11 Post-Doctoral Students.



BSU today

University staff:

7398 (8680) staff members, including:

- 2477 lecturers
- 1900 researchers and research engineers

Lecturers:

- 6 academicians of the National Academy of Science of Belarus
- 7 corresponding member of the National Academy of Science of Belarus
- 291 doctors of science
- 1350 candidates of science





BSU INTERNATIONAL COOPERATION

Year	2007	2008	2009
Number of agreements	123	182	221
Number of countries	29	45	50





International Scientific-Technical and Educational Exhibitions



In 2009 year

- **34 exhibitions** in the **Republic of Belarus**
- **5 exhibitions in Russia** (Moscow, Saint-Petersburg, Nizhni Novgorod and others)
- **17 exhibitions abroad** (Germany, Latvia, Korea, Kazakhstan, China and others)





Education





Educational programmes

- pre-university education program – 6 educational profiles (term of study – 1 year)
- specialised secondary education training on the speciality «Law» (term of study– 3 years)
- Higher education program - 53 specialities, 51 directions of specialities, 256 specialisations 176 departments (chairs) (terms of study - 4,5-5 year)
- Master degree program - 49 specialities (terms of study 1-2 years)
- Higher qualification staff training on Post-graduate and Doctor's graduate degree on 142 specialities (terms of studies - 3 years)
- Retraining and advance training



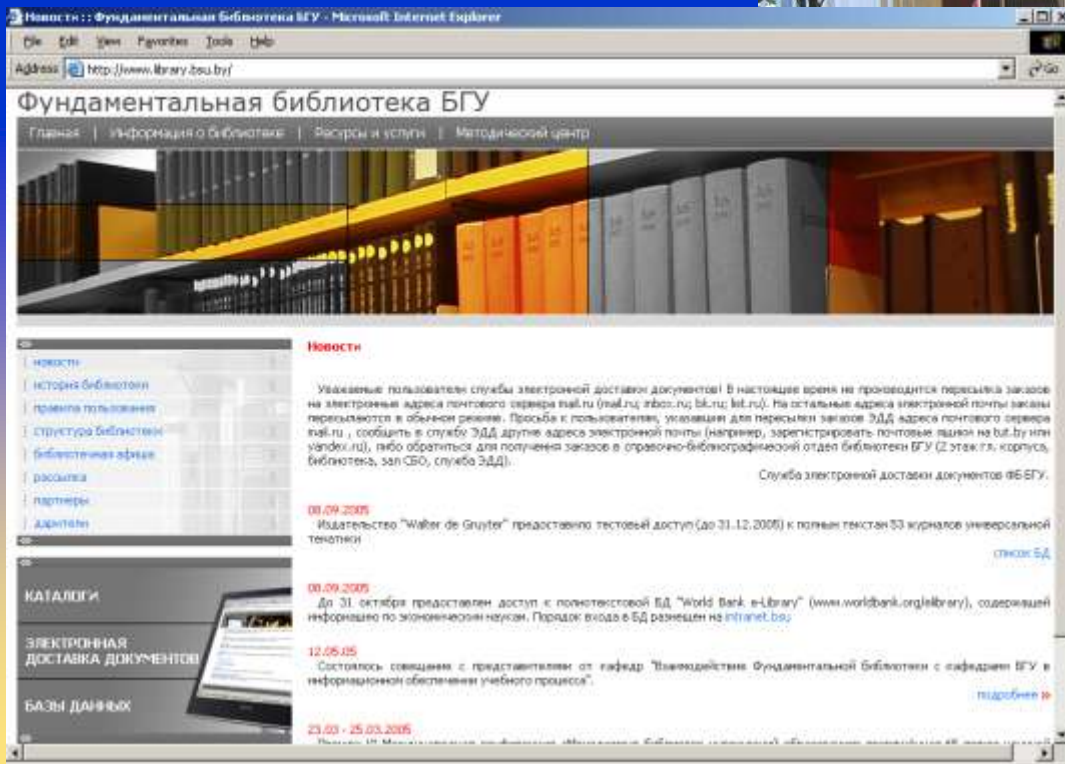
FACULTIES AND INSTITUTIONS

- Mechanics and Mathematics
- Applied Mathematics and Computer Science
- Radio Physics and Electronics
- Physics
- Chemistry
- Biology
- Geography
- Economics
- International Relations
- Law
- Philology
- History
- Philosophy and social science
- Institute of Journalism
- Liberal Education
- Military
- Pre-University education
- Institute of Theology named after Sts. Methodius and Cyril
- Institute of Business and Management of Technologies
- State institute of Management and Social Technologies



Fundamental Library

The library fund is 2 million volumes in Belarusian, Russian and Foreign Languages.



<http://www.library.bsu.by>



BSU Information Network

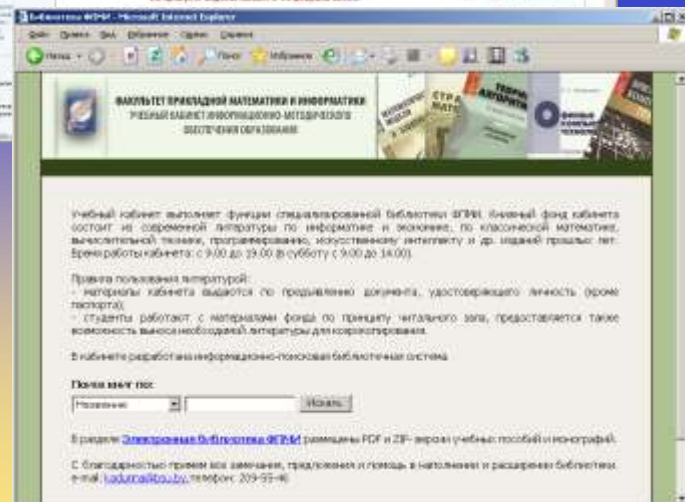
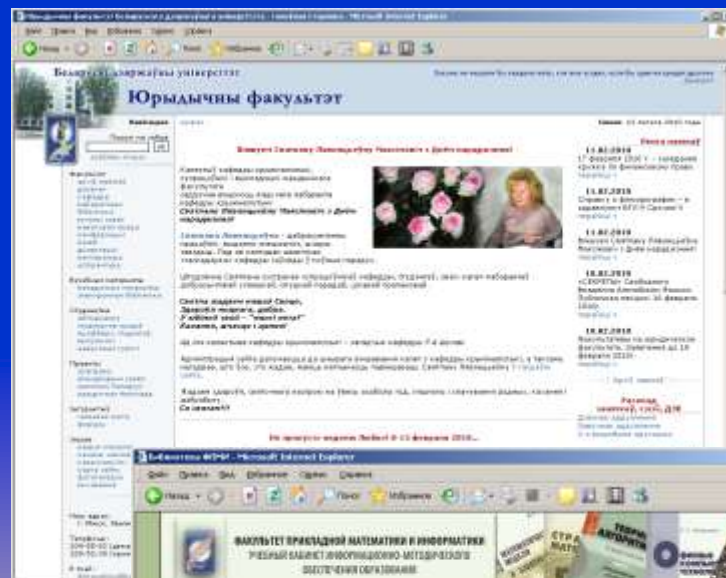
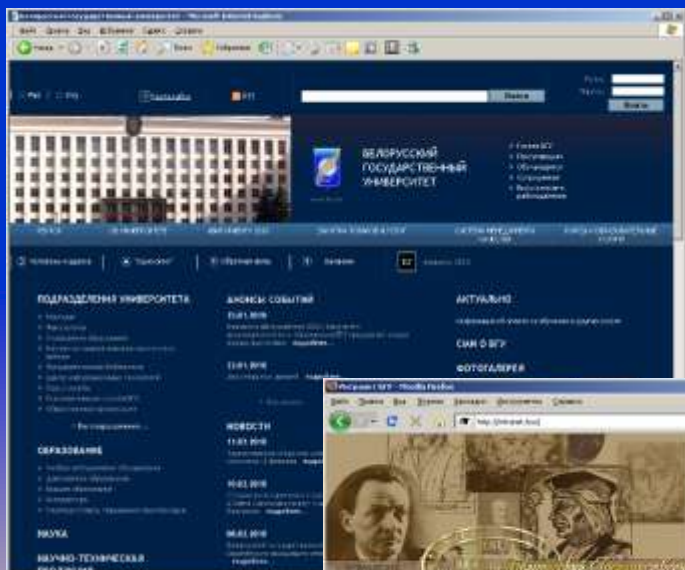
Over 40 km of fiber-optic communications connect all the BSU educational and administrative buildings.





Information Resources of the Network

- Web-Server,
- Web-Servers of the faculties and units of the BSU,
- Intranet-Server of BSU.





Information Resources of the Network

Digital collections and catalog of the Fundamental Library.

Library of limited edition literature

The screenshot shows the homepage of the Fundamental Library website. At the top, there is a navigation bar with links for 'Главная', 'Информация о библиотеке', 'Ресурсы и услуги', and 'Методический центр'. Below this is a large banner image of a library interior. The main content area is divided into several sections: 'Цифровые коллекции вузовской библиотеки' (Digital collections of the university library), 'Электронный каталог ФБ БГУ' (Electronic catalog of the Fundamental Library of BSU), and 'Каталог' (Catalog). The 'Цифровые коллекции' section lists various digital resources like 'Библиографические списки', 'Электронные журналы', and 'Электронные книги'. The 'Электронный каталог' section provides a search interface with fields for 'Имя', 'Полное название', and 'Титульное название', along with a 'Найти' button.

This screenshot shows a detailed view of the search interface for the 'Электронный каталог ФБ БГУ'. It features a search form with the following fields: 'Имя' (Name), 'Полное название' (Full title), and 'Титульное название' (Title). Below these are dropdown menus for 'И' (Year) and 'И' (Author). There are also input fields for 'Ключевые слова' (Keywords) and 'Титульный лист' (Title page). At the bottom, there are dropdown menus for 'Выбор языка' (Language selection), 'Тип работы' (Work type), and 'Размер файла' (File size). A 'Найти' (Search) button is located at the bottom right of the form.

The screenshot displays the DSpace digital repository interface. The top navigation bar includes 'Главная страница' (Home page) and 'Разделы и коллекции' (Sections and collections). The main content area is titled 'Разделы и коллекции' and lists several categories: 'Образовательные стандарты' (Educational standards), 'Биологический факультет' (Biological faculty), 'Дневная форма получения образования' (Daytime education), 'Учебные материалы' (Educational materials), 'Учебные планы' (Curricula), 'Учебные программы' (Educational programs), and 'Заочная форма получения образования' (Part-time education). Each category has a list of links to specific resources, such as '1 курс', '2 курс', '3 курс', and '4 курс' for the educational materials section.



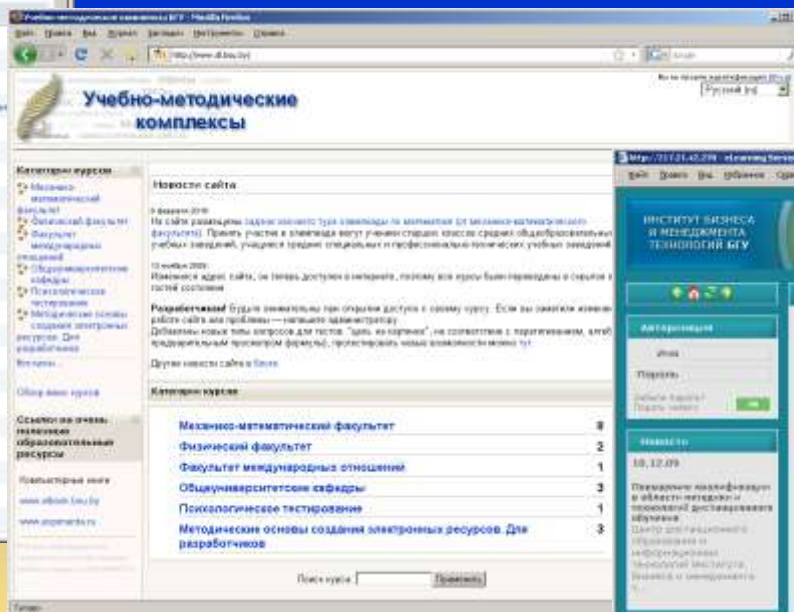
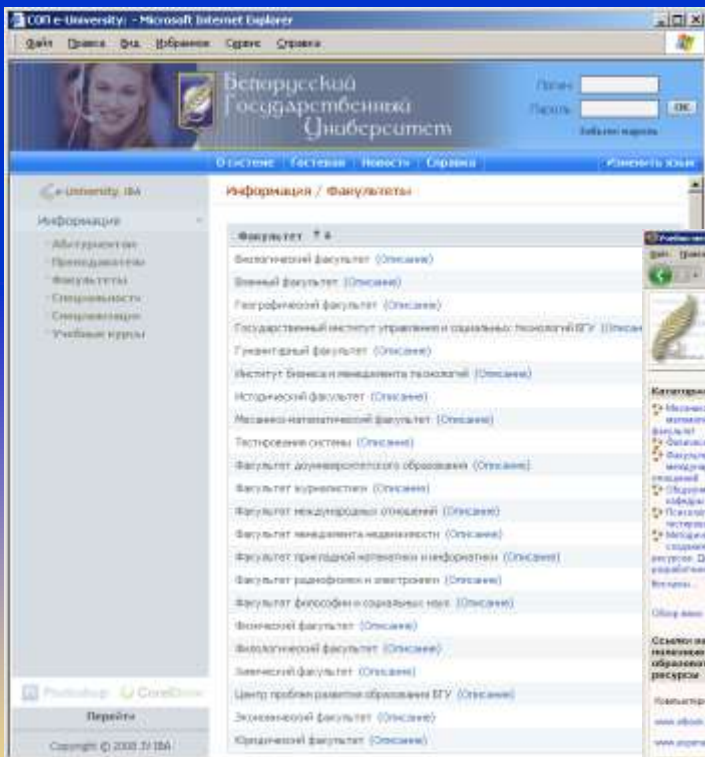
Information Resources of the Network

Use of distant training technology based on the following systems:

- eUniversity,

- Moodle,

- eLearning





Information Resources of the Network

Computer-Aided Network Information System «University»

«eSystem of registration and issue of the personal documents of the BSU student, PhD students and employees»





Students-laureates

IMC – International Olympiad of Mathematics



For the period of participating in the competitions, since 2001, BSU students won 32 golden, 22 silver and 5 bronze medals.



Students-laureates

ICPC – World team competition on programming

BSU students
participates, since
1995/96

Last 12 year –
finalists every year !



BSU team 2010, Harbin (China)



Students-laureates

Rector BSU S.V.Ablameyko with first year students
– winner of international Olympiads





Science





Research and Innovation Potential

1900 research scientists and engineers

4 research institutes:

- Institute of Nuclear Problems
- Research Institute of Physical and Chemical Problems
- Institute of Applied Physical Problems named after A.N. Sevchenko
- Research Institute of Applied Problems of Mathematics and Informatics

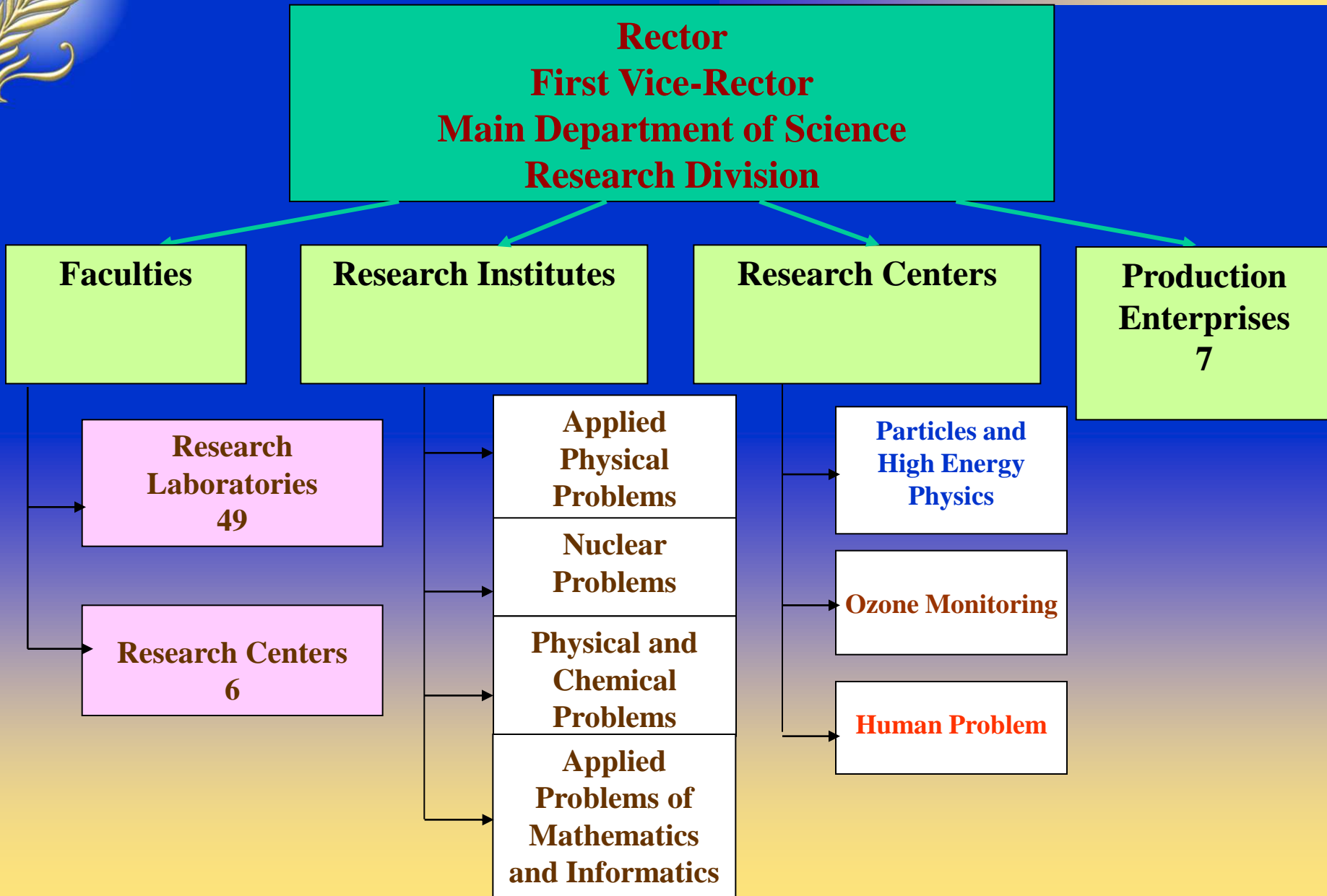
25 research centers

115 research laboratories

12 unitary enterprises



BSU Research Infrastructure





BSU researches material and technical basis

Four Centers of sharing use of unique research equipment are available in BSU

- Belarusian inter-university center of research facilities
- Center of sharing use of devices and equipment of faculty of biology
- Laboratory of physical-and-chemical methods of research RI PCP
- Center of nanotechnologies and physical electronics



CSP concentrates up to 70 % of BSU's total park of new expensive and unique equipment



Fundamental Scientific Research

- Nanostructure and nanotechnology
- Elementary particles and high energy physics
- Laser technology
- Space research
- Theory of differential and integral equations
- Mathematical modeling of complex structures
- Research in the sphere of new materials and technology creation
- Biotechnologies and gene engineering
- Concept of macroeconomic stabilization in the Republic of Belarus
- Juvenile justice
- Development of the National Atlas of Belarus



Research Institute of Applied Physical Problems named after A.N. Sevchenko

Employees:

263 research scientists and engineers.

- 18 doctors of science
- 42 candidates of science
- 9 professors
- 30 associate professors

37 dissertation theses for Doctor of Science Degree and 232 dissertation theses for Candidate of Science Degree have been defended at the Research Institute of Applied Physical Problems.



Main Fields of Activity:

- Spectroscopy and luminescence
- Ultrasonic and electromagnetic waves
- Nuclear and high-power electromagnetic radiation
- Semiconductors and other materials for electronic and machinery engineering
- High-speed process in the applied problems of physics
- Measuring and calculating devices for information processing
- Intellectual managing systems



Research Institute of Nuclear Problems

- Employees:
95 research scientists and engineers
- Among them 6 doctors of science and 25 candidates of science

Structure

- Nuclear Research Department
- Coherent and Nonlinear Processes Department
- High Energy Physics Department
- Optics Experimental Division
- Mechanics Experimental Division

Institute has different international contacts and closely cooperates with United Institute of Nuclear Research (Russia), and is a collaborating member of CMS in CERN, DO and BTeV in FNAL (USA)



**Director of the Institute
Baryshevski V.G. –
author of two discoveries
USSR in the field of nuclear
physics (№224 from 1979
and №360 from 1981 г.).**



Research Institute of Physical and Chemical Problems

RI PCP employs:

- 225 researchers and engineers
- 9 doctors and 82 candidates of sciences (Ph. D.)

Main directions

- Nanocrystal , amorphorous, fine and composite materials
- Natural and synthetic polymers
- Energy-and- source saving technologies to manufacture organic substances, materials and fuels.
- New medications
- Inorganic materials synthesis and modification.
- High-temperature electrochemical and electronic devices
- Magnetic, thermo- and wear-resistant coatings
- New organic compounds synthesis
- Extraction and sorption processes





National Scientific and Educational Center of Particles and High-Energy Physics

The center employs:

- 54 researchers and engineers
- 3 doctors of science
- 17 candidates of science
- 2 professors



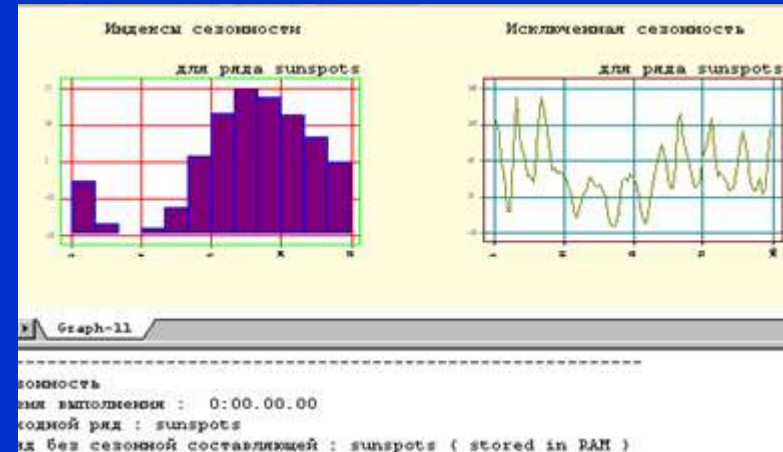
Main directions

- Theoretical and experimental research of fundamental interactions and structures of micro particles at high energies
- Methods of recording of micro particles at extreme conditions
- Organizational support of research carried out in United Institute of Nuclear Researches (UINR, Dubna, Russia) with participation of organizations and institutions of Republic of Belarus



Center of Applied Problems of Mathematics and Informatics

Staff: 28 researches including 1 doctor and 7 candidates of sciences. Over 30 BSU lectures, postgraduate students and students take part in the research of the Center.



Main directions

- Computer data analysis
- Mathematic modeling of complex systems, processes and phenomena in economics , engineering, ecology, medicine and other branches of national economy
- Software in the field of theoretical and applied informatics
- Mathematical methods of information security, cryptography



National Research Center of Ozonosphere monitoring

Main directions

- Development of measuring equipment for ozonosphere monitoring
- On-line monitoring , analysis and forecast of ozonosphere condition and levels of surface ultraviolet radiation
- Taking measurements under BMO Global Atmosphere Watch
- Research in the field of ozonosphere physics, problems of ozonosphere preservation



The division employs
25 researchers
1 doctor of science
7 candidates of science
1 professor



Hi-Tech enterprises of the BSU

- **Unitehprom BSU** - Small-scale chemical and equipment production of various purpose
- **Unihimprom BSU** – Development of the technology of diesel biofuel production from vegetable oils and other accompanying products
- **Unidragmet BSU** - treatment of man-caused waste containing precious and non-ferrous metals treatment
- **Adamas BSU** - Production of diamond monocrystals and instruments made of them
- **Engineering department of the special purpose technical division of the BSU** – Production of computers, traffic controllers and systems of traffic control, software&hardware for medical experts
- **Active BSU** – Production of training devices for physical experiment, vacuum engineering and forage additives
- **Sand BSU** – Production of tests systems for drug detection



Basic R&D products of the BSU

Hardware-software complexes, devices and equipment

- Hardware-software complexes
- Control instrumentation
- Medical devices
- High-end devices and integrated circuits
- Training devices, equipment, systems

Equipment and instrument Substances and materials

- Industrial substances
- Protective substances and materials
- Medical substances and reagents
- Biopreparations

Technologies

- Biotechnologies
- Industrial technologies
- Information high-end technologies
- Information training technologies

More than 1000
items
altogether