

10th GERMAN-RUSSIAN WEEK OF THE YOUNG RESEARCHER

COLLABORATING ACROSS BORDERS DURING THE PANDEMIC

December 14, 2020

REPORT



10th WEEK

IMPRESSUM

**Volume of the Conference
"The Tenth German-Russian Week
of the Young Researcher"**

December 14, 2020

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WELCOME TO THE "10TH GERMAN-RUSSIAN WEEK OF THE YOUNG RESEARCHER"!

Dear Colleagues from Russia and Germany,

We are delighted to welcome you to the 10th Anniversary of the Week of the Young Researcher!

During the "German-Russian Year of Science" in 2011, the idea was born to invite young researchers from both countries to come together to discuss current topics of mutual interest. Since then, the event has been gaining popularity in the scientific community. The main goal of these meetings is to foster collaboration among young scientists and researchers who will become the pillar of scientific cooperation between Russia and Germany in the nearest future. The success of the first week in Kazan encouraged us to turn it into an annual event.

In 2020 we were pleased to announce the 10th anniversary of this well-established series that has become an important event on the German-Russian scientific agenda. Over the last ten years, we have met in Ekaterinburg, Novosibirsk, St. Petersburg and Moscow – this year, we have to meet online for obvious reasons. The pandemic forced us to change the usual format and to reduce the week to a one-day event. We focused on the globally most crucial issue of the year: the outbreak of the COVID-19 pandemic with its impact on science and research. The keynote speakers addressed the challenges for research and funding organisations, and assessed the following two aspects: research

during the pandemic and research on the pandemic. Special emphasis was given to current and future demand to carry out bilateral research under pandemic conditions by presenting ongoing German-Russian collaborations.

This brochure illustrates how young and experienced scientists can Collaborate Across Borders with local authorities, associations and industries in order to develop new approaches to global challenges. This booklet also provides an insight into the current state of research and gives an overview of how leading German and Russian funding organisations instantly react to the rapidly changing framework conditions in order to keep their funding activities alive. Research organisations and institutions of higher education of both our countries will present their programmes and describe the platforms they can offer to both Russian and German PhD students and PostDoctoral researchers.

We want to express our gratitude to all of you, the participants, for your involvement in this conference and your efforts to maintain the collaborations between our two nations. We would like to extend our thanks to the German Embassy in Moscow for their wholehearted support from the first week until today by creating the framework for this sustainable co-operation.



Dr Andreas Hoeschen

German Academic
Exchange Service (DAAD)
Head of DAAD Office Moscow
Managing Director
of DWIH Moscow



Dr Jörn Achterberg

German Research Foundation (DFG)
Head of DFG Office Russia/CIS

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LADIES AND GENTLEMEN, COLLEAGUES AND FRIENDS!

It is a great pleasure for us that you have accepted the invitation of the joint initiative of DAAD, the German Academic Exchange Service, and DFG, the Deutsche Forschungsgemeinschaft. We are more than happy to welcome you to this anniversary “Tenth Week of the Young Researcher” under the umbrella of the German Centre for Research and Innovation, which is the DWIH Moscow.

Yes, obviously, this is a very special week indeed, but not only because of the anniversary. Let me explain the reasons why:

First of all, it is not a whole week of events. Unfortunately, we had to limit this Week to a single-day event. However, we really wanted to keep the tradition of the Weeks and thought that one day is better than none. Second, due to the pandemic, we have to meet online. But after half a year of hard training in front of our computers, I am positive that we will be able to conduct the virtual sessions professionally. Third, and this might even reflect a positive aspect of the current situation, for the first time in ten years, both the Presidents, of DFG and of DAAD, have managed to take part in the opening session of the Week.

Therefore I would like to direct special words of gratitude: to my colleague and friend Professor Joybrato Mukherjee, the President of DAAD, who will address to you shortly in a video statement. Also, we are very grateful to the German Embassy in Moscow for the continuing support of the German-Russian Weeks. I want to welcome Deputy Head of Mission Beate Grzeski, who is with us today, not for the first time. Mrs. Grzeski has long taken special care of our scientific relationship with Russia. And, of course, I want to thank all our Russian partners for their support and presence today. I welcome Academician Vladislav Panchenko, Chairman of the Board of RFBR, the Russian Foundation for Basic Research. And, the Russian Science Foundation is represented by General Director Aleksander Khlunov. Thank you very much for being with us.

Just like the format of the Week, this year’s topic was not hard to find. Having focused on energy, health, aerospace, history, mathematics, urban studies, biology, chemistry, and physics over the last nine years, we were bound to consider the pandemic in 2020. But rather than exchanging

ideas in a certain research area, we discuss how to “collaborate across borders” during these days.

Today the two panels aim to analyse the current situation from three angles: Firstly, Research on the Pandemic: What are the hot topics? Which problems need to be solved first? Which areas are especially good for international or bilateral research collaboration? Secondly, Research during the Pandemic: What are the framework conditions for carrying out research between Germany and Russia. What are the current and potential needs of our scientific communities to carry out bilateral research? And the third aspect is about research after the Pandemic: What is the overall COVID-19 impact on science and research? We are in desperate need of new science policies and new foresight studies.

But concerning this “Week of the Young Researcher,” let us never forget how to involve young researchers during the pandemic and after the pandemic. Let us never forget about the role young scientists play for our future. They will have to solve all our global and societal challenges that we face today. That is why I am very happy to welcome many young scientists from both our countries.

The “Weeks of the Young Researcher” were launched especially on the occasion of the “German-Russian Year of Science” in 2011. Now in 2020 we celebrate another year of “Germany in Russia”. Our Weeks are a brilliant example of the longevity of scientific contacts and their importance for a constant exchange of ideas between our societies. In actual fact the format of the Week itself follows a very good old tradition. Namely, as early as the late 1920s, the DFG’s predecessor organisation, together with the Soviet Academy of Sciences, organised the first joint science weeks between our countries.

Let me finish by saying that it is a pity not to celebrate this anniversary Week as festive as it would be fitting, nor any other three cooperation anniversaries of the DFG: 50 years with the Academy, 25 years with RFBR and 5 years with RSF. But so much greater is the pleasure of welcoming you all here and of seeing how everybody is making the best of the present situation! Continue with the same spirit! Thank you very much, stay curious and stay healthy!



Professor Dr Katja Becker
President of the German Research
Foundation (DFG)



Professor Dr Joybrato Mukherjee
President of the German Academic
Exchange Service (DAAD)

DEAR DEPUTY HEAD OF MISSION, DEAR MS GRZESKI, DEAR PROFESSOR BECKER, DEAR PROFESSOR PANCHENKO, DEAR DR KHLUNOV, DEAR PARTICIPANTS!

It gives me great pleasure to welcome you all to this year's "week"-event on behalf of the DAAD, the German Academic Exchange Service. First, I would like to thank very warmly our partners, the German Science Foundation, the Russian Foundation for Basic Research and the Russian Science Foundation. We highly appreciate the opportunity to organise jointly this traditional German-Russian science event notwithstanding the challenging circumstances in the midst of a global pandemic.

Usually we would look forward to seeing each other in person and spending a week discussing innovative research topics with our Russian colleagues. This year it has to be a much shorter event where we meet up in a virtual environment. However, I am confident we will make good use of the time given by examining the currently most pressing questions. How can we collaborate during the pandemic? How does international research collaboration contribute to mastering the global challenge? Does the pandemic bring about topical shifts in research collaboration? What have we learnt for a post-corona-world of – it is to be hoped – closer cooperation in science?

We all will benefit very much from exchanging our recent experiences and findings. I particularly welcome the participation of junior scientists in today's event. For the DAAD it is of great importance to understand as to how junior and future scientists are affected by the current circumstances. Postgrads, PhD-students and recent postdocs are the core target group for the DAAD's funding programmes. Against the backdrop of sudden travel restrictions and the uncertain dynamics of the ongoing pandemic we started to offer digital alternatives to physical mobility with our scholarship programmes.

Of course, I hope and expect that physical academic exchange will resume soon and recover to full strength. Nevertheless, it seems worthwhile to consider whether a more diversified mix of collaborative formats including digital exchanges could make our future post corona cooperation even more effective. I very much look forward to learning about the answers you will give to these questions.

The "2020 Week" will be one of the last of more than 100 events of the German-Russian Year of Higher Education and Science Partnerships 2018–2020. I was delighted to take part in the official conclusion of this very successful bilateral campaign for German-Russian Science dialogue in Berlin on the 15th of September. We are very grateful for the strong support we have received with the "cross year" from the German Federal Foreign Office. At the same time the many events demonstrated that in the end only the scientists and academics themselves can build and develop the collaboration that delivers on the demand for new scientific insights and innovation.

For exactly this reason, all German science organisations established the "German Centres for Research and Innovation" (DWIH) which are supported by the German Federal Foreign Office. It is an honour for the DAAD to facilitate the management of the currently five centres worldwide. That Moscow hosts one of them emphasises the huge potential, we recognise in science collaboration with Russia. Today the Moscow DWIH will again fulfil its mission and serve as a forum for a lively dialogue about most pertinent issues for the international science community.

I would like to thank everybody for participating and I hope that all of you will enjoy and make the most of the virtual "Week"-event!

DEAR PROFESSOR BECKER, DEAR PROFESSOR MUKHERJEE, DEAR PROFESSOR PANCHENKO, DEAR DR KHLUNOV, DEAR PARTICIPANTS!

I am pleased to greet you to the 10th “German-Russian Week of the Young Researcher” which is a cornerstone of the German-Russian science calendar each year. Education and science cooperation and exchange between Russia and Germany are one of the most reliable ties between our countries.

I want to thank the German Academic Exchange Service (DAAD), the German Center for Research and Innovation (DWIH) and the German Research Foundation (DFG) for organizing this event in virtual format together with its partners: the Russian Foundation for Basic Research and the Russian Science Foundation.

For the German Research Foundation (DFG), 2020 is a special year: I am pleased to congratulate you on the 100th anniversary as well as the anniversaries of the cooperation with its Russian partner organizations: the Russian Academy of Sciences, the Russian Foundation for Basic Research and the Russian Science Foundation. Also, this year’s “Week of the Young Researcher” will serve to develop new cooperation projects and partnerships in particular between young scientists, which will result in even more dynamic and intense German-Russian science cooperation.

We appreciate the long history of scientific cooperation between Russia and Germany, which has become a cornerstone of our bilateral relations as a whole. Our cooperation has a broad basis, ranging from students and young scientists' exchanges, through partner universities, joint research institutes and research groups to cooperation within the framework of vocational training. I am pleased to note: Germany remains the top destination for Russian students: In 2019, about 14,000 Russian students came to Germany.

One of the best examples for this cooperation is one of the last of more than 105 events of the “German-Russian Year of Higher Education and Science Partnerships 2018–2020”, the “Week of the Young Researcher”, which will once again

highlight the success of our scientific relations. We want to draw an entirely positive balance of the Year: around 6,000 people from the scientific community and civil societies in both countries took part in the events. The high number of 124 applications for the competition “Bridges for German-Russian Higher Education and Science Cooperation” also confirmed the commitment to cooperation. I, therefore, wish to thank all of you for your engagement in the German-Russian science cooperation!

The “German-Russian roadmap for cooperation in Education, Science, Research and Innovation” will continue to promote and bring up new initiatives.

Since 2011, the “Week of the Young Researcher” has been organized annually in different cities in Russia – Ekaterinburg, Novosibirsk, St. Petersburg, Kazan and Moscow – covering various important topics, such as Health, Energy, Space and Aviation, as well as Global History. This year the focus is set on “Collaborating Across Borders during the Pandemic”, which will be the crucial topic for the international cooperation for many years to come.

I believe that by participating in this year’s “Week of the Young Researcher”, you are in the right place and at the right time. I am pleased that one of the sessions will present the concrete practices on how to carry out research between Germany and Russia during the pandemic. Together let us accelerate the exchange of ideas and scaling-up of good practices! This week also provides a platform for the professional exchange of ideas between scientists – especially young researchers. It is thus a source of possible new professional relationships and for new cooperation. I am sure that this year’s “German-Russian Week of the Young Researcher” will be successful and further contribute to the good tradition of cooperation between German and Russian scientists!

I wish you all a productive exchange and rewarding discussions today!



Beate Grzeski

Deputy Head of Mission,
Embassy of the Federal Republic
of Germany in Moscow



Professor Dr Vladislav Panchenko

Full Member of the
Russian Academy of Science
Chairman of the Board,
Russian Foundation
for Basic Research (RFBR)

ESTEEMED PROFESSOR KATJA BECKER, ESTEEMED BEATE GRZESKI, DEAR GUESTS, DEAR COLLEAGUES!

First of all, I would like to say that I am very glad to be here and make the Welcome Address to the participants of the 10th German-Russian Week of the Young Researcher. To my mind, the issues to be discussed today – “Collaborating Across Borders during the Pandemic” – are very important.

The science today is considered a key universal instrument for addressing all global challenges. The cooperation with Germany is in the focus of our activities.

I would like to congratulate the DFG on the occasion of the centenary.

For the last 25 years, we have been working together. During this period, the Russian Foundation for Basic Research and the DFG have funded about 1,000 projects. About 10,000 Russian scientists have taken part in it. We have organized together more than 100 events.

A special issue of the magazine dedicated to our 25-years’ collaboration anniversary will be planned to be published, and the preparatory procedures are finishing soon.

Unfortunately, we will not have a chance to raise our glasses with champagne at an official ceremony to celebrate the event together under the bright lights of fireworks. I hope we will make fiesta in the nearest future.

The most important fact is that we are supporting as many as possible young/early-career scientists within the projects. About 60 per cent of participants in our joint projects are young researchers.

The main goal is to encourage the transfer of knowledge to the applied research and the innovation sector of our countries.

This year, the Russian Foundation for Basic Research announced a large-scale internal program

devoted to fundamental problems of virology, molecular biology, public health, social and economic problems during the pandemic.

We have initiated bilateral international programs with a number of our foreign partners:

- interdisciplinary call on virology was announced with the National Natural Sciences Foundation of China.

Before that, there were a several discussions about the call for half of the year;

- joint call with the National Research Council of Italy covers the fundamental problems of modern Virology;
- details of a joint initiative with our colleagues from India is in progress now. The partners are: the Indian Council for Medical Research and the Council for Scientific and Industrial Research.

We initiated a multi-disciplinary call for research projects on the global pandemic in BRICS (Brazil, Russia, India, China, South Africa). The proposal was unanimously supported by all five member countries of the organization. It is necessary that at least 3 countries support the projects. Around 100 applications were submitted. The final decision is expected to be taken this week. At this difficult times, the DFG and the Russian Foundation for Basic Research continue to work hard to organize a new joint call. We have received 200 applications. The expertise process is about to be finalized.

The results of the latest joint call will be summed this week. About 50 projects are expected to be supported.

I wish lots of success to the participants of today’s event and I’m grateful to the organizers for giving me the opportunity to speak.

My best wishes to everybody!

DEAR COLLEAGUES, LADIES AND GENTLEMEN!

It is a great privilege to have an opportunity to speak to you, although virtually this time. I am glad we will discuss about the advancement in Russia-Germany research collaboration from the Russian Science Foundation's perspective. In particular, I am very pleased to meet for the first time DFG President Prof. Katja Becker. I am exceptionally honoured to welcome all participants of the 10th German-Russian Week of the Young Researcher.

There are many exciting and promising fields where tangible research cooperation has developed quickly, thanks to our partnership with the German Research Foundation. DFG is our champion partner in terms of the amounts of mutual investments in joint research. Together with DFG, we launched six joint calls for proposals in all research areas. As a result, 72 research consortiums of outstanding German and Russian research teams got grants and started their research activities. The total funding for these projects has already surpassed 18 million euro.

We are proud that our joint efforts result in remarkable and internationally visible results, engaging young scientists from both countries. Over the past four years, 321 articles were published in peer-reviewed international journals. 47% of them were published in the highly reputable journals of the first quartile (Q1). Almost, in total, 800 researchers on the Russian side are involved in the implementation of projects funded by RSF and DFG. It is comparable to the staff of several research centers. 70% of them are young researchers. It is important to share such information as now we open the Week of the Young Researcher.

We will certainly provide more support. Today is the new submission deadline, and some 150 new proposals are registered in our system. We are excited by the discoveries that will come from these new collaborations.

Today we will talk about COVID implications on research funding. First, we became aware that

science is more important than ever. Secondly, we quickly transformed most of our core processes to online without any compromises on quality. We offered flexible solutions for researchers who experienced any problems associated with COVID. Most importantly, in this completely new context of uncertainties and lockdowns, we have managed to run our funding operations smoothly as usual, without any cuts or delays.

The COVID-19 pandemics allowed us to transform some of the crucial processes. Firstly, we digitalized the process of submission of proposals and reports through the use of electronic signature. Secondly, together with our expert councils, we developed and implemented a computer-assisted toolkit for finding reviewers. It provides a quicker, more efficient and more fair review process with less human-related involvement and without any quality losses. We will continue to work with the digital profiles of our reviewers to enhance the excellence of the review process even further. Of course, we are ready to share these digitalization experiences with our colleagues from DFG.

The Russian Science Foundation will face 2021 financial year with a budget of 22,9 billion Russian rubles, which means a year-to-year increase of about 3%. The current pandemic did not affect the number of applications and our grant awards, our review or funding cycle. We are proud of that, and we are committed to keep the position of the funder of choice for the talents in science.

To conclude, let me invite you to explore new opportunities offered by the pandemic, to advance more intense, productive and trustful collaboration on a diverse range of exciting topics around fundamental value – people's lives and health. In these new realities, international cooperation and trust, free exchange of ideas and experiences, careful data management are particularly important.

Thank you for your attention!

Stay healthy!



Dr Aleksandr Khulunov

Director General,
Russian Science Foundation (RSF)



Professor Dr Katja Becker
President of the German Research
Foundation (DFG)

HOW TO PREPARE RESEARCH FOR SOCIETAL CHALLENGES – THE CASE OF COVID-19 AND THE RESPONSE OF THE DFG

Ladies and Gentlemen, colleagues and friends,

In today's world, which is fighting the worst pandemic in 100 years and is confronted with the threats of climate change, biodiversity loss, and social inequality, there is a high demand for research and knowledge. The shape and effectiveness of this new research rely heavily on the currently available knowledge: Even new research organisation measures and research funding administration depend on what we presently know. And what we know is the result of basic research within each respective science and humanities field. In fact, for many years, the DFG has funded those researchers who are now developing the vaccine to fight the virus.

A great example of such research is the German company BioNTech, which is about to deliver vaccines to Britain, the USA and Europe. The research of the company's founders, such as the mRNA-vaccination method, was supported by the DFG from 2000 to 2008 through different funding programs. The founder of BioNTech, Professor Sahin, has stated that without the research performed in those years, it would not have been possible to produce the vaccine now.

To summarise, funding research generated from independent curiosity lays the foundation for rapid yet reliable results in vaccine development. That is why the current situation illuminates that the best way to prepare for new and unforeseeable societal challenges – be they bio-medical or other – lies in generating a knowledge hub that is not yet related to concrete problems but rather to open knowledge questions. You can only produce a vaccine if you know the virus. So: Funding the intrinsic motivation, the curiosity of researchers proves to be the earliest possible crisis prevention.

Besides, taking into account the current situation, we do not only have to support the emergence of

new and secure knowledge but we also have to guarantee that researchers worldwide share their data and findings. In order to face global societal challenges, we need powerful global research infrastructures as well. The call for academic cross-border cooperation has never been more urgent than today.

Basic research and international cooperation are the best concepts we have in order to boost the research contribution to societal challenges. However, having the best concepts is not always enough. We need to implement them and put them into concrete actions. That is why I want to provide a more detailed information further of how the DFG has responded to the Coronavirus outbreak.

1. Rapid response to current challenges: DFG-Support for ongoing research

Let me start with a great example of German-Russian cooperation regarding the fight against the virus outbreak: As you probably know, the pandemic outbreak seriously threatened the MOSAiC expedition – the largest expedition in the Arctic Ocean in history. Russian and German research vessels, including the vessel named “Maria S. Merian” funded by the DFG, were sent at very short notice to ensure that the ongoing research would continue.

As for the DFG, one of our first goals was to maintain our funding activities while protecting staff, reviewers and the applying researchers at the same time. Therefore, our Joint Committee has established extensive special rules to ensure our ability to act, and at the same time, guarantee the stability and high quality of our review and evaluation procedures. Written votes and video conferences were used as much as possible instead of physical meetings, as is customary for assessments. Bridging financing is used in cases

when such adaptations are not possible, for example, if no decision can be made at present on the continuation of an ongoing special research area. Therefore, these support measures include the extension of grant periods, but also calls for proposals, scholarships and employment contracts for doctoral candidates, extensions of deadlines for final reports and the transferability of grants. In total, the Joint Committee decided on a whole package of measures and provided funds of 175 million euros for this purpose. Our guiding principles in all of these actions were to keep especially students and young researchers, confident in the system, and protect research projects from a counter-productive termination.

All this serves the purpose of keeping the negative pandemic effects as low as possible. These are protective and bridging measures; they are not yet forward-looking approaches to optimising the power of research in the light of the specific societal challenge we face today.

2. Forward-looking Approaches

In order to realise them, we need interdisciplinary research and international exchange of research data, methods and findings. That is why the DFG launched a strategic call for Multidisciplinary Research into Epidemics and Pandemics in Response to the Outbreak of SARS-CoV-2. In addition to investigating the current pandemic, our goal is to identify fundamental research questions that produce generalisable scientific findings.

This includes, for example, the investigation of

- the challenges and effects of an epidemic or pandemic and measures taken for healthcare systems;
- psychological, social and cultural factors in the emergence, spread and treatment of epidemics and pandemics, and the legal and ethical implications;
- the impacts on global and regional economic development, production and value creation chains, logistics, transport and communication;
- fundamental biological and medical aspects of a pathogen and the associated symptoms, as well as therapeutic methods or preventive measures in combination with one or more of the above topic areas.

Proposals will also be considered for projects designed to gather and record basic data on the current epidemic and current countermeasures, which can serve as the basis for future retrospective analyses. Projects involving the simulation of the spread and consequences of pandemics and the effectiveness of interventions may also be submitted. The DFG will initially (for 2021) provide around 15 million euros from the Strategy Fund of the Executive Committee.

So far about 400 proposals have been submitted, and we expect 100 projects to be funded by the end of the year.

Furthermore, the DFG has established an interdisciplinary Commission for Pandemic Research. The Commission is made up of 18 members representing all research disciplines, and its task will be to strengthen the knowledge-driven research that is essential to pandemic and epidemic research, and which creates the basis for almost all translational approaches. The new Commission supports DFG-funded projects that investigate pandemics and epidemics, including both existing work and research projects initiated due to the cross-disciplinary call.

The Commission will also have the task to monitor the overall basic research landscape related to pandemics and epidemics and identify potential research needs, giving special attention to inter- and transdisciplinary cooperation and the strengthening of synergies. Moreover, the Commission manages a new funding instrument, called COVID-19 Focus Funding, designed to enable scientists to address extremely urgent research questions requiring rapid answers. These include data collection projects and meta-analyses as well as systematic reviews in topic areas in which the Commission has identified a particular research need. Between June 2020 and June 2021, the Commission for Pandemic Research will issue calls on different topics targeting all relevant disciplines. Funding may also be used in conjunction with ongoing projects or to prepare subsequent larger-scale projects. The first call under COVID-19 Focus Funding is launched on 10 August and concerns the topic “Immunity, Host Susceptibility and Pathomechanisms of



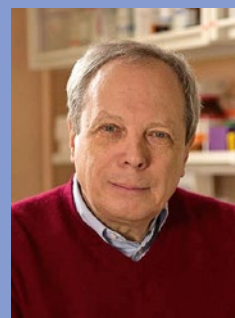
Professor Dr Olga Dontsova

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Professor Dr Aleksandr Makarov

Full Member of the Russian Academy of Sciences

Chairman of the Review Board, RSF

Director of Engelhardt Institute of Molecular Biology (EIMB) RAS



SARS-CoV-2 Infection”. Last week (Dec 7), the funding started for the first 33 projects for one year, with a 3,6 million Euros budget.

Generally speaking, the Commission is to operate on a purely science-driven basis with a long-term focus and represent relevant DFG activities both within and outside the research community. In particular, this includes close cooperation with national and international institutions and partner organisations. For instance, the Commission could initiate those type of research projects that could contribute in a very specific manner to research needs identified by the UN Research Roadmap for the COVID-19 Recovery.

3. International Cooperation: DFG-Calls and further engagement

One way of enabling international research cooperation is contributing to the UN Research Roadmap. Another way is through the Global Research Council, where, in recent months, the DFG has called for the cooperation of the best researchers worldwide. Also, our major cross-disciplinary call in pandemic research specifically encourages international cooperation. Besides, the DFG has initiated a number of bilateral calls, for example, with both of our Russian partner organisations, the Russian Science Foundation, as well as the Russian Foundation for Basic Research, and through these, we again encourage researchers to share their results. There is worldwide pressure on researchers to tackle the pandemic and to obtain new research findings quickly. This pressure increases competition be-

tween nations and societies, which is clearly seen in the struggle of the different nations and even regions to secure future vaccine doses and needed medical equipment. As research managers, it is our responsibility to ensure that pressure on the research system does not result in sub-standard research. Good research needs time. And researchers need the trust of their societies, especially when societal expectations are high.

In fact, trust between researchers from all over the world and their respective research systems is essential to learn from each other. There is no country and no national research system alone, which has all the experts, all the knowledge and all the necessary data to deliver the best possible solutions for ongoing and rising challenges. By contrast, if we want to safeguard the future of our societies, we need the best knowledge available, which will allow us to deliver the most effective solutions. That is why cooperation and trust is crucial to solving the recent pandemic and coming crisis successfully.

Our German-Russian research collaboration is an excellent example of such cooperation, such as this conference and the format of the German-Russian Weeks of the Young Researcher. I am very much looking forward to exchanging perspectives and opinions. May our discussions proves how much we can learn from each other.

Let us build a German-Russian research network that contributes to humankind in the most splendid way.

Thank you very much!

PARTICIPANTS OF THE WEEK OF THE YOUNG RESEARCHER

Lake Baikal and Biological Effects of Global Change

Professor Dr Maksim Timofeev¹, Dr Till Luckenbach²

¹ Institute of Biology, Irkutsk State University, Russia

² Department Bioanalytical Ecotoxicology, Helmholtz Centre for Environmental Research – UFZ, Leipzig, Germany

Our Helmholtz – RSF Joint Research Group “Lake Baikal and biological effects of global change 2” (LaBeglo 2) consists of the partners UFZ, AWI and University of Leipzig on the German side and Irkutsk State University on the Russian side. We are interested in potential effects of global climate change on the fauna of Lake Baikal in Eastern Siberia. Lake Baikal is the deepest and oldest fresh-

water lake in the world. It is a global biodiversity hotspot, which is inhabited by a multitude of endemic species that exist nowhere else. Baikal is a UNESCO world heritage site. We explore amphipods, a prominent, species-rich and very diverse taxon in Baikal. We use state-of-the-art technology to investigate how those species will be affected in a changing world.

Lakes in the vicinity

Common palearctic generalist species



Separate fauna of Lake Baikal

Narrowly adapted endemic species



0-25 meters

50-100 meters

100-1620 meters



The only freshwater deep-water fauna, with adaptation “parallelism” to bathyal marine animals.³



Professor Dr Maksim Timofeev

Institute of Biology,
Irkutsk State University



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Public Transport as Public Space: Prospects of Collaboration in the Humanities and Social Science between Russia and Germany

Dr. Wladimir Sgibnev¹, Dr. Tonio Weicker¹, and Assoc. Prof. Dr. Oksana Zaporozhets²¹ Leibniz-Institute for Regional Geography² Higher School of Economics (Moscow)

Public transport research remains dominated by economic and technocratic readings and remains peripheral in the humanities literature. Yet, public transport embraces intense and intimate sites for encountering cultural diversity, facilitating social integration and negotiating public space. In this project, we aim to humanise transport research by studying diverse narratives, experiences and contestations of public transport. The project places public transport at the frontline of contesting what is, can be, or should be public in the city. Our objective is to understand urban transformations of public space in European cities – leading to increased social diversity and polarisation, liberalisation, privatisation and securitisation – by attending to public transport as particularly intense and contentious set of public spaces. Finally, we hope to contribute to public transport-related research, as well as to intervene in civic mobilising, planning and policy via a humanities-led analysis and conceptualisation of public transport [1].

Case studies are inter alia set in cities like Volgograd (Russia), Rostov on Don (Russia) [2] and Moscow (Russia) as well as in Leipzig (Germany) and Berlin (Germany) [3]. All of these cities are currently facing major transformations in their public transport networks. Financial shortcomings and lack of awareness have been some of the factors leading many post-Soviet / post-Socialist cities to postpone necessary transport reforms and keep relying on relicts of Soviet transport supply

combined with loosely controlled and inconvenient commercial transport services. This situation started changing dramatically a decade ago, when almost city administrations, despite huge varieties in their standards and funding opportunities, were forced to problematise and re-arrange currently applied transport assemblages. This shift could be attributed to a vivid rise of various citizen's activism, increasingly focussing on issues of accessibility, sustainability and future developments [4].

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- [3] Finbom, Marcus, Wojciech Kębłowski, Wladimir Sgibnev, Louise Sträuli, Peter Timko, Tauri Tuvikene and Tonio Weicker. 2020. Covid-19 and Public Transport. Insights from Belgium (Brussels), Estonia (Tallinn), Germany (Berlin, Dresden, Munich) and Sweden (Stockholm).
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Integration of BIM and Digital Shadows for Long-term Optimal Decision Support in Factory Planning, Based on Life-Cycle Assessment

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² Laboratory of Machine Tools and Production Engineering (WZL)

In advanced countries, such as Russia and Germany, manufacturing systems have to deal with the challenge of fast-changing market conditions and rapidly increasing global competition. Fast-reacting adaption of production systems to constantly changing external and internal conditions is required, which results in a high production process and factory planning complexity [1–3].

According to the current studies [1, 2], Digital Factory of the Future (FoF) is a promising concept for the decision to support the planning. FoF is defined as a system of integrated engineering domains such as production infrastructure, production process and the product [1, 2]. In the FoF, the Digital Shadow (DS) technology refers to the production process and the product, while Building Information Modelling (BIM) provides digitalization of the production infrastructure, supporting factory planning processes. However, until now, digital technologies of BIM and DS are hardly even associated in terms of the FoF, caused by the fact that their data is very heterogeneous [4, 5]. Most information about future production processes and the factory life cycle, based on DS data, are not available in the early stages of the factory planning process.

Therefore, the joint proposal aims to enable sustainable, long-term factory planning decisions by intergrating BIM and DS technologies based on the LCA. The fundamental problem of the integration is the interoperability of specific DS with specific BIM models based on a matrix of requirements and constraints. For the operative part of the integration, semantic interoperability between BIM and DS domains has to be examined. As a re-

sult, a coherent method for efficient and direct decision support for holistic life cycle optimization of factories, based on BIM, DS and LCA will be designed and validated employing software and a start-up factory use case.

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Department
of Landscape Architecture,
Weihenstephan-Triesdorf
University of Applied Science

Creating Public Space – Modern Approaches of Participation and Visualization

Dr Svetlana Tereschenko¹ and Professor Dr-Ing. Silke Rossipal-Seifert²

¹ Institute for Management and Economics of Forest Sector,
St. Petersburg State Forest Technical University

² Department of Landscape Architecture, Weihenstephan-Triesdorf University of Applied Science

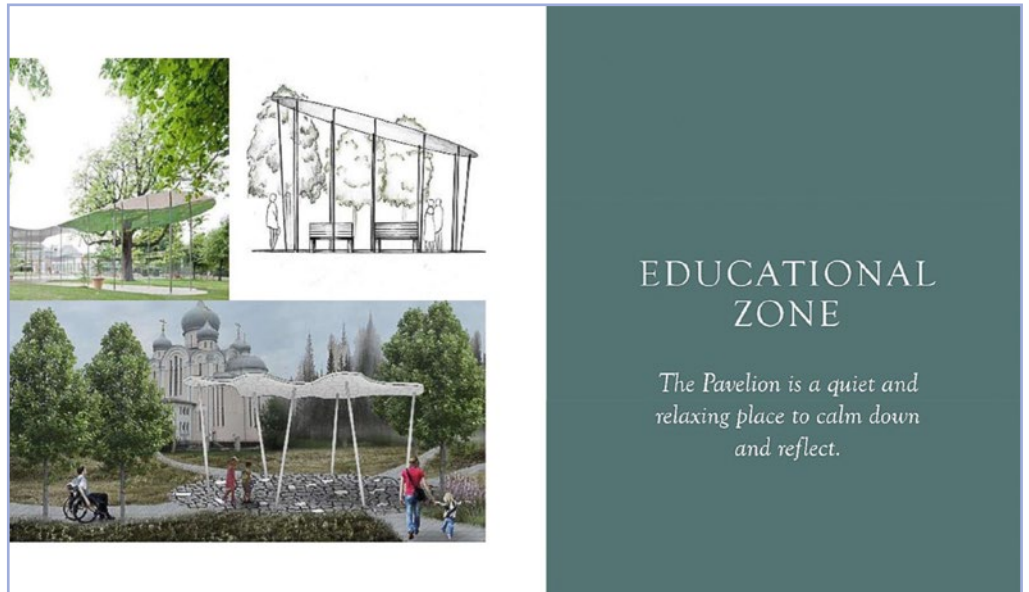
Our aim is to create a place of encounter. A place where old and young, disabled or not, can meet and spend time together. We achieve this goal through barrier-free paths and places where everyone can feel comfortable. We want to offer possibilities where residents, patients and visitors can meet, relax, recover, and play together.

Consideration of Aspects:

- therapeutic use of open space
- surfaces for re-learning to walk
- ergotherapy using plants etc.

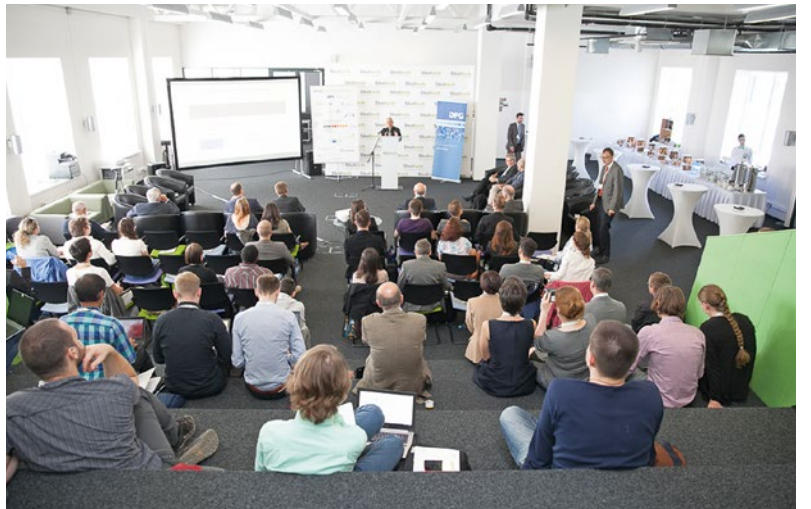
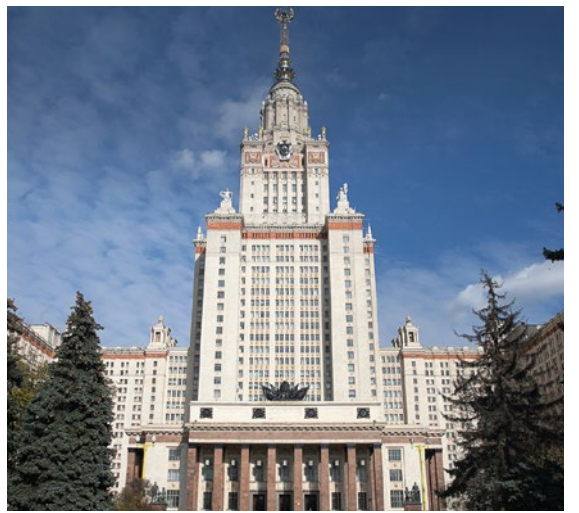
This project as a part of the internationalization strategy (mobility of students and teachers, practice in the international environment, scientific approach):

- helps to establish contacts between young people – basis for the future cooperation between people
- raises the interest of students to exchange different approaches in professional activities and motivates to study
- makes the study in the University more attractive for new students and the University becomes more competitive



EDUCATIONAL ZONE

*The Pavilion is a quiet and
relaxing place to calm down
and reflect.*



SCIENCE ORGANISATIONS



Dr Andreas Hoeschen
Head of the Moscow Office
of the DAAD, Director
of the DWIH-Moscow

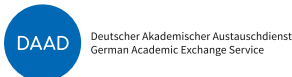
GERMAN ACADEMIC EXCHANGE SERVICE (DAAD)

The German Academic Exchange Service (DAAD) is a registered association of German institutions of higher education and student bodies. The DAAD funds the international exchange of students and researchers, supports the internationalisation of German universities, and promotes German studies and the German language abroad. Its budget is derived mainly from the German federal government's funding for various German ministries.

Established in 1993 the Moscow office of the German Academic Exchange Service (DAAD) acts as the first point of contact for inquiries regarding

DAAD programmes for students and researchers, providing information about German universities and further funding opportunities. Its website www.daad.ru will help you to find information about:

- Germany as a study and research destination
- DAAD funding for applicants from Russia
- Learning German and German Studies in Russia
- Other DAAD activities and network opportunities in Russia that support exchange and foster cooperation between Russian and German academia.



Mikhail Rusakov
Program Manager
of the DWIH-Moscow

GERMAN CENTRE FOR RESEARCH AND INNOVATION (DWIH)

The German Centres for Research and Innovation (DWIH) are a network of German research organisations, universities and research-based companies.

In five cities around the world, the DWIH provide a joint platform for German innovation leaders, showcase the capabilities of German research and connect German researchers with local co-operation partners.

The core mission of the German Centre for Research and Innovation (DWIH) in Moscow is to represent German science, research and innovation in Russia. It provides information about the German research and innovation landscape and helps connect German and Russian researchers and decision makers in science and innovation.

Through its activities the DWIH Moscow aims to foster deeper science and technology collaboration between Germany and Russia.

The activities of the DWIH Moscow are supported by German organisations with a leading role in

science and innovation which are represented in Russia such as the German Academic Exchange Service, the German Research Foundation, the Helmholtz Association, the Contact Office of the Ministry of Culture and Science of North Rhine-Westphalia, the Freie Universität Berlin, the German Historical Institute, the University Alliance Ruhr, Thuringia International, the Representation of the State of Lower Saxony in Moscow, the Alexander von Humboldt Foundation and the German Russian Chamber of Commerce.

The RWTH Aachen University, the Leibniz Association and BAYHOST are associate supporters of the DWIH Moscow network.

Since 1st January 2017, the German Academic Exchange Service (DAAD) is responsible for the management of the German Centres for Research and Innovation (DWIH). At local level, the individual DWIH design their activities in cooperation with their supporters in a local Advisory Board.



GERMAN RESEARCH FOUNDATION (DFG)

In 2020 the Deutsche Forschungsgemeinschaft (German Research Foundation) celebrated the 100th anniversary of the founding of its predecessor organisation. Since that time, the DFG has become one of the biggest funding agencies in Europe for the development of fundamental research with an annual budget of 3.5 billion Euro. Its membership consists of German research universities, non-university research institutions, scientific associations and the Academies of Science and the Humanities. The DFG has expanded its presence in other research regions around the world with its 7 liaison offices. The office Russia/CIS was opened in Moscow in 2003. Framework agreements on the co-funding of research projects and researcher mobility exist with the Russian Foundation for Basic Research (RFBR) and the Russian Science Foundation (RSF).

How does the DFG promote young researchers?

Creative and intelligent minds are the key to successful science and research. That is why the DFG places a special focus on promoting young researchers. We are committed to helping young talents pursue cutting-edge investigations in top-level settings and help them to become independent early on in their careers.

Flexible individual funding and customised excellence programmes give young researchers the opportunity to advance in their careers and undertake projects from all branches of science and humanities. The DFG accepts funding proposals from researchers with a doctoral degree (PhD) who live and work in Germany or plan to do so in the future. PhD students are not supported individually but can be, indirectly through the funding of programmes and projects.

Project-based doctoral and postdoctoral qualifications. For doctoral researchers, who like working in a team and value a well-designed framework, a **Research Training Group (RTG)** may be the right choice. It combines an ambitious research programme with target-oriented supervision and academic freedom to form an ideal environment for a successful doctorate. Post-docs help design the research and qualification programmes of an existing RTG and explore new research topics for your future career.

After completing the doctorate, there is the possibility to take responsibility as an **investigator in an existent DFG-funded project**. This will give young researchers the opportunity to advance their qualifications and improve their career prospects by gaining experience and by building new networks.

The **Temporary Position** is a funding mechanism that provides young researchers with funding for a temporary postdoctoral position in conjunction with a proposal for a research grant. Researchers may select the scientific setting in Germany that they think will provide the best conditions for their project.

Excellence programmes. The **Walther Benjamin Programme** enables researchers in the postdoctoral training phase to independently conduct their own research project at a location of their choice. The project can be carried out at a research institution in Germany or abroad, with the host institution supporting the project. By securing funding for their own research project, particularly qualified postdoctoral researchers, pave the way for the next stages of their increasingly independent research career and exercise autonomy. The programme thus promotes early research careers with the aim of fostering the mobility and thematic development that are crucial in this career phase; therefore, the programme generally requires that the applicant change his or her research institution.

The **Emmy Noether Programme** is aimed at outstanding scientists and academics with at least two and no more than four years of postdoctoral research experience (or up to six years for licensed medical doctors). It allows young researchers to head their own independent junior research group that will work on a project for five or, in exceptional cases, six years. It offers a fast-track opportunity to qualify for a leading position in research.

For young researchers, who have all the qualifications for a professorship, the Heisenberg Programme may be the right option. This programme provides them with funding for up to five years so they can distinguish themselves further academically. There are two variations of the programme: the portable Heisenberg fellowship, which also allows one to go abroad for some time; and the Heisenberg professorship, which offers the prospect of acquiring a tenured position at a German university, provided the candidate receives a positive review.



Dr Jörn Achterberg

German Research Foundation (DFG)
Head of DFG Office Russia/CIS

DFG Deutsche
Forschungsgemeinschaft
German Research Foundation



Dr Elena Eremenko
Head of Helmholtz Moscow Office

HELMHOLTZ
SPITZENFORSCHUNG FÜR
GROSSE HERAUSFORDERUNGEN

THE HELMHOLTZ ASSOCIATION

The Helmholtz Association was created in 1995 to formalize existing relationships between several globally renowned independent research centres. The Helmholtz Association distributes core funding from the German Federal Ministry of Education and Research (BMBF) to 18 autonomous research centres and evaluates their effectiveness against the highest international standards. The Association's work follows the tradition of its namesake, the natural scientist Hermann von Helmholtz (1821–1894).

The Helmholtz Association pursues the long-term research goals of the state and society, including basic research, in scientific autonomy. To do this, the Helmholtz Association conducts top-level research to identify and explore the major challenges facing society, science and the economy. Helmholtz Association scientists focus on researching the highly complex systems, which determine human life and the environment.

The Helmholtz Association brings together 18 scientific-technical and biological-medical research centres, high-performance infrastructure and modern research management. With more than 43,000 employees and an annual budget of over € 5,0 billion, the Helmholtz Association is Germany's largest scientific organization. Its work is divided into six research fields: Energy, Earth & Environment, Health, Aeronautics, Space and Transport, Matter, and Information

Within the six research fields, Helmholtz scientists cooperate with each other and with external partners – working across disciplines, organizations and national borders. The Helmholtz Association uses this research to create an effective basis for shaping the future. In some cases, an excellent re-

search infrastructure with unique major scientific facilities and instruments, clearly demonstrates the strength, which has made the Helmholtz Association a much sought-after research partner. Each year, several thousand visiting scientists worldwide use the research opportunities that the Helmholtz Centers offer. The Association acts as a core focal point for a worldwide research project – whether in the observation and study of the global climate or basic physics research. The Helmholtz Association aims to be an active and driving force in establishing the research area worldwide. This is why Helmholtz opened branch offices in Brussels, Moscow and Beijing. In the autumn of 2018, the Helmholtz Association is scheduled to open an office in Tel Aviv/Israel.

The Helmholtz Association chose Russia to be one of its key strategic partners to face future challenges through scientific cooperation, together and with mutual forces. Partners in Germany looking for specific information about Russia and Russian seeking contacts in Germany have an excellent starting point in identifying the right people for their special interests. The transfer of new technologies and the exchange of promising young research talent offer great potential for the future development of both Germany and Russia. The Moscow Office represents the interests of the Helmholtz Association as a whole in Russia. It serves both Helmholtz scientists and Russian researchers interested in cooperation. Its main tasks are to provide help for scientific partners to establish contacts, promote joint projects, and foster the exchange of scientists, with the ultimate goal of helping initiate and establish new strategic networks of scientific excellence between Russia and Germany.

FREIE UNIVERSITÄT BERLIN

The tenth annual Week of the Young Researcher stands in a long line of conferences dedicated to bringing together young academics from Russia and Germany. Fostering careers in science by developing professional networks is one of the key elements of Freie Universität Berlin's career path model. Young researchers' career development was a cornerstone of the "International Network University" concept, which gained recognition through the German Excellence Initiative in 2007 and 2012 and continues to be a strong aspect of the objective "Promoting Talent" within the Berlin University Alliance, which was the only successful consortium of universities in the German Excellence Strategy in 2019. Therefore, it is no surprise that Freie Universität Berlin has been present at this event every year and has actively contributed to it with about half a dozen keynote speakers and more than a dozen doctoral students and young scientists. Interdisciplinary topics such as "Men and Energy," "Global History," "Discrete Geometry," and "Computational Biology and Biomedicine" are core research fields of Freie Universität, and the Moscow liaison office has actively supported the conference from the very outset.

Usually, the three main formats of the Week – opening session, keynote lectures by experienced German and Russian scientists, and young researchers giving a short presentation or participating in poster sessions – are open to all interested specialists and even students of the hosting institution. Early career researchers are actively involved in the conference to get an impression of how conferences conducted entirely in English feel. Especially in light of the rising demand to integrate oneself internationally into the scientific community, the Weeks of the Young Researcher

offer them a great chance to gain their first experiences in this sphere. Many opportunities are available for socializing and networking during the lectures, scientific sessions, excursions, evening receptions, and coffee breaks.

This year's conference was held online in a smaller format (just one day, instead of a week) due to the limitations caused by the Covid-19 pandemic. Despite the lack of informal discussions during coffee breaks and tours at a hosting institution, its organization highlights the importance of German-Russian cooperation in these difficult times. Furthermore, it speaks to the strong will of the organizers; and with the support of the Russian Foundation for Basic Research (RFBR), the Russian Science Foundation (RSF), as well as the Embassy of the Federal Republic of Germany in Moscow, the event continues to offer opportunities to young talents.

The role of Freie Universität Berlin's liaison offices in five countries around the globe is not only to attract highly talented young researchers to the exciting scientific environment in Berlin. It also supports scientists in Berlin who are interested in international experiences to learn more about the respective regions, motivate them to pursue a research stay abroad, and connect with (young) colleagues, e.g., in Russia. Conferences, like the 2020 Week on "Collaborating across Borders during the Pandemic," are ideal for fostering networks between the next generations of scientists at the edge of basic and applied research. Although planning scientific careers is still a major challenge, Freie Universität Berlin offers excellent opportunities for career advancement, including structured doctorate programs with its professional development program and postdoctoral fellowships offered within the Dahlem Research School.



Tobias Stüdemann

Liaison Office of Freie Universität
Berlin in Moscow





Elena Resch

Director of the Liaison Office
Moscow, University Alliance Ruhr



THE UNIVERSITY ALLIANCE RUHR/ LIAISON OFFICE MOSCOW

The Ruhr Area is not only Germany's largest academic hub but also an epicentre of innovation that fosters close interaction between academia and the private sector – and our alliance provides students and researchers from around the world with an open gateway to our region.

More than 120,000 students, of which 19,000 are international, and over 14,000 researchers study and work within the UA Ruhr universities (Ruhr University Bochum, TU Dortmund University and University of Duisburg-Essen). Together, the three universities have 800 partnerships with universities in over 130 countries and a combined annual budget of close to 1.4 billion euros – which provides our students and researchers with virtually unlimited possibilities for exchange and resources for development.

Research at UA Ruhr is developing at a rapid pace. By bundling the complementary strengths of our partner universities, we successfully open up innovative research fields. With joined forces, we form critical masses in terms of personnel and infrastructure that are indispensable for handling large research topics.

Outstanding examples of that standard-setting collaboration include the Flagship Programs “Materials Chain” and “Ruhr Explores Solvation” (RESOLV), set up in 2015, where numerous researchers from the UA Ruhr universities work hand in hand, often in cooperation with other third-party and international partners. The research cluster RESOLV is financed by the DFG Excellence Initiative.

Moreover, 100 additional joint research institutions and projects have been established span-

ning all disciplines, from American studies to cell biology.

One of our strengths is nurturing young talent. Research Academy Ruhr is one of Germany's largest and most powerful platforms to support young researchers and prepare them for careers inside and outside academia. Research Academy Ruhr is sponsored and supported by the three Ruhr universities and is instrumental for the development of University Alliance Ruhr (UA Ruhr) as an academic location.

To support our already strong global network of international exchange and collaboration, the University Alliance established liaison offices. The Liaison Office Moscow is in charge of the cooperation with Russia, Eastern Europe and Central Asia regions, and the Liaison Offices New York is responsible for the Northern America region.

As the Liaison Office Moscow, we represent the three universities of the alliance in Russia as well as Eastern Europe and Central Asia (EECA). Our mission is to facilitate and foster the international academic exchange and collaboration between East and West, and raise the local profile and visibility of Germany's thriving Ruhr Region as an epicentre for research, science, and innovation. The Liaison Office Moscow is the first immediate partner for researchers, students, and alumni of the UA Ruhr) interested in Russia and the Eastern Europe and Central Asia regions (EECA). We help those seeking to initiate cooperation and support ongoing projects. We are also the first point of contact for students and researchers coming from Russia and EECA countries who are interested in the many and diverse opportunities offered by the UA Ruhr.

CONTACT OFFICE OF THE MINISTRY OF CULTURE AND SCIENCE OF THE FEDERAL STATE OF NORTH RHINE-WESTPHALIA

Ministry of Culture and Science of the Federal State of North Rhine-Westphalia has been operating a contact office in Moscow on interuniversity and research cooperation since 2005.

North Rhine-Westphalia (capital city Duesseldorf) is the leading German State in economy and in the field of science and research where innovative ideas become a reality. The densest scientific region in Europe with 68 universities and more than 50 non-university research institutions offers the best conditions to find answers to the major social challenges and to open up the markets of tomorrow. For North Rhine-Westphalia, these are primarily the markets for new materials, mechanical and plant engineering and production technology, health, information and communications, mobility and logistics, energy and environmental economics, life sciences and the media and creative industries. They have a particularly high potential for the economy and employment and thus have a high priority for the state's economic development. These topics are also reflected in the content orientation of universities. The close cooperation between an innovative, industrial economy and outstanding research enables a quick transfer of ideas into practice.

The Russian Federation is one of the key countries for North Rhine-Westphalia in the field of international scientific cooperation.

The contact office in Moscow conducts together with its German partner – centre of innovation and technique ZENIT GmbH the project “Cooperation axis North Rhine-Westphalia – the Russian Federation”. The requests from relevant universities and research organizations from both sides in the field of science and development of cooperation are being processed and supported in the establishment of bilateral contacts in the Russian Federation and the state of North Rhine-Westphalia.

The tasks of the contact office of the Ministry of Culture and Science of the Federal State of North Rhine-Westphalia in Moscow are:

- The first contact person for universities and research institutes from Russia and North Rhine-Westphalia;
- Marketing and publicity to promote the state of North Rhine-Westphalia as a centre for innovation and research;
- Representation of North Rhine-Westphalia at conferences, exhibitions, seminars, specialized forums and negotiations;
- Bilateral support in establishing contacts with universities and research institutes;
- Accompanying delegations from North Rhine-Westphalia and Russia in cooperation with ZENIT GmbH;
- Providing information on support programs and initial support for joint projects.

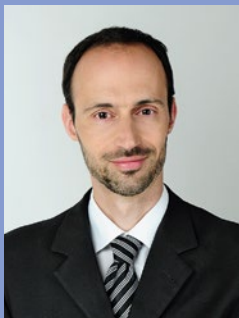


Ekaterina Karpushenkova

Contact office
of the Ministry of Culture
and Science of the Federal State
of North Rhine-Westphalia

Ministry of Culture and Science
of the German State
of North Rhine-Westphalia





Nikolas Djukić

Executive Director, Bavarian Academic Center for Central, Eastern and Southeastern Europe (BAYHOST)



BAYHOST (BAVARIAN ACADEMIC CENTER FOR CENTRAL, EASTERN AND SOUTHEASTERN EUROPE)

BAYHOST is the Bavarian Academic Center for Central, Eastern and Southeastern Europe. We promote academic exchange between Bavaria and countries in Central, Eastern and Southeastern Europe, including Russia. BAYHOST supports Bavarian universities and universities of applied science through its specific competencies, by supporting their collaboration with academic organizations in our partner countries and establishing new partnerships.

1. Mission

Initiating Academic Partnerships. BAYHOST works with Bavarian universities and universities of applied science to recruit highly qualified academics from Eastern Europe and Russia for exchange programs. Additionally, BAYHOST initiates and supports cooperation for students, guest lecturers and researchers.

Building and Maintaining a Network. BAYHOST consists of a network of scientists and researchers from many different academic institutions throughout Bavaria and our partner countries. Through this network, we provide opportunities for academic exchange and cooperation.

Promoting Student Mobility. BAYHOST promotes student mobility for incoming and outgoing students between Bavarian universities and universities of applied science and universities in Central, Eastern and Southeastern Europe.

Acquisition of Specialists. BAYHOST offers recruitment opportunities for academic and business organizations.

Providing Intercultural Expertise. BAYHOST is the Bavarian starting point for intercultural expertise about our partner countries.

2. Services

Overview of Partnerships in Research and Education. BAYHOST supplies information over

projects, collaborations and expertise from Bavarian universities and universities of applied science with our partner countries. Furthermore, BAYHOST can suggest experienced contacts with experiences in the region from Bavarian research and educational institutions.

Exchange Forum. BAYHOST uses its database to contact potential cooperation partners in our partner countries. If necessary BAYHOST can impart information about specific contacts at the universities and research institutions in our partner countries.

Supporting Students and Graduates from our Partners Countries. Due to its low threshold funding programs, BAYHOST creates a basis for establishing contacts with suitable young professionals and networking. BAYHOST promotes academic exchange between Bavaria and our partner countries by supporting graduates who decide to further their education in Bavaria.

Besides, BAYHOST connects qualified graduates to universities and universities of applied science for Master's and Doctoral Programs.

Supporting Students from Bavaria. BAYHOST promotes cultural competence about Central and Eastern Europe among Bavarian students. This process also stimulates interest in our partner countries through scholarships and grants for summer courses, study or research opportunities, internships and international conferences.

Academic Advisement for Scholarships and Grants. BAYHOST oversees the scholarship and grant program of the Free State of Bavaria and our partner countries in Central and Eastern Europe and provides mobility grants for students and young researchers. Our connections extend beyond our own programs to provide information about other organizations that offer exchange programs.

THE RHEINISCH-WESTFÄLISCHE TECHNISCHE HOCHSCHULE AACHEN (RWTH AACHEN UNIVERSITY)

The Rheinisch-Westfälische Technische Hochschule Aachen looks back on a tradition of 150 years of excellence in teaching, learning and research. RWTH Aachen University was founded in the heydays of German industrialization and ever since has been educating the most innovative and entrepreneurial minds of Europe. Building on its interdisciplinary scientific culture, RWTH Aachen University is committed to helping to solve the grand challenges of our time. The University continues to undertake groundbreaking research, especially in those fields in which the answers on current scientific issues of our time are to be found.

Today, RWTH Aachen University is home to 47,000 students hailing from more than 130 countries. The University has nine departments (in German “Fakultäten”) which are subdivided in more than 260 institutes with a strong focus on engineering, natural and life sciences. There are 7 Regional and Transregional Collaborative Research Centers, 15 participations in Collaborative Research Areas and 34 Research Training Programs (including 10 Research Training Groups financed by the Deutsche Forschungsgemeinschaft).

The distinction of RWTH Aachen University is proved by the fact that the University was successful in all three editions of the German excellence initiative in which an official jury chooses the eleven best German universities. The internation-

al reputation can be gauged from the top positions RWTH Aachen University scores in all international rankings.

Currently, RWTH Aachen University is building one of the most modern science and research campuses of the world, making the University an attractive choice for students, teachers and researchers alike. On more than 800,000 square meters 16 interdisciplinary research clusters will work together with 360 companies which are already invested in the newly created “innovation factory”.

Several factors have contributed to the worldwide acclaim of RWTH Aachen University, but most importantly, the University offers a unique academic education that has produced and continues to produce countless top scientists and engineers, who with their ingenuity have profoundly influenced the development of modern technologies. By implementing a wide range of digital teaching and learning concepts, RWTH Aachen University opens up new dimensions in university teaching.

Early in its internationalization efforts, RWTH Aachen University has assigned the CIS nations a special status in its internationalization strategy. A special representative of the Rectorate for the cooperation with universities from CIS was established. Currently, Professor Andrij Pich holds this position and works intensively towards broadening and deepening the partnerships of RWTH Aachen University with universities from Russia and other Eastern European countries.



Professor Dr Andrij Pich

Institute for Technical
and Macromolecular Chemistry,
RWTH Aachen University

RWTHAACHEN
UNIVERSITY



Dr Caroline A. Lodemann
Head of President's Office /
Communication,
Leibniz Association



LEIBNIZ ASSOCIATION

The Leibniz Association connects 96 independent research institutions that focus on natural, engineering and environmental sciences to economics, spatial and social sciences and the humanities. Leibniz Institutes address issues of social, economic and ecological relevance. They conduct basic and applied research, included in the interdisciplinary Leibniz Research Alliances, maintain scientific infrastructure, and provide research-based services. The Leibniz Association identifies focus areas for knowledge transfer, particularly with the Leibniz research museums. It offers advice and valuable information for policymakers, science, industry and the general public.

Leibniz institutions collaborate intensively with universities – including in the form of Leibniz ScienceCampi – as well as with industry and other partners at home and abroad. They are subject to a transparent, independent evaluation procedure. Because of their importance for the country as a whole, the Leibniz Association Institutes are funded jointly by Germany's central and regional governments. The Leibniz Institutes employ around 20,000 people, including 10,000 researchers. The financial volume amount is up to 1.9 billion euros.

The extraordinarily wide range of research topics and disciplinary approaches within the Leibniz Association forms the basis for tackling globally relevant questions and challenges. Leibniz Institutes collaborate internationally with partners in over 170 countries. A quarter of the scientists

employed at Leibniz institutions come from outside Germany. By supporting subject-based and regional formats for collaborative ventures involving Leibniz Institutes, the Leibniz Association promotes the research-led expansion of its international partnerships.

Leibniz workshops involving international partners help Leibniz institutions explore new options for international collaboration. **Leibniz Junior Research Groups** give talented international post-doctoral researchers the chance to develop their own research groups at Leibniz Institutes. Distinguished international researchers can be appointed to a **Leibniz Chair**, following a request from a Leibniz Institute. **The Leibniz Programme for Women Professors** aims to recruit talented women in all disciplines who have an outstanding international track record.

More than a third of the 96 Leibniz Institutes cooperate with Russian partner institutions. On the part of the Leibniz Association, the collaborations span all fields and thus include humanities and educational research, economic and social sciences, spatial research, the life sciences, mathematics, natural sciences and engineering, as well as environmental sciences, climate impact research and agricultural research. Leibniz institutions also offer research infrastructures and consulting services that are in demand by Russian partners. On the Russian side, the collaborations involve partners from the University and non-university research as well as companies.

RUSSIAN SCIENCE FOUNDATION (RSF)

With an annual budget of about US\$ 310 million (the fiscal year 2020), RSF is the excellence-driven premier research funder in Russia providing sufficient financial support for the cutting-edge research projects in all branches of frontier science, including humanities. Scientists and scholars of any nationality and in any discipline can apply to the RSF for a research grant at the frontiers of knowledge.

In 2019, more than 4,700 projects were funded, engaging 33,200 researchers, including 23,900 young scientists, from 579 host organizations nationwide. Some 12,000 articles acknowledging RSF support were published in highly reputable international journals in 2019. At least half of each research team funded by the RSF are the young scientists aged under 39, which contributes to the training of a new generation of excellent researchers in Russia.

The best scientists are funded to perform their research in Russia through peer-reviewed competitions of the most promising research projects. The recipients of the RSF grants enjoy a stable long-term prospect for their research with all necessary financial support provided for their significant research contribution to the world science and the Russian economy and society.

The review process consists of the several stages, where each proposal is evaluated by 2 to 5 external reviewers from Russia and abroad exclusively according to scientific merit; based on these review reports, the members of an expert panel conduct an evaluation, and the final decision is made by an interdisciplinary expert council consisting of a leading scientists that are regularly rotated by the research community based on the online voting process.

The rigorous review process involves an AI-based toolkit that helps find appropriate reviewers from the internally developed database of 6,000 highly qualified external reviewers, including over 1,600 honorary contributors from around the globe representing 55 countries.

The RSF launched an ambitious Presidential funding programme to support early-career researchers in 2017. This programme resulted during 2017-2020 in awards for 1814 young scientists under the age of 33 (20,000–30,000 euros annually 2 years with a special relocation bonus) and for 1112 youth research groups (40,000–80,000 euros annually for 3–5 years). These youth programmes became regular funding source provided by the RSF yearly.

The RSF actively encourages international research cooperation. The Foundation participates in a number of bilateral funding schemes that assist the outstanding Russian researchers to participate in collaborative research projects with their top international peers based on the excellence, parity funding, credible independent peer-review and mutual trust.

The RSF secured a diversified portfolio of bilateral collaborations with funders from Germany (DFG, Helmholtz Association), France (ANR), Belgium (FWO), Austria (FWF), China (NSFC), Japan (MAFF), India (DST) and Taiwan (MOST). In 2020, the RSF provided funding for 122 international collaborative projects in the total amount of US\$ 10,3 million.

Since 2016, 72 joint projects have received support under the RSF-DFG funding program.



Dr Alexander Khulunov
General Director of the RSF





Professor Dr Vladislav Panchenko

Full Member of the
Russian Academy of Science

Chairman of the Board,
Russian Foundation
for Basic Research (RFBR)



RUSSIAN FOUNDATION FOR BASIC RESEARCH (RFBR)

The Russian Foundation for Basic Research was established in 1992 by the Decree of the President of the Russian Federation. At that time, the grant support of fundamental research on a competitive basis did not exist in the Russian Federation; that was why creating such a system became the primary goal during the first years of the Foundation activities.

The RFBR developed the methodology of contests, the technology of application submission and fine-tuned the expert evaluation. The Foundation created 20 expert councils covering all areas of scientific research.

During the 27 years of the Foundation's existence, the established RFBR grant system supported 170 thousand scientific projects or more than 300 thousand Russian scientists.

Interaction of the RFBR with the Russian Federation's scientific community takes place with the help of a specially developed and unique Integrated Information and Analytical System (IIAS), where, at the moment, more than 150 thousand scientists of the country are registered and with which they systematically interact.

Following the grant support system refinement, a new stage in the RFBR life was the support of basic research in the most important, breakthrough areas of scientific search. The Foundation primarily follows the provisions of the Strategy for Scientific and Technological Development of the Russian Federation and the National Project "Science". Contests for interdisciplinary basic research, advanced digital technologies, ecology and resource-saving energy, high-yield agriculture, development of nature-like technologies, personalized medicine, Arctic development, projects for Megasciences-class facilities, etc., are actively developing.

One of the ultimate aims of the Strategy for Scientific and Technological Development of the Russian Federation is to create a model of international cooperation and integration. For these

purposes, the RFBR concluded direct cooperation agreements with almost sixty scientific foundations and science support organizations from 41 countries.

A real breakthrough in international cooperation was the Foundation's meeting of the Global Research Council (GRC) held in Moscow in May 2018. The VII meeting of the GRC was attended by 128 officials from 67 scientific foundations and science support organizations, more than 160 participants from 61 countries of the world in total. RAS Academician V.Y. Panchenko, Chairman of the RFBR Board, headed the GRC for one year until the next meeting.

Regional competitions occupy a significant place in the volume of the Foundation's grant work. The RFBR has signed agreements with more than sixty regions of the Russian Federation on the basis of parity support for local scientists' fundamental research.

The Russian Foundation for Basic Research is a leader in targeted support of talented youth. It has developed a systematic model of work based on a line of competitions when a young person receives support literally from high school and further enhances the choice of his / her life path connected with science. Such contests include My First Grant, Stability, Mobility, Postgraduates, Perspective, and Mentor.

Every year the RFBR supports:

- Research of more than 70 thousand scientists.
- Organization of more than 300 scientific events (conferences, symposiums, round tables, etc.).
- Research of more than 10 thousand young scientists.
- Publication of more than 250 books and monographs.
- Joint researches with 57 science foundations and science funding organizations from 41 countries.
- Electronic subscription to more than 4.5 thousand scientific journals.

LIST OF PARTICIPANTS

	NAME	INSTITUTION
1	Achterberg, Jörn, Dr	Director of the DFG Office Russia, German Research Foundation (DFG)
2	Becker, Katja, Professor Dr	President of the German Research Foundation (DFG)
3	Bolshakov, Nikolay	Laboratory for Modeling of Technological Processes and Design of Power Equipment, Peter the Great St. Petersburg Polytechnic University (SPbPU)
4	Dontsova, Olga A., Professor Dr	Full Member of the Russian Academy of Science, Member of the Board, Russian Foundation for Basic Research (RFBR); Lomonosov Moscow State University; Skolkovo Institute of Science and Technology
5	Grzeski, Beate	Deputy Head of Mission, Embassy of the Federal Republic of Germany in Moscow
6	Hoeschen, Andreas, Dr	Head of the Moscow Office of the DAAD, Director of the DWIH-Moscow
7	Khlunov, Aleksandr V., Dr	Director General, Russian Science Foundation (RSF)
8	Luckenbach, Till, Dr	Helmholtz-Centre for Environmental Research (UFZ), Leipzig
9	Makarov, Aleksandr A., Professor Dr	Full Member of the Russian Academy of Sciences, Chairman of the Review Board, RSF; Director of Engelhardt Institute of Molecular Biology (EIMB) RAS
10	Mukherjee, Joybrato	Professor Dr. President of the German Academic Exchange Service (DAAD)
11	Müller, Aleksandra	Chair of Machine Tools, Automation and Control Department, RWTH Aachen
12	Panchenko, Vladislav Ya., Professor Dr	Full Member of the Russian Academy of Science, Chairman of the Board, Russian Foundation for Basic Research (RFBR)
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15	Sgibnev, Wladimir, Dr	Leibniz Institute for Regional Geography, Leipzig
16	Tereschenko, Svetlana, Associate Professor, Dr	Institute for Management and Economics of Forest Sector, St. Petersburg State, Forest Technical University
17	Timofeev, Maksim, Professor Dr	Institute of Biology, Irkutsk State University
18	Weicker, Tonio, Dr	Leibniz Institute for Regional Geography, Leipzig

PROGRAMME

14 December 2020

Format: Online Video Event, Webex

Language: English (without translation)

Moderation: Dr **Jörn Achterberg**, Director of the DFG Office Russia
Dr **Andreas Hoeschen**, Head of the Moscow Office of the DAAD, Director of the DWIH-Moscow
Mikhail Rusakov, Programme Coordinator of the DWIH-Moscow

10:00–11:30 (CET) / **SESSION I: CHALLENGES FOR SCIENCE AND PROSPECTS OF JOINT RESEARCH FOR GERMANY AND RUSSIA**
12:00–13:30 (MSK)

Words of Welcome and Formal Addresses by German and Russian Representatives

Professor Dr **Katja Becker**, President German Research Foundation (DFG)
Professor Dr **Joybrato Mukherjee**, President, German Academic Exchange Service (DAAD) (video statement)
Beate Grzeski, Deputy Head of Mission, Embassy of the Federal Republic of Germany in Moscow
Academician Professor Dr **Vladislav Panchenko**, Chairman of the Board, Russian Foundation for Basic Research (RFBR)
Dr **Aleksandr Khulunov**, Director General, Russian Science Foundation (RSF)

Key Notes

Professor Dr **Katja Becker**, President of DFG
“How to prepare research for societal challenges – the case of Covid-19 and the response of the DFG”
Academician **Olga A. Dontsova**, Member of the Board, RFBR
Moscow State University; Skolkovo Institute of Science and Technology
“RFBR and COVID-19 challenges”
Academician **Aleksandr A. Makarov**, Chairman of the Review Board, RSF
Director of Engelhardt Inst. of Molecular Biology, Russian Academy of Sciences
“Impact of COVID-19 on research in Russia and RSF”

Discussion

Open discussion with all participants
Analysis of current situation: framework conditions and topics
Foresight: COVID-19 impact on science and research

13:00–15:00 (CET) / **SESSION II: GERMAN-RUSSIAN RESEARCH COLLABORATION DURING THE PANDEMIC**
15:00–17:00 (MSK) **Presentation of the German Centre for Research and Innovation (DWIH-Moscow)**
Introduction to Discussion

**Presentations of German-Russian Research Projects
from Supporting Organisations of the DWIH-Moscow and Research Partners**

Dr **Till Luckenbach**, Department of Bioanalytical Ecotoxicology,
Helmholtz-Centre for Environmental Research (UFZ), Leipzig
Prof. Dr **Maxim Timofeyev**, Institute of Biology, Irkutsk State University
"Lake Baikal and Biological Effects of Global Change"

Dr **Tonio Weicker**, Leibniz Institute for Regional Geography, Leipzig
Dr **Wladimir Sgibnev**, Leibniz Inst. for Regional Geography, Leipzig
Associate Professor Dr **Oksana Zaporozhets**,
Faculty of Urban and Regional Development, HSE University, Moscow
"Public Transport as Public Space – Prospects of Collaboration
in the Humanities and Social Science between Russia and Germany"

Aleksandra Müller, M. Sc., Chair of Machine Tools,
Department of Automation and Control, RWTH Aachen University
Nikolay Bolshakov, M. Sc., Laboratory for Modelling of Technological Processes
and Design of Power Equipment, Peter the Great Saint Petersburg Polytechnic University (SPbPU)
"Integration of BIM and Digital Shadow for Long-term Optimal Decision Support in Factory Planning"

Prof. Dr-Ing. **Silke Rossipal-Seifert**, Department of Landscape Architecture,
Weißenstephan-Triesdorf University of Applied Science
Associate Professor Dr **Svetlana Tereschenko**, Head of the Directorate of International Cooperation,
St. Petersburg State Forest Technical University
"Creating Public Space – Modern Approaches of Participation and Visualization"

**Discussion about the Impact of the Pandemic on German-Russian Collaboration
in Science and Research**

How has international research changed, or how will it change because of the pandemic?
What are the challenges for junior researchers during the pandemic?

ARCHIVE OF PUBLICATIONS



MAN AND ENERGY
September 19–24, 2011
Federal University of Kazan,
Kazan

In 2011, an interdisciplinary and forward-looking theme was chosen for the conference, incorporating both a global perspective and key current issues in bilateral cooperation between Germany and Russia: energy management, efficiency technologies, energy storage, energy security, renewable energies, risk assessment, climate impacts and political, economic and social consequences. The host city Kazan is one of the most important research locations in the Russian Federation: it is home to the country's third oldest university, where schools of mathematics, chemistry, biology, medicine and linguistics were established in the 19th century and acquired a worldwide reputation. Today there are over 100 universities and research institutes in Tatarstan, with 210,000 students.



HEALTH AND SOCIETY
September 16–21, 2012
Ural Federal University,
Yekaterinburg

In 2012, a group of 70 doctoral and postdoctoral researchers and professors from both countries came together at the Ural Federal University (UrFU) in Yekaterinburg to discuss their research approaches on the topic of Health and Society such as healthcare systems, environmental medicine, medical law, medical ethics, prevention research, sports and nutritional sciences, widespread and infectious diseases, parasitology, biomedicine, nuclear medicine and medical engineering. With over 1,3 million inhabitants, Yekaterinburg is the fourth largest city and also the administrative centre of the third most important region in the Russian Federation. Since the 18th century, the city has also played a unique role as a bridge between Europe and Asia. It played host to the first summit of the BRIC states in 2009 and the St. Petersburg Dialogue between Germany and Russia in 2010.



AVIATION AND SPACE
September 23–27, 2013
Novosibirsk State
Technical University (NSTU),
Institute of Theoretical
and Applied Mechanics (ITAM),
Novosibirsk

In 2013, the Week focused on the topic of Aviation and Space including hypersonic technology, innovative engine concepts, resistance reduction in the field of aerodynamics, numerics and simulation, avionics, aircraft design and air traffic concepts. The host city Novosibirsk is the third biggest city in Russia and one of the most important industrial and scientific cities. The 32 tertiary institutions, including the State Technical University and the new National Research University boast 120,000 enrolled students. Founded in 1957, the research town "Akademgorodok" is the scientific centre of Siberia and simultaneously the home of the Siberian Department of the Russian Academy of Sciences with a total of 77 research institutes and 9,000 employees.



GLOBAL HISTORY. GERMAN-RUSSIAN PERSPECTIVES ON REGIONAL STUDIES

October 6–10, 2014

St. Petersburg State University,
St. Petersburg

In 2014, the combination of global history and regional studies provided an opportunity to contrast and analyse German and Russian approaches to topics such as imperial research. Over 60 participants of the Week discussed regional and trans-regional ties or the impact of global ideas and opened new research perspectives. The Week took place at the St. Petersburg State University (SPbU), which was founded as Russia's first university and higher education institution for science in 1724 by Peter the Great and has been closely cooperating with German researchers and research institutes since its establishment. St. Petersburg has a population of just under 5 million and is considered the “northern capital” of Russia. As the second largest Russian city, St. Petersburg is home to around 10% of the country's scientific potential with over 100 higher education institutions and 340,000 students.



DISCRETE GEOMETRY

September 6–11, 2015

National Research University
Moscow Institute of Physics
and Technology, Moscow

In 2015, issues from the field of mathematics were in the spotlight. Over 80 doctoral and postdoctoral researchers and professors presented their research approaches in Discrete Geometry at the Moscow Institute of Physics and Technology (MIPT). The MIPT was founded in 1946 at the instigation of the Soviet Academy of Sciences with the support of leading figures such as Nobel Prize winners Pyotr Kapitsa, Nikolay Semyonov and Lev Landau. It quickly became one of the country's elite schools of science. MIPT's many famous alumni include the winners of the 2010 Nobel Prize for Physics, Andrey Geim and Konstantin Novoselov. With approximately 6,000 students, MIPT is today considered one of the top universities in Russia, especially for physics, mathematics and informatics.



URBAN STUDIES: THE CITY OF THE FUTURE

September 12–16, 2016

National Research University
Moscow State University
of Civil Engineering, Moscow

In 2016, more than 70 doctoral researchers, postdocs and professors presented their research approaches in Urban Studies at the Moscow State University of Civil Engineering (MGSU). The host university was founded in 1921, and today it is Russia's leading civil engineering university. The university has a particular mediator role – and not only between Germany and Russia. In the past, the MGSU has been regularly involved in the planning and execution of large international projects, such as the Aswan Dam in Egypt and hydroelectric power plants in Asia, as well as the infrastructure for the Winter Olympics 2014 and stadiums for the football World Cup 2018 in Russia.

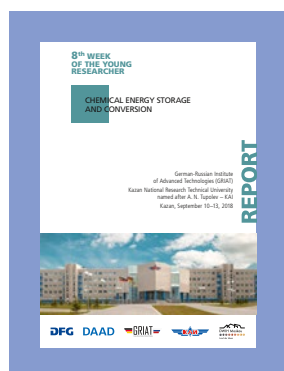


COMPUTATIONAL BIOLOGY AND BIOMEDICINE

September 11–14, 2017

Skolkovo Institute of Science and Technology, Moscow Region

In 2017, the Week held at the Skolkovo Institute of Science and Technology (Skoltech) was dedicated to the relatively young and interdisciplinary research area of Computational Biology and Biomedicine. Over 50 experts in computational biology, mathematics, molecular and systems biology and experimental engineering discussed theoretical and philosophical aspects of life science research at the highest level. Skoltech was established in 2011 as part of a multi-year partnership with the Massachusetts Institute of Technology. Skoltech is an ambitious institution, a private research university, which offers postgraduate and PhD programmes. It concentrates on areas such as IT, biomedicine, energy and space research. This approach, combined with its international orientation, makes Skoltech a novel player in the Russian research landscape.

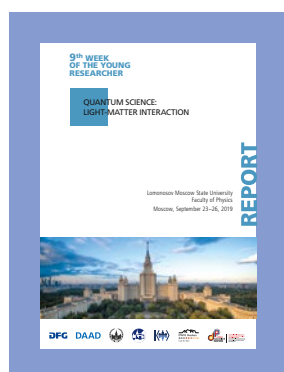


CHEMICAL ENERGY STORAGE AND CONVERSION

September 10–13, 2018

German-Russian Institute of Advanced Technologies (GRIAT), Kazan National Research Technical University named after A. N. Tupolev – KAI, Kazan

In 2018, over 50 participants discussed a variety of approaches to the energy conversion of the future, covering a range of potential solutions from sustainable solar energy technologies and innovative fuel cells, to the development of novel catalysts, the use of thermoelectric materials and energy storage in new, efficient battery systems. The host university, the German-Russian Institute for Advanced Technologies (GRIAT), was founded in 2014 in partnership with the German Academic Exchange Service, the Technical University of Ilmenau and the University of Magdeburg. The aim of the GRIAT project is to train highly qualified engineers to both German and Russian educational standards. As an education platform, GRIAT also brings together universities and industry and promotes intercultural understanding between Germany and Russia.



QUANTUM SCIENCE: LIGHT-MATTER INTERACTION

September 23–26, 2019

Lomonosov Moscow State University, Faculty of Physics

In 2019, over 50 participants of the conference presented their work on Quantum Physics at the Lomonosov Moscow State University (MSU). 50 doctoral and postdoctoral researchers and professors from Germany and Russia discussed questions in photonics, quantum optics, light-matter interactions in nanostructures, single-photon sources, spintronics, quantum computers and quantum communication. In addition to the formal presentations, which illuminated many aspects of light-matter interactions in quantum systems, researchers from both countries were able to present their work in various formats, including discussion and poster sessions. The Lomonosov University was founded in 1755 and nowadays it retains its role of a major centre of learning and research. Eleven Nobel laureates and six Fields Medal winners have been affiliated with the university.

