

Competition for grants in the priority area of RSF activities “Basic and Exploratory Scientific Research, Conducted by International Research Teams” (in cooperation with the National Natural Science Foundation of China - NSFC)

| <b>RSF Project Number</b> | <b>Russian PI</b>   | <b>Russian Institution</b>  | <b>Project Title</b>  | <b>Chinese PI</b> | <b>Chinese Institution</b>                                    |
|---------------------------|---------------------|---|---|-------------------|---|
| 25-41-00005               | Kolesnikov, Pavel   | Sobolev Institute of Mathematics of the Siberian Branch of the Russian Academy of Sciences                        | Non-associative algebraic structures and their applications                                 | Sheng Y.          | Department of Mathematics, Jilin University, Changchun, China |
| 25-41-00044               | Filaretov, Vladimir | Institution of Russian Academy of Sciences Institute of Automation and Control Processes, Far Eastern Branch, RAS | The Study of Efficient Graph Neural Networks for Complex Data Scenarios                     | De-Shuang Huang   | Eastern Institute of Technology, Ningbo                       |
| 25-41-00091               | Oseledets, Ivan     | Autonomous Non-Profit Organization for Higher Education "Skolkovo Institute of Science and Technology"            | Enhancing the Robustness and Adversarial Resilience of Compressed Deep Neural Networks      | Liu Y.            | University of Electronic Science and Technology of Chin       |
| 25-42-00003               | Oganessian, Yuri    | International Intergovernmental Organization Joint Institute for Nuclear Research                                 | Investigation of superheavy nuclei at the border of the "island of stability"               | Huang M.X.        | Institute of Modern Physics, Chinese Academy of Sciences      |
| 25-42-00011               | Skobelev, Igor      | National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)                                 | Study on the Reaction Rate of Coulomb Excited Nuclear Isomeric States in Plasma Environment | Chen Liming       | Shanghai Jiao Tong University                                 |

|             |                      |   |   |               |  |
|-------------|----------------------|---|---|---------------|--|
| 25-42-00018 | Antonenko, Nikolai   | International Intergovernmental Organization Joint Institute for Nuclear Research       | Theoretical study of production and properties of heaviest nuclei   | Zhou Shan-Gui | Institute of Theoretical Physics, Chinese Academy of Sciences                                    |
| 25-42-00028 | Grigorenko, Elena    | Space Research Institute of the RAS   | Formation and dissipation of electron-scale magnetic structures in space plasmas  | Fu H.         | Beihang University   |
| 25-42-00053 | Burkov, Alexander    | Ioffe Institute   | Uncovering evolution mechanism of Ge vacancies for stabilizing high performance GeTe based thermoelectrics  | Tang X.       | Wuhan University of Technology   |
| 25-42-00058 | Stolyarov, Vasily    | Moscow Institute of Physics and Technology  | Phase engineering of two-dimensional ferroelectrics and superconductors and their physical properties   | Zhou J        | Пекинский политехнический институт (ППИ)   |
| 25-42-00083 | Davydenko, Aleksandr | Far Eastern Federal University  | High-Efficiency Spin-Orbit Torque Driven Magnetization Switching in Magnetic Nanoheterostructures for Field-Free SOT-MRAM and Computing-in-Memory Devices | Wan C.H.      | Institute of Physics Chinese Academy of Sciences   |
| 25-42-00093 | Yudin, Valeriy       | Novosibirsk State University  | New methods of precision laser spectroscopy in atomic interferometry  | Zhou Lin      | Innovation Academy for Precision Measurement Science and Technology, Chinese Academy of Sciences |
| 25-42-00100 | Palashov, Oleg       | Federal Research Center Institute of Applied Physics of the Russian Academy of Sciences | Advanced optical materials for lasers with simultaneously high average and peak power   | Su L.         | Shanghai Institute of Ceramics, Chinese Academy of Sciences                                      |
| 25-42-00116 | Soldatov, Mikhail    | Southern Federal University   | In-situ synchrotron radiation study on the modulation mechanism of multi-electron oxygen reduction reactions.   | Liu Q.        | University of Science and Technology of China  |
| 25-43-00006 | Kolokolov, Daniil    | Federal Research Center Boreskov Institute of Catalysis                                 | Solid-state deuterium NMR studies of dynamic responsive peptide-based porous materials for hydrocarbon separations  | Lan Ya-Qian   | South China Normal University  |
| 25-43-00007 | Drozhzhin, Oleg      | Federal State Budgetary Educational Institution of Higher Education                     | Long lifespan sodium-ion batteries operating in wide temperature range  | F. Li         | College of Chemistry, Nankai University, Tianjin 300071, China                                   |

|             |                  |   |  |             |  |
|-------------|------------------|---|--|-------------|--|
|             |                  | Lomonosov Moscow State University   |  |             |  |
| 25-43-00051 | Gordeeva, Larisa | Federal Research Center Boreskov Institute of Catalysis   | Study on mechanism of solar-driven electricity-water-hydrogen cogeneration cycle based on atmospheric water harvesting and water electrolysis  | Ge T.       | Shanghai Jiao Tong University  |
| 25-43-00052 | Kalmykov, Stepan | Federal State Budgetary Educational Institution of Higher Education Lomonosov Moscow State University   | Dispersion pathway and driven force of radioactive pollution discharged from the Fukushima in the China Seas and Japan Sea                     | Keliang Shi | School of Nuclear Science and Technology, Lanzhou University   |
| 25-43-00072 | Sivaev, Igor     | A.N. Nesmeyanov Institute of Organoelement Compounds of Russian Academy of Sciences                     | Design, synthesis and applications of novel boron cluster-based luminescent materials  | Yan H.      | Nanjing University   |
| 25-43-00096 | Tarasov, Alexey  | Federal State Budgetary Educational Institution of Higher Education Lomonosov Moscow State University   | X-ray imaging using heterostructures based on hybrid halides   | Chen Qi     | Advanced Research Institute of Multidisciplinary Sciences of Beijing Institute of Technology             |
| 25-43-00107 | Blank, Vladimir  | Federal State Budgetary Institution "Technological Institute for Superhard and Novel Carbon Materials"  | New architecture of superhard materials synthesized by thermobaric treatment of carbon nanostructures  | Yao M.      | State Key Laboratory of Superhard Materials, College of Physics, Jilin University, Changchun City, China |
| 25-43-00125 | Karasik, Andrey  | Federal State Budgetary Institution of Science "Kazan Scientific Center of Russian Academy of Sciences" | Electroluminescent copper(I) heteroleptic complexes based on cyclic diphosphine and diimine ligands for new-generation high-performance OLEDs. | Xu H.       | School of Chemistry and Materials, Heilongjiang University   |

|             |                   |   |  |              |  |
|-------------|-------------------|---|--|--------------|--|
| 25-43-00127 | Shifrina, Zinaida | A.N. Nesmeyanov Institute of Organoelement Compounds of Russian Academy of Sciences   | The construction of multifunctional Janus dendrimers for precise chemo-photothermal cancer therapy   | Yin M.       | Beijing University of Chemical Technology  |
| 25-43-00131 | Sinyashin, Oleg   | Federal State Budgetary Institution of Science "Kazan Scientific Center of Russian Academy of Sciences"                         | Design of highly efficient materials for catalytic dry reforming of natural gas using concentrated solar energy  | Zhou Ying    | School of New Energy and Materials, Southwest Petroleum University   |
| 25-43-00148 | Rempel, Andrey    | Federal State Budget Institution of Science Institute of Metallurgy of Ural Branch of Russian Academy of Sciences (IMET UB RAS) | Synthesis, structure and strength properties of refractory high entropy alloys   | Lu, Zhaoping | University of Science and Technology Beijing, P. R. China  |
| 25-43-00162 | Aldoshin, Sergey  | Federal Research Center of Problems of Chemical Physics and Medicinal Chemistry Russian Academy of Sciences                     | Smart passivator approach: the key to reaching record-high efficiency and stability of perovskite solar cells  | C. Wei       | Хуачжунский университет науки и технологий   |
| 25-47-00020 | Strom, Alexander  | Russian state geological prospecting university   | Formation mechanism and hazard prediction of strong earthquake-induced landslides in China-Russia tectonically active regions  | Fan Xuanmei  | The State Key Laboratory of Geohazard Prevention and Geoenvironment Protection, Chengdu University of Technology |
| 25-47-00022 | Shamov, Vladimir  | Pacific Geographical Institute Far Eastern Branch of Russian Academy of Sciences  | Hydrological regime evolution and its ecological effects in Xingkai/Khanka Lake under changing environment: a comprehensive study of the Sino-Russia transboundary basin-lake system | Zou Y.       | Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences                                    |
| 25-47-00030 | Chubarenko, Irina |   | Aging and fragmentation of plastic wastes on marine beaches across latitudes   | Shi H.       | East China Normal University   |

|             |                    |  |   |               |   |
|-------------|--------------------|--|---|---------------|---|
|             |                    | P.P.Shirshov Institute of Oceanology of Russian Academy of Science   |   |               |   |
| 25-47-00051 | Yudovskaya, Marina | The Organization of Russian Academy of Sciences Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry Russian Academy of Sciences | Key factors controlling magmatic platinum metal mineralization  | Zhou M-F      | Institute of Geochemistry, Chinese Academy of Sciences, Guiyang 550081, China     |
| 25-47-00056 | Pozdniakov, Sergey | Federal State Budgetary Educational Institution of Higher Education Lomonosov Moscow State University  | Surface-groundwater interactions and water resource availability in the Northern Hemisphere under a changing climate: From mid-latitude dry to high-latitude permafrost-influenced wet basins | Wang Ping     | Институт Географических Наук и Природных Ресурсов Китайской Академии Наук         |
| 25-47-00065 | Kravchenko, Irina  | Federal State Institution "Federal Research Centre "Fundamentals of Biotechnology" of the Russian Academy of Sciences"                                     | Microbial-mediated mechanisms of soil organic carbon stabilization in Central Russia and Northeastern China under varying land use.   | Li Hui        | Institute of Applied Ecology, Chinese Academy of Sciences                         |
| 25-47-00073 | Safonov, Oleg      | Institute of Experimental Mineralogy, Russian Academy of Science   | Role of fluids in high-grade metamorphism and granite magma formation in collision orogens of different age   | Gao X.-Y.     | School of Earth and Space Sciences, University of Science and Technology of China |
| 25-47-00074 | Tishkov, Arkadiy   | Institute of Geography of the Russian Academy of Sciences  | Threats of Mercury Pollution to Migratory Birds along the flyways between Russia and China  | Zhangwei WANG | Research Center of ECO-Environmental Sciences, Chinese Academy of Science         |
| 25-47-00098 | Stanchits, Sergey  | Autonomous Non-Profit Organization for Higher Education "Skolkovo Institute of Science and Technology"   | Investigation of Hydraulic Fracturing Mechanisms in Geothermal Reservoirs and Methods to Increase its Efficiency through CO2-based Fluid Injection  | Wang, H.      | China University of Petroleum Beijing (CUPB)                                      |

|             |                  |  |   |          |  |
|-------------|------------------|--|---|----------|--|
| 25-47-00104 | Gnatiuk, Natalia | Scientific Foundation "Nansen International Environmental and Remote Sensing Centre"   | Co-variability in extreme drought/flood events between China and Russia and the roles of the mid-high latitude ocean-sea ice-atmosphere interaction                 | Chen H.  | Institute of Atmospheric Physics, Chinese Academy of Sciences    |
| 25-47-00116 | Vetrov, Eugene   | V.S. Sobolev Institute of Geology and Mineralogy, Siberian branch of Russian Academy of Sciences                                   | The late Cenozoic erosion and weathering of the Altai-Sayan Mountain  | Li G.    | Nanjing University   |
| 25-47-00122 | Koval, Andrey    | Federal State Budgetary Educational Institution of Higher Education "Saint-Petersburg State University"                            | Vertical coupling in the middle-lower atmosphere in changing climate and its relationship with cold anomalies in the Eurasian region                                | Wei K.   | Institute of Atmospheric Physics of Chinese Academy of Sciences  |
| 25-47-00153 | Bragin, Ivan     | Far East Geological Institute  | Formation Mechanisms and Component Sources of Thermal Waters in Different Tectonic Settings: A Study Based on Typical Active Examples in Asia                       | Wang G.  | China University of Geosciences, Beijing                         |
| 25-49-00002 | Yatsenko, Elena  | Federal State Budgetary Educational Institution of Higher Education "M.I. Platov South-Russian State Polytechnic University (NPI)" | Fundamentals of amorphized inorganic coatings modification with advanced adhesion, thermal conductivity and corrosion behavior for energy infrastructure objects    | Li W.    | Northwest Normal University                                      |
| 25-49-00039 | Akischev, Yuri   | Stock Company "State Research Center of Russian Federation Troitsk Institute for Innovation and Fusion Research"                   | Research on streamer discharges in transverse magnetic field and using their plasmas for conversion of CO <sub>2</sub> and N <sub>2</sub> into high-value chemicals | Zhang S. | Institute of Electrical Engineering, Chinese Academy of Sciences |

|             |                     |   |   |            |  |
|-------------|---------------------|---|---|------------|--|
| 25-49-00071 | Tolstoy, Valeri     | Federal State Budgetary Educational Institution of Higher Education "Saint-Petersburg State University" | Hierarchical Plasmonic Nanoarrays for Green Hydrogen-Mediated Synergistic Photothermal-Photochemical CO <sub>2</sub> Catalysis  | He L.      | Institute of Functional Nano & Soft Materials Soochow University |
| 25-49-00072 | Anuchin, Alecksey   | National Research University "Moscow Power Engineering Institute"                                       | High-reliable Electric Drives Design and Fault-tolerant Control for Green Energy, Industrial, and Propulsion Drive Systems Using Magnet-free Switched Reluctance Machines | Chen H.    | China University of Mining and Technology                        |
| 25-49-00089 | Safonov, Aleksandr  | Autonomous Non-Profit Organization for Higher Education "Skolkovo Institute of Science and Technology"  | Pultrusion Process Theory and Property Enhancement of Continuous Fiber Reinforced Thermoplastic Composite Materials   | Xian G.    | Harbin Institute of Technology                                   |
| 25-49-00103 | Kolobov, Alexander  | The Herzen State Pedagogical University of Russia   | Multi-field structure control of neuromorphic chalcogenide phase change films and devices   | Cheng, Yan | East China Normal University                                     |
| 25-49-00133 | Pavlenko, Aleksandr | Kutateladze Institute of Thermophysics of the Siberian Branch of the Russian Academy of Sciences        | Analytical, numerical and experimental study of heat and mass transfer on micro- and nanoscale modified surfaces during boiling under various hydrodynamic conditions.    | Wang Q.W.  | Xi'an Jiaotong University.                                       |
| 25-49-00154 | Savel'ev, Andrey    | Federal State Budgetary Educational Institution of Higher Education Lomonosov Moscow State University   | Femtosecond laser filamentation for free space remote diagnostics and control   | Liu W.     | The Institute of Modern Optics of Nankai University              |
| 25-49-00169 | Remnev, Gennady     | National Research Tomsk Polytechnic University  | Interaction of high-entropy alloys with high-intensity ion fluxes   | Mei X.     | Dalian University of Technology                                  |

|             |                    |   |  |              |   |
|-------------|--------------------|---|--|--------------|---|
| 25-49-00208 | Lazarev, Vladimir  | Bauman Moscow State Technical University  | Hollow-core-fiber-based optical manipulation and infrared spectroscopy technology for rapid identification of organic compounds in aerosol                             | Xie Shangran | Beijing Institute of Technology               |
| 25-49-00217 | Nikonenko, Victor  | Kuban State University  | Recovery of lithium from natural brines by a new hybrid electrobaromembrane method with a combination of selective electrodialysis and countercurrent electromigration | Xu T.        | University of Science and Technology of China |
| 25-49-00221 | Sheremet, Mikhail  | Tomsk State University  | The Research on Hybrid Solar-Geothermal Energy Storage System and its Low-Power Multivariate Ventilation Coupling Benefits in Typical Climates of Russia and China     | Zhao Fu-Yun  | Wuhan University                              |
| 25-49-00232 | Khorov, Evgeny     | Institute for Information Transmission Problems of the Russian Academy of Sciences (Kharkevich Institute) | Development of H-MIMO for future wireless communications   | L. Kong      | Shanghai Jiao Tong University                 |
| 25-49-00233 | Markovich, Dmitriy | Kutateladze Institute of Thermophysics of the Siberian Branch of the Russian Academy of Sciences          | Investigation on outer-field enhancement and pollutant control of ammonia bi-directional swirling combustion for gas turbine applications                              | Li Y.        | Shanghai Jiao Tong University                 |