



**Belarusian State University:  
education, research, innovations,  
international cooperation**

# BSU today



**BSU is the leading university  
in the national system of higher education  
of the Republic of Belarus.  
Founded on October 30, 1921**

**Certified for standards**

**ISO 9001**



# INTERNATIONAL RANKINGS



Webometrics

QS

Scimago

University Ranking  
by Academic  
Performance  
(URAP)

4 international  
Colleges &  
Universities (4icu)

# INTERNATIONAL RANKINGS



According to Webometrics BSU takes  
**673 place in the World**



**Webometrics Ranking  
of World Universities**

**In QS World University Ranking  
BSU is in Top-500**

**INTERFAX** ranking: BSU takes **the 2<sup>nd</sup> place** among the  
universities of CIS, Lithuania, Latvia, Estonia, Georgia



# BSU COMPLEX

- 26 faculties and educational institutes, including lyceum and law college
- 3 research stations
- 3 museums
- 4 research institutes
- 41 research laboratories
- 9 research centers
- 11 unitary enterprises



# FACILITIES

- More than 100 buildings
- 3 campuses
- 8 dormitories
- 4 media classrooms
- University Network Resources
- Fundamental library
- 3 sport complexes with swimming pools





# HUMAN RESOURCES

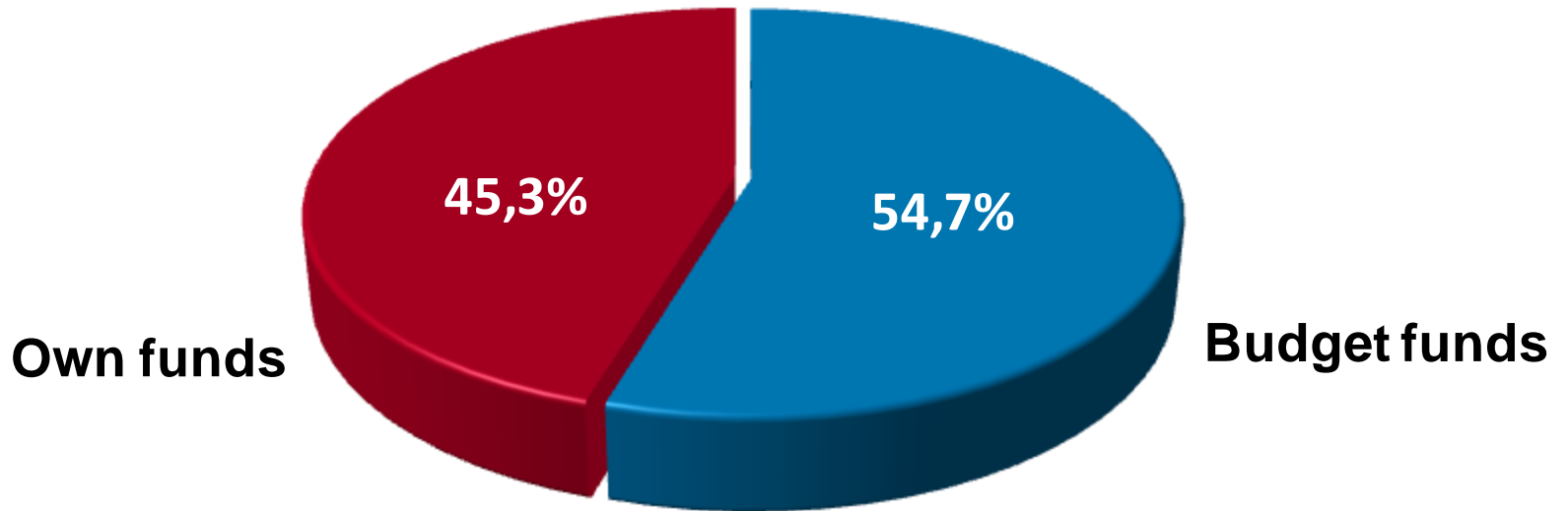


<b>Overall staff</b>	<b>7783</b>
<b>Students</b>	<b>38972</b>
<b>Academic staff</b>	<b>2966</b>
<b>Researchers</b>	<b>1900</b>
<b>Doctors of Science</b>	<b>297</b>
<b>PhD degree holders</b>	<b>1437</b>

**15 academicians  
and 16 corresponding  
members of the  
National Academy of  
Sciences**

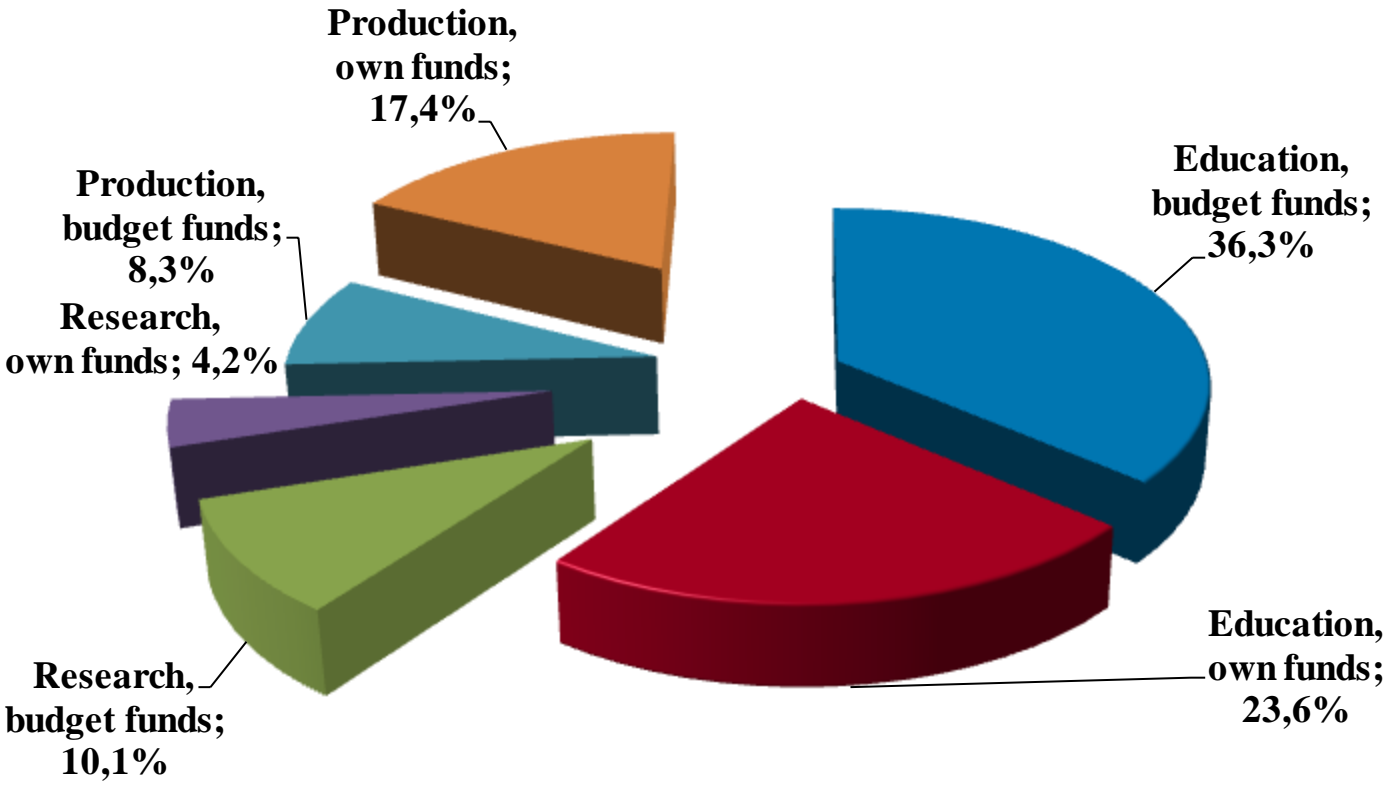


# BSU INCOME STRUCTURE





# BSU INCOME STRUCTURE





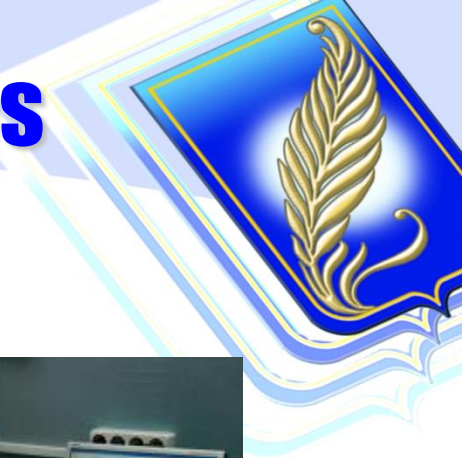
# Education

# Faculties and Educational Institutes

- **Mechanics and Mathematics**
- **Applied Mathematics and Computer Science**
- **Radiophysics and Computer Technologies**
- **Physics**
- **Chemistry**
- **Biology**
- **Geography**
- **Economics**
- **Military**
- **History**
- **Philosophy and Social Science**
- **Law**
- **International Relations**
- **Pre-University Education**



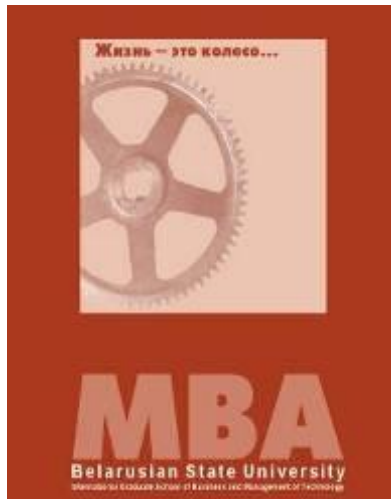
- **Journalism**
- **Philology**
- **Liberal Arts**
- **Business and Management of Technologies**
- **Management and Social Technologies**
- **Theology**



# International Master programs in the School of Business and Management of Technologies



- **Master of Business Administration**  
most popular **MBA** program in the world practice of professional education
- **Master of Science in Logistics**



## Our Partners

- USAID / Eurasia
- Swedish Institute
- Vaxjo University, Sweden
- Central Washington University, USA
- Molde University College, Norway
- Indiana University Northwest, USA
- Nebraska Lincoln University, USA



# PHD AND POST-DOC TRAINING



- **PhD students – 931,**  
**including 81 foreigners from 15 countries**
- **Post-doctoral students – 35**
  
- **118 PhD programs**
- **112 post-doctoral programs**



# International students



**2 620 international students from  
53 countries of the world.**

**Among them:**

**China – 31 %**

**Turkmenistan – 30,6 %**

**Russia – 15,7 %**

**Kazakhstan – 2,6 %**

**Republic of Korea – 2,5 %**

**In 2014/2015 academic year:**

**23 students from Japan**





# Scientific and Research Structure



# On April 20, 2011 the Belarusian State University was accredited as scientific organization





# **Research Institute of Physical and Chemical Problems**



## **Staff:**

- 130 researchers and engineers
- 7 doctors and 61 PhD

## **Main directions**

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

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



Staff:

- 101 researchers and engineers
- 28 doctors and 13 candidates of sciences (Ph.D.)

## **Main directions**

- Spectroscopy and luminescence
- Ultrasonic and electromagnetic waves
- Nuclear and powerful electromagnetic radiations
- Semiconductors and other materials for electronics and machine building
- Fast processes in applied tasks of physics
- Data processing measuring-calculating facilities
- Intelligent control systems

# Research Institute of Nuclear Problems



## Structure:

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

## Staff:

- 89 researchers and engineers
- 6 doctors and 21 candidates of sciences (Ph.D.)

**The Institute  
closely cooperates  
with a wide range  
of international  
research  
organizations:**

- JINR (Dubna Russia)
- EDM Collaboration (Brookhaven USA)
- CMS (CERN Switzerland)
- PANDA (GSI Germany)
- COSY (Julich Germany)
- LAPP (Annecy France)

# National Research and Educational Center of Particle and High-Energy Physics

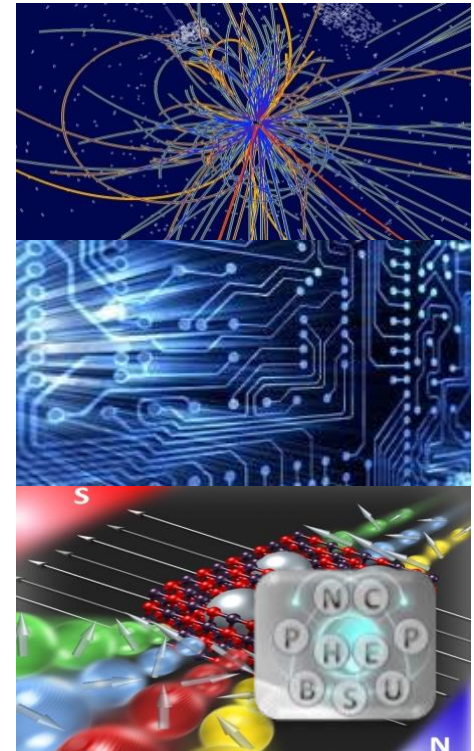


## Staff:

- 22 researchers and engineers
- 2 doctors and 8 candidates of sciences (Ph.D.)

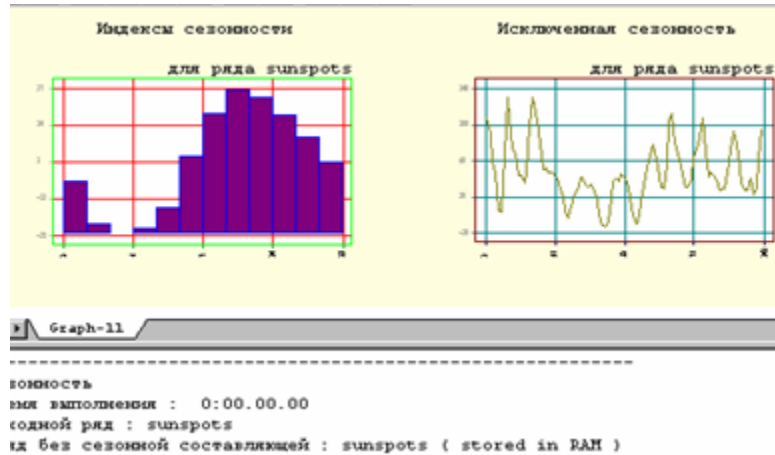
## Main directions:

- 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 the Republic of Belarus





# Research Institute of Applied Problems of Mathematics and Informatics



Staff: 27 researchers  
including 2 doctors and 8 candidates of sciences.  
Over 30 BSU lecturers, postgraduate students  
and students take part in the research of the  
Institute.

## 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 Ozone Monitoring Research and Educational Center**



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

## **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

# ***Republican Center of Human Problems***



**Professional competence.**

**Personnel certification for the work in extreme conditions.**

**NEW APPROACH TO PROFESSIONAL DIAGNOSTIC TESTING!**

**Achievements:**

**The Center developed new methods of predicting professional teamwork of main control unit response personnel at nuclear power stations.**

**The Center implemented decision-making scenarios in the conditions of time pressure and tough provocative desynchronization of actions.**





# Research Innovation Enterprises



# UNIDRAGMET



- Technology of extracting gold, silver and other precious metals from man-made wastes
- Technology of obtaining salts and compositions containing precious metals
- Modern technologies of precious metals analysis



**The annual volume of output is around 10 mln. USD**



# ACTIVE BSU



Training technology

Computer-aided  
experiment

50 facilities

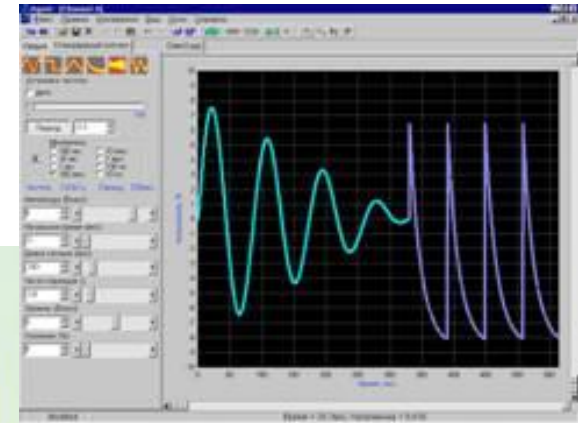
**Software and hardware complexes and  
laboratory equipment to provide  
laboratory practicum in all sections of  
physics in secondary and higher  
schools**





## Measuring Multifunctional Devices for Radio Electronics

- Digital oscilloscopes
- Arbitrary waveform generators
- Multichannel logic analyzers/generators
- Digital acquisition systems
- Precision systems for time analysis
- Instruments for measuring and analysis:
  - acoustic noise
  - vibration
  - surface roughness and circularity





# UNIIMPROM

## Technology of diesel biofuel production on the basis of rape-seeds



- Valuable accompanying products: solid fuel, oilcake to prepare forages, technical soap, glycerin.
- Low amount of sewage, absence of gaseous emissions.
- An opportunity to organize small-scale plants directly in places of diesel biofuel consumption.





# International Cooperation



# INTERNATIONAL CONTACTS



## > 350 bilateral agreements:

CIS

Europe

Asia

Africa

North and South America

## Membership of:

Eurasian University Association

European University Association

Baltic University

International Ass. of Teachers of Russia

Language as a Foreign Language

CEI University Network

IAESTE

ICRANet



## International centers at the BSU:

EU Informational Center

Council of Europe InfoPoint

Center for UN study

Confucius Institute

# Our partners in Japan



➤ **Waseda University**

➤ **University of Tsukuba**

➤ **Fukushima University**

➤ **Tokyo Instruments Inc.**



# ACADEMIC MOBILITY



## Annually:

- more than 1000 staff members are sent abroad for study and research visits
- about 700 students are sent abroad for study and participation in conferences
- about 150 incoming and 180 outgoing exchange students

### Top 7 countries outgoing mobility

1. Russia
2. Germany
3. Poland
4. China
5. Czech
6. Italy
7. France

### Top 7 countries incoming mobility

1. Russia
2. Germany
3. Poland
4. Ukraine
5. China
6. Lithuania
7. Italy





# INTERNATIONAL PROJECTS



**More than 40 international projects:**

**INTAS, FP7, ISTC, NATO, CEI, CERN, VISBY, SIDA, UNO, UCPD, FPB-Belarus, different EU funding instruments and etc.**

**Since 1994 the BSU has participated in 12 Tempus projects**

**Since 2007 BSU has participated in 6 ERASMUS MUNDUS projects**

**Approximate amount of personal grants BSU teaching staff and researchers receive is about 200000 Euro per year**





**Welcome to the BSU!**