

# **10 Years of G-RISC and Beyond**

**Conference celebrating  
10 Years of Operation**

of the

**Center of Excellence  
“German-Russian Interdisciplinary Science Center”  
(G-RISC)**



## **Final Program**

Freie Universität Berlin

November 18-20, 2019



Auswärtiges Amt



**DAAD**

German Academic  
Exchange Service



**St Petersburg  
University**

Freie Universität



Berlin

## 10 Years of G-RISC and Beyond – Final Program

**Venue: Freie Universität Berlin, Arnimallee 22, 14195 Berlin (November 18-20, 2019)**

**Welcome Dinner: 18.11.2019, 18:00-20:00**

**Tuesday, 19.10.2019**

<b>Opening Session</b>			
	Welcome Addresses	Eckart Rühl (FU Berlin) Herbert Grieshop (FU Berlin) Alina Manshina (St. Petersburg University) Alexander Rusinov (Embassy of Russian Federation) Benjamin Schmäling (DAAD)	
<b>Russian-German Young Scientist Award Session (Chair: Vladimir Troyan)</b>			
<b>Time</b>	<b>Name</b>	<b>Affiliation</b>	<b>Title</b>
9:30-10:45	Svetlana Bricheva	Lomonosov Moscow State University	Physical modeling of ground-penetrating radar reflections from the ice wedge
9:45-10:00	Alena Vdovchenko	St. Petersburg University	The effect of the block-copolymers composition on the size and morphology of nanoparticles formed by self-assembly in aqueous media
10:00-10:15	Ivan Lopushenko	Lomonosov Moscow State University	New efficient model for computation of light scattering and electron energy loss (EELS) by small spatially dispersive plasmonic nanoparticles
10:15-10:30	Andrea Fantin	Helmholtz-Zentrum Berlin	Local structure in Al8Co17Cr17Cu8Fe17Ni33 compositionally complex alloy: an X-ray absorption spectroscopy investigation
10:30-10:45	Dmitry Estyunin	St. Petersburg University	Magnetically doped and ordered topological insulators
<b>Coffee Break</b>			
<b>Session I (Chair: Alexander Shikin)</b>			
11:15-11:45	Alexander Skubachevskii	People's Friendship University of Russia (Moscow)	Interdisciplinary Investigations in the Field of Kinetics of High Temperature Plasma
11:45-12:15	Elena Kustova	St. Petersburg University	Kinetic Theory of Non-Equilibrium Processes: Advances, Problems and Future Trends

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Time	Name	Affiliation	Title
12:15-12:30	Anton Ryzhkov	St. Petersburg University	The use of the molecular dynamics method for modeling a highly concentrated aqueous solution of ionic surfactants
12:30-12:45	Pavel Znak	Universität Hamburg	Wavefront curvatures: dynamic ray focusing and diffraction classification
12:45-13:00	Roman Chernozem	Tomsk Polytechnic University	Piezoelectric 3-D Fibrous Scaffolds Ultrasound-Mineralized with Calcium Carbonate for Regenerative Medicine: Inorganic Phase Formation and Cells Response
<b>13:00-14:15</b>	<b>Lunch Break</b>		
<b>14:15-15:45</b>	<b>Session II (Chair: Susan Schorr)</b>		
14:15-14:45	Irina Balova	St. Petersburg University	Enediynes fused with Heterocycles for medical and bioorthogonal chemistry
14:45-15:00	Anna Shishkina	St. Petersburg University	Technetium pentacarbonyl hydride preparation without reducing agents
15:00-15:15	Anna A. Vasileva	St. Petersburg University	Synthesis of polyaniline 3D structures on anodic aluminum oxide membranes for application in electrocatalysis
15:15-15:30	Dmitriy Krapov	National Research Tomsk Polytechnic University	Manufacturing of Ti-Nb alloy from elemental powders by EBM
<b>15:30-16:00</b>	<b>Coffee Break</b>		
<b>16:00-17:45</b>	<b>Session III (Chair: Clemens Laubschat)</b>		
16:00-16:30	Sevtlana Santer	Universität Potsdam	Light responsive soft nano-objects
16:30-16:45	Sebastian Shapenkov	St. Petersburg University	Luminescence and structure of introduced dislocation grids in n-GaN
16:45-17:15	Monika Schäfer-Korting	FU Berlin	Rethinking Preclinical Drug Research – Human Based 3D Models as an Example
17:15-17:30	Natalia Zashikhina	Institute of Macromolecular Compounds, RAS, St. Petersburg	Polypeptide-based nanoparticles for drug delivery
17:30-17:45	Gregor Germer	FU Berlin	High-Resolution Spectro-microscopy: Investigations on Dermal Drug Penetration and Biological Samples
17:45-18:15	Arkady Pikovsky	Universität Potsdam	Complex systems: A dynamist's view
<b>18:15-20:30</b>	<b>Posters and Dinner</b>		

## 10 Years of G-RISC and Beyond – Final Program

**November 20, 2019**

Time	Name	Affiliation	Title
<b>9:00-10:45</b>	<b>Session IV (Chair: Elena Kustova)</b>		
9:00-9:30	Clemens Laubschat	TU Dresden	Itinerant ferromagnetism at the surface of rare-earth based antiferromagnets
9:30-10:00	Anna A. Makarova	FU Berlin	Properties of two-dimensional materials grown on surfaces of curved crystals
10:00-10:15	Artem Kotov	St. Petersburg University	Ground-state Energy of Heavy Diatomic Homonuclear Quasimolecules
10:15-10:45	Vladimir Shabaev	St. Petersburg University	Quantum electrodynamics with heavy ions: on the way to supercritical fields
<b>10:45-11:15</b>	<b>Coffee Break</b>		
<b>11:15-13:00</b>	<b>Session V (Chair: Eckart Rühl)</b>		
11:15-11:45	Martin Weinelt	FU Berlin	Carrier dynamics in the spin-orbit materials BiTeI and Bi <sub>2</sub> Se <sub>3</sub>
11:45-12:15	Oleg Kornilov	Max-Born-Institut Berlin	Delayed relaxation at complex resonances studied by wavelength-selected XUV pulses
12:15-12:30	Sergey Filnov	St. Petersburg University	Probe-Dependent Dirac Point Gap in Thallium-based Topological Insulator with Gadolinium Doping
12:30-13:00	Oliver Rader	Helmholtz-Zentrum Berlin	Magnetic and nonmagnetic gaps in topological insulator heterostructures
<b>13:00-14:15</b>	<b>Lunch Break</b>		
<b>14:15-15:30</b>	<b>Session VI (Chair: Alina Manshina)</b>		
14:15-14:45	Anastasia Vyalikh	TU Freiberg	Application of solid-state NMR for studying battery materials
14:45-15:00	Alexander Klyushin	Fritz-Haber-Institute Berlin	CO oxidation over monometallic Au and bimetallic AuPd nanoparticles
15:00-15:30	Eckehard Schöll	TU Berlin	Controlling partial synchronization patterns in complex networks: Chimera states and beyond
<b>15:30-16:00</b>	<b>Coffee Break</b>		
<b>16:00-17:30</b>	<b>G-RISC Annual Meeting: G-RISC and The Future</b>		
<b>17:30-20:00</b>	<b>G-RISC Alumni Meeting and Dinner</b>		

## 10 Years of G-RISC and Beyond – Final Program

### Posters

No.	Name	Affiliation	Title
1	Svetlana Bricheva	Lomonosov Moscow State University	Potential of ground-penetrating radar geophysical method for imaging ice structures in permafrost areas
2	Dmitriy Krapov	National Research Tomsk Polytechnic University	Manufacturing of Ti-Nb alloy from elemental powders by EBM
3	Clemens Laubschat	TU Dresden	Competing spin-orbit, exchange, and Kondo-interactions on quasi two-dimensional electron states
4	Dmitry Estyunin	St. Petersburg University	Magnetically doped and ordered topological insulators
5	Anton Rhyzkov	St. Petersburg University	The use of the molecular dynamics method for modeling a highly concentrated aqueous solution of ionic surfactants
6	Roman Chernozem	Tomsk Polytechnic University	Enhanced piezoelectric behaviour of 3D biodegradable scaffolds via hydrothermally deposited ZnO nanostructures for tissue engineering
7	Svetlana Santer	Universität Potsdam	Manipulation of particles by light
8	Natalia Zashikhina	Institute of Macromolecular Compounds, RAS, St. Petersburg	Polypeptide-based nanoparticles for drug delivery
9	Artem Kotov	St. Petersburg University	Ground-state Energy of Heavy Diatomic Homonuclear Quasimolecules
10	Oleg Kornilov	Max-Born-Institut	Delayed relaxation at complex resonances studied by wavelength-selected XUV pulses
11	Gregor Germer et al.	FU Berlin	High-Resolution Spectromicroscopy: Investigations on Dermal Drug Penetration and Biological Samples
12	Alexander Skubachevskii	People's Friendship University of Russia (Moscow)	Interdisciplinary Investigations in the Field of Kinetics of High Temperature Plasma
13	Alexander Klyushin	Fritz-Haber-Institute Berlin	Catalytic CO Oxidation by Au: extended surfaces vs. nanoparticles
14	Denis Anikiev	Geoforschungszentrum Potsdam	A three-dimensional lithospheric-scale thermal model of Germany
15	Natalia Kolanovska et al.	FU Berlin	German-Russian Interdisciplinary Science Center (G-RISC)