



HSE UNIVERSITY — ST. PETERSBURG

# RESEARCH REPORT





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# INTRODUCTION



**Sergey M. Kadochnikov**

Professor  
Director, HSE University —  
St. Petersburg

2020 has become a challenge for all universities, including the Higher School of Economics — St. Petersburg. We had not only to change and adapt to the new reality, but also to help our students, the personnel, city and country in coping with the consequences of the Pandemic.

The most important part of the campus life was its contribution to overcoming the consequences of the Pandemic. Research teams of the Higher School of Economics — St. Petersburg performed studies aimed at facilitation of recovery from the coronavirus crisis for the business and society, and also developed a map of epidemiological research conducted in the world. Our students, postgraduates and young scientists actively participated in these studies.

Under the conditions of the lockdown, a complete immersion in digital reality occurred. On the one hand, the St. Petersburg campus has become a part of the HSE University’s unified digital environment, bringing together students, teachers, researchers and the University’s authorities. On the other hand, we continued collaboration with our partners, held academic conferences and popular science events in a new online format for us. We are glad to keep the continuity of the series of annual conferences and international scientific collaboration and communication.

Despite all the difficulties and challenges of the Pandemic, we continued to support and develop research Centres and groups. A new international research Centre was created in 2020 as planned, the International Laboratory of Quantum Optoelectronics of the Higher School of Economics — St. Petersburg, which has already implemented its first project for creating a unique research installation “Integrated Optoelectronic Stand”. The Natural Language Laboratory of Yandex is almost ready for opening as a part of the St. Petersburg School of Physics, Mathematics and Computer Science.

In total, the HSE University — St. Petersburg has 16 research departments, including 5 international laboratories. Our campus has a strong scientific corporate culture based on the following principles:

- engagement in the global, national and regional agendas;
- openness: presentation and promotion of scientific results;
- internationalness: research activities, teams and events;
- interdisciplinarity: research departments, studies and projects;
- partnership: with Russian and foreign scientific organizations and universities.

We are pleased to present to your attention a report on the research work of the HSE University — St. Petersburg in 2020. We invite you to cooperation, participation in research events and joint projects!



HSE UNIVERSITY — SAINT PETERSBURG

# FACTS AND FIGURES

HSE University — St. Petersburg is a globally-oriented university and Russia's market leader in teaching and research in the fields of economics, social science and humanities.

HSE University — St. Petersburg is a space for those interested in understanding the world in its diversity. Both the content and the atmosphere here obey the prime rule: everything, that happens here, happens for the benefit of our students.

121

Research  
assistants

12

postdocs

7

Assistant Scientific  
Officers

146

Researchers

more than  
6200

Students

11%

International  
students

HSE University in St. Petersburg stands among Top 10% Economic institutions worldwide and in Top 3 Economic institutions in Russia according to RePEc.

The university has 16 research departments, including 5 international flagship research Centres led by world-renowned researchers, as well as 11 standalone research groups where faculty and students jointly carry out research projects.

Our faculty members publish in top Russian and international academic journals and have diverse experience in consulting for Russian and international market-leading companies as well as for Russian state agencies. The list of our international partners includes top-ranked universities around the world.

16

Research Laboratories  
and Centers

5

International  
research labs

62

Scientific  
projects

439

Scientific  
publications

277

Citations  
in top-rated journals

## Prioritized Interdisciplinary Areas of Research Excellence

City, Space, International Development

Diversity and Comparative Social and Cultural Research

Digital Social Sciences and Humanities

Business, Sustainable Development in the Global Economics

50,5 Million  
Rubles

Raised funds from RSF (Russian Science Foundation) and RFBR (Russian Foundation for Basic Research)

171 Million  
Rubles

Volume  
of financing science

## HSE University in the World Rankings 2020

Ranking	Russian rank	World rank
QS World University Rankings	7	298
QS — Top 50 Under 50	1	31
Academic Ranking of World Universities	7 — 8	801–900
THE World University Rankings	3	251–300
THE Young University Rankings	1	41
THE World Reputation Ranking	5	151–175
THE Emerging Economies University Rankings	3	24
THE European University Ranking	3	122
THE: Most International Universities	5	150
U.S.News & World Report Best Global Universities	7	547
3 Missions	4	120
RePEc: Research Papers in Economics	1	46
Social Sciences Research Network	—	99

## HSE University in the Rankings by Subject Shanghai Ranking's Global Ranking of Academic Subjects 2020

Subject	National Rank	World Rank
Mathematics	1	101–150
Economics	1	201–300
Political Sciences	1	101–150
Sociology	1	151–200
Psychology	1	301–400
Business Administration	1	301–400
Management	2	401–500

## QS — World University Rankings by Subject 2020

Subject	Russia	World
Accounting & Finance	1	101–150
Business & Management Studies	1	101–150
Communication & Media Studies	2	101–150
Computer Science & Information Systems	5	151–200
Economics & Econometrics	1	51–100
Education & Training	1	101–150
History	2	51–100
Law & Legal Studies	2	151–200
Linguistics	3	101–150
Mathematics	4	101–150
Modern Languages	2	101–150
Philosophy	2	101–150
Physics & Astronomy	16	451–500
Politics	1	48
Psychology	1	151–200
Sociology	1	51–100

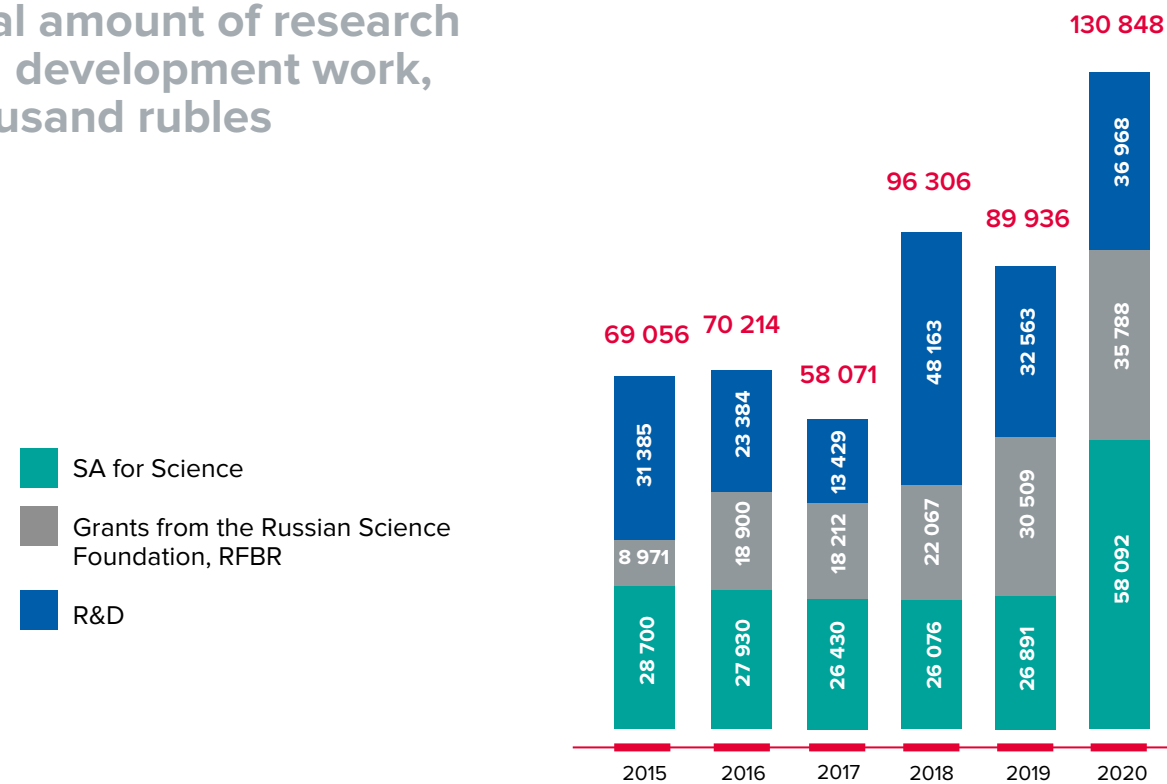
## THE World University Rankings by subject 2020/21

Subject	Russia	World
Business and Economics	1	126–150
Law	1	126–150
Social Sciences	1	176–200
Psychology	1	176–200
Arts & Humanities	3–4	201–250
Computer Science	5–8	401–500
Physical Sciences	14–16	501–600
Engineering & Technology	22–36	801–1000

HSE UNIVERSITY — SAINT PETERSBURG

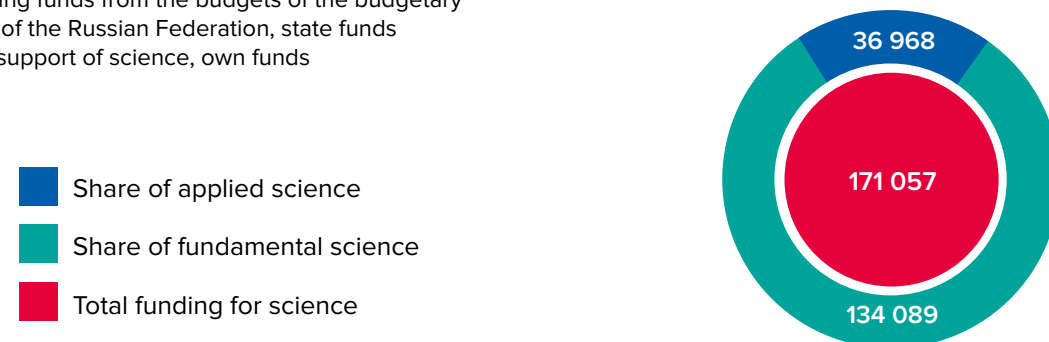
# RESEARCH OUTPUT 2020

Total amount of research and development work, thousand rubles

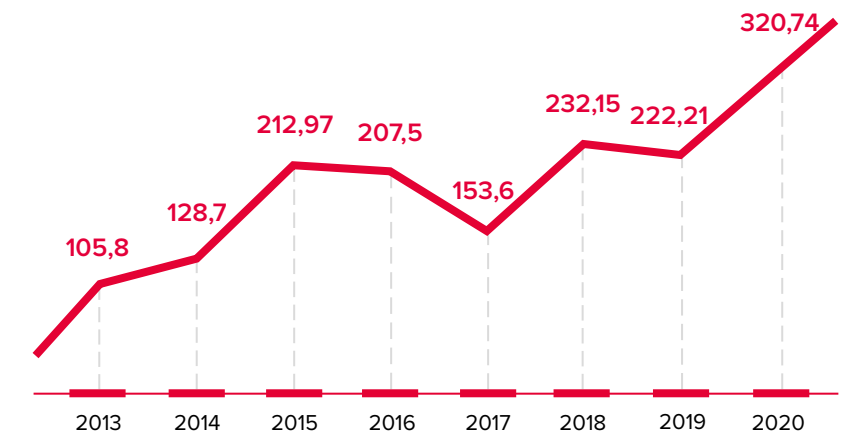


Total funding for research activities in 2020, thousand rubles\*

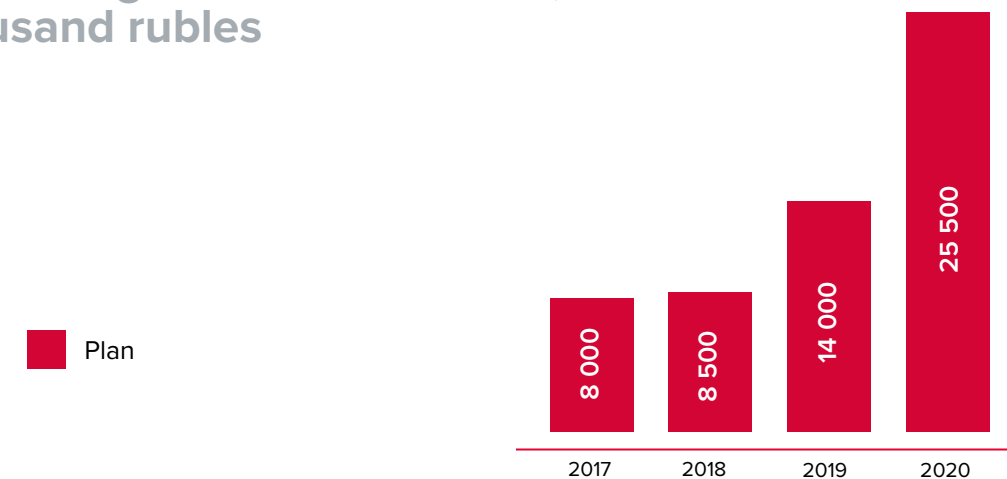
\* including funds from the budgets of the budgetary system of the Russian Federation, state funds for the support of science, own funds



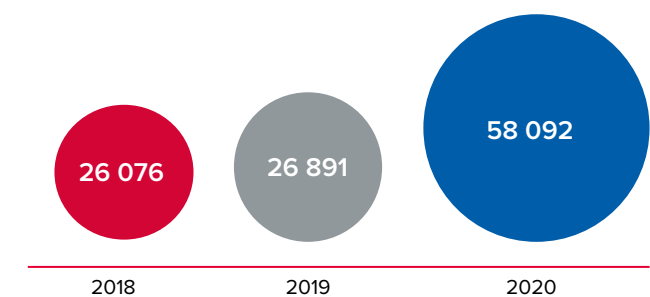
R&D income per 1 faculty member, thousand rubles



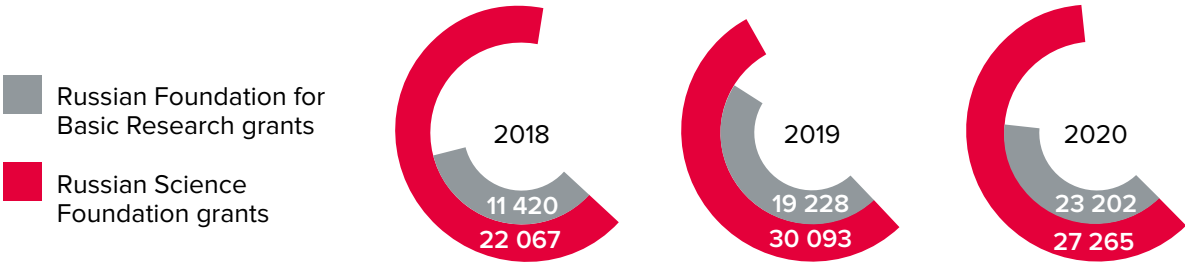
Campus expenses for co-funding research activities, thousand rubles



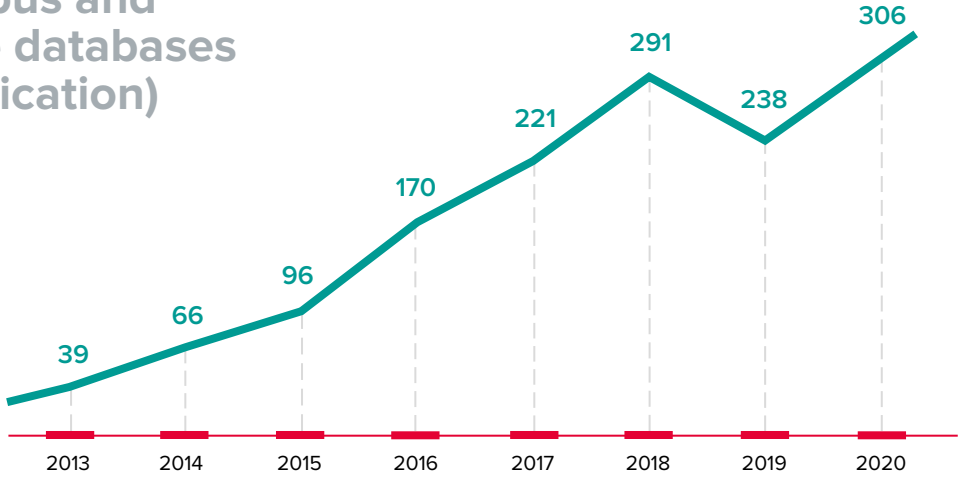
State assignment funds, thousand rubles



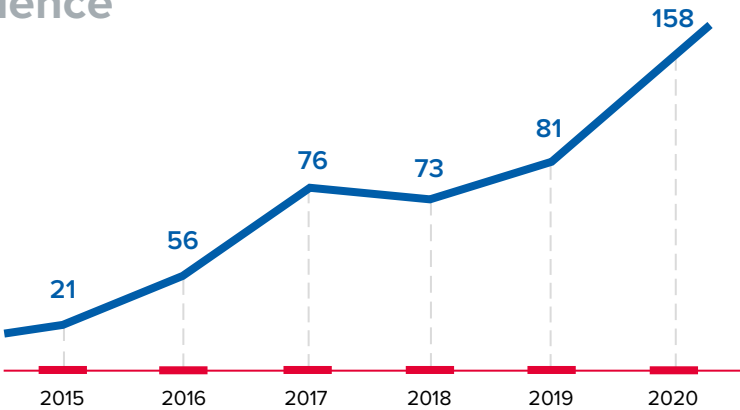
Raised funds under grants from Russian scientific foundations, thousand rubles



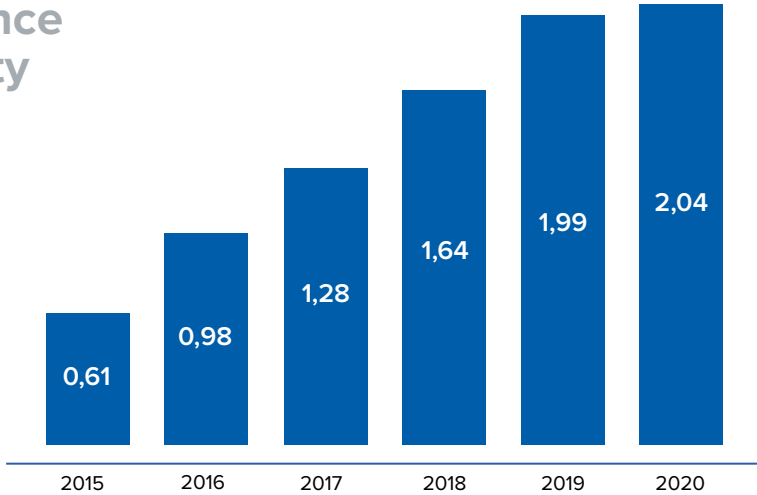
Number of publications indexed in Scopus and Web of Science databases (excluding duplication)



Dynamics of citations of publications indexed in Scopus and Web of Science databases units

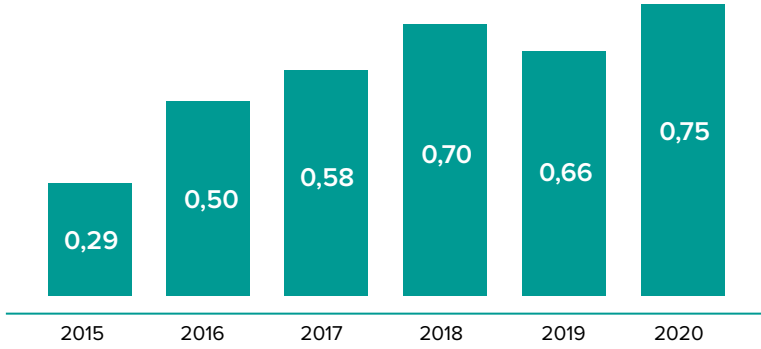


Number of publication, indexed in Web of Science and Scopus per 3 faculty member (excluding duplication)



Number of publication, indexed in Web of Science and Scopus per 1 faculty member\* (excluding duplication)

Number of publications in journals indexed in Scopus and Web of Science databases (excluding duplication)



Number of scientific projects

	2019	2020
The HSE Basic Research Program projects	9	12
The RSF projects	8	10
The RFBR projects	18	24
International scientific projects	2	2
Multi-university research laboratories	0	1
Research centers for young scholars	2	5
Individual scientific projects	6	8



# RESEARCH INPUT 2020

Research teams at the Higher School of Economics — St. Petersburg are conducting research aimed at overcoming the consequences of the pandemic in order to maximally facilitate the recovery from the coronavirus crisis for business and society. Among the projects implemented in 2020, it is important to give attention to the following.

## COVID-19 INFODEMY: shocks at financial markets

In addition to the dramatic humanitarian consequences, the Pandemic has also had resulted in heavy economic and financial impacts on the whole world. The limitations faced by households and offline businesses have changed both supply and demand, in turn provoking pessimistic expectations in financial markets. As a result, stock exchanges around the world showed a decrease from 20 to 30% by the end of March 2020. In addition to the direct effect of the pandemic, the world economy and world financial markets were impacted by negative information noise — ambiguous and not always consistent, which confuses investors even more, resulting in chaotic fluctuations under conditions of the general negative trends. The performed study has shed light on the patterns of investors' reactions related to the appearance of positively and negatively colored news.

The purpose of the study was to assess the possible impact and the extent of the spread of the infodemic accompanying the COVID-19 outbreak. The study (April 2020) reviewed the dynamics of the financial markets of 22 countries, both specific and systematic shocks of market systems were studied in detail: for example, even facing general pessimistic forecasts, insignificant positive news related to an increase in the number of the recovered led to a significant correction of the falling indices. The review is based on the innovative “brute-force search” method: identifying important events impacting sentiments at financial markets, even if they were initially evaluated as insignificant. The choice of the methodology is due to the difficulties in conducting the traditional reviews due to possible manifestations of irrational investors' responses in the face of high frequency of negative news.

The obtained results allow us to develop ways for mitigating information shocks for investors: monitoring and early detection of potentially harmful news could help to avoid market panic under systematically adverse conditions.

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Project leaders:  
**E.A. Shakina, Yu.N. Naydenova,  
P.A. Parshakov**

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Initiator:  
**International Laboratory  
of Intangible-driven Economy**

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## Surviving Harsh Times and Keeping Business: Strategies for Coping with the Crisis of Young Entrepreneurs of St. Petersburg

The global crisis caused by the pandemic has resulted in a sharp deterioration of the economic situation in the country for the several recent months: an increase in the unemployment (while the March level (as it did in recent years) did not exceed 5%, by November 2020 the unemployment was as high as 6.1% (with a rise up to 6.3% in September-October)), a decrease in the real disposable cash income of the population and an increase in the wage arrears, a significant rise in the number of individual entrepreneurs who ceased their activities. The crisis has turned out especially painful for young entrepreneurs engaged in the creative industries and catering. For many of them, the question arose about the survival of their business and the need to take innovative measures which would allow them to save their businesses in a situation of a general economic recession, falling consumer demand and lack of (for many of them) sufficient financial resources.

The results of this project will allow to develop recommendations for supporting young entrepreneurs and self-employed in the development of their businesses.

New empirical findings will include knowledge about challenges faced by young craft entrepreneurs, as well as about the ways, forms and strategies for survival in the crisis. Support agents will also be identified to help young entrepreneurs in surviving crisis situations.

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Project Manager:  
**Elena Leonidovna  
Omelchenko**

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Initiator:  
**Centre for Youth Studies**

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## Assessment of the readiness of museums to end the quarantine period and receive visitors

The purpose of the study is to determine the readiness of museums to implement various formats of working with visitors under conditions of the continuing epidemiological constraints and requirements of keeping the social distance. As part of the study, a survey of 230 museums was conducted in order to assess the features of the new approach to relations with the museum audience in the face of restrictive measures.

Museums used these recommendations for planning under the conditions of the pandemic crisis and related quarantine restrictions.

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Project Manager:  
**Valery Ernstovich  
Gordin**

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Initiator:  
**Laboratory of Cultural Economics**

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## The review of the online activities of cultural institutions (using the example of museums) in the face of quarantine measures

This project is aimed at developing a holistic picture of organizing online activities of cultural institutions (for example, museums) in conditions of quarantine. The study has allowed to identify new approaches to online products and ways of broadcasting them during the quarantine period; features of the audience's perception of cultural online products using the method of digital traces have been revealed. As a result of the project, the website PRO.Museum.

Online — <http://museumonline.ru/> was created.

This website is aimed at sharing experience in working with museum online resources.

The PRO.Museums.Online project is a platform for communication of museum professionals interested in development of digital technologies in museums; in exchange of practices for using various formats; publishing successful cases of implementing online activities in museums, as well as discussing current issues of museums digitalization.

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Project Manager:  
**Valery Ernstovich Gordin**

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Initiator:  
**Laboratory of Cultural Economics**

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## Updating practices of online education in museums

The project provides for a study in the practical implementation of educational activities by museum organizations in the face of the total spread of online education. The main vector of the study is a classification of educational products of museums both to meet educational standards and to have innovative elements.

The main result of the project is a release of a reference book for educational museum online products used in formal and non-formal education — Museum educational online products: Reference book. A second release is being prepared, dedicated to the resources created by museums and for museums during the quarantine restrictions, which will be posted on the website of the Laboratory for the Economics of Culture.

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Project Manager:  
**Valery Ernstovich Gordin**

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Initiator:  
**Laboratory of Cultural Economics**

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## Development of a strategy for modernization of museum practices of working with visitors

Under the project, a survey of museums-members of the Union of Russian Museums was held. The purpose of the survey is to identify the conceptual and technological features of developing strategies for modernizing models of relations between museums and visitors. 118 museum employees from 113 museums took part in the survey. A number of questions in the questionnaire were devoted to quarantine and post-quarantine measures and the restrictions caused by them, as well as the opportunities of abolishing thereof.

The survey has resulted in identifying the areas for development of museum Internet technologies during the Pandemic and the opportunities of stabilizing the financial situation of museums in the post-pandemic period, in describing the internal and external barriers hindering the modernization of museum activities, in articulating the professional competencies required for museum workers to modernize their work in modern conditions.

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Project Manager:  
**Valery Ernstovich Gordin**

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Initiator:  
**Laboratory of Cultural Economics**

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## Pandemic Science Maps

Since the beginning of the 2020 pandemic, many studies have been conducted on the coronavirus and the fight against it. To help in coping with a huge flow of scientific information, we have created a scientometric blog, where we systematized publication data and talked about general research trends related to epidemics. We published short reviews and collections of literature on epidemiology, recommended important papers and discussed their main results, and also followed the topics of preprints on the COVID-19 pandemic.

We explained how, without being a specialist, you can make reliable reviews of the scientific literature. By visualizing the links between publications (mapping the science) and highlighting thematic clusters in these maps, we showed how differently one can approach the analysis of a particular issue. Thanks to our materials, non-specialists can understand large volumes of literature on epidemics and find out how scientific communities work, and how their structure is reflected in the topics discussed in science and the decisions made.

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Project Manager:  
**Daniil Alexandrovich Alexandrov**

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Initiator:  
**Laboratory of Sociology in Education and Science**

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<https://pandemicsciencemaps.org/ru/science-mapping-ru/>

## Who governs? The interplay between the people, local and regional authorities, and the Federal Centre in the towns of the nuclear power industry in Russia: Local responses to the COVID-19 pandemic

In the classical sense, the question of who governs is the question of the plurality or hierarchy of the authority structure in the society. The intersection of these two interpretations of the question of who governs gives a rise to the research agenda for studying how the life is organized in local communities, how the authority is organized in them, how the population and urban activists can change urban policy and influence decisions made by local political elites, and how the federal Centre can use its economic structures to penetrate the life of a community and choose its vector, including political development. We plan to elucidate this agenda based on the material of 10 Russian atomic cities, i.e. all Russian cities neighboring nuclear power plants managed by the Rosatom state corporation.

The study of who governs in the cities of the Russian nuclear industry and what determines whether it is “good” or “bad” government opens up a scope for the formulation of more specific research questions. A part of the proposed project is a specific research question about how all these cities have responded to the coronavirus pandemic and whether there are any significant differences in their responses, local policies to contain the spread of coronavirus infection and the results of these policies. Such a comparison of local communities (often similar) with an evident presence of a federal corporation, that is, an instrument of potential intervention of the federal Centre in the life of communities, should answer a more general question of whether a system of multilevel governance is exogenous as related to “bad” governance (i.e. whether it is just one of the factors) or it itself generates this type of government, so it is endogenous to it (being of the immediate cause thereof).

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Project Manager:  
**Anna A. Dekalchuk**

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Initiator:  
**Centre for Comparative Governance Studies**

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## Strategic choice for small and medium-sized businesses amid the COVID-19 crisis

The COVID-19 pandemic has had a negative impact on the global economy, with small and medium-sized businesses being among the most affected by the consequences of the pandemic. Small and medium-sized businesses had to respond promptly and change their strategies in response to the adverse conditions caused by the coronavirus pandemic. The aim of the project is to study the factors of strategic choice of Russian small and medium-sized businesses in the era of changes in the external environment. Data analysis is performed using the case method, the data collection was carried out at the beginning of the pandemic, in the spring of 2020, and then in the winter of 2021, when enterprises had already adapted to the new realities.

The longitudinal approach allows one to compare the strategic responses of businesses in different periods of the crisis. This project looks to be extremely important from the point of view of the development of Russian entrepreneurship. As part of the project, practical recommendations will be developed for choosing the strategic behavior of small and medium-sized businesses in the face of the economic crisis. In addition, it will contribute to the scientific literature by identifying the different behaviors and factors to influence the choice of strategy in response to the crisis. The results of the project can be used by both entrepreneurs and persons engaged in the development of state policy as a part of entrepreneurship development.

## Regional policy in the face of coronavirus

This student research project is devoted to systematizing the measures taken by Russia regional authorities to fight against the pandemic, developing an agenda of regional policies to counter the pandemic. The idea behind the project is to create a database that can be used by researchers and people on the ground.

Under the project, a primary database has been collected, its expansion and verification is currently performed. The data obtained can be used to analyze the best practices in the area of fighting against coronavirus infection and to assess the performance of the measures taken.

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Project Manager:  
**Galina Viktorovna Shirokova**

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Initiator:  
**International Laboratory of Intangible-driven Economy**

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Project Manager:  
**Yuri Andreevich Kabanov**

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Initiator:  
**Centre for Comparative Governance Studies**

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# KEY EVENTS 2020

In 2020, the coronavirus pandemic caused cancelation or moving online for many of the traditional scientific events of the Higher School of Economics — St. Petersburg. However, by changing the format of the work, we were able to preserve the atmosphere of scientific collaboration and communication of scientists from different countries of the world.

## 7th International School and Conference on Optoelectronics, Photonics, Engineering and Nanostructures, SPb OPEN-2020

April 27–30, 2020

In 2020, the scientific staff of International Laboratory of Quantum Optoelectronics of HSE University — St Petersburg was involved in organizing the 7th International School-Conference on Optoelectronics, Photonics, Engineering and Nanostructures (“Saint-Petersburg OPEN 2020”, 27–30.04.2020). In particular, Prof. Alexey Zhukov, academic supervisor of the Laboratory, was the conference chairman. In connection with the strengthening of measures to prevent the spread of coronavirus infection, taken by the Government of St. Petersburg, the format of the conference was changed from face-to-face, as originally planned, to online. A total of 40 presentations by leading scientists (including 7 plenary speakers) were presented at the conference. More than half speakers were from foreign countries, such as France, Denmark, UK, USA, Netherlands, Spain, Finland and others. The school-conference was attended by 238 young Russian participants, including 45 young scientists, 64 PhD students and 129 undergraduate students. In 2020 the conference was hosted by St Petersburg Academic University. This year HSE University — St Petersburg will be the main organizer and the conference will move to the Kantemirovskaya site.

## 4th Annual International Conference “Analytics for Management and Economics Conference”

September — December 2020

Analytics for Management and Economics Conference (AMEC) is an international conference that focuses on analytical aspects related to Economics and Management. In 2020, the conference moved online, and more participants had a chance to discuss their academic interests, share ideas, and meet like-minded people. Four months, thirteen tracks, over 200 participants from 18 countries, 107 papers presented, with an average attendance to each track of 40 persons.

In 2020, the tracks included the following topics Data Analysis, Entrepreneurship, Innovations, Transformation of Business Models of Companies, the Challenges of the Pandemic, Arts and Culture Management, Advances in Business Analytics, Intellectual Capital, Global Sustainable Finance, Public Procurement. Foreign universities and Centres collaborated with AMEC to organize some of the tracks presented at the conference. For example, the University of Vaasa assisted with an organization of the joint seminar on “Finance and Accounting”, the IESEG Centre for Marketing Analysis in France contributed to the track “Advances in Business Analytics”, and the Cracow University of Economics promoted the track “Data Analysis in the Industry 4.0 Era”.

## III international conference “Kotchoubey Readings-2020” on the subject “Private collections and digital technologies” Kotchoubey Readings

October 8–9, 2020

The Kotchoubey Readings is an annual international conference held by the National Research University Higher School of Economics in St. Petersburg under the patronage of the Kotchoubey family to draw attention to the phenomenon of private collecting and discuss its role in preserving the cultural heritage. The venue is the Kotchoubey Centre — the mansion of Vasily Petrovich Kotchoubey in Tsarskoe Selo, built in 1911–1913. The conference was organized for the first time as a series of online session in October 2020. Discussions including leading experts specialized in the museum sector were devoted to considering the latest Russian and international cases on use of digital tools in treatment of private collections, as well as options for cooperation in their creation, preservation and representation using multimedia technologies.

One of the sessions became a platform for presentation of an interdisciplinary student online project “Digital Solutions for Private Collectors” participated by master students under the program “Experience Economy: Management in the Hospitality and Tourism Industry” and bachelor history students. The project partners included the Museum of Russian Icon, Moscow, and the Kadriorg Art Museum, Tallinn, Estonia.

[https://kc.hse.ru/en/kc\\_event/iii-kotchoubey-readings-2020/](https://kc.hse.ru/en/kc_event/iii-kotchoubey-readings-2020/)

## St. Petersburg Conference on Inequality and Diversity (ID Conference)

November 5–7, 2020

The annual conference on Inequality and Diversity organized by the faculty St. Petersburg School of Social Sciences and Area Studies joins experts and students around the world to discuss the issues of inequality and diversity in governing, social welfare, education, the digital sphere, public policy, conflict management, multi-level government, and social values.

The ID Conference 2020 program included 88 Russian and 36 international speakers who presented their theses and participated in discussions in panel sessions and round tables. The conference also hosted seven keynote lectures given by experts from a variety of universities around the world. Keynote speakers included Richard Sakwa (University of Kent), Matthijs Bogaards (Central European University), Christian Welzel (the Leuphana University of Lüneburg, Director of the World Values Survey project), Robert Huggins (Cardiff University), Michael Dorsch (Central European University), Nicola Piper (University of Sydney, British Academy Global Professor Fellow hosted by Queen Mary University of London’s School of Law), and Thomas Frederick Remington (Harvard University)



**International online conference  
“Trade and Empire: Productivity,  
Economic Exchange,  
and Differences in Eurasia”**

June 22–30, 2020

The conference was organized by Institute for Social Sciences and Humanities at University of Tyumen, Russia in collaboration with the Centre for Historical Research at the HSE Campus in St. Petersburg, the German Historical Institute in Moscow, Friedrich Naumann foundation and the International Quarterly “Ab Imperio: Studies of New Imperial History and Nationalism in the Post-Soviet Space”.

The conference brought together almost 100 historians from the USA, UK, Russia, China, Germany, Hungary, Switzerland and other countries, among them experts in the field: Sergey Glebov (University of Tyumen), Marina Mogilner (University of Illinois at Chicago), Alexander Semyonov (HSE University — St. Petersburg) and Ilya Gerasimov (“Ab Imperio” Quarterly). Discussion was held over nine thematically organized tracks, including “Long-Distance Trade in Imperial Contexts”, “Trade and Commerce in and after the Cold War”, “Soviet and Post-Imperial Economy in War and Peace” and other. Videoarchive of the panels can be found here

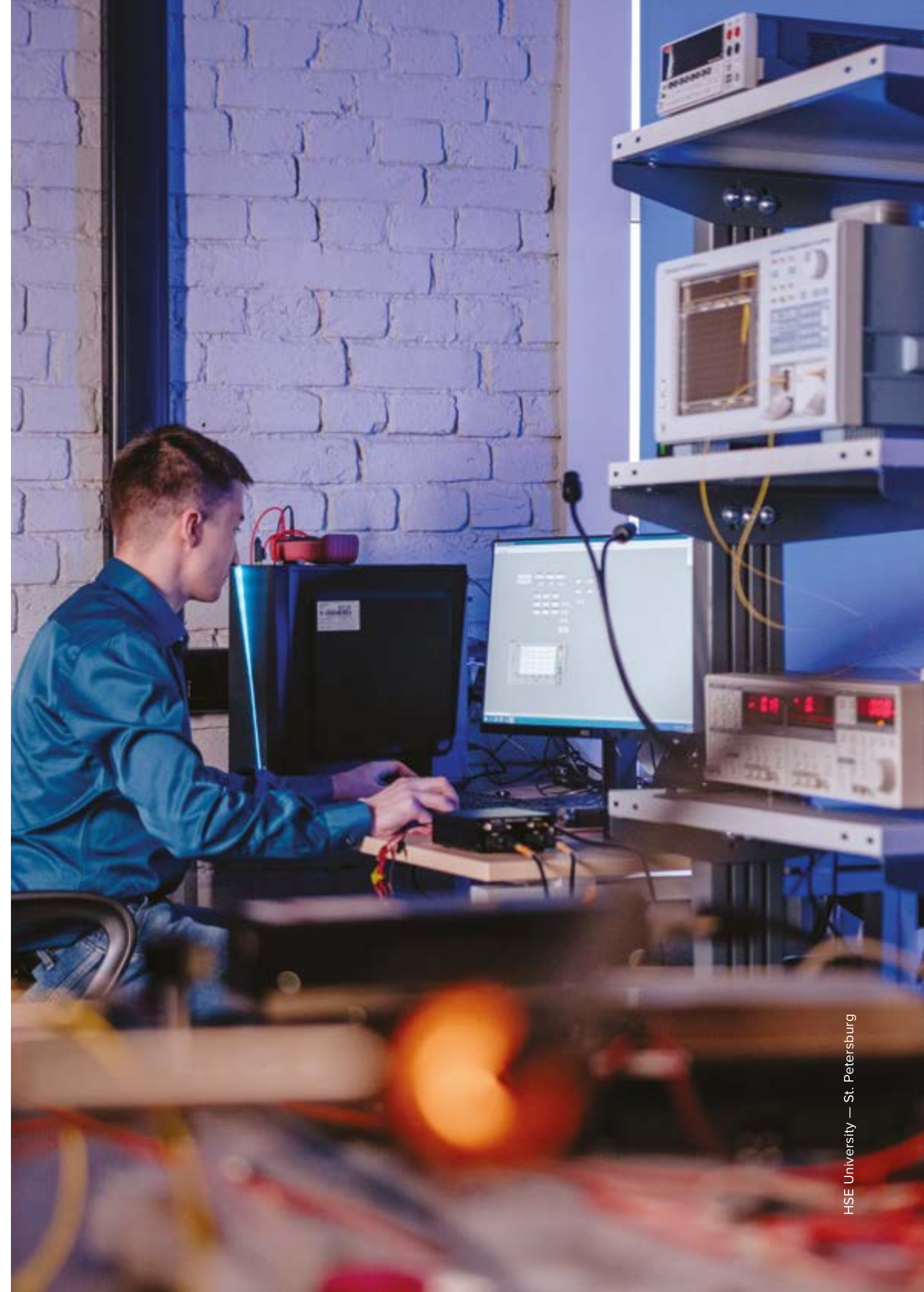
<https://spb.hse.ru/humart/chr/announcements/345241059.html>

**The Seventh International  
Conference “Education and World  
Cities 2020: Towards a new  
normality? University reputation in  
the face of the pandemic”**

June 4–25, 2020

The traditional annual conference of the Higher School of Economics — St. Petersburg was for the first time held in a new format — as a series of online discussions on various aspects of universities’ activities in a new reality.

Meetings at the online platform of the Kotchoubey Centre, united by a common subject “On the way to a new normality? Reputation of the University in the face of the Pandemic” was organized as a discussion participated by representatives of the Higher School of Economics, European educational institutions including the Universities of Navarra and Manchester and Dublin University College, as well as the World 100 Reputation Network and QS World University Rankings. The discussion was focused on the work of universities in preserving and developing their reputation, transforming the educational process and maintaining student loyalty, as well as on the specifics of admitting applicants to world-class universities for the 2020/21 academic year.







HSE UNIVERSITY — SAINT PETERSBURG

## RESEARCH AREAS AND DEPARTMENTS

# 01

## INTERNATIONAL LABORATORY OF QUANTUM OPTOELECTRONICS

<https://spb.hse.ru/fmcs/qoe/>

Director

**Natalya Vladimirovna Kryzhanovskaya**

Head of the Laboratory, Doctor of Physical and Mathematical Sciences

Leading Researcher:

**Aleksey Evgenievich Zhukov**

Scientific Director of the Laboratory, Professor of the Department of Physics, Doctor of Physical and Mathematical Sciences, Corresponding Member of the Russian Academy of Sciences RAS

**Founded in 2020**

The HSE University — St. Petersburg International Laboratory of Quantum Optoelectronics was established in 2020. The main objectives of the Laboratory:

- 1) Investigation of the properties of micro-photonic devices and materials to obtain new scientific knowledge in quantum optoelectronics and related fields of physics and nanotechnology.
- 2) Investigation of physical phenomena in new types of nanophotonic structures with a quantum-sized active region, development of the fundamental principles of applying these structures for optical data transmission and the creation of key elements of new generation photonic integrated circuits, including neural networks.
- 3) Participation in educational activities, including participation in development and implementation of educational programs in physics.

The laboratory created a unique scientific installation “Complex optoelectronic stand” in 2020 to allow studies in the properties of semiconductor micro- and nanostructures, as well as the features of devices based on them with high spectral and temporal resolution in a wide temperature range. The study was resulted in proposing and implementing a method allowing to transfer arrays of microdisk lasers to another substrate, for example, to a silicon substrate [A. E. Zhukov, et al, InAs/GaAs quantum dot microlasers formed on silicon using monolithic and hybrid integration methods, Materials 13(10), 2315-1-14 (2020)]. The method allows lasing generation with injection pumping and individual addressing to any required microlaser from the array. The method is of interest for the integrating laser emitters based on A3B5 semiconductors with silicon electronics and photonics.

### Main publications

- Zhukov A.E., Moiseev E.I., Nadtochiy A.M., Kryzhanovskaya N.V., Kulagina M.M., Mintairov S.A., Kalyuzhny N.A., Zubov F.I., Maksimov M.V.. “The Effect of Self-Heating on the Modulation Characteristics of a Microdisk Laser.” PZHTF 46 (11) (2020): 3-7.
- Kryzhanovskaya N.V., Bukatin A.S., Korenev A.A., Fetisova M.V., Filatov N.A., Maximov M.V., Reduto I.V., Raskhodchikov A.V., Lipovskiy A.A., Zhukov A.E. “Microdisk Lasers for High-Sensitive Protein Detection in Microfluidic Devices.” Proc. SPIE V. 11361 (2020): 113610S
- Kryzhanovskaya N.V., Moiseev E.I., Nadtochiy A.M., Kharchenko A.A., Kulagina M.M., Mintairov S.A., Kalyuzhny N.A., Maksimov M.V., Zhukov A.E. “Micro-optocoupler based on a microdisk laser and a photodetector with an active region based on quantum wells” PZHTF 46 (13) (2020): 7-10.
- Fetisova M., Kryzhanovskaya N., Reduto I., Zhurikhina V., Morozova O., Raskhodchikov A., Roussey M., Pelisset S., Kulagina M., Guseva Yu., Lipovskii A., Maximov M., Zhukov A. “Strip-Loaded Horizontal Slot Waveguide for Routing Microdisk Laser Emission.” J. Opt. Soc. Am. B 37(6) (2020): 1878-1885.
- Zhukov A.E., Kryzhanovskaya N.V., Moiseev E.I., Dragunova A.S., Tang M., Chen S., Liu H., Kulagina M.M., Kadinskaya S.A., Zubov F.I., Mozharov A.M., and Maximov M.V. “InAs/GaAs Quantum Dot Microlasers Formed on Silicon Using Monolithic and Hybrid Integration Methods.” Materials 13(10) (2020): 2315-1-14.
- Zhukov A.E., Moiseev E.I., Nadtochiy A.M., Dragunova A.S., Kryzhanovskaya N.V., Kulagina M.M., Mozharov A.M., Kadinskaya S.A., Simchuk O.I., Zubov F.I., Maksimov M.V. “Laser generation of injection microdisks with InAs/InGaAs/GaAs quantum dots transferred to silicon.” PZHTF 46 (16) (2020): 3-6.
- Zhukov A.E., Kryzhanovskaya N.V., Moiseev E.I., Nadtochiy A.M., Dragunova A.S., Maximov M.V., Zubov F.I., Kadinskaya S.A., Berdnikov Yu., Kulagina M.M., Mintairov S.A., Kalyuzhnyy N.A. “Impact of Self-heating and Elevated Temperature on Performance of Quantum Dot Microdisk Lasers.” IEEE J. Quantum Electron 56(5) (2020): 2000908.
- Raskhodchikov A.V., Scherbak S.A., Kryzhanovskaya N.V., Lipovskii A.A., Zhukov A.E. “Dielectric Surrounding Bleaches the Optical Bond between a Microdisk Resonator and a Straight Optical Waveguide.” J. Phys.: Conf. Ser. 1695 (2020).
- Kryzhanovskaya N.V., Moiseev E.I., Zhukov A.E., Zubov F.I., Kalyuzhnyy N.A., Mintairov S.A., Guseva Yu.A., Tikhomirov V.G., Kulagina M.M., Maximov M.V. “Analysis of the Lasing Characteristics of InGaAs/GaAs WGM Microlasers.” J. Phys.: Conf. Ser. 1695 (2020).
- Kadinskaya S.A., Moiseev E.I., Kryzhanovskaya N.V., Zubov F.I., Mintairov S.A., Kalyuzhnyi N.A., Kulagina M.M., Fominykh N.A., Maximov M.V., Zhukov A.E. “Experimental Investigation of the Far-field Emission Pattern of Microdisk Laser Modes” J. Phys.: Conf. Ser. 1695 (2020).

### Major events

- April 2020: 7th International School and Conference on Optoelectronics, Photonics, Engineering and Nanostructures, SPb OPEN-2020, Saint Petersburg, Russia (ONLINE).

### Key projects 2020

- **“Optoelectronic devices for optical interconnections and optical systems on a chip based on semiconductor nanomaterials”** The features of microdisk lasers with an active region based on In(Ga)As/GaAs quantum dots have been developed and investigated. For a microdisk with a resonator radius of 13.5  $\mu\text{m}$ , the maximum modulation frequency was  $f_{3\text{dB}} = 5.9$  GHz. It has been shown that semiconductor lasers with whispering gallery modes, including as micro-ring or microdisk lasers, with a small base area and in-plane emission, have a good perspective for creating efficient and compact light sources. The obtained findings show the opportunity of creating miniature high-speed light sources for applications in optical communication using lasers with a diameter of only a few micrometers.
- **“Development of methods for calculating the connection of A3B5 microdisk laser with a waveguide through a medium of different optical density”** A numerical model is constructed to describe the optical connection of the modes of the whispering gallery of a microdisk resonator with a flat optical waveguide, and the performance of this interaction was reviewed. It is shown that for each selected mode of the whispering gallery at certain thicknesses of the waveguide, resonant interaction is possible to allow multiple amplification of the optical energy output.
- **“Development of a calculation method and calculation of characteristics of hybrid-integrated microresonators”** A method for estimating the electrical resistance of microdisk resonators hybridly integrated with a silicon substrate has been developed. The individual resistance components and resistance of the whole device are calculated for AlGaAs/GaAs laser pin heterostructures with InAs/InGaAs quantum dots for various designs of the laser heterostructure layers and the sizes of the microdisk resonator, the factors that have the most significant impact on the resistance are determined, and the ways of its reduction by optimizing the design of the microlaser are identified.

# 02

## CENTRE FOR MARKET STUDIES AND SPATIAL ECONOMICS

<https://ces.hse.ru/en/>

Director:

**Sergey Kokovin**  
Professor

Academic Advisor:

**Kristian Behrens**  
Professor, Université du Québec à Montréal

Chief Research Fellow:

**Jacques-François Thisse**  
Professor Emeritus, Université catholique de Louvain

Leading Research Fellows:

**Yasusada Murata**  
Professor

**Hans Koster**  
Professor

**Alexander Tarasov**  
Associate Professor

**Philip Ushchev**  
Associate Professor

Senior Research Fellow:

**Sergey Kichko**  
Associate Professor

Research Fellows:

**Vera Ivanova**  
Associate Professor

**Marina Sandomirskaya**  
Associate Professor

**Evgeniy M. Ozhegov**  
Associate Professor

**Konstantin Kucheryavyy**  
Assistant Professor

The purpose of the Centre for Market Studies and Spatial Economics is to obtain significant results in economic theory and empirical research, based on a new class of models of market systems with free entry. The main area of scientific activity of the Centre is fundamental research on the theory of market structures with an emphasis on the application of the developed theories to international trade, the theory of industrial markets and the urban economy.

The Centre conducts both theoretical and empirical studies. The purpose of the theoretical part of the study is to explain the impact of the form of demand functions on trade flows between countries, the spatial structure of the economy, market power and other key characteristics of the market in applied general equilibrium models with imperfect competition and spatially distributed agents having heterogeneous preferences. The empirical studies by the Centre are aimed at identifying the most significant driving forces of the regional inequality, at estimating the competition intensity at urban, regional and international markets, at considering the nature of the impact of localization and coagglomeration on the formation of the structure of settlement in cities, as well as at assessing agglomeration effects and their influence on spatial patterns of localization of economic activity, taken into account for developing measures to regulate the economy.

The Centre holds an annual international conference for the theory of industrial markets and spatial economics — one of the leading events in research not only in Russia, but also in the world.

**Founded in 2020**

### Main publications

- Behrens, Kristian, Brahim Boualam, and Julien Martin. "Are Clusters Resilient? Evidence from Canadian Textile Industries." *Journal of Economic Geography* 20.1 (2020): 1-36.
- Kichko, Sergey. "Competition, Land Prices and City Size." *Journal of Economic Geography* 20 (5) (2020).
- Behrens, Kristian, and Matthieu Chemin. "Nonbinding Peer Review and Effort in Teams Evidence from a Field Experiment." *Journal of Human Resources* 55.4 (2020): 1365-1399.
- Alberto Bucci, Philip Ushchev. "Specialization versus Competition: an Anatomy of Increasing Returns to Scale." *Journal of Economic Geography* Ibaa014 (2020).
- Behrens, Kristian, et al. "Quantifying the Gap between Equilibrium and Optimum under Monopolistic Competition." *The Quarterly Journal of Economics* 135.4 (2020): 2299-2360.
- Ushchev, P. and Zenou, Y. "Social Norms in Networks." *Journal of Economic Theory* 185 (2020):104969.
- Takayama, Y., Ikeda, K. and Thisse, J.F. "Stability and Sustainability of Urban Systems under Commuting and Transportation Costs." *Regional Science and Urban Economics* (2020):103553.
- Koster, Hans RA, and Jos Van Ommeren. "Place-Based Policies and the Housing Market." *Review of Economics and Statistics* 101.3 (2019): 400-414.
- Koster, Hans RA, et al. "Place Based Policies, Firm Productivity, and Displacement Effects: Evidence from Shenzhen, China." *Journal of Regional Science* 59.2 (2019): 187-213.
- Gokan, T., Kichko, S. and Thisse, J.F. "How Do Trade and Communication Costs Shape the Spatial Organization of Firms?" *Journal of Urban Economics* 113 (2019):103191.
- Koster, H.R., Pasidis, I. and van Ommeren, J. "Shopping Externalities and Retail Concentration: Evidence from Dutch Shopping Streets." *Journal of Urban Economics* 114 (2019):103194.
- Ostermeijer, F., Koster, H.R. and van Ommeren, J. "Residential Parking Costs and Car Ownership: Implications for Parking Policy and Automated Vehicles." *Regional Science and Urban Economics* 77 (2019): 276-288.
- Sandomirskaya, M. "Nash-2 Equilibrium: Selective Farsightedness Under Uncertain Response." *Group Decision and Negotiation* 28(2) (2019): 275-304.
- Proost, S., & Thisse, J. F. "What Can Be Learned from Spatial Economics?" *Journal of Economic Literature* 57(3) (2019): 575-643.
- Kichko, S. "Competition, Land Prices and City Size." *Journal of Economic Geography* (2019).
- Behrens K., Albouy D., Robert-Nicoud F., Seeger N. "The Optimal Distribution of Population across Cities." *Journal of Urban Economics* 110 (2019): 102-113.
- Behrens K., Barbero J., Zofio J. L. "Industry Location and Wages: The Role of Market Size and Accessibility in Trading Networks." *Regional Science and Urban Economics* 71 (2018): 1-24.
- Marin D., Schymik J., Tarasov A. "Trade in Tasks and the Organization of Firms." *European Economic Review* 107 (2018): 99-132.
- Behrens K., Pokrovsky D. A., Zhelobodko E. "Market Size, Occupational Self-selection, Sorting, and Income Inequality." *Journal of Regional Science* 58 (1) (2018): 38-62.
- Behrens K., Bougna T., Brown M. "The World is not yet Flat: Transport Costs Matter!" *The Review of Economics and Statistics* (2018).
- Ivanova V. "Spatial Convergence of Real Wages in Russian Cities." *Annals of Regional Science* 61 (1) (2018): 1-30.
- Tabuchi T., Thisse J-F., Zhu X. "Does Technological Progress Magnify Regional Disparities?" *International Economic Review* 59 (2) (2018): 647-663.
- Malykhin N. I., Ushchev P. "How Market Interactions Shape the City Structure?" *Regional Science and Urban Economics* 71 (2018): 122-136.
- Ushchev P., Zenou Y. "Price Competition in Product Variety Networks" *Games and Economic Behavior* 110 (2018): 226-247.

### Major events

- June, 2019: 8-th IOSE. Keynotes: Donald Davis (Columbia University), Josef Zweimüller (University of Zurich).
- June, 2018: 7-th IOSE. Keynotes: Lorenzo Caliendo (Yale), Laurent Gobillon (PSE), Henry Overman (LSE), Andres Rodríguez-Clare (Berkeley).
- June, 2017: 6-th IOSE. Keynotes: Keith Head (University of British Columbia), Pierre-Philippe Combes (Lyon), Esteban Rossi-Hansberg (Princeton).
- June, 2016: 5-th IOSE. Keynotes: Jose Scheinkman (Columbia), Gabriel Felbermayr (LMU), Kiminori Matsuyama (Northwestern).
- June, 2015: 4-th IOSE. Keynotes: David Albouy (Illinois), Thomas Holmes (Minnesota), Kaz Miyagiwa (Florida).
- Also: Annual IOSE sections within HSE April Conference, Annual December IOSE Workshops.



### Key projects

- 2020: “Heterogenic markets, Urban, Spatial and International Economics”
- 2019–2020: “Imperfect markets, Spatial economics and Industrial clusters”.
- 2016–2018: “Spatial and Regional Economics, Economics of Agglomeration, International Trade”
- 2011–2015: “Spatial Economics, Regional Economics, Economics of Agglomeration, International Trade”





# 03

## INTERNATIONAL LABORATORY OF GAME THEORY AND DECISION-MAKING

<https://game.hse.ru/en/>

Laboratory Head:

**Alexander Nesterov**  
Assistant Professor

Leading researchers:

**Hervé Moulin**  
Professor, University of Glasgow,  
United Kingdom

**Anna Bogomolnaia**  
Professor, University of Glasgow  
United Kingdom

**Founded in 2015**

The aim of the International Laboratory of Game Theory and Decision Making is to build new bridges between cooperative behavior models and the normative concept of cooperation and fair sharing, in particular in their algorithmic and asymptotic aspects.

Key research areas:

- 1) Design of economic mechanisms and development of new applications for specific problems of resource allocation (sharing of losses and/or profits).
- 2) Definition of new concepts in the cooperative game theory aimed at analyzing interactions of players building up and breaking alliances through public and/or secret agreements.
- 3) Consideration of information effects for dynamic games.
- 4) Development of algorithmic game theory aimed at assessing the complexity of finding equilibrium outcomes.
- 5) Investigation of the asymptotic properties of large games.

The International Laboratory for Game Theory and Decision-Making was founded by a group of leading economists, experts in mathematical game theory from SPEMI RAS, headed by the Soviet and Russian mathematician and economist Elena Borisovna Yanovskaya. The mission of the laboratory is to develop the research areas of the St. Petersburg Scientific School, collaboration with foreign scientists and the attraction of young researchers.

The laboratory allows interaction of both researchers who have long received international academic recognition and many young employees, including research interns from among the most successful undergraduate and graduate students of the Higher School of Economics.

### Main publications

- Dietzenbacher B., Yanovskaya E. B. "Consistency of the Equal Split-Off Set." *International Journal of Game Theory* (2020).
- Albizuri M.J., Dietzenbacher B., Zarzuelo J.M. "Bargaining with Independence of Higher or Irrelevant Claims." *Journal of Mathematical Economics* 91 (2020): 11-17.
- Gusev V. "The Vertex Cover Game: Application to Transport Networks." *Omega* 97 (2020).
- Béal S., Deschamps M., Moulin, H. "Taxing Congestion of the Space Commons." *Acta Astronautica* 177 (2020): 313-319.
- Kalinin N., Vershinin M. "Strategic Analysis of the Russian Crab Quota Auction in 2019." *Marine Policy* 122 (2020).
- Dietzenbacher B., Estévez-Fernández A., Borm P., Hendrickx R. "Proportionality, Equality, and Duality in Bankruptcy Problems with Nontransferable Utility." *Ann Oper Res* (2020).
- Mazalov V., Gusev V. "Generating Functions and Owen Value in Cooperative Network Cover Game." *Performance Evaluation* 144 (2020).
- Arieli I., Babichenko Y., Sandomirskiy F., and Tamuz O. "Feasible Joint Posterior Beliefs." *Proceedings of the 21st ACM Conference on Economics and Computation* (2020).
- Moulin H., Caragiannis I., Kurokawa D., Procaccia A., Shah N., Wang J. "The Unreasonable Fairness of Maximum Nash Welfare" *ACM Transactions on Economics and Computation* 7 (3) (2019): 1-32.
- Kondratev A., Nesterov A. S. "Measuring Majority Power and Veto Power of Voting Rules." *Public Choice* (2019): 1-24.
- Bogomolnaia A., Moulin H., Sandomirskiy F., Yanovskaya E. B. "Dividing Bads under Additive Utilities." *Social Choice and Welfare* (2018): 1-23.
- Ivanov D., Nesterov A. S. "Identifying Bid Leakage in Procurement Auctions: Machine Learning Approach" in *EC '19 Proceedings of the 2019 ACM Conference on Economics and Computation* (2019).
- Kalinin N., Guzmán-Sáenz A., Prieto Y., Shkolnikov M., Kalinina V., Lupercio E. "Self-Organized Criticality and Pattern Emergence Through the Lens of Tropical Geometry." *Proceedings of the National Academy of Sciences of the United States of America* 115 (35) (2018): E8135-E8142.
- Kreps V. L., Gavrilovich M. "Games with Symmetric Incomplete Information and Asymmetric Computational Resources." *International Game Theory Review* 20 (2) (2018): 1-16.
- Kalinin N., Shkolnikov M. "Introduction to Tropical Series and Wave Dynamic on Them." *Discrete and Continuous Dynamical Systems* 38 (6) (2018): 2827-2849.

### Major events

- July, 2019: International Conference "Economic Design and Algorithms in St. Petersburg"
- July, 2019: International Summer School "Game Theory: Applications, Networks, Emotions"
- August, 2018: International Conference "Algorithmic Aspects of Social Choice and Auction Design"

### Key projects

- **"Mechanisms of allocation and public choice: axioms, incentives, algorithms"**, under the HSE Program of Fundamental Research.  
The aim of the project is to apply modern theoretical and empirical approaches to answer open research issues in the game theory and the design of economic mechanisms. The research methodology is a combination of modern approaches to solving a wide range of issues.
- **"Equilibrium in strategies with limited memory and economic applications"**, with the support of the Russian Science Foundation  
The project is aimed at solving a theoretical scientific problem: "How does a "slightest" change in the complexity of strategies impact the equilibrium states in long-term economic (environmental, social) interactions?" The results are planned to be used to solve an applied scientific problem: "To identify corruption deals among long-term economic interactions at public procurement auctions in the Russian Federation."
- **"The social costs of strategic behaviour"**, with the support of the Russian Science Foundation  
The preferences aggregation problem arises whenever it is necessary to combine information presented in the form of ordered alternatives from different sources. We can explicitly observe use of methods for aggregating such information in recommender systems, in statistics and machine learning — when applying an ensemble of methods, as well as in computational biology. An implicit form of a similar problem arises when preparing the final list of selected candidates for a position or a ranking of university applicants claiming for budget jobs. Since these questions are relevant in the current world, preference aggregation is increasingly becoming one of the main ideas in artificial intelligence and machine learning.
- **"New concepts of efficiency and manipulability in combinatorics problems"**, with the support of the Russian Foundation for Basic Research  
The aim of the work is to develop fundamental concepts of optimality, manipulability, and incomplete information for combinatorics problems.



- **“Cardinal mechanisms of resource allocation”**, with the support of the Russian Foundation for Basic Research  
The project is devoted to the mathematical issues to arise in the design of economic mechanisms for resource allocation in the absence of cash transfers. Such mechanisms should take into account the preferences of the participants in the sharing, and in such a way that the final shares meet certain requirements of fairness, economic efficiency, and is non-manipulable — would be resistant to the desire of the participants to distort their preferences in order to improve the results of the sharing for themselves.





# 04

## LABORATORY FOR COMPARATIVE SOCIAL RESEARCH

<https://lcsr.hse.ru/en/>

Director:

**Eduard Dmitrievich Ponarin**  
PhD

Leading researchers:

**Hans Peter Kriesi**  
PhD, European University Institute  
in Florence

**Christian Peter Welzel**  
PhD, University of Luneburg

**Founded in 2010**

The Laboratory for Comparative Social Research (LCSR) is engaged in sociological research from a comparative perspective. The main subjects for the study include the problems of subjective well-being and the level of happiness, the problems of migration and attitudes towards migrants in the society, the problems of nationalism and ethnic conflicts.

The LCSR focuses on the comparative analysis of norms and values. In particular, it concerns such subjects as explaining the dynamics of value shifts in Russia and other post-Soviet states for the recent 30 years, correlation of these dynamics with political and economic changes, including that in a global context, comparing Russian regions with each other, clarifying relations between cultural and historical characteristics and the level of economic development of the regions. In total, LCSR employees perform about 50 research projects aimed at publication in international peer-reviewed journals. In addition, methodological workshops are held on a persistent basis in our Laboratory, open to everyone. During the workshop, the laboratory's employees and external participants have the opportunity to present and discuss the results of their research projects.

The LCSR performs three main functions:

- 1) performs fundamental scientific research in actual issues of the modern society, contributing to the development of quantitative comparative sociology in Russia and performing advisory functions in the social policy;
- 2) performs studies of the population and regions of the Russian Federation and the CIS countries, thereby filling the existing gaps in the missing data on the subjects studied;
- 3) train young people for research work, namely: attracts students and postgraduates, young PhDs not only from Moscow and St. Petersburg, but also from other regions of the Russian Federation to research work; conducts training in new modern methods of analysis, thereby reviving comparative quantitative sociology in Russia; and also makes a great contribution to the education and short-term internships of young Russian researchers abroad.

### Main publications

- Akaliyski, P., & Welzel, C. "Clashing Values: Supranational Identities, Geopolitical Rivalry and Europe's Growing Cultural Divide." *Journal of Cross-Cultural Psychology* (2020): 1-23.
- Bessudnov, A., & Shcherbak, A. "Ethnic Discrimination in Multi-ethnic Societies: Evidence from Russia." *European Sociological Review* 36(1) (2020):104-120.
- Frantsuz, Yu., & Ponarin, E. "The Impact of Societal Instability on Demographic Behavior (The Case of Soviet and Post-Soviet Russia)." *Population Research and Policy Review*. (2020).
- Inglehart, R.F. "Giving Up on God: The Global Decline of Religion." *Foreign Affairs* (5) (2020): 110-118.
- Karabchuk, T., & Soboleva, N. "Temporary Employment, Informal Work and Subjective Well-Being Across Europe: Does Labor Legislation Matter?" *Journal of Happiness Studies* 21(5) (2020): 1879-1901.
- Kriesi, H. "Is There a Crisis of Democracy in Europe?" *Politische Vierteljahresschrift* 61(2) (2020): 237-260.
- Kriesi, H., & Schulte-Cloos, J. "Support for Radical Parties in Western Europe: Structural Conflicts and Political Dynamics." *Electoral Studies* 65 (2020).
- Rochlitz, M., Mitrokhina, E., & Nizovkina, I. "Bureaucratic Discrimination in Electoral Authoritarian Regimes: Experimental Evidence from Russia." *European Journal of Political Economy* (2020).
- Sirotkina, E., & Zavadskaya, M. "When the Party's Over: Political Blame Attribution under an Electoral Authoritarian Regime." *Post-Soviet Affairs* 36(1) (2020).
- Foa, R.S., Nemirovskaya, A.V. "Frontier Settlement and the Spatial Variation of Civic Institutions. *Political Geography*" 73(8) (2019): 112-122.
- Kriesi, H., Malet, G. "Economic Shocks and the Cost of Ruling: Evidence from Italy." *Journal of Elections, Public Opinion and Parties* 30(1) (2019): 22-41.
- Mavletova, A., Lynn, P. "Item Nonresponse Rates and Panel Conditioning in a Longitudinal Survey among Youth." *Field Methods* 31(2) (2019): 95-115.
- Shcherbak, A. "Nationalities Policy in the USSR: Explaining the 'Pendulum Swing' Using Randall Collins' Geopolitical Theory." *Europe-Asia Studies* 71(10) (2019): 1627-1644.
- Tkacheva, T., Golosov, G.V. "United Russia's Primaries and the Strength of Political Machines in the Regions of Russia: Evidence from the 2016 Duma Elections." *Europe-Asia Studies* 71(5) (2019): 824-839.
- Kravtsova M., Oshchepkov A.Y. "Market and Network Corruption." Working Papers by HSE University. Series: Economics (2019): WP BRP 209/EC/2019.
- Inglehart, R. F. (2018). *Cultural evolution: People's motivations are changing, and reshaping the world*. Cambridge University Press.

### Major events

- September, 2019: International Workshop: "Social Inequality and Value Polarization: A Cross-Country Perspective"
- April, 2019: The 9th International Annual Research Conference: "Comparative Social Research"
- November, 2018: International Workshop: "Values and Socio-Political Processes: A Quantitative Perspective"
- August, 2018: International Summer School: "Bayesian Statistical Analyses for Social Scientists"
- April, 2018: The 8th International Annual Research Conference: "Quantitative Research of Social Changes across the World"
- April, 2017: The 7th International Annual Research Conference: "Subjective Well-Being and Growing Inequality across the Globe"

### Key Projects

- 2020 — ongoing: international project "Values in Crisis" led by Christian Welzel.
- 2018–2020: RSF grant "Value transformation and subjective quality of life: regional perspective"
- 2017–2019: "The Cool Water Effect: Why Human Civilization Turned Towards Emancipation in Cold-wet Regions" supported by Deutsche Forschungsgemeinschaft (DFG), the Reinhart Koselleck award.
- 2016–2018: "Ethnic Groups in the Russian Labor Market" in collaboration with the British Academy and the University of Exeter.
- 2016–2017: "Male and Female Success Strategies in the Context of Modernization" supported by the Russian Foundation for Basic Research.
- 2016–2017: "Formal, Informal and Familiaristic Social Capital: Cross-Cultural Analysis with Hierarchical Regression Modeling" supported by the Russian Foundation for Basic Research.



# 05

## LABORATORY FOR SOCIAL AND COGNITIVE INFORMATICS

<https://scila.hse.ru/en/>

Director:

**Olessia (Elena) Koltsova**  
Professor

Leading researchers:

**Bryanov K.A.**  
Researcher, PhD

**Ignatenko V.V.**  
Researcher, PhD

**Koltsova E.Yu.**  
head of the laboratory, candidate  
of sociological sciences

**Koltsov S.N.**  
Leading Researcher, Candidate of Physical  
and Mathematical Sciences

**Mararitsa L.V.**  
senior researcher, candidate  
of psychological sciences

**Panicheva P.V.**  
senior researcher, candidate  
of philological sciences

**Pashakhin S.V.**  
junior researcher, -

**Porshnev A.V.**  
senior researcher, candidate  
of psychological sciences

**E.V. Pronoza**  
Senior Researcher, -

**Rosso P.**  
Academic Supervisor, PhD, Polytechnic  
University of Valencia

**Sinyavskaya Ya.E.**  
junior researcher, -

**Terpilovskiy M.A.**  
senior researcher, candidate  
of biological sciences

An important prerequisite for the establishment of the Laboratory for Social and Cognitive Informatics (until 2019 — the Internet Research Laboratory) is an exponential growth of computational social sciences — an area where the HSE University — St. Petersburg has a chance to occupy strong positions at the international academic arena. The specific focus of the laboratory's study is the study of social and cognitive factors of production, distribution and consumption of knowledge in a new digital environment, including Internet, aimed at developing the positive consequences of digitalization and countering negative effects. The results of the laboratory's study are a kind of response to the growing need of society for more efficient information processing, more informed decision-making and wider delegation of routine cognitive tasks to automated systems. This focus of the research should provide the HSE research team with an opportunity to activate their advantages in the basic social sciences by transforming them into more practical solutions with elements of artificial intelligence.

The interdisciplinary team of the Laboratory for Social and Cognitive Informatics studies and models interactions of individuals and groups with information, information technology and other users. Research rely on knowledge from the social, behavioral and cognitive sciences as well as advanced computer science methods, including machine learning and computational linguistics. Network analysis and advanced machine learning methods are widely used to reveal hidden patterns in highly unstructured and noisy internet data. This allowed the SCILA team to obtain important findings in the study of such diverse issues as the influence of online communities on participation in offline political life, motivation to participate in communities promoting destructive methods of treatment, the relationship of users' online activity with the individual social capital and factors affecting the ability people to detect fake news. The aim of the laboratory is to obtain breakthrough scientific results in social and cognitive information sciences under the guidance of a leading international researcher and to achieve strong positions in the international academic community.

**Founded in 2019**

### Main publications

- Rykov Y., Koltsova O., Sinyavskaya Y. "Effects of User Behaviors on Accumulation of Social Capital in an Online Social Network." Plos One 15 (4) (2020): 1-17.
- Koltsova O., Pashakhin S. "Agenda Divergence in A Developing Conflict: A Quantitative Evidence from A Ukrainian and A Russian TV Newsfeeds." Media, War and Conflict 13 (3) (2020): 237-257.
- Koltsova O., Alexeeva S., Pashakhin S., Koltsov S. "PolSentiLex: Sentiment Detection in Socio-political Discussions on Russian Social Media." Artificial Intelligence and Natural Language. AINL 2020. Communications in Computer and Information Science Book 1292: Communications in Computer and Information Science. Cham: Springer (2020): 1-16.
- Koltsov S., Ignatenko V., Boukhers Z., Staab S. "Analyzing the Influence of Hyper-parameters and Regularizers of Topic Modeling in Terms of Renyi entropy." Entropy 22 (4) (2020): 1-13.
- Koltsov S., Ignatenko V., Pashakhin S. "Fast Tuning of Topic Models: An Application of Rényi Entropy and Renormalization Theory" Proceedings of the 5th International Electronic Conference on Entropy and Its Applications 46 (1) MDPI AG 5 (2020): 1-8.
- Koltsov S., Ignatenko V., Pashakhin S. "How Many Clusters? An Entropic Approach to Hierarchical Cluster Analysis." Intelligent Computing: SAI 2020 3/1230 (3) Cham : Springer (2020): 560-569.
- Koltsov S., Ignatenko V. "Renormalization Approach to the Task of Determining the Number of Topics in Topic Modeling." Intelligent Computing: SAI 2020 1/1228 (1). Switzerland : Springer (2020): 234-247.
- Koltcov Sergei, Ignatenko V. "Renormalization Analysis of Topic Models." Entropy 22 (5) (2020): 1-23.
- Koltcov S., Ignatenko V., Koltsova O. "Estimating Topic Modeling Performance with Sharma–Mittal Entropy." Entropy 21(7) (2019): 660.
- Selivanova G., Koltsova O. Y. "Explaining Offline Participation in a Social Movement with Online Data: The case of Observers for Fair Elections." Mobilization 24(1) (2019)
- Koltsova O., Pashakhin S. "Agenda Divergence in a Developing Conflict: Quantitative Evidence from Ukrainian and Russian TV Newsfeeds." Media, War & Conflict (2019).
- Nagornyy O., Koltsova O. Y. "Redefining Media Agendas: Topic Problematization in Online Reader Comments." Media and Communication (2019).
- Koltsov S. "Application of Rényi and Tsallis Entropies to Topic Modeling Optimization." Physica A: Statistical Mechanics and its Applications 512 (2018): 1192-1204.

### Major events

- June 2020: Online Workshop "Random and Fixed Effect Models in Social Sciences and Psychology"
- October 2020: Special session "Fake News, Bots and Trolls" in the framework of the online conference "The 7th IEEE International Conference on Data Science and Advanced Analytics" (DSAA, 2020)
- October 2020: Section "Social Network Analysis" in the frame of the online conference "The 9th International Conference on Analysis of Images, Social Networks and Texts" (AIST, 2020)
- 2018: 10th International Conference on Social Informatics (SocInfo 2018)
- July, 2017: WSTNet Web Science Summer School 2017

### Key projects

- 2020: "Online communication: cognitive limits and methods of automatic analysis", supported by the Centre for Fundamental Research.
- 2019: "Social Networks as a Socio-Psychological and Textual Phenomenon" supported by the Centre for Fundamental Research.
- 2019-2021: "FakeNews: Political News on Russia and its Neighbors on Social Media: Major Content Features, Factors of Trust and News Truthfulness Detection by Users of Different Countries" supported by the Russian Science Foundation.
- 2018: "Social and Textual Measurement of Social Network User Profiles" supported by the Centre for Fundamental Research.
- 2017: "Internet as Sociotechnical Phenomenon" supported by the Centre for Fundamental Research.

# 06

## INTERNATIONAL LABORATORY OF INTANGIBLE-DRIVEN ECONOMY

<https://spb.hse.ru/scem/ielab/>

Laboratory Head:

**Angel Barajas**  
Professor

Leading Research Fellow:

**Elena Shakina**  
Associate Professor

Leading scientists:

**Nick Zubanov**  
Professor

**Dennis Coates**  
Professor

**Felix Lones-Iturriaga**  
Professor

**Carlos Hardon**  
Professor

**Founded in 2018**

The International Laboratory of Intangible-driven Economy at the St. Petersburg School of Economics and Management is a part of a distributed research Centre joining scientists and young researchers from the Higher School of Economics, as well as universities in Europe and America. Starting in 2018, ILIDE was transformed into a distributed research Centre between two HSE campuses — in St. Petersburg and Perm.

The aim of the research Centre is to create and publish new fundamental and applied knowledge in organizational sciences and management with a special focus on the intangible resources of companies.

The research group in St. Petersburg mainly implements projects in digital business models and digital transformation of companies and markets, as well as in economics and sports management. In addition, projects on strategic entrepreneurship and evidence-based methods in management were launched in 2020.

The priority of the ILIDE activity is to create conditions for professional growth and academic development of young researchers. It is why the ILIDE is actively engaged in the implementation of postgraduate and research master's programs at the Higher School of Economics.

### Main publications

- Naidenova I. N., Parshakov P., Paklina S. "Determinants of Football Fans' Happiness: Evidence from Facial Emotion Recognition" *Journal of Happiness Studies* (2020).
- Coates D. C., Parshakov P., Paklina S. "Do Managers Matter: Evidence from E-sports" *Contemporary Economic Policy* (2020).
- Parshakov P., Paklina S., Coates D., Chadov A. "Does Video Ggames' Ppopularity Affect Unemployment Rate? Evidence from Macro-level Analysis." *Journal of Economic Studies* (2020).
- Shakina E. A., Barajas A. "Innovate or Perish?: Companies under Crisis." *European Research on Management and Business Economics* (2020).
- Parshakov P., Shakina E.A. "Do Companies Disclose Intellectual Capital in Their Annual Reports?" *Journal of Intellectual Capital* (2020).
- Sánchez L. C., Barajas A., Sanchez-Fernandez P. "Profits May Lead Teams to Lose Matches, but Scoring Goals does not Lead to Profit." *European Research on Management and Business Economics* (2020).
- Gasparetto T. M., Nessler C. "Diverse Effects of Thermal Conditions on Performance of Marathon Runners." *Frontiers in Psychology* (2020).
- Parshakov P., Naidenova I. N., Barajas A. "Spillover Effect in Promotion: Evidence from Video Game Publishers and eSports Tournaments." *Journal of Business Research* 118 (2020): 262-270.
- Shakina E., Parshakov P., Alsuvyev A. "Rethinking Corporate Digital Divide: Complementarity of Technologies and Demand for Digital Skills." *Technological Forecasting & Social Change* 2020.
- Maiti M., Krakovich V., Shams R., Vukovic D. "Resource-based Model for Small Innovative Enterprises." *Management Decision* (2020).
- Shakina E. A., Gasparetto T. M., Barajas A. "Football Fans' Emotions: Uncertainty Against Brand Perception." *Frontiers in Psychology* 11 (659) (2020).
- Veretennik E. V., Kianto A. "The Impact of Trust and Information Networks on Teachers' Job Satisfaction." *Kybernetes* 49 (1) (2020): 200-228.
- Plakhotnik M. S., Volkova N. "No Longer a Family: Employee Perceptions of Organizational Culture of a Russian English-Medium Instruction University." *Journal of Management Development* 39 (1) (2020): 82-96.
- Parshakov P., Shakina E.A. "Do Companies Disclose Intellectual Capital in Their Annual Reports? New Evidence from Explorative Content Analysis." *Journal of Intellectual Capital* 21 (6) (2020): 853-871.

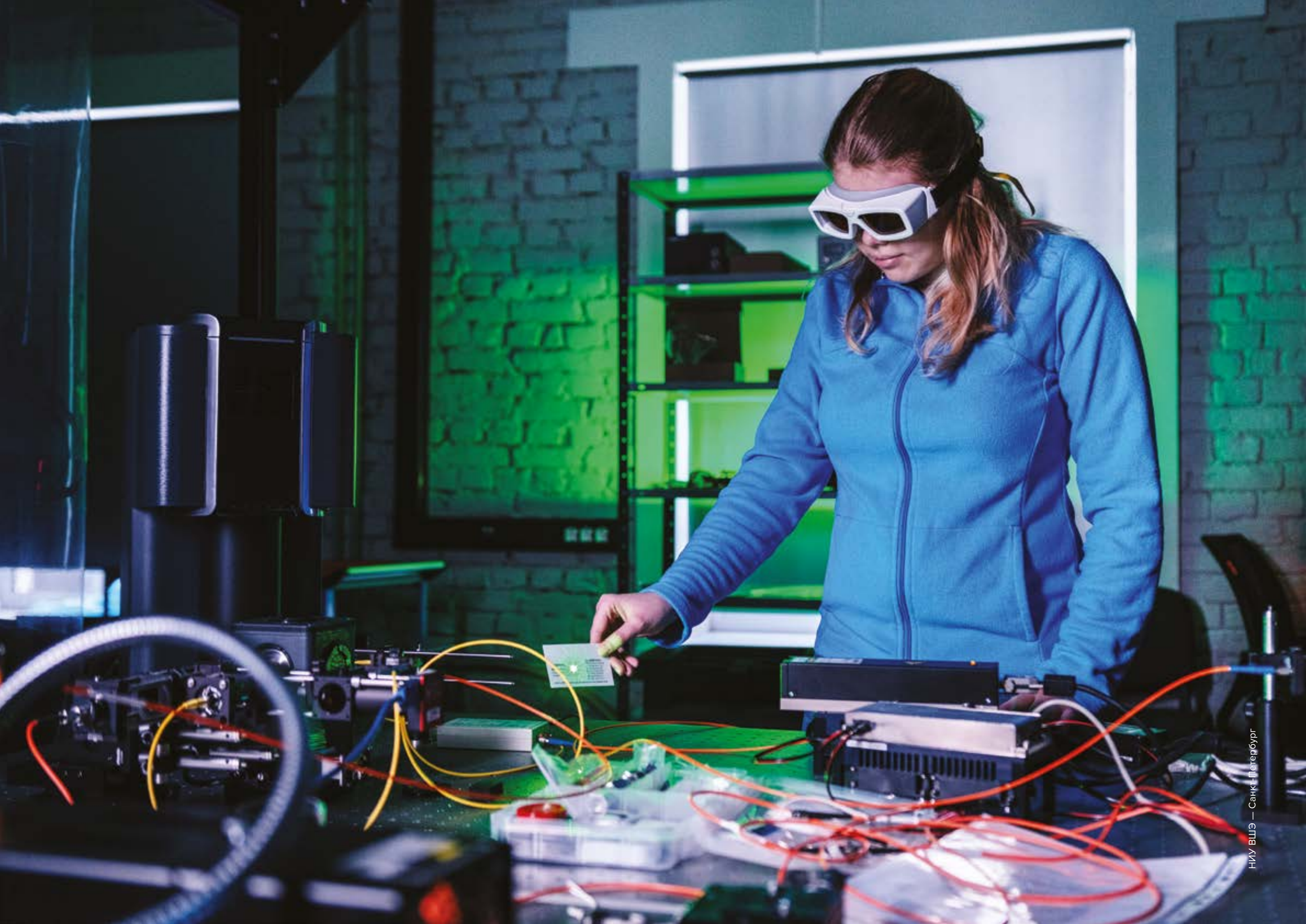
### Major events

- October 2020: Analytics for Management and Economics Conference. Sessions: "Intellectual Capital of Individuals, Groups and Organizations" and "Sports Analytics: Economics, Management and Performance"
- IDLAB weekly online research seminar
- Webinars OnLab "Russian labor market during COVID-19 pandemic: transformation and development scenarios"
- Webinar OnLab "Shocks of COVID-19 pandemic on financial markets"
- Special track within AMEC 2020 "Intellectual capital of individuals, groups and organizations"

### Key projects

- Study of the competencies of economic agents and review of their impact on digital transformation
- Competitiveness and advanced development of Russian business based on intellectual resources
- Digital Divide in Corporate sector: Transformation and Strategic Responses
- Competitiveness and Leapfrogging Capabilities of Russian Business through Intangibles
- Digital Natives: New Sources for Labor Market







# 07

## INTERNATIONAL CENTRE FOR HEALTH ECONOMICS, MANAGEMENT, AND POLICY

<https://spb.hse.ru/scem/chemp/>

Director:

**Ekaterina Aleksandrova**  
Associate Professor

Leading researchers:

**Christopher Gerry**  
Dean, St Antony's College, University  
of Oxford

**Peter Meylakhs**

**Vasyli Vlasov**

**Founded in 2015**

The mission of the International Centre for Health Economics, Management, and Policy: a long-term contribution to improving the public health indicators through studying the quality of life and health of the population in the face of globalization, climate change, modern man-made threats and the long-term aging trend in the Russian Federation.

The Centre's projects are carried out in four areas:

- 1) Health indicators (health-related life quality, the methodology and evaluation of health-related life quality, healthcare technology assessment, health inequalities);
- 2) Health risks and behavior patterns (health and labor market, occupational illness, health and environment, online environment and health);
- 3) Chronic diseases (HIV/Hepatitis C, cardiovascular diseases, socially significant diseases, mental health);
- 4) Evaluation of programs and policies in healthcare (development of regional strategies for health development, anti-drug policy, health insurance in Russia, assessment of regulatory impact programs).

The staff of the Centre is an interdisciplinary collaboration including sociologists, economists and demographers with extensive experience in qualitative and quantitative research methods.

### Main publications

- Davitadze, A., Meylakhs, P., Lakhov, A., & King, E. J. "Harm Reduction via Online Platforms for People Who Use Drugs in Russia: a Qualitative Analysis of Web Outreach Work." *Harm Reduction Journal* 17 (1) (2020): 1-9.
- Aistov A., Aleksandrova E., Gerry C. J. "Voluntary Private Health Insurance, Health-Related Behaviours and Health Outcomes: Evidence from Russia." *The European Journal of Health Economics* (2020): 1-29.
- Gerry C. J., Kaneva M. "Adapting to the Challenges of Chronic Non-communicable Diseases: Evidence from Russia." *Applied Research in Quality of Life* (2020): 1-17.
- Khabibullina, A., & Gerry, C. J. "Valuing Health States in Russia: A First Feasibility Study." *Value in Health: Regional Issues* 19 (2019): 75-80.
- Kaneva, M., Gerry, C. J., Avxentiev, N., Baidin, V. "Attitudes to Reform: Could a Cooperative Health Insurance Scheme Work in Russia?" *International Journal of Health Economics and Management* (2019): 1-24.
- Gerry, C. J. "The Economic Case for Deinstitutionalisation in Post-communist Europe." *The Lancet Psychiatry* (2018).
- Kaneva M., Gerry C.J., Baidin V. "The Effect of Chronic Conditions and Multi-morbidity on Self-assessed Health in Russia." *Scandinavian Journal of Public Health* (2018).
- Gerry, C.J; Sheiman, I. "Too Many and Too Few: The Paradoxical Case of Physicians in the Russian Federation." *International Journal of Health Planning and Management* (2018).
- Mateu-Gelabert, P., Guarino, H., Quinn, K., Meylakhs, P., Campos, S., Meylakhs, A., Berbesi, D., Toro-Tobn, D., Goodbody, E., Ompad, DC., Friedman, SR. "Young Drug Users: a Vulnerable Population and an Underutilized Resource in HIV/HCV Prevention." *Current HIV/AIDS Reports* (2018).
- Bakhtin M., Aleksandrova E. "Health and Labor Force Participation of Elderly Russians." *Applied Econometrics* 49 (2018).
- Aistov A.V., Aleksandrova E.A. "Ex Post Moral Hazard in Private Health Insurance." *Ekonomicheskaya Politika* (2018).
- Akifyeva R. N., Alieva A.V. "The Influence of Student Ethnicity on Teacher Expectations and Teacher Perceptions of Student Warmth and Competence." *Psychology in Russia: State of the Art* 11 (1) (2018).
- Aleksandrova E.A., Gerry J.C., Kind P., Khabibullina A.R. "Health-Related Quality of Life Population Indicators Using EQ-5D Questionnaire." *Zdravookhranenie Rossiiskoi Federatsii* 62 (6) (2018).

### Major events

- June 2020: OnLab "The impact of the epidemics on the health of the nation: what the data suggests"
- August 2020: CHEMA "Methodological issues in measuring the health-related quality of life"
- June 2017: 2nd International Summer School "Health Outcomes Measurement: An Introduction from A-Z"
- October 2017: International Workshop "Quantitative and Qualitative Research in the Field of Health Economics"

### Key projects

- 2020 "The health of the nation: an economic approach to evaluation of the health and health-related inequalities and quality of life of the population" with financial support of Russian Found of Fundamental Research.
- 2020 "Population health and related inequalities and quality of life".
- 2020 "Development of a basic probabilistic model for assessing the occupational health risks for workers' health and economic evaluation of the performance of measures for their prevention as related to diseases of the circulatory system, diabetes mellitus and their fatal complications".
- 2018–2019: "Darknet" with financial support of Russian Found of Fundamental Research.
- 2018–2019: In collaboration with University of Oxford "Economic Burden of Mental Health Disorders".
- 2017–2018: In collaboration with CQUniversity, Cairns, Australia "The Effectiveness of the Anti-Alcohol and Tobacco Campaigns in Russia".
- 2017–2018: "Moral Hazard in the Russian Market for Private Health Insurance".
- 2016–2017: "Measuring Health in Russia".
- 2015–2019: In collaboration with EuroQOL group and University of Oxford "EQ-5D in Russia: Development and Implementation".
- 2015–2017: In collaboration with London School of Hygiene and Tropical Medicine and the Almazov Centre of St. Petersburg "Patients Recovery Patterns Following a Myocardial Infarction".



# 08

## CENTRE FOR YOUTH STUDIES

<https://spb.hse.ru/soc/youth/>

Director:

**Elena Omelchenko**  
Professor

Leading researchers:

**Nadezhda Nartova**

**Iskender Yasaveev**

**Yana Krupets**

**Svyatoslav Polyakov**

**Founded in 2009**

The Centre for Youth Studies (CYS) is one of the leading Russian academic platforms for the sociological study of the youth. It was founded in 2009 as a partnership project between the NRU HSE University — St. Petersburg and the Research Centre “Region”. Over the past 12 years, the Centre’s team has been actively engaged in a comprehensive analysis of various aspects of youth life, using qualitative and quantitative methods. In our research, we try to overcome problematizing, marginalizing and generalizing approaches to understanding the youth. It is important for us to consider young people as a subject and an active participant of social relations, building their lives under certain structural conditions. Studying young people, in our opinion, allows to better understand the ongoing situation in the modern society and to anticipate what may happen in the future. We try to critically interpret the social research of the youth, taking into account the theoretical and methodological background forming in different national contexts, and to observe the world standards of youth research.

The key research interests of the CYR include: youth cultures, subcultures, scenes and solidarity, values and lifestyles of youth, interethnic and interreligious relations on youth scenes, growing up, age and life course, youth citizenship, labor market and employment, youth entrepreneurship and consumption, youth policy. The employees of the Centre have long proved themselves as experts in issues of youth life and youth policy in Russia.

### Main publications

- Youth in the city: culture, scenes and solidarity / Compiler and scientific editor Elena Omelchenko: E.L. Omelchenko. — M.: HSE Publishing House, 2020.
- Poliakov S., Omelchenko E. L., Garifzyanova A. “Holding Onto Your Roots: Tatar-language Rap in Post-Soviet Kazan.” *Popular Music and Society* 43 (4) (2020): 401-413.
- Nartova N., Krupets Y., Shilova A. “HIV Activism in Modern Russia: From NGOs to Community Development.” *Community development journal* 55 (3) (2020): 419-436.
- Omelchenko E. L., Polyakov S., Maiboroda A. “Peers/Strangers/Others? The Youth of Dagestan in Search of Group Identities.” *Cultural Studies*. 33 (5) (2019): 841-865.
- Nartova N., Krupets Y. “It is Hard for Me to Live in the City: Local Identities and Place Belonging of Young Rural Russians.” *Monitoring Obshchestvennogo Mneniya: Ekonomicheskoe i Sotsial'nye Peremeny* 1 (2019): 342-361.
- Omelchenko E., Nartova N., Krupets Y. “Escaping Youth: Construction of Age by Two Cohorts of Chronologically Young Russian Women.” *Young* 26 (1) (2018): 34-50.
- Omelchenko E., Poliakov S. “Everyday Consumption of Russian Youth in Small Towns and Villages.” *Sociologia Ruralis* 58 (3) (2018): 644-664.
- Omelchenko E., Pilkington H., Perasović B. “‘One Big Family’: Emotion, Affect and Solidarity in Young People’s Activism in Radical Right and Patriotic Movements, in: *Understanding Youth Participation Across Europe*.” L.: Palgrave Macmillan (2018): 123-152.
- Maslovskiy M., Maiboroda A., Garifzyanova A. “Multiple Cultural Encounters of Urban Youth in Russia’s Muslim Regions.” *Journal of Intercultural Studies* 39 (5) (2018): 557-569.

### Major events

- October 2020: Presentation of the new book of the Centre for Youth Research “Youth in the City: Cultures, Scenes and Solidarity”
- October 2020: SotsUP’s methodological workshop “Prison geography and material support for prisoners in Russia”
- October, 2019: International conference “Youth in the 21st century: Multiplicity and Difference”
- July 2019: Fifth Summer School of the Centre for Russian and East European Studies at the University of Birmingham (CREES, The University of Birmingham)
- May 2018: International Research Consortium for the Dialogue about Radicalization and Equality Project
- November, 2017: International conference “Urban Youth Cultures: Solidarities, Creativity, Activism”

### Key projects

- 2021: “Surviving Tough Times and Saving Business” : Strategies for Coping with the Crisis of Young Entrepreneurs in St. Petersburg” (supported by the Higher School of Economics). People Across Europe” implemented in the framework of Horizon 2020 Programme.
- 2020: “European Youth” in the framework of the Horizon 2020 program.
- 2020: “New Masters and New Apprentices in the Craft Economy: Prosumerism as a Phenomenon of Youth Everyday Culture”, implemented as part of the Basic Research Program at the National Research University Higher School of Economics (HSE).
- 2020–2022: “Transition to Adulthood Among Russian Youth in the 21st Century: Generational Analysis”, supported by the National Research University Higher School of Economics (HSE).
- 2020–2021: “Anti-crisis Potential of Youth Policies in Russia and Europe in the Era of Global Risks: National Imaginary, Patriotism, and Social Engagement”, supported by Russian Foundation for Basic Research.
- 2016–2021: “Dialogue about Radicalization and Equality (DARE)” supported by Horizon 2020 Programme.
- 2018–2022: “In the Gulag’s Shadow: Producing, Consuming and Perceiving Prisons in the Former Soviet Union” supported by Economic and Social Research Council (UK).
- 2018–2019: “Creative Fields of Interethnic Interaction and Youth Cultural Scenes of Russian Cities” supported by the Russian Science Foundation.
- 2019: “Youth Entrepreneurship: Between Subcultural DIY-practices and New Forms of Citizenship” implemented as part of the Basic Research Program at the National Research University Higher School of Economics (HSE).
- 2016–2018: “PROMoting Youth Involvement and Social Engagement: Opportunities and Challenges for the Conflicted”

# 09

## CENTRE FOR BASIC INTERDISCIPLINARY RESEARCH

[https://spb.hse.ru/science\\_dep/ibrc/](https://spb.hse.ru/science_dep/ibrc/)

Head:

**Andrey Starodubtsev**  
Associate Professor

Leading researchers:

**Evgeny Vyacheslavovich Kazartsev**  
(HSE University), PhD, Professor

**Boris Pavlovich Maslov (Rodin)**  
University of Oslo, PhD, Professor

**Dmitry Yakovlevich Kalugin**  
professor, candidate of philological sciences

**Iлона Yurievna Svetlikova**  
professor, candidate of art history, PhD

**Ivan Andreevich Delazar**  
Associate Professor, PhD

**Jessica Merri**  
Professor, PhD, Columbia University  
of New York

The mission of the Centre for Basic Interdisciplinary Research (CIBR) is a comparative study of literatures and forms of arts, primarily in the study of Russian literature and its international relations, in the study of the interaction of Russian, Western European and American cultures. It is aimed at studying the mutual influences of literary forms, ideas and plots in different languages, considering the deep processes in the formation and perception of a literary text. A special attention is paid to the IT area: digital research and modeling in literary criticism and linguistic poetics, studies in the genesis and evolution of poetic forms, analysis of typology in the implementation of metrically homogeneous structures in different languages.

The main objective is to reveal the historical, cultural and linguistic conditions ensuring the translation of literary forms and mechanisms of creativity. A special attention is paid to the development of the most advanced trends in literature. The study also considers the influence of Western European models of poetics, literary and cultural theory, as well as philosophy on the formation of Russian literature in the key periods of the 17th—20th centuries. We are interested in the adaptation of Western European ideas and artistic practices in Russian literature, which was the main area of cultural and ideological exchange between Russia and Western Europe for a long time. For Western Europe and the United States, in turn, the language of Russian literature served as the most important means of communication with the Russian and Slavic world. The aim of this study is to review the phenomenon of Russian literature, providing highly intense processes of intercultural and interlingual exchange in key periods of the European history.

We use digital humanities methods, including the analysis of big data for multilingual texts, as well as computer modeling, corpus compilation, comparative study of text parameters using the apparatus of quantitative linguistics. Our activity is aimed at studying a wide range of conditions to ensure the interaction and interpenetration of literary forms, the reception of philosophical ideas and models of culture.

**Founded in 2009**

### Main publications

- Delazari I. Musical Stimulacra: Literary Narrative and the Urge to Listen. Routledge (2020).
- Delazari I. "Madeleine Thien's Chinese Encyclopedia: Facts, Musics, Sympathies." Genre (2021).
- Delazari I.A. "Shostakovich in English: hearsay motives." New Literary Review (2020).
- Waysband E. "L'Époque est Prophétique: la Bible dans la Poésie de la Révolution." Slavica occitania (2020): 267-280.
- Azarenkov A.A. "'Tones of profane music: Alexander Tvardovsky on the art of poetry.'" New World 6 (2020): 192-199.
- Grishchenko A.I. "The language of the "Zabelinsky compilation", an unknown monument of East Slavic Christian Hebraism in the territory of the Polish–Lithuanian Commonwealth." Rocznik Teologiczny LXII (2) (2020): 547-589.
- Dimitriev V.M. "Trembling Eternity" by Zinaida Gippius: to the history of Bergson's reception in Russian modernism." Russian literature (2020).
- Kazartsev E., Davydova A.Yu., Sherstinova T. "Rhythmic Structures of Russian Prose and Occasional lambs (a Diachronic Case Study)." Lecture Notes in Computer Science 12335 (2020): 194-203.
- Kazartsev E.V. M.V. Lomonosov's versification reform in the face of the evolution of continental accentual-syllabic verse. SPb.: Academy for Cultural Research, 2020.
- Kazartsev E. "Computer models of verse prosody." CEUR Workshop Proceedings 2780 (2020): 155–165.

### Major events

- February 2020: "Cross-Historical Comparison in Literary Studies: Reassessing the Twentieth-Century Legacy". Guest lecture on the Bernhard Karlgren Seminar, Gothenburg University.
- April 2020: "Plot Schemas and Personal Experience in Contemporary Russian Memorates". A report on the Literature and the Historical Condition conference at University of California, Berkeley.
- June 2020: "Feeding upon the double-headed eagle: A Zhivovian reading of Kheraskov's Rossiad". A report on the Berkeley Slavic Colloquium.
- September 2020: "On the increased stress of the penultimate ictus in the early continental 4-foot verses". Report at the international scientific conference "Gasparov's Readings — 2020", Russian State University for the Humanities, Higher School of Economics, Institute of the Russian Language of the Russian Academy of Sciences named after V.V. Vinogradov.
- October 2020: "Ovidian Exiles and Juvenal's Lash: Aesthetic Republicanism in Shostakovich's Fourteenth Symphony". A report on the Oxford Virtual Seminar "Classical Literature and the Idea of Europe".
- October 2020: "Andrei Bely's puns." Report at the International Conference "Puns, Slips of the Tongue, Neologisms and Shifts in Russian Artistic Culture."
- November 2020: Roundtable discussing Galin Tihanov's book "The Birth and Death of Literary Theory: Regimes of Relevance in Russia and Beyond." on the annual Convention for the Association of Slavic East European and Eurasian Studies.
- November 2020: "Computer Models of Verse Prosody". Reports on the TEL 2020 Computational Models in Language and Speech.
- November 2020: "Russian Formalism: Travels across Space and Time". A report on the annual Convention for the Association of Slavic East European and Eurasian Studies.

### Key projects

- **Russian literature in an international context** (with the support of the HSE Science Foundation). The project involves the analysis of the interaction of cultures by textual parameters using modern methods of digital humanities, computer modeling and data processing, reconstruction of creative processes by textual parameters. The main aim of the project is to study the key periods of interaction between Russian and world literature, based on the synthesis of literary, historical, cultural, linguistic and mathematical methods in intercultural and interlingual communication.
- **Modern models of poetics: a reconstructive approach** (with the support of the Russian Science Foundation). The study is aimed at developing the concept of reconstructive modeling of the mechanisms of text generation and perception. The main objective is creation and testing of a new research apparatus to allow investigating the deep mechanisms of human creative activity by textual parameters. This apparatus consists of linguistic and extralinguistic models of poetics. The upcoming research includes its creation and testing based on the material of different languages and in different historical periods. At the same time, not only new, but also ancient languages (ancient Greek) are used in the study.

# 10

## LABORATORY FOR ENVIRONMENTAL AND TECHNOLOGICAL HISTORY

<https://spb.hse.ru/fmcs/qoe/>

Head:

**Julia Lajus**

Associate Professor

International Advisors:

**Catherine Evtuhova**

professor at Columbia University  
(New York, USA).

**Sverker Sörlin**

Professor of Environmental History in the Department of Science, Technology and Environmental History at the Royal Institute of Technology (Stockholm, Sweden).

Leading researchers:

**Aleksandra Viktorovna Bekasova**

senior research fellow, candidate  
of historical sciences

**Margarita Mikhailovna Dadykina**

senior scientific fellow, candidate  
of historical sciences

**Ekaterina Alekseevna Kalemeneva**

scientific fellow, candidate of historical sciences

**Aleksey Viktorovich Krajkovskiy**

senior scientific fellow, candidate  
of historical sciences

**Elena Alekseevna Kochetkova**

scientific fellow, PhD

**Kirill Alexandrovich Chunikhin**

scientific fellow, PhD

Areas of historical research related to the study of the history of relationships between people and nature through technology are currently very relevant and demanded. It is extremely important for the concept of the Laboratory to jointly develop two areas: environmental and technological history. Environmental history is the history of the relationship between the human and nature with implementation of these relationships through technology. Therefore, the projects implemented in the Laboratory fit into the context of both of these areas. Of considerable importance is also connection of these areas with the history of science, which determines both the development of technologies and the understanding of the laws of the functioning of nature and natural resources.

The development of these studies allows historians to be actively involved in a productive interdisciplinary dialogue with economists, sociologists, ecologists, geographers, and engineers. Studies in environmental and technological history are demanded under large international projects, including those related to modern policy in environmental management, climate risks, and the development of socio-technological systems. A special focus is placed on transnational historical research of the North and the Arctic, as well as the Baltic Sea region and the North-West in general.

The main areas of scientific research:

- 1) The history of the study and use of natural resources, landscapes and climate in Russia and neighboring countries.
- 2) History of development and practices of sustainable development of the North and the Arctic.
- 3) History of the investigation of the World Ocean and use of its resources.
- 4) The history of water, the role of rivers and water in general in the economy, culture, and the history of cities.
- 5) History of transport and mobility, infrastructures and technology transfers, resource development technologies.
- 6) The history of late Soviet technologies, innovations, their role in the economy and culture.
- 7) Study of natural and cultural heritage.

**Founded in 2016**

### Main publications

- Bekasova A. "From Common Rocks to Valuable Industrial Resources: Limestone in Nineteenth-century Russia." *Extractive Industries and Society* 7 (1) (2020): 8-19.
- Bekasova A. "Voyaging Towards the Future: the Brig Rurik in the North Pacific and the Emerging Science of the Sea." *British Journal for the History of Science* 53 (4) (2020): 469-495.
- Bekasova A., Kulikova J., Emanuel M. "State Socialism and Sustainable Urban Mobility: Alternative Paths in St Petersburg since the 1880s." *A U-turn to the Future: Sustainable Urban Mobility since 1850*. Edited by Martin Emanuel, Frank Schipper, and Ruth Oldenziel. Berghahn Books, 2020. Berghahn Books Ch. 7. (2020): 201-233.
- Heymann M., Högselius P., Kochetkova E., Martin J., Sparenberg O., Veraart F., Åberg A. "Challenging Europe: Technology, Environment, and the Quest for Resource Security." *Technology and Culture* 61 (1) (2020): 282-294.
- Biasillo R., Hameeteman E., Kochetkova E., Ujházy N., Palma M., Schleper S., Wickberg A. "Early Career Environmental Historians for a Sustainable Academia." *Environment and History* 26 (4) (2020): 617-621.
- Kraikovski A., Dadykina M., Dmitrieva Z., Lajus J. "Between Piety and Productivity: Monastic Fisheries of the White and Barents Sea in the 16th–18th Centuries." *Journal of the North Atlantic* 41 (2020): 1-21.
- Kraikovski A., Bogachev N., Lomakina I. "Playing Maritime Capital: The Baltic Sea in the Touristic Representations of St. Petersburg." *International Journal of Maritime History* 32 (4) (2020): 928-945.
- Lajus J. "Soviet Official Critiques of the Resource Scarcity Prediction by Limits to Growth Report: the Case of Evgenii Fedorov's Ecological Crisis Rhetoric." *European Review of History: Revue Européenne d'histoire* 27 (3) (2020): 321-341.
- Kalemeneva E. "From New Socialist Cities to Thaw Experimentation in Arctic Townscapes: Leningrad Architects Attempt to Modernise the Soviet North." *Europe-Asia Studies* 73 (3) (2019): 426-449.
- Kochetkova E. "Milk and Milk Packaging in the Soviet Union: Technologies of Production and Consumption, 1950s-70s." *Russian History* 46 (1) (2019): 29-35.
- Kraikovski A. "Profits from under the Water: The International Blubber Market, Russian Monopolistic Companies and the Idea of Whaling Development in the Eighteenth Century." *International Journal of Maritime History* 31 (1) (2019): 34-49.

### Major events

- 2020–2022: Project "Mirror Laboratories of the National Research University Higher School of Economics". "Industrial evolution of the forestry industry in old industrial regions based on the example of the Urals in the second half of the 20th century jointly with the Chelyabinsk State University.
- 2020: Draft Program of Basic Research "Production of Spatial Relations: History of Socio-Economic Practices and Infrastructures, Representation of Territories and Functioning of Heritage Based on the Materials of the History of the Russian North and North-West".
- 2019–2022: "Material World of Late Soviet Society in the Cold War: Technological Innovations in Production and Representation of Mass Consumer Products" supported by Russian Science Foundation.
- 2018–2020: "Salt Production Accounting Books of Spaso-Prilytsky Monastery in the 17th c: Texts and Analysis" supported by Russian Foundation for Basic Research.
- 2019: "Representation of Natural, Industrial and Cultural Heritage and Strategy of Actualization of the Past: Past, Present and Prospects of Applied History in Russia" implemented as part of the Basic Research Program at the National Research University Higher School of Economics.
- 2016–2018: "Natural resources in History of Russia: Economic Institutes, Communities of Experts and Infrastructures" supported by Russian Science Foundation.

### Key projects

- November 2020: The workshop "Natural resources in the structure of the planned economy of the Urals, 1940s — 1980s: research experience" under the project "Mirror Laboratories" of the Higher School of Economics, St. Petersburg and Chelyabinsk State University "Industrial evolution of the forest industry in old industrial regions by the example Urals in the second half of the XX century."
- September, 2019: International Symposium "Cold War Matters: (In)visible Economies of Things."
- May, 2019: International Workshop "Oceanic Turn and Perspectives of Historical Research: Russia and France in Comparative Perspective."
- May, 2018: Seminar organized by international project "Atomic Heritage goes Critical: Waste, Community and Nuclear Imaginaries."
- December, 2017: International Workshop "Science, Technology, Engineering, Environment and Medicine in Russia's Great War and Revolution, 1914–1922."



## 11

CENTRE  
FOR COMPARATIVE  
GOVERNANCE  
STUDIES

<https://spb.hse.ru/soc/ccrga/>

Director:

**Irina Busygina**  
Professor

Leading researchers:

**I.S. Grigoriev**

Researcher of the Centre, Associate Professor of the Department of Political Science and International Relations, PhD in Political Science

**A.A. Dekalchuk**

Senior Researcher of the Centre, Associate Professor of the Department of Political Science and International Relations, Candidate of Political Science

**A.V. Starodubtsev**

Senior Researcher of the Centre, Associate Professor of the Department of Political Science and International Relations, Dean of the St. Petersburg School of Social Sciences and Oriental Studies, PhD in Political Science

**A.V. Tarasenko**

Senior Researcher of the Centre, Associate Professor of the Department of Political Science and International Relations, PhD in Political Science

**Founded in 2019**

The Centre for Comparative Governance Studies works in the rapidly developing areas of comparative political research — the problems of political governance. The main research area of the Centre's team in 2020 included analysis and generalization of research experience and systematization of hypotheses relating to the factors to determine the strategies of political actors, as well as the formulation, implementation and results of reforms in systems with multilevel governance. The target of the analysis are the multilevel political systems of the national and supranational levels. The conducted studies focus on the strategies of political actors in systems with multilevel governance and the influence of the regime context on the development, implementation and results of reforms in multilevel political systems. The post-Soviet context, as well as the analysis of political courses and reforms implemented both by the institutions of the European Union and the EU member states, became the empirical field for the implementation of the established objectives.

The objectives of the Centre include:

- 1) research, expert and analytical, consulting activities for governmental and non-governmental organizations, other legal entities and individuals on the problems of political governance;
- 2) organization of joint research activities with Russian, foreign and international organizations;
- 3) organization and implementation of an interdisciplinary dialogue, engagement of scientific, pedagogical and other employees of the HSE University — St. Petersburg, students and postgraduates of the HSE — St. Petersburg and others, including partner organizations, including international ones, to the research work of the Centre;
- 4) dissemination of research results, mainly through publications in leading international publications;
- 5) use of the results of research and development in the educational process and promotion of the practical application of these results.

## Major publications

- Grigoriev I.S., Dekalchuk A.A., Gubaidullina S.Sh. "Organization of authority in multilevel political systems and the exchange of resources: voices, budgets, information." Polis. Political Studies 1 (2021): 1-14.
- Busygina I., Filippov M. "Russia, Post-Soviet Integration and the EAEU: The Balance between Domination and Cooperation." Problems of Post-Communism (2020).
- Busygina I.M., Filippov M.G. "Changing Incentives and Strategies of National Governments in Multilevel Governance across the European Union." Polis. Political Studies 5 (2020): 148-163.
- Cook L., Iarskaia-Smirnova E. R., Tarasenko A. "Outsourcing Social Services to NGOs in Russia: Federal Policy and Regional Responses." Post-Soviet Affairs (2020).
- Sorbale A. "Cleavages, Ideology and Rationality: Patterns of Coalition-building in the Council of Ministers of the European Union." Journal of Contemporary European Research 4 (2020): 270-288.
- Stremoukhov D. "When Governors Go Abroad: Factors of Paradiplomacy in Russia." Regional and Federal Studies (2020).
- Busygina I., Filippov M. "Russia, Post-Soviet Integration and the EAEU: The Balance between Domination and Cooperation." Problems of Post-Communism (2020).
- Busygina I., Kahn J. "Russia, the Council of Europe, and 'Ruxit' or Why Non-Democratic Illiberal Regimes Join International Organizations" Problems of Post-Communism 66 (5) (2019).
- Busygina I. "Russia in the Eurasian Economic Union: Lack of Trust in Russia Limits the Possible." PONARS Eurasia Policy Memo 571 (2019).
- Busygina I. "To Decentralize or to Continue on Centralization Track: Comparative Analysis of Russia and Kazakhstan." Journal of Eurasian Studies 1 (2018).
- Busygina, I. Russia-EU relations and the common neighborhood: Coercion versus authority. London, UK: Routledge (2018).
- Dekalchuk A. "From Hidden Othering to Open Rivalry: Negotiating the EU-Russia Role Structure through the Visa Dialogue" in: EU-Russia Relations in Crisis: Understanding Diverging Perceptions. Routledge, Taylor & Francis Group, Ch. 6 (2018).
- Grigoriev, I. "Law Clerks as an Instrument of Court-government Accommodation under Autocracy: The Case of the Russian Constitutional Court." Post-Soviet Affairs 34 (1) (2018): 17-34.
- Starodubtsev A. Federalism and Regional Policy in Contemporary Russia. Abingdon: Routledge, Taylor & Francis Group (2018).
- Tarasenko A. "Russian Non-Profit Organizations in Service Delivery: Neoliberal and Statist Social Policy Principles Intertwined." Europe — Asia Studies 70 (4) (2018): 14-53.

## Major events

- November 2020: Conference on Inequality and Diversity (ID Conference).
- October 2019: International workshop "Regional Leadership in Eurasia: How Major Powers Compete for Potential Followers".
- October 2019: Conference on Inequality and Diversity.
- October 2018: VII International Annual Conference "October Readings" — "Political Governance in the Global World: New Practices, Levels, Scales".



# 12

## CENTRE FOR HISTORICAL RESEARCH

<https://spb.hse.ru/humart/chr/>

Director:

**Alexander Semyonov**

Editor, Ab Imperio Journal, Professor

Leading researchers:

**Anton Kotenko**

PhD, Senior Research Fellow at the Centre for Historical Research, Associate Professor at the Department of History, Higher School of Economics — St. Petersburg

**Alexander Dmitrievich Turbin**

Junior Research Fellow, Centre for Historical Research, Senior Lecturer, Department of History, Higher School of Economics — St. Petersburg

**Adrian Aleksandrovich Selin**

Ph.D. in History, Chief Researcher at the Centre for Historical Research, Professor at the Department of History, Higher School of Economics — St. Petersburg

**Tatyana Yurievna Borisova**

PhD, Senior Research Fellow at the Centre for Historical Research, Associate Professor at the Department of History, Higher School of Economics — St. Petersburg

**Founded in 2012**

The objective of the Centre for Historical Research is the systematic development of methodology and approaches to global, comparative and transnational history in various areas of historical research. The key research topics for the Centre include opportunities and potential of historical research across the crossing of the borders of national history and beyond the research agenda of the national historiographic canon; the history of diversity and the policy of discrimination; porous boundaries between the history as a discipline and related areas of the social sciences and the opportunities of interdisciplinary setting of research objectives; an imaginary border between the past and the present; the relevance of historical knowledge for modern and future public and expert discussions in modern societies.

Research areas:

- 1) Russian Empire and Soviet Union
- 2) Comparative history of empire, colonialism and nationalism
- 3) Environmental and technological history
- 4) Social and cultural history of borders and borderlands
- 5) Intellectual history and history of science
- 6) History and anthropology of religion
- 7) History of the parliamentary system and constitutionalism in the history of Russia and Eurasia
- 8) Historical geography, digital humanities and geographic information systems (GIS)

Since 2017, the Centre for Historical Research has been an institutional partner of the European Information and Research Network on Parliament History, being the only member of the association representing Russia. The strategic partners of the Centre include the largest research institutions in Russia, Europe and the United States.

The Centre's signature is the regular research workshop "The Boundaries of History", organized since 2012 in cooperation with the Department of History with the support of such partners as the German Historical Institute in Moscow, the Norwegian University Centre in St. Petersburg and the Dutch Institute in St. Petersburg.

### Main publications

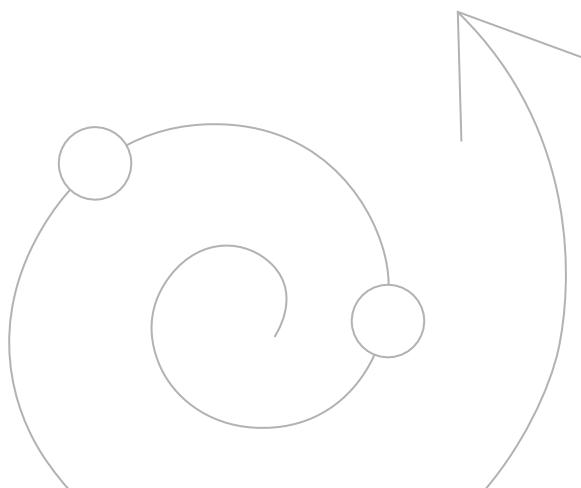
- Semyonov A. "Imperial Parliament for a Hybrid Empire: Representative Experiments in Early 20th Century Russian Empire." *Journal of Eurasian Studies* 11(1) (2020): 30-39.
- Kotenko A. Mykhailo "Drahomanov's Ideas of Parliament" *Journal of Eurasian Studies* 11 (1) (2020): 6-14.
- Kotenko A. "Ukraine's First Ethnographic Map: Mmade in the Russian Empire" *Nationalities Papers: The Journal of Nationalism and Ethnicity* 48 (5) (2020): 931-941.
- Turbin A. "Deception Begins With Trade...": Vladimir Arsen'ev's Economic Expertise and Challenges of Rationalizing Imperial Diversity in the Taiga" *Sibirica* 19 (3) (2020): 37-59.
- Selin A. A., Iablokova I. V. "Courts and Court Hierarchy in Novgorod the Great in the Late 16–Early 17th Centuries." *Canadian-American Slavic Studies* 54 (4) (2020): 432-445.
- Marzec W. "Civil Society and the Public Sphere. Historical Trajectories in Poland, Hungary and Bulgaria." *Journal of Contemporary Central and Eastern Europe* 28 (1) (2020): 7-28.
- Semyonov A. "Wither Russian Liberalism?" in: *Dimensions and Challenges of Russian Liberalism: Historical Drama and New Prospects* / Ed. by R. M. Cucciolla. Vol. 8. Cham : Springer. P. (2019): 27-42.
- Borisova T. Y., Burbank J. "Russia's Legal Trajectories." *Kritika: Explorations in Russian and Eurasian History* 9 (3) (2018): 469-508.
- Marzec W., Turunen R. "Socialisms in the Tsarist Borderlands. Poland and Finland in a Contrastive Comparison 1830–1907." *Contributions to the History of Concepts* 113 (1) (2018): 22-50.
- Semyonov A., Smith J. "Nationalism and Empire before and after 1917." *Studies in Ethnicity and Nationalism* 17 (3) (2017): 369-380.

### Major events

- June 2020: International online conference "Trade and Empire: Productivity, Economic Exchange, and Differences in Eurasia"
- June 2020: Webinar "Epidemic and Pandemic History"
- November 2020: Online workshop "Trajectories of Change"
- December 2020: "Boundaries of History" : Alexander Morrison about his new book "The Russian Conquest of Central Asia: A Study in Imperial Expansion, 1814-1914"
- June 2019: International conference "Versailles and Rights: A Centenary Appraisal" in frames of the research project "Post-imperial Diversities: Majority-Minority Relations in the Transition from Empires to Nation-states"
- February 2019: International workshop of the EuParl.Net members "Parliaments and Political Transformations in Europe and Asia: Diversity and Representation in the 20th and 21st Century"
- October 2018: International workshop of the EuParl.Net members "Parliamentarianism and Representative Democracy in Crises of War, Revolution, and Collapse of Empires"
- April 2018: International conference "Nationalism, Empire, and State", in cooperation with Andrew Gagarin Centre for Study of Civil Society and Human Rights and with support from Kudrin Foundation for Support of Civil Initiatives
- 2012 — ongoing: Regular research seminar "Boundaries of History" chaired by Alexander Semyonov

### Key projects

- 2021–2022: A series of international workshops "Russia in the World in the Imperial Era (1650–1917)" jointly with the London School of Economics, funded by the Frederick Paulsen Foundation's Program to Support Young Russian Historians.
- 2020–2022: A series of international workshops "Russia in Global Historical Contexts" in cooperation with the German Historical Institute in Moscow with the financial support of the ZEIT-Stiftung Foundation.
- 2018–2022: Paulsen Fellowships. A series of international seminars "Russia in the World in the Imperial Era (1650-1917)" in conjunction with the London School of Economics with funding from the Frederick Paulsen Foundation Program to support young Russian historians.
- 2018–2020: "Post-imperial Diversity: Majority-Minority Relations in the Transition from Empires to Nation-states." The ERA. Net RUS Plus project brings together researchers from the University of Eastern Finland, The Higher School of Economics, St Petersburg, Russia, and the Max Planck Institute for the Study of Religious and Ethnic Diversity of the University of Goettingen, Germany, in an attempt to examine in a multidisciplinary and comparative perspective the governance of ethnic, linguistic and religious diversity at times of transition from Imperial to nation-state political formations in Eurasia.
- 2016 — ongoing: "Empires in global history" in collaboration with Rheinische Friedrich-Wilhelms-Universität Bonn and University of Turin.



# 13

## LABORATORY OF SOCIOLOGY IN EDUCATION AND SCIENCE

<https://slon.hse.ru/en/>

Director

**Daniel A. Alexandrov**

Tenured Distinguished Professor

Leading researchers

**Valeria Aleksandrovna Ivaniushina**

leading researcher, candidate  
of biological sciences

**Vera Viktorovna Titkova**

junior researcher, candidate  
of sociological sciences

**Ksenia Alekseevna Tenisheva**

junior researcher, candidate  
of sociological sciences

**Roman Vadimovich Tikhonov**

junior researcher, candidate  
of psychological sciences

**Viada Vyacheslavovna Baranova**

researcher

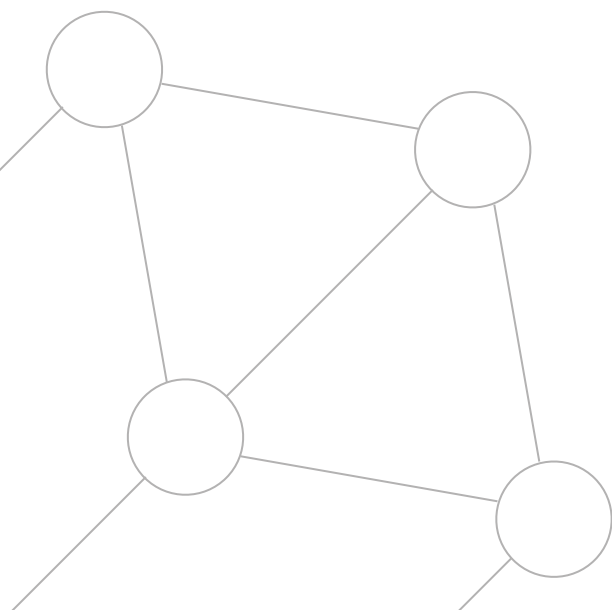
The Laboratory of Sociology in Education and Science aims to develop cutting-edge research in the sociology of education, combining theoretical models with rigorous empirical data collection and modern analytical methods (social network analysis, advanced statistical modeling, agent-based modeling). The main areas of our research are school climate, adolescent health, school segregation, and the status of migrant children in Russian schools.

We have developed a unique research tool for measuring school climate, including bullying and cyberbullying. The Laboratory studies school differentiation and school choice, analyzing two perspectives: parents/children and school administration. We have identified four groups of signals that schools send to parents: expected cost, level of parental engagement, emphasis on academic or extracurricular aspects of school life, and barriers to admission. Parents choose a school from the existing options based on their perception of and reaction to these signals, which vary according to socio-economic status.

In our research on migrant school students, we have demonstrated that ethnic minority students have high levels of motivation, and their achievement and educational aspirations are similar to those of ethnic majority students. Xenophobic tendencies among the adult population, which are often reported in the Russian media, are not reflected in students' interethnic friendships. Schools provide a positive environment for integration.

These results can be used to offer social policy recommendations that will decrease inequality among schools and decrease the dropout rate, underachievement, adversity, and high-risk behavior.

**Founded in 2007**



### Main publications

- Savelieva S.S. Inequality of success and aspirations of ninth-graders: the level of local educational systems // Monitoring of public opinion: Economic and social change. 2020. V. 2. P. 212-232.
- Tykanova E.V., Tenisheva K.A. Captured by the "neighborhood effect" : social capital and activism in new enclave housing complexes // Journal of Sociology and Social Anthropology. 2020. V. 23. No. 2. P. 7-35.
- Ivaniushina V., Titkova V., Alexandrov D. "Peer Influence in Adolescent Drinking Behaviour: a Protocol for Systematic Review and Meta-Analysis of Stochastic Actor-based Modeling Studies" BMJ Open 9 (7) (2019): P. 1-5.
- Ivaniushina V., Makles A., Schneider K., Alexandrov D. "School Segregation in St. Petersburg — the Role of Socioeconomic Status." Education Economics 27(2) (2019): 166-185.
- Ivaniushina V., Alexandrov D. "Anti-School Attitudes, School Culture and Friendship Networks." British Journal of Sociology of Education 39 (5) (2018): 698-716.
- Lushin V., Jaccard J., Ivaniushina V., Alexandrov D. "Vocational Education Paths, Youth Activities, and Underage Drinking in Russia: How Early does the Trouble Start?" International Journal of Drug Policy 45 (2017): 48-55.

### Major events

- 2020: Conference of NUL SON project groups 2020.
- 2020: 1st MiC DRoP students mini-conference.
- 2019: 12th Annual INAS Conference 2019 (International Network of Analytical Sociology Conference).
- 2006–2019: Summer fieldwork. One of the most interesting and important parts of the Laboratory's work, which unites research and educational activities, is summer fieldwork. Students from each year have carried out fieldwork in Leningrad and Moscow regions, together with Laboratory researchers. The fieldwork has the simultaneous aims of research (collection of empirical material for the Laboratory's projects) and education (students get the opportunity to assess their abilities).

### Key projects

- 2020: "Analysis of key barriers for successful adaptation of migrant children and development of recommendations to overcome them".
- 2020: "Risk Behavior in Adolescents and School Climate: The Role of the Multilevel Social Environment".
- 2016–2020: "Measuring School Climate in the Kaluga Region" in cooperation with the "Teach for Russia" programme and the New Teacher Foundation.
- 2017–2019: "Social Dynamics in Learning: Studying Coevolution of Group Network Structure and Student Motivation Using Learning Analytics" supported by the Russian Foundation for Basic Research.
- 2016–2018: "School Differentiation and its Consequences: School and Parents" supported by the Russian Foundation for Basic Research.







# 14

## CENTRE FOR DATA ANALYSIS AND MACHINE LEARNING

<https://spb.hse.ru/fmcs/daml/>

Director:

**Alexey Alexandrovich Shpilman**  
Senior Lecturer of the Department  
of Informatics

Leading researchers:

**Evgeniy Sergeevich Krasko**  
senior researcher, candidate of physical  
and mathematical sciences

**Sergey Valentinovich Fedorenko**  
leading researcher, doctor of technical  
sciences

**Anton Viktorovich Podkopaev**  
trainee researcher, PhD in physical  
and mathematical sciences

**Kurbanov Rauf Elshad-oglu**  
junior researcher

**Founded in 2011**

The Centre for Data Analysis and Machine Learning was created in collaboration with JetBrains Research.

The Centre performs research and training activities in the areas of machine learning, data analysis, human-computer interaction, improvement of artificial algorithms and the interaction of autonomous agents.

Key research areas:

- 1) Acceleration of reinforcement learning algorithms
- 2) Using reinforcement learning algorithms in the real-world
- 3) Cooperative autonomous agents in multi-agent environments
- 4) Machine learning for biological and medicine problems
- 5) Deep learning to predict molecular properties
- 6) Deep learning in systems and structural bioinformatics
- 7) Multimodal deep learning

The Centre's projects involve employees of various attainment levels: from bachelors and masters to experienced researchers with many years of scientific experience.

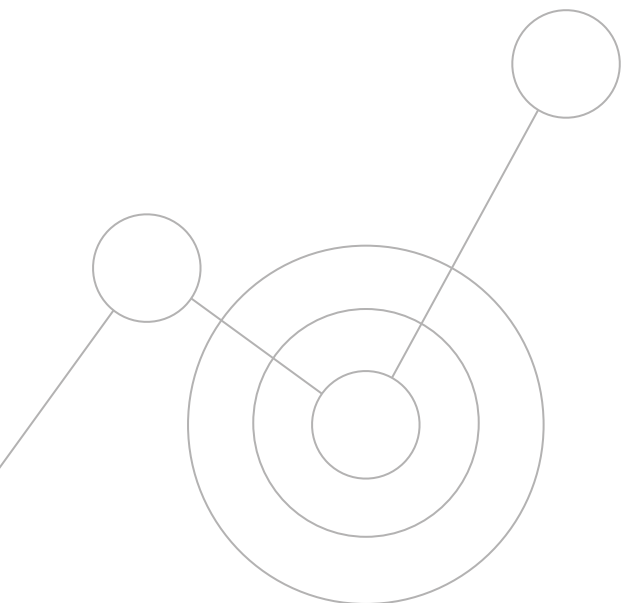
The Centre's researchers have published dozens of scientific papers, gained awards and won more than 20 machine learning competitions.

### Main publications

- Kidziński Ł. et al. (2020) Artificial Intelligence for Prosthetics: Challenge Solutions. In: Escalera S., Herbrich R. (eds) The NeurIPS '18 Competition. The Springer Series on Challenges in Machine Learning. Springer, Cham.
- Bryksin T., Petukhov V., Alexin I., Prikhodko S., Shpilman A., Kovalenko V., and Povarov N. "Using Large-Scale Anomaly Detection on Code to Improve Kotlin Compiler." In Proceedings of the 17th International Conference on Mining Software Repositories (MSR '20). Association for Computing Machinery, New York, NY, USA, (2020): 455–465.
- Sazanovich, M., Chaika, K., Krinkin, K., & Shpilman, A. "Imitation Learning Approach for AI Driving Olympics Trained on Real-world and Simulation Data Simultaneously." (2020): arXiv preprint arXiv:2007.03514.
- Sazanovich, M., Nikolskaya, A., Belousov, Y., & Shpilman, A. "Solving Black-Box Optimization Challenge via Learning Search Space Partition for Local Bayesian Optimization." (2020): arXiv preprint arXiv:2012.10335.
- Lukashina, N., Alenicheva, A., Vlasova, E., Kondiukov, A., Khakimova, A., Magerramov, E., Churikov, N. and Shpilman, A., "Lipophilicity Prediction with Multitask Learning and Molecular Substructures Representation." 2020: arXiv preprint arXiv:2011.12117.
- Fedorenko S.V. "Duhamel/Holmann-Like Discrete Fourier Transform Algorithm With the Smallest Multiplicative Complexity Over a Finite Field." IEEE Transactions on Signal Processing 68 (2020): 4813-4823.
- Watt C., Pulte C., Podkopaev A., Barbier G., Dolan S., Flur S., Pichon-Pharabod J., and Guo S. "Repairing and Mechanising the JavaScript Relaxed Memory Model." Proceedings of the 41st ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI 2020). Association for Computing Machinery, New York, NY, USA, (2020): 346–361.
- Krasko E., Omelchenko A. "Enumeration of Unsensed Orientable and Non-orientable Maps." European Journal of Combinatorics 86 (2020): 103093.

### Regular scientific workshops

- **HSE Inter-Campus workshop in Computer Science**  
During the workshop the researchers from the HSE laboratories talk about interesting scientific issues studies by them, and together we can discuss possible approaches to unsolved problems or applications of the described methods in related areas.
- **Agent systems and reinforcement learning**  
The area of reinforcement learning is the classic science of artificial intelligence. Most often it includes training an agent to act in a certain environment. Examples of the use of reinforcement learning are AI victories in chess and GO, Boston Dynamics robots.
- **Applied machine learning and deep learning**  
The workshop is dedicated to deep learning and the all of its multiple aspects. Reports elucidate both technical details, without which deep learning methods often do not work, and new state-of-the-art architectures defeating other algorithms and people-experts in various tasks.
- **Machine learning in software engineering**  
This workshop considers the application of machine learning methods to software engineering, including search for and analysis of coding styles, intelligent refactoring techniques, or even automatic program generation.



# 15

## LABORATORY OF ECONOMICS FOR CULTURE

<https://cultecon.hse.ru/>

Director:

**Valery Gordin**

Tenured Distinguished Professor

Leading researchers:

**Irina Sizova**

Anastasia Polomarchuk

**Founded in 2011**

The Laboratory of Economics for Culture is a scientific structural unit of the Higher School of Economics in St. Petersburg.

The scientific team of the Laboratory conducts fundamental and applied scientific research, expertise in the field of culture, consultations of organizations and cultural institutions.

The laboratory is engaged in research activities on the actual issues in the area of culture. Multilateral studies cover such areas as online education in museum management and marketing, development and implementation of projects of creative industries, strategic planning of cultural institutions, festival management, management of cultural clusters, including creative spaces, and many others.

The results of the Laboratory's research significantly contribute to the development of museum management and marketing, are used in the training process and are disseminated through publications in leading Russian and foreign publications.

The laboratory actively contributes to the development of local, interregional and international scientific cooperation of the Higher School of Economics in the field of culture.

### Main publications

- Zelenskaya, E., Elkanova, E. "Designing Place Brand Architecture: the Potential of a Sub-brands Strategy" Journal of Product & Brand Management (2020).
- Sizova, I.A. "Global Modernization And Generational Evolution Of Interacting With Museum Visitors In The Middle Of The 20th Century." Higher School of Economics Research Paper No. WP BRP 193/HUM/2020.
- Gordin V.E., Sizova I.A. Art museums in the system of online museum education // Museum in the context of education: results and new vectors of development: materials of the international research and practical conference, Ministry of Culture of the Russian Federation, FGBUK "State Russian Museum", RCMPiDT, FGBOU VO RGPU named after A.I. Herzen, Union of Russian Museums. — SPb.: State Russian Museum, 2020. — P. 177-189.
- Trabskaia, I., Shuliateva, I., Abushena, R., Gordin, V., & Dedova, M. "City Branding and Museum Souvenirs: Towards Improving the St. Petersburg City Brand." Journal of Place Management and Development 12(4) (2019): 529-544.
- Gorgadze A., Gordin V., Belyakova N. "Semantic Analysis of the Imperial Topic: Case of St. Petersburg." e-Review of Tourism Research (eRTR) 16 (2/3) (2019): 3-12.
- Gordin, V., Ilin, I., & Dedova, M. "Legal Aspects of Sharing Economy in Tourism Studies: View from Transition Countries." ICT Management for Global Competitiveness and Economic Growth in Emerging Economies (ICTM) (2017): 64-65.
- Gordin V., Borovskaia I. "Creativity-based Volunteering at the Winter Olympics in Sochi: Beyond Sport and Borders." In by A. M. Benson & N.Wise (Eds), International sports volunteering. Routledge research in sport, culture and society. London, UK: Routledge, (2017): 39-59.

### Major events

- December, 2019: International Conference "Future of Festivals" (during the international project "Contents for Cross-Cultural Events — C3E" implemented within the framework of the Cross-Border Cooperation Program "Russia — South-East Finland 2014-2020").
- November, 2019: VIII St. Petersburg International Cultural Forum, St. Petersburg.
- May, 2019: International Conference organized by ATLAS Business Tourism Special Interest Group, Porvoo, Finland.
- January, 2019: 26th annual ENTER2019 eTourism Conference ENTER2019 "Semantic Analysis of the Imperial Topic: Case of St. Petersburg".

### Key projects

- 2020: Analysis of the online activities of cultural institutions (using the example of museums) under the conditions of quarantine measures.
- 2020: Assessment of the level of readiness of museums to end the quarantine period and receive visitors (with the support of the Union of Russian Museums).
- 2020: Updating the practices of online education of museums.
- 2020: Updating museum approaches to working with youth (the project is being implemented jointly with the Hermitage XXI Century Foundation).
- 2019: "Post-event activity management in the organizations of experience industries, carried out within the framework of the Basic Research Program of NRU HSE".
- 2019: "Development of scenarios and recommendations for interaction with the target audience in the context of transforming the concept of Alexander Park in Pushkin city, commissioned by TSARSKOE SELO State Museum and Heritage Site".
- 2019: "Analysis of tools for updating professional competencies of employees of cultural institutions and event organizers in St. Petersburg, commissioned by the Institute of cultural programs during the international project "Contents for Cross-Cultural Events — C3E".



# 16

## SCIENTIFIC LABORATORY OF LOGISTICS RESEARCH

<https://loglab.hse.ru/en/>

### Academic Supervisor

#### Valery Lukinskiy

D.Sc.Tech, Professor, Honored Scientist of the Russian Federation, Professor of Management Dept.

### Founded in 2013

Logistics is both a field of practice and a science. It is connected with activities such as transportation, warehousing, cargo handling, inventory, service level support, etc. The aim of logistics is to ensure that the right consumer is in the right place at the right time with the right product of the right quality, quantity, and cost. According to different information sources, average logistics costs in the world amount to 10-14% of GDP (gross domestic product). If world GDP is estimated at 88 trillion dollars (World Bank national accounts data, 2019), annual logistics and supply chain management costs are about 11 trillion dollars.

We are interested in the problem of multi-nomenclature supply (thousands of nomenclatures) in multi-level systems (manufacturer or supplier, central or regional warehouses, customers or consumers), taking into account financial, juridical, physical, personnel, and other restrictions. Our research is conducted using applied mathematics, in particular operations research, which employs the information technologies of big data processing.

The Laboratory is developing an array of models for forecasting the demand for spare parts, considering the real conditions of running transportation units. The results of our transportation research will reduce inventories, prevent shortages of spare parts, promote compliance with operational and road safety regulations. At the same time, it will minimize the negative impact of transportation on urban ecology (for example, the reduction of traffic jams when buses break down) and ensure a guaranteed level of mobility for the urban population. These results are applicable for countless manufacturing and service companies interested in making adequate, reasonable, and secure decisions in the digital era.

### Main publications

- Lukinskiy, V., Lukinskiy, V., Sokolov, B. "Control of Inventory Dynamics: A Survey of Special Cases for Products with Low Demand." Annual Reviews in Control (2020).
- Lukinskiy et al. "Forming the Complex Model to Rate Transportation Indicators in Supply Chains." Switzerland: Springer, Lecture Notes in Networks and Systems 117 (2020): 252-259.
- Lukinskiy V., Lukinskiy V., Merkuriev Y. "Modelling of Transport Operations in Supply Chains in Obedience to "Just-in-Time" Conception." Transport 33 (5) (2018): 1162-1172.
- Lukinskiy V., Lukinskiy V. "Designing the Analytical Base for Optimal Allocation of Stocks in Supply Chains." Transport and Telecommunication 19 (4) (2018): 346-355.
- Lukinskiy V., Lukinskiy V., Merkuriev Y. Supply Chains Efficiency Increasing Based on the Modelling of Logistics Operations." International Journal of Simulation and Process Modelling 12 (3/4) (2017): 196-206.

### Major events

- April, 2020: The 19th International Academic and Research Conference "Logistics: Current Development Trends" in collaboration with the Admiral Makarov State University of Maritime and Inland Shipping.
- July, 2020: Seminar by Vice-Governor of St. Petersburg M. Sokolov "Development of St. Petersburg transport system in the medium and long term".
- April, 2019: The 18th International Academic and Research Conference "Logistics: Current Development Trends" in collaboration with the Admiral Makarov State University of Maritime and Inland Shipping.
- October, 2019: The 19th International Conference "Reliability and Statistics in Transportation and Communication" (RelStat-2019), Latvia Transport and Telecommunication Institute.
- November, 2019: Seminars "Improving the efficiency and reliability of material flow management at St. Petersburg enterprises" and "Reducing costs in supply chains" for the Committee for Civil Service and Personnel Policy of the Administration of the Governor of St. Petersburg.
- April, 2018: The 17th International Academic and Research Conference "Logistics: Current Development Trends" in collaboration with the Admiral Makarov State University of Maritime and Inland Shipping.
- April, 2017: The 16th International Academic and Research Conference "Logistics: Current Development Trends" in collaboration with the Admiral Makarov State University of Maritime and Inland Shipping.

### Key projects

- 2018: "Comprehensive Analysis of the Socio-Economic Development of the Arkhangelsk Region. Section "Transport Infrastructure".
- 2017: "Approbation and Implementation of a Set of Models for Forecasting the Spare Parts for the Rolling Stock Requirements in SPb SUE "Passazhiravtotrans" on the Basis of the Analysis of Operational Reliability" supported by the Government of St. Petersburg.

HSE UNIVERSITY — SAINT PETERSBURG

# RESEARCH AND RESEARCHERS 2020

The Centre for Youth Research of the St. Petersburg campus under the Higher School of Economics specializes in sociological research of craft entrepreneurship and the culture of pro-consumption (production-consumption). In 2020, the team of the Research Centre studied how the pandemic affected teachers and students of craft skills, and offered recommendations to support this segment of the economy as the basis for the development of subjectivity and creativity of young people in the metropolis.

## Youth in the craft economy of St. Petersburg



**Elena  
Omelchenko**

Director of the  
Centre for Youth  
Research

” *This emerging segment of educational leisure services is shaping a new type of consumer — a prosumer, focused on both consumption (commercial training services) and production (authentic handmade product)*

### Why craft?

The instability of the market there, the formation of intellectual capitalism, digitalization, the growth of mass production, the intensification of consumption set special modes of life: intensive work and intensive consumption, a decrease in time for rest and free time in general, the priority of a constant increase in professional and social capital to increase stability in the labor market.

Criticism of capitalism and mass consumption among the youth, the focus of young people on environmental friendliness, authenticity, individualization of both production and consumption contribute to the development of the craft market as a special space for production and consumption of a non-mass, non-standardized, unique handicraft product.

As a result of these trends, we can observe the development and formation of a special niche of projects within the framework of the craft economy to train in manual skills (master classes, courses, co-working spaces), when new masters offer short-term training to a wide audience of new students. Training projects of the craft economy are not in the nature of refresher courses or retraining, are not focused on pragmatic skills, although they can become an impetus for new professionalization. This is a leisure space, however, filled with new meanings, values, practices, agents. This emerging segment of educational leisure services is shaping a new type of consumer — a prosumer, focused on both consumption (commercial training services) and production (authentic handmade product).

### The Serious Leisure Theory

The theory, developed back in the XX century by R. Stebbinsson, has acquired particular relevance in recent years for the Russian youth residing in megalopolises. Leisure has ceased to be a time to recuperate after hard work, but has turned into an opportunity for self-realization. As a result, a heterogeneous entrepreneurial youth culture was formed, which differs from the older generations and is characterized by ideas of self-development, blurring of the boundaries between work and leisure, public and private space.

Craft entrepreneurs make a trade-off: economic and/or career inefficiencies are offset by satisfaction and fun from work. No-tie professionals pursue individualized mastery broadcast strategies and develop creative communication communities with democratic and hedonistic modes of knowledge and competence sharing.

For urban youth, participation in the manual production of a unique, authentic product is of high value. The key meanings of participating in educational projects include: entertainment, communication, self-realization, recreation, learning and creating unique things. Different meanings are determined by different types of “students”: tourists looking for entertainment; hobbyists seeking self-realization; and masters aimed at professionalizing and improving their skills.

### What has the pandemic has changed?

The global crisis caused by the pandemic has resulted in a sharp deterioration of the economic situation in the country over the past several months: a growth in the unemployment (while (as in recent years) its March level did not exceed 5 %, by November 2020, the unemployment was 6.1 % (in September-October it rose to 6.3 %)), a decrease in real disposable cash income of the population and an increase in wage arrears. The crisis has turned out especially painful for young entrepreneurs engaged in the creative industries and catering. For many of them, the question arose about the survival of their business and the need to take innovative measures which would allow them to save their businesses in a situation of a general economic recession, falling consumer demand and lack of (for many of them) sufficient financial resources.

It was found that the coronavirus restrictions were assessed by teachers, on the one hand, as a challenge and a problem (for masters, schools and studios and the industry in general). Forced online classes have often been criticized in interviews. Reflections of masters about the “lost” atmosphere and limited power also showed how it is important to keep “live” physical control over the student’s work for informal craft education. Finally, the lockdown was considered as the cause of business financial problems due to the impossibility for schools, studios and workshops to continue the offline work. However, on the other hand, the quarantine has become a kind of resource for some of the masters. The lockdown was considered as an opportunity to take a break from communicative and emotional work, engage in creativity and product development, improve professional skills, or master new ones. It was also noted that coronavirus restrictions could contribute to the popularization of certain craft areas when the quarantine has relaxed, and people have an opportunity to attend group offline classes again.

Researchers at the Centre for Youth Research consider what resources and strategies have enabled young craft entrepreneurs to survive COVID-19 and keep their businesses afloat. The daily life of a young entrepreneur is filled with many crises to be resolved under conditions of limited resources, resorting to various “tactics of the weak”. The 2021 survey aims to identify the strategies and tactics to allow young entrepreneurs to cope with both every day and global crises.



## Creation of efficient and compact light sources



**Natalya  
Kryzhanovskaya**

Head of the Laboratory,  
Doctor of Physical and  
Mathematical Sciences

*” The results of this work can be used for experimental design work in industrial enterprises interested in development of new technologies for light-emitting devices and an active region based on semiconductor quantum dots.*

### Light sources and optical transmission

In search of efficient and compact light sources, researchers drew attention to unique properties of semiconductor lasers. Standard silicon microcircuits currently show the limit of their performance and do not provide the required data transfer rate. Despite the unique properties of lasers (high speed, low power consumption and heat dissipation), not all of them are suitable for use for optical intrachip communication. A unique but very little-studied scientific discovery is lasers based on microdisks or micro-rings on quantum dots. Such lasers with their amazing advantages (small size microdisks, low heat capacity, speed) have a significant fault related to the complicated extraction of their radiation. The team of the International Laboratory of Quantum Optoelectronics aspires to fill the gap in this research area. In 2020, scientists from the HSE University — St. Petersburg described a model for extracting radiation from a microlaser and reviewed the features of optical communication using this technology.

### Progress requires progress

As a result of their research activities in 2020, the ILQO team proposed innovative methods allowing to increase the operating temperature, improve the temperature stability, and reduce the generation threshold for injection microdisk lasers with an active region based on quantum dots. It was found that the silicon substrate of the microlaser improves the threshold current density, affects the thermal characteristics and aging.

The level of the results obtained by the researcher of the HSE University — St. Petersburg exceeds the world level. The results of this work can be used for experimental design work in industrial enterprises interested in development of new technologies for light-emitting devices and an active region based on semiconductor quantum dots. Possible consumers include large enterprises (for example, Intel Corporation, which develops its own direction of silicon photonics, Hamamtsu, Egismos Technology Corporation) and smaller manufacturers interested in improving the parameters of their own light-emitting devices (Princeton Optronics, Inc. Innolume GmbH, VI Systems GmbH, and others).

In addition, Russian manufacturing organizations are interested in gaining new knowledge on the project subject, for example, Connector Optics CJSC, Semiconductor Devices CJSC, NOLATEH CJSC, the Scientific and Technological Centre for Microelectronics and Submicron Heterostructures at the Ioffe Physical-Technical Institute of the Russian Academy of Sciences, the Institute for Analytical Instrumentation of the Russian Academy of Sciences and other research, educational and scientific-production organizations conducting research, educational process and production activities in semiconductor nanotechnology.

## About the HSE University — Saint Petersburg scientific expertise



**Andrey  
Starodubtsev**

Acting deputy  
director

*” HSE University — St. Petersburg pays special attention to involving students in research projects led by experienced scientists. We do not divide science into student and “real” : students under the HSE model have the right and the opportunity to participate in research projects at all stages of their formation and implementation*

HSE University — St. Petersburg is a research Centre with international expertise in economics and management, social sciences and humanities. We can surely say that we have a line of research laboratories and Centres covering the most actual topics of modern social development. 2020 allowed us to expand the range of scientific expertise: we opened the International Laboratory for Quantum Optoelectronics, and also began to gather a team of computer scientists around natural language research — we plan to launch the corresponding laboratory as early as 2021.

The creation of a network of research Centres and teams is the central highway for the development of science in any strong university. At the same time, we should not forget about the many scientists who work in the departments of HSE University — St. Petersburg and develop their own areas of research, implement first-class scientific projects, often in collaboration with students, whose results are published in leading journals. Gradually, mechanisms for supporting such scientists are formed at HSE, an institute of research assistants is developing, support for students' project work under the guidance of scientists is increasing, and the practice of creating research and educational groups is expanding.

These measures show that the HSE University — St. Petersburg pays special attention to involving students in research projects led by experienced scientists. We do not divide science into student and “real” : students under the HSE model have the right and the opportunity to participate in research projects at all stages of their formation and implementation — the only question is the skills and knowledge that they can bring in the course of their joint activities. An important feature of student engagement in science at HSE is payment for their work — with money for research interns and junior researchers in research units, or credit units — for students who participate in project activities as part of their educational programs.

Of course, conferences and workshops are a key element of research activity. The year 2020, due to the outbreak of the coronavirus epidemic, urged us to try new formats of meetings and discussions, which allowed us to hold a whole series of bright scientific events, as traditional for HSE — the annual May conference “Education and World Cities”, conferences of the AMEC School of Economics and Management and the School Social Sciences and Oriental Studies IDC, as well as new ones: a series of webinars and online workshops, some of which will continue this year, uniting not only HSE campuses, but also many other Russian and foreign research Centres.

The Research Report presented to you covers all the above and many other topics of the scientific life of the St. Petersburg HSE University. I hope that after studying it, you will find new and useful information about topics and teams, events and projects. We are open for cooperation and will be glad to see you at the St. Petersburg campus of the Higher School of Economics.







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# KEY EVENTS 2021

## April, 27–30

**8th International School and Conference on Optoelectronics, Photonics, Engineering and Nanostructures, SPb OPEN-2021**

Organizer:  
**International Laboratory of Quantum Optoelectronics**

## April, 2021

**Associated event under the April International Scientific Conference: Third International Scientific workshop “Market Theories and Spatial Economics”**

Organizer:  
**Centre for Market Theory and Spatial Economics**

## April, 2021

**The tenth LCSR international working workshop under the 22 April international scientific conference of the Higher School of Economics on the issues of economic and social development**

Organizer:  
**International Laboratory for Comparative Social Research**

## April, 2021

**International conference “Youth as a Driver of Museum Development”**

Organizer:  
**Laboratory of Cultural Economics**

## April, 2021

**The 20th International Academic and Research Conference “Logistics: Current Development Trends” in collaboration with the Admiral Makarov State University of Maritime and Inland Shipping**

Organizer:  
**Scientific Laboratory of Logistics Research**

## May, 2021

**International Summer School and Conference “17th workshop Matching in Practic”**

Organizer:  
**International Laboratory for Game Theory and Decision Making**

## Summer, 2021

**Summer School “Deep Learning for Natural Language Processing in Social Sciences”**

Organizer:  
**Social and Cognitive Informatics Laboratory**

## Summer, 2021

**Summer School “Experimental Methods in Social and Cognitive Sciences”**

Organizer:  
**Social and Cognitive Informatics Laboratory**

## June, 2021

**International Conference “Bear and the Bull” in memory of Dietmar Wulf, long-term associate professor of DAAD in the Department of History of the Higher School of Economics — St. Petersburg**

Organizer:  
**Centre for Historical Research**

## July, September, April 2021

**School for Young Scientists in cooperation with the Institute for Institutional Studies of the Higher School of Economics**

Organizer:  
**International Laboratory of Intangible-driven Economy**

## September, 2021

**Three special tracks at the international conference AMEC 2021**

Organizer:  
**International Laboratory of Intangible-driven Economy**

## September, 2021

**International conference “Soviet Climate Science and its Intellectual Legacies”**

Organizer:  
**Environmental and Technological History Laboratory**



## October, 2021

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**International Kotchoubey Readings-2021  
“Private Collections in the Information Space”**

Organizer:  
**School of Humanities and Arts**

## November, 2021

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**International conference “Computer methods  
in comparative poetry”**

Organizer:  
**Centre for Interdisciplinary  
Basic Research**

## November, 2021

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**International conference “Coproduction  
of Territories and Their Resources:  
Technologies of Prospecting, Extraction  
and Remediation in History”**

Organizer:  
**Environmental and Technological  
History Laboratory**

## November, 2021

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**International Conference  
“Post-Imperial Diversity”**

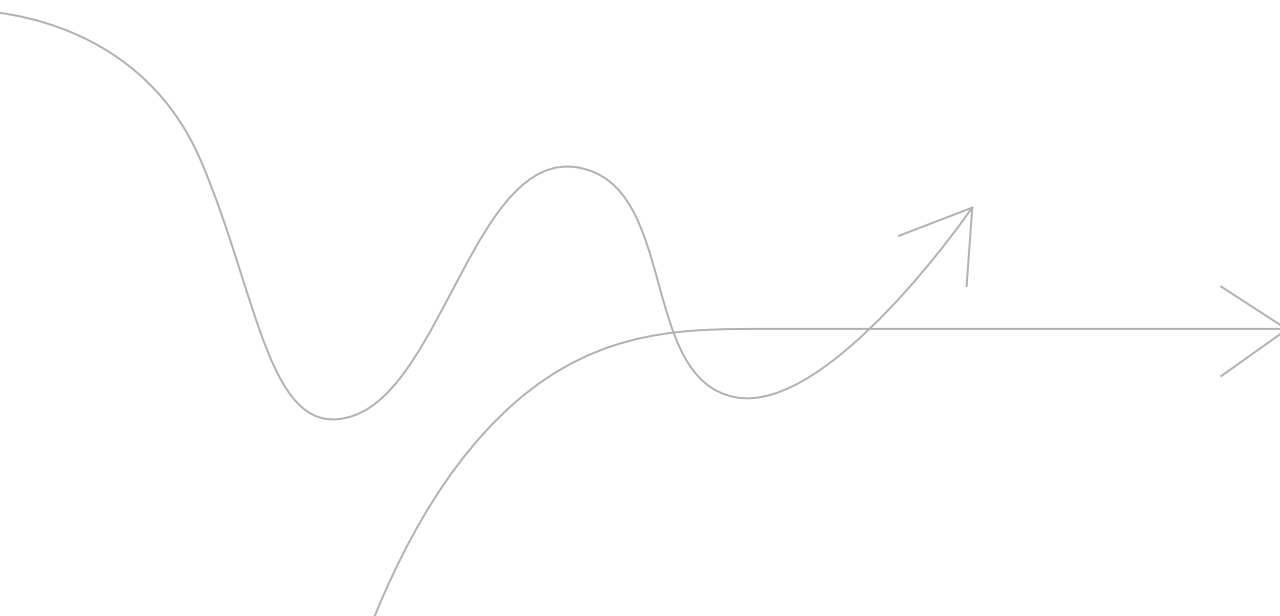
Organizer:  
**Centre for Historical Research**

## November-December, 2021

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**Scientific workshop “International Trade and Urban  
Economy” (St. Petersburg)**

Organizer:  
**Centre for Market Theory  
and Spatial Economics**







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