# Plenary

April 22, 2024

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| 08:30 - 12:30 | Participants registration | |
| 12:30 - 13:30 | **Lunch break** | |
| **Main Conference Hall** | | |
| **Plenaries \| Chair Vladimir Semenov** | | |
| 13:30 - 13:45 | Conference opening | |
| 13:45 - 14:45 | **Tatevossian Ruben** | Macroseismiic studies: Historical earthquakes<br>Solicited talk |
| 14:45 - 15:45 | **Kiselev Andrey** | Yesterday, today, and tomorrow of the Earth's climate system<br>Solicited talk<br>**Online** |
| 15:45 - 16:15 | **Coffee break** | |
| 16:15 - 17:15 | **Kubyshkina Daria** | Beyond the Solar System: methods of detection, characterisation, and classification of exoplanets<br>Solicited talk |
| 17:15 - 18:15 | Concert by Sergei Pulinets | |
| 18:15 - 19:30 | Welcome refreshment | |

# Ozone Layer Dynamics

April 24, 2024

**Atmospheric Physics Dept, Room 314**

**Chair Smyshlyaev S.P.**

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| 09:30 - 09:50 | **Nerobelov Georgii**, Timofeyev Y., Polyakov A., Rozanov E., Virolainen Y. | Analysis of the quality of current forecasts of total ozone behavior in the 21st century |
| 09:50 - 10:10 | **Popov Andrey**, Gavrilov N., Shiokawa K. | Climatology of mesoscale perturbations of OH and $O_2$ rotational temperature in Rikubetsu, Shigaraki and Sata |
| 10:10 - 10:30 | **Imanova Anastasia**, Rozanov E., Smyshlyaev S. | Comparative analysis of photolysis rates calculated using Cloud-J and LibRadran tools |
| 10:30 - 10:50 | **Kriukovskikh Ekaterina**, Polyakov A., Virolainen Y., Nerobelov G., Timofeyev Y. | Measurements of the total ozone column by the IKFS-2 instrument for the period of operation from 2015 to 2022 on board the «Meteor-M» №2 satellite |
| 10:50 - 11:10 | **Efimov Matvey**, Gavrilov N. | Parameters of sudden stratospheric warmings from the reanalysis database jra-55 |
| 11:10 - 11:30 | **Akishina Svetlana**, Virolainen Y., Polyakov A., Timofeyev Y., Nerobelov G., Zubov V., Rozanov E. | The variability of stratospheric gases in the vicinity of St. Petersburg |
| 11:30 - 12:00 | **Coffee break** | |

**Chair Divin A.V.**

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| 12:00 - 12:20 | **Akishina Svetlana**, Polyakov A., Virolainen Y. | Information content of the outgoing thermal radiation spectra with respect to vertical ozone distribution |
| 12:20 - 12:40 | **Smyshlyaev Sergei**, Usacheva M., Rozanov E., Zubov V. | Numerical modeling of simultaneous changes of ozone content in the lower and middle atmosphere in the past, present and future |
| 12:40 - 13:00 | **Bordovskaia Iuliia**, Timofeyev Y., Virolainen Y., Poberovskii A. | Analysis of the synergetic ground-based MW+IR method for determining vertical profiles of ozone content |
| 13:00 - 13:20 | **Zubov Vladimir**, Rozanov E., Mironov A. | The vertical profiles of $O_3$, $CH_4$, and $N_2O$ into the polar stratosphere of the SH. Model investigation with CCM SOCOL |

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| 13:20 - 13:40 | **Usacheva Margarita**, Rozanov E., Smyshlyaev S., Zubov V. | Sensitivity of the ozone content and temperature to different forcing |
| 13:40 - 14:00 | **Lukianova Renata** | Formation of the extreme Arctic stratospheric polar vortex of winter 2019/2020 and related ozone loss |
| 14:00 - 15:00 | **Lunch break** | |

**Sightseeing trip to Kronstadt — from 15:00**

# Paleomagnetism and Rock Magnetism

April 23, 2024

**Earth Phys Dept, Room 507**

**Paleomagnetism I | Chair Alexei Didenko**

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|---|---|---|
| 09:00 - 09:20 | **Pavlov Vladimir**, Lebedev I. | Paleosecular variations indicate the specific mode of geodynamo operation during the Cretaceous Normal Polarity Superchron |
| 09:20 - 09:40 | **Pasenko Aleksandr**, Lebedev I., Dudanova V., Sirotin K., Zaika G. | Paleomagnetism of rocks of the Okhotsk-Chukotka volcanic-plutonic belt of the Krest Bay (Chukotka): questions and tasks |
| 09:40 - 10:00 | **Lebedev Ivan**, Pasenko A. | Late Cretaceous-Cenozoic tectonic history of Chukotka according to new paleomagnetic data |
| 10:00 - 10:20 | **Anosova Maiia**, Shcherbakova V., Zhidkov G., Shcherbakov V., Lebedev I., Latyshev A. | High-Latitude paleointensities after the end of the Cretaceous Normal Superchron from the Okhotsk–Chukotka Volcanic Belt |
| 10:20 - 10:40 | **Shcherbakova Valentina**, Zhidkov G., Shcherbakov V., Afinogenova N. | Geomagnetic paleointensity at ~1.75 Ga of Paleoproterozoic volcanic rocks from the Ukrainian Shield |
| 10:40 - 11:10 | **Coffee break** | |

**Loess, paleoclimate, and magnetism | Chair Andrei Kosterov**

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| 11:10 - 11:50 | **Kazansky Alexey** | Rock-magnetic  indicators of climate in subaerial deposits, how do they work?<br>Solicited talk |
| 11:50 - 12:10 | **Meshcheriakova Olga**, Khormali F., Kurbanov R., Kazansky A. | Rock magnetic characteristics of loess -soil series in Tajikistan (based on materials from the study of the reference section Khonako-II) |
| 12:10 - 12:30 | **Peskov Aleksey**, Didenko A., Klimin M., Karetnikov A., Arkhipov M., Tikhomirova A., Tsygankova V. | Paleomagnetic and rock magnetic studies on peats from the Nerpichiy bay coast, Southwestern Priokhotie |
| 12:30 - 12:50 | **Trubikhin Valeriy**, Vardanyan H., Stakhovskaya R. | Record of climatic and paleomagnetic events of the late Holocene in takyr deposits of western Turkmenistan |
| 12:50 - 13:50 | **Lunch break** | |

**Rock magnetism I | Chair Alexey Kazansky**

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| 13:50 - 14:10 | **Didenko Alexei**, Nosyrev M., Arkhipov M., Gilmanova G., Krutikova V. | Deep structure model of the Taragai area of the Sutarsky ridge (Lesser Khingan) from geophysical field and magnetic petrology data interpretation |
| 14:10 - 14:30 | **Pozhidaeva Daria** | Changes in rock magnetic data in Late Pleistocene-Holocene sediments of the glacial lake Sosednee (Upper Kolyma region) |
| 14:30 - 14:50 | **Leonova Mariia**, Markov G. | Can the traces of the impact events in the sedimentary sequences be recorded by rockmagnetic properties? |
| 14:50 - 15:10 | **Sergienko Elena**, Kharitonskii P., Gareev K., Yanson S., Dubeshko D. | Study of biomineralization of iron oxyhydroxides by magnetometric methods |
| 15:10 - 15:40 | **Coffee break** | |

**Rock magnetism II | Chair Vladimir Pavlov**

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|---|---|---|
| 15:40 - 16:00 | Shcherbakov V., **Sycheva Natalia** | Theory of anhysteretic remanent magnetization of randomly oriented single-domain grains |
| 16:00 - 16:20 | **Shcherbakov Valeriy**, Gribov S., Tselmovich V., Afinogenova N. | Experiments on samples carrying a sum of laboratory induced TRM and TCRM imparted perpendicular each other |
| 16:20 - 16:40 | **Belokon Valery**, Dyachenko O., Lapenkov R. | Heat capacity of spin glasses in the model of random interaction fields |
| 16:40 - 17:00 | **Kosterov Andrei** | When magnetite is truly magnetite? |

# April 24, 2024

09:30 - 13:00 Poster viewing

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| **Pilipenko Olga**, Tsetlin Y. | Rockmagnetic and archaeomagnetic investigations of ceramics of the multilayer archaeological site Ivanovskoe III |
| **Pilipenko Olga**, Markov G., Tsetlin Y., Aphinogenova N. | Thellier's experiments on artificial ceramics to determine the magnitude of the magnetic field |
| Shcherbakova V., **Zhidkov Grigoriy**, Afinogenova N. | Ultralow geomagnetic paleointensity at ~2 Ga of Paleoproterozoic igneous rocks from the Ukrainian Shield |
| **Sirotin Kirill**, Aleksandr P., Lebedev I., Dudanova V. | Volcanogenic rocks of the Kresta Bay (Chukotka): petrographic studies in the context of substantiating the nature of the paleomagnetic signal |
| **Latyshev Anton**, Latanova E., Anosova M., Bergal-Kuvikas O., Belyaev A. | Paleomagnetism and Anisotropy of Magnetic Susceptibility in the Late Quaternary Lava Flows from the Tolmachev Dol area (the Southern Kamchatka) |
| **Fedyukin Ivan**, Zhang R., Pavlov V., Pasenko A. | AMS study of the evolution of the Middle-Late Ordovician sea basin in the North of the Siberian platform |
| **Fattakhova Leysan**, Kuzina D., Antonenko V. | Magnetic properties of the soil cover of active arable lands |
| **Meshcheriakova Olga**, Kononov Y., Kurbanov R., Ivanov A., Timireva S. | Rock magnetic characteristics of loess-soil series in the Azov region (Beglitsa and Chumbur-Kosa sections) |
| **Minyuk Pavel**, Pozhidaeva D. | Iron sulfides in the lacustrine sediments of North-East Russia |
| **Iliushin Ilia**, Kharitonov V., Afremov L. | Dependence of the magnetic properties of the metal/metal oxide system on the degree of oxidation |
| **Iusupova Anastasiia**, Kuzina D. | Holocene paleoclimate history of the lakes Bolshoe and Maloe Miassovo (Southern Urals) based on magnetic and geochemical investigations |
| **Kosareva Lina**, Kosarev V., Kuzina D., Yusupova A., Nourgalieva N., Antonenko V. | Local, regional and global components of environmental variability of the Southern Urals in the Neopleistocene-Holocene on the basis of petromagnetic parameters of modern lakes sediments |

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| | **Kuzina Dilyara**, Shcherbakov V., Salnaia N., Yusupova A., Nurgaliev D. | Relative paleointensity of geomagnetic field obtained from the sediments of Lake Shira (Khakassia) |
| | **Khosnullina Tansylu**, Piskarev A., Elkina D., Gusev E. | Paleomagnetic studies of marine sediments collected from the northern Barents Sea during the 2023 expedition |
| | **Elkina Daria**, Gusev E., Ryabchuk D., Piskarev A., Sergeev A., Gostenina A., Khosnullina T., Yarzhembosky Y., Krylov A. | Paleomagnetic studies of marine sediments of the Russian Arctic seas under the project of state geological mapping of the territory and continental shelf of the Russian Federation at a scale of 1:1,000,000 |
| | **Iosifidi Alexandr**, Salnaia N. | Devonian deposits of the southern Timan: Paleomagnetic data |
| | **Pavlov Vladimir**, Zhang R., Fedyukin I., Pasenko A. | Current update of the magnetostratigraphic scheme of the key Ordovician section of the Moyero River and the behavior of the geomagnetic field on the eve of the Moyero superchron |
| | Rudko D., Zhang R., **Pavlov Vladimir** | Cyclostratigraphic study of the Upper Cambrian deposits of the Kulyumbe key section (NW of the Siberian platform) aimed to constrain the duration of magnetic zones and $\delta^{13}C$ SPICE anomaly |
| | Golovanova I., **Salmanova Raushaniya**, Danukalov K., Parfiriev N. | A cyclostratigraphic study of the Katav Formation, (Upper Riphean, Southern Urals) |
| | **Danukalov Konstantin**, Golovanova I., Parfiriev N., Salmanova R. | Study of the morphology of geomagnetic reversals in the Late Riphean Katav Formation. New results |
| 13:00 - 14:00 | **Lunch break** | |

**Sightseeing trip to Kronstadt — from 15:00**

# April 25, 2024

**Earth Phys Dept, Room 507**

**Paleomagnetism II | Chair Dilyara Kuzina**

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|---|---|---|
| 09:00 - 09:20 | **Kovalenko Dmitry**, Buzina M. | Problems of paleomagnetism in the Altai-Sayan region and Mongolia |
| 09:20 - 09:40 | **Kovalenko Dmitry**, Yarmolyuk V., Kozlovsky A., Buzina M. | Paleomagnetism of the Phanerozoic Sequences of the Central Part of the Central Asian Fold Belt |
| 09:40 - 10:00 | **Golovanova Inessa**, Danukalov K., Parfiriev N., Salmanova R. | Current issues of paleomagnetism of the Katav Formation (Upper Riphean, Southern Urals) |
| 10:00 - 10:20 | **Parfiriev Nikita**, Danukalov K., Golovanova I., Salmanova R. | Test of intraformational conglomerates for the Katav Formation of the Upper Riphean (Southern Urals). New data |
| 10:20 - 10:40 | **Lubnina Nataliya**, Bychkov A. | Remagnetization during hydrothermal process: paleomagnetic data and geodynamic consequences |
| 10:40 - 11:10 | **Coffee break** | |

**Magnetostratigraphy | Chair Vladimir Vodovozov**

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| 11:10 - 11:50 | **Guzhikov Andrey** | Magnetostratigraphic method in geology: current state, problems and the ways to their solutions<br>Solicited talk |
| 11:50 - 12:10 | **Dudanova Varvara**, Konstantinov E., Veselovskiy R., Pasenko A. | The Matuyama-Brunhes reversal in the loess-paleosol series of the Otkaznoe section (Terek-Kuma Lowland) |
| 12:10 - 12:30 | Shelepov D., **Guzhikov Andrey** | Magnetostratigraphy of the Danian stage from the Saratov Volga region |
| 12:30 - 12:50 | **Gnibidenko Zinaida**, Marinov V., Levicheva A., Semakov N. | Cretaceous Magnetostratigraphy of the Severnaya Sosva River (Northern Urals)<br>**Online** |
| 12:50 - 13:30 | **Lunch break** | |

**Paleomagnetism III | Chair Inessa Golovanova**

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| 13:30 - 13:50 | **Luzan Margarita**, Metelkin D., Bragin V. | Analysis of the Devonian paleomagnetic direction distribution in the Minusa basin |

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| 13:50 - 14:10 | **Salnaia Natalia**, Alexandr I. | Devonian paleomagnetic data on the East European Platform in the context of the problem of complicated magnetic field record and the presence of atypical Devonian components<br>**Online** |
| 14:10 - 14:30 | **Vodovozov Vladimir** | Paleomagnetism of Mesoproterozoic intrusive complexes of the Bunger Hills (East Antarctica) |
| 14:30 - 14:50 | **Fedyukin Ivan**, Shatsillo A., Romanyuk T., Latysheva I., Novikova A., Kuznetsov N. | Paleomagnetic data of Jurassic igneous rocks of the Greater Caucasus: comparison with Lesser Caucasus |
| 14:50 - 15:10 | **Doroshenkov Mikhail** | Prospects of studying and possibilities of indication of catastrophic flood deposits by petromagnetic methods |
| 15:10 - 15:30 | **Ushakov Dmitrii**, Lebedev I., Pavlov V. | Influence of orientation errors associated with the use of a magnetic compass on the accuracy of determining the position of the paleomagnetic pole and the amplitude of paleosecular variations |
| 15:30 - 16:00 | **Coffee break** | |

**Geomagnetism | Chair Andrei Kosterov**

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| 16:00 - 16:20 | **Sanchez Rodriguez Cesar Julio**, Merkuryev S. | Study of the structure and evolution of the axial zone of the Carlsberg Ridge |
| 16:20 - 16:40 | **Starchenko Sergey** | RMS velocities and magnetic fields in the Earth's liquid core |
| 16:40 - 17:00 | **Starchenko Sergey**, Yakovleva S. | Statistics of dipole and non-dipole geomagnetic energy |
| 17:00 - 17:20 | **Riabova Svetlana** | Spectral analysis of geomagnetic field variations at the Eskdalemuir Observatory in the range of 2-41 years<br>**Online** |
| 17:20 - 17:50 | General discussion, PERM section closing | |

# Seismology and Geodynamics

April 23, 2024

**Data processing and analysis methods | Chair Vladimir Troyan**

**Blue Hall**

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| 09:00 - 09:20 | **Fedorov Ivan**, Fedorov A., Asming V. | Experiments on the use of seismic and infrasound methods for remote recording of snow avalanches |
| 09:20 - 09:40 | **Isaev Igor**, Guskov A., Obornev I., Obornev E., Rodionov E., Shimelevich M., Dolenko S. | Using the transfer learning approach in neural network solution of inverse problems of exploration geophysics |
| 09:40 - 10:00 | **Polovkov Viacheslav**, Terekhina Y., Ponomarenko A., Kudinov A., Bulanova I., Rakhimov E., Tokarev M., Gorbachev S., Solovyova M. | Technology for surface waves processing recorded using seismic streamers to study the upper part of the Pechora Sea shelf section |
| 10:00 - 10:20 | **Ponasenko Svyatoslav** | Automated system for seismological monitoring |
| 10:20 - 10:40 | **Ponomarenko Andrey**, Stanyulis A., Polovkov V., Troyan V. | On the geophone coupling function in marine research |
| 10:40 - 11:05 | **Coffee break** | |
| 11:05 - 11:35 | **Kitov Ivan**, Sanina I. | On the current state and prospective of waveform cross correlation in seismic studies: improvements in signal detection, parameter estimation, relative location, and identification of seismic sources<br>Solicited talk<br>**Online** |
| 11:35 - 11:55 | **Sychev Vladimir**, Sycheva N. | Nonextensive analysis of earthquakes and man-made impacts |
| 11:55 - 12:15 | **Baranov Sergey**, Shebalin P., Motorin A. | Earthquake Productivity<br>Solicited talk |
| 12:15 - 12:35 | **Malyshkin Timur**, Gordeev N. | Development of a method for identifying surface faults using active and passive sensors in remote sensing data |

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| 12:35 - 12:55 | **Lobodenko Ivan**, Fihieva L., Malofeev A., Menschikova V. | Solving direct and inverse geophysics and geodynamics problems in site selection, construction and operation of nuclear power plants in accordance with federal norms and rules for the atomic energy use<br>**Online** |

**Fiber optics in geophysics. Distributed acoustic sensing (DAS) | Chair Konstantin Kislov**

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| 12:55 - 13:20 | **Kislov Konstantin** | Fiber optics in geophysics. Distributed acoustic sensing (DAS)<br>Solicited talk |
| 13:20 - 14:20 | **Lunch break** | |
| 14:20 - 14:40 | **Tezikov Artemii**, Chugaev A., Trapeznikova A. | Spectral analysis of passive DAS data for monitoring of an undermined massif at a salt deposit<br>Solicited talk<br>**Online** |
| 14:40 - 15:00 | **Nikitin Sergei**, Spiridonov E., Bengalskiy D., Kharasov D., Ashkar G., Kostenko M., Kislov K., Nanii O., Starovoyt Y., Treshchikov V. | Applications of fiber optical DAS equipment for teleseismic observations and tomography tasks in seismology |
| 15:00 - 15:20 | **Ilinskiy Dmitry**, Gorshkov B., Simikin D. | Application of a distributed acoustic measurement system for active and passive seismic studies<br>Solicited talk |
| 15:20 - 15:40 | **Belov Mikhail**, Tokarev M., Potemka A. | The Lomonosov Moscow State University experience in fiber optic sensors technology |
| 15:40 - 16:00 | **Coffee break** | |

**Distributed acoustic sensing & Poster viewing**

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| | Kislov K., Ashkar G., Bengalskii D., Gravirov V., **Kostenko Mikhail**, Kharasov D., Vasiliev A., Treshchikov V. | Demonstration of the capabilities of Distributed Acoustic Sensing technology |
| | Ashkar G., Bengalskii D., **Gravirov Valentin**, Kislov K., Kostenko M., Kotov A., Presnov D., Spiridonov E., Shurup A. | Full-Scale Testing of the Use of Distributed Acoustic Sensing (DAS) Technology to Determine Ice Cover Parameters |
| | **Gravirov Valentin**, Kislov K. | Advantages and Disadvantages of Distributed Acoustic Sensing Technology for Geophysics Tasks |

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| | Kislov K., **Dmitrienko Maxim** | Performance of Seismic Observations by DAS Technology in Different Environments |
| 16:55 - 17:15 | **Coffee break** | |
| | **Gravirov Valentin**, Pershin S., Sobisevich A., Grishin M., Likhodeev D., Myasnikov A. | The Influence of Earthquakes on the Temperature Regime of Rocks |
| | **Gravirov Valentin**, Likhodeev D. | Precision Rock Temperature Monitoring System |
| | **Gravirov Valentin** | Digital Data Acquisition Systems for Data Capturing of Geophysical Information: Methods for Testing Performance in the Field |
| | **Kislov Konstantin**, Marchenkov A. | Designing a  side-by-side experiment to compare low-power impulsive artificial seismic sources |
| | Gravirov V., Sobisevich A., Zhostkov R., Presnov D., **Kotov Andrey** | Ice Geo-Hydroacoustic Buoy |
| | Gravirov V., **Kotov Andrey**, Presnov D., Nuzhdaev I., Toshchov S. | Study of the Internal Structure of Geothermal Deposits in the Southern Part of the Kamchatka Peninsula |
| | **Kasimova Victoria**, Chebrov D., Kopylova G. | Integrated geophysical observations at the Petropavlovsk-Kamchatsky test site, Kamchatka Peninsula |
| | Solovieva M., Kopylova G., Korkina G., Bulatova N., **Kasimova Victoria** | Disturbances of the lower ionosphere during strong seismic activity in 2023-2024 as observed on the Kamchatka peninsula |

# April 24, 2024

**Blue Hall**

**Processes in earthquake sources | Chairs Alena Filippova & Vladimir Troyan**

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| 09:00 - 09:25 | **Filippova Alena** | Seismic moment tensor: a review<br>Solicited talk |
| 09:25 - 09:40 | **Filippova Alena**, Burlakov I., Fomochkina A. | Focal mechanisms of earthquakes occurred in 1927–2022 in the East Arctic region |
| 09:40 - 10:00 | **Sokolova Inna**, Aristova I., Komekbayev D. | Study of the wave pattern of various nature events from the area of the Novaya Zemlya Test Site according to historical seismic and infrasound records by Central Asia stations |
| 10:00 - 10:20 | **Zotov Oleg**, Guglielmi A., Zavyalov A., Klain B. | Energy flows and the spatio-temporal structure in the earthquake source<br>**Online** |
| 10:20 - 10:40 | **Petrova Nataliya**, Gabsatarova I., Kurova A. | Distance corrections to surface-wave magnitudes of Far East shallow earthquakes<br>**Online** |
| 10:40 - 11:00 | **Fomochkina Anastasia**, Filippova A. | Source parameters of earthquakes in the Laptev Sea (1996, 1997 and 2023) from surface wave records |
| 11:00 - 11:20 | **Coffee break** | |

**Regional Seismicity | Chair Vladimir Troyan**

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| 11:20 - 11:35 | **Sokolova Inna**, Gabsatarova I., Berezina A., Kopnichev Y., Aristova I. | Uqturpan earthquake with Mw=7.0 on January 22, 2024, in the south of the Tien Shan |
| 11:35 - 11:50 | **Motorin Alexander**, Baranov S., Shebalin P. | Aftershock domain estimation by first aftershocks on the example of the Khibiny deposits<br>**Online** |
| 11:50 - 12:10 | Burmin V., **Petrosyan Goharik** | Some Features of Earthquakes Distribution in Turkmenistan<br>**Online** |
| 12:10 - 12:30 | **Tsiareshchanka Kseniya**, Aronov A., Bialiayeva V., Martinovich Y. | Seismic effects of industrial explosions in a granite quarry in Belarus |
| 12:30 - 12:50 | **Coffee break** | |

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| 12:50 - 13:05 | **Sokolova Inna**, Gabsatarova I., Berezina A., Pershina E. | The source and consequences of the Kungey earthquake on March 4, 2024 (mpv=5.8) in the Northern Tien Shan region |
| 13:05 - 13:20 | **Zvereva Anastasia**, Skorkina A. | The relationship between $M_w$ and other magnitude scales for earthquakes of the North Caucasus |
| 13:20 - 13:35 | Zvereva A., **Klianchin Andrey** | Earthquake on January 24, 2024 in the in the region of Krasnodar city (North-West Caucasus) with $M_w$=4.1, $I_0$=4-5 |
| 13:35 - 13:50 | **Surkov Vadim**, Pilipenko V., Sorokin V., Yashchenko A. | Ionospheric perturbations caused by a complex of atmospheric acoustic waves radiated during and after earthquakes |
| 13:50 - 14:05 | **Surkov Vadim** | Theoretical models of atmospheric and ionospheric anomalies that can be interpreted as earthquake precursors |
| 14:05 - 15:00 | **Lunch** | |

**Sightseeing trip to Kronstadt — from 15:00**

# April 25, 2024

**Rock Mechanics and Mining Sciences | Chair Valerii Khimulia**

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| 09:00 - 09:20 | **Khimulia Valerii**, Karev V., Barkov S. | Comprehensive study of stress effect on filtration-capacitance properties of underground gas storage reservoirs using geomechanical and CT-based approach<br>**Online** |

**Blue Hall**

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| 09:20 - 09:40 | **Kovalenko Yury**, Barkov S., Khimulia V. | Experimental study of mechanical and filtration processes in low-permeability reservoir rocks of Verkhnevilyuchanskoye oil and gas condensate field at implementation the method of directional unloading of the reservoir<br>**Online** |
| 09:40 - 10:00 | **Ivanov Zakhar**, Panteleeva A., Golosov A. | The influence of layer orientation on the mechanical properties of 3D printed models<br>**Online** |
| 10:00 - 10:20 | **Kozhevnikov Evgenii**, Turbakov M., Riabokon E., Guzev M., Qi C., Li X. | Comparative analysis of the reduction in permeability under loading in laboratory and field conditions<br>**Online** |
| 10:20 - 10:40 | **Coffee break** | |
| 10:40 - 11:00 | **Panteleeva Arina**, Ivanov Z., Kozhevnikov E. | The influence of rock conductivity on the of detached particles size distribution during filtration and cyclic loading<br>**Online** |
| 11:00 - 11:20 | **Riabokon Evgenii**, Turbakov M., Evgenii K., Guzev M. | Modelling the influence of acoustic vibrations on the movement of plastic particles through rocks<br>**Online** |
| 11:20 - 11:40 | Panteleev I., **Zaitsev Aleksey**, Ustinov K., Shevtsov N., Valeriy K., Mubassarova V., Karev V., Kovalenko Y. | A Kaiser Damage-Memory Effect in Sandstone under Cyclic and Rotated Triaxial Stresses<br>**Online** |
| 11:40 - 12:00 | **Zaitsev Aleksey**, Demus M., Kourov R., Fukalov A. | The Equilibrium State of a Hollow Horizontal Orthotropic Thick-walled Cylinder, which is Subject to a Nonuniform Internal Lateral Pressure and Weight Forces<br>**Online** |
| 12:00 - 12:20 | **Goev Andrey** | Upper mantle – classic ideas and new insights<br>Solicited talk |

**Earth's Structure | Chairs Andrey Goev & Vladimir Troyan**

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| 12:20 - 12:40 | **Usoltseva Olga**, Ovtchinnikov V. | Lateral variations in travel times of reflected from the inner core waves and their connection with thermal and gravitational fields |
| 12:40 - 13:00 | **Sokolova Inna**, Kopnichev Y., Khachikyan G. | Temporal variations of S wave attenuation field structure in the region of Zaili Alatay ridge: possible correlation with solar activity and large earthquakes |
| 13:00 - 14:00 | **Lunch break** | |
| 14:00 - 14:20 | **Filippov Sergey**, Abramova D. | Lithospheric magnetic anomalies over the Anatolian Plate (Turkey) as a reflection of the crust-mantle interaction processes<br>Solicited talk |
| 14:20 - 14:40 | **Vakarchuk Roman** | Typification of the Earth's Crust |
| 14:40 - 15:00 | **Filippov Sergey**, Filippova A., Sokolova T., Pankratov O. | Lithospheric magnetic sources in the East Arctic region |
| 15:00 - 15:20 | **Koroleva Tatiana**, Zarochentsev A. | Experience of determining S-wave velocities beneath the Caucasus from surface waves dispersion curves with the use of high-performance computing |
| 15:20 - 15:40 | **Coffee break** | |
| 15:40 - 16:00 | **Filippova Alena**, Sokolova E., Filippov S., Bolshakov E. | Integrated geophysical modeling of the lower crustal - upper mantle structure in the area of the Yenisei-Khatanga trough |
| 16:00 - 16:20 | **Egorushkin Igor**, Koulakov I., Jakovlev A., Huang H., Gordeev E., Abkadyrov I., Chebrov D. | Insights into the crustal structure beneath Central Kamchatka revealed by ambient noise tomography<br>**Online** |
| 16:20 - 16:40 | **Sannikov Konstantin**, Lyskova E., Sannikov A. | New data on radial anisotropy in the European region from surface waves |

# April 26, 2024

**Blue Hall**

**Geodynamic Processes | Chair Alena Filippova**

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|---|---|---|
| 09:30 - 09:50 | **Rodkin Mikhail** | Earthquake forecast algorithm based on the set of typical anomalies obtained in the general vicinity of large earthquake |
| 09:50 - 10:10 | **Mikheeva Anna**, Kalinnikov I. | On the possibilities and problems of using creepex as a characteristic of the seismogenic environment stress-strain state<br>**Online** |
| 10:10 - 10:30 | **Sycheva Nailia**, Rebetsky Y. | Research of the features of seismicity and seismotectonic deformations of some areas of the Altai-Sayan mountain region |
| 10:30 - 10:50 | **Rodkin Mikhail** | The role of geodynamics and the deep fluid regime in seismicity, and oil and ore generation processes |
| 10:50 - 11:20 | **Coffee break** | |

**Earth Phys Dept, Room 507**

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|---|---|---|
| 11:20 - 11:40 | Kopylova G., Serafimova Y., **Kasimova Victoria** | Precursors of strong earthquakes in Kamchatka (according to data from 2005-2022) |
| 11:40 - 12:00 | **Strelnikov Andrei** | Paleoseismological studies of the Jumgal depression<br>**Online** |
| 12:00 - 12:20 | **Sycheva Nailia**, Mansurov A. | Comparing estimates of crustal deformation in Altai-Sayan mountain region based on seismic and GNSS data |
| 12:20 - 12:40 | **Novikov Victor**, Kulkov D., Parov S., Gorynin I. | A possible thermal mechanism of electromagnetic earthquake triggering: Insight from laboratory press experiments and field estimations<br>**Online** |
| 12:40 - 13:00 | **Bataleva Elena**, Nepeina K., Matiukov V. | Manifestation of the earthquake of January 23, 2024 (Northern China) in the components of the electromagnetic field (Northern Tien Shan)<br>**Online** |
| 13:00 - 13:20 | **Morozov Alexey**, Asming V. | Relocation of Early Instrumental Earthquakes in the Arctic<br>**Online** |

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| 13:20 - 15:00 | **Lunch break** | |

**Interpretation of Geophysical Fields | Chair Vladimir Troyan**

**Blue Hall**

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| 15:00 - 15:20 | **Daurbayeva Gulbanu**, Lukianova R., Siylkanova A. | Variations of the electron density in the topside ionosphere during the earthquake on January 22, 2024 in Central Asia<br>**Online** |
| 15:20 - 15:40 | **Akbashev Rinat**, Makarov E. | Experiment on physical modeling of ash clouds with simultaneous recording of the atmospheric electric potential gradient<br>**Online** |
| 15:40 - 16:00 | **Vishniakov Dmitrii**, Lygin I. | On correlation of magnetic field variations with large seismic events<br>**Online** |
| 16:00 - 16:20 | **Riabova Svetlana**, Shalimov S. | Measured by magnetometers patterns of the ionospheric response to seismic events in the Philippines on December, 2023<br>**Online** |
| 16:20 - 16:50 | **Coffee break** | |
| 16:50 - 17:10 | **Pashayan Romela** | Graphic representation of the parameters of hydrogeochimical composition of mineral water in central Armenia<br>**Online** |
| 17:10 - 17:30 | **Zotov Leonid**, Sidorenkov N., Bizouard C. | Chandler wobble changes in 2020s<br>**Online** |
| 17:30 - 17:50 | **Riabova Svetlana** | Response of the upper ionosphere to the earthquake in the Sea of Japan on January 1, 2024 (preliminary results)<br>**Online** |
| 17:50 - 18:10 | **Petrushov Andrey**, Smirnov V. | Anomalies of RTL function and Gutenberg-Richter parameter preceding earthquakes in California |
| 18:10 - 18:30 | **Riabova Svetlana**, Shalimov S. | Tsunami driven internal gravity waves after Great Japan Earthquake<br>**Online** |

# Solar-Terrestrial Physics

April 23, 2024

**Main Conference Hall**

**Magnetospheric dynamics, storms and substorms | Chair: Apatenkov S.V.**

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|---|---|---|
| 09:00 - 09:20 | **Lavrukhin Alexander**, Alexeev I. | Aurora boundaries during magnetic storm |
| 09:20 - 09:40 | **Manina Alina**, Kalegaev V., Nikolaeva V., Sarajev R., Ivanova A., Vlasova N. | Dynamics of the Earth's high-latitude magnetosphere during a magnetic storm on 02.27.2023 |
| 09:40 - 10:00 | **Saladukhin Ihar**, Aronov G., Aronov A., Laziuk V., Pustoshilo L. | Analysis of the magnetic storms and variations of the geomagnetic field components at the Pleshchenitsy Observatory, Republic of Belarus |
| 10:00 - 10:20 | **Bryzhakhina Diana**, Apatenkov S. | Observation of stationary current sheet in the magnetosphere |
| 10:20 - 10:35 | **Coffee break** | |

**Magnetospheric dynamics, storms and substorms | Chair: Apatenkov S.V.**

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| 10:35 - 10:55 | **Antonova Elizaveta**, Ovchinnikov I., Naiko D., Kirpichev I., Vorobjev V., Yagodkina O., Stepanova M. | Plasma sheet turbulence and topology of magnetospheric domains **Online** |
| 10:55 - 11:15 | **Petrashchuk Aleksandr**, Klimushkin D., Mager P. | Numerical analysis of ballooning modes in Earth’s magnetosphere and their connections with MHD oscillation branches |
| 11:15 - 11:35 | **Leonenko Makar**, Grigorenko E., Zelenyi L. | Strong electrostatic fluctuations associated with intense electric currents in the plasma sheet of the Earth magnetotail |
| 11:35 - 11:55 | **Troshichev Oleg**, Dolgacheva S., Sormakov D., Stepanov N. | Different origin of magnetic disturbances evaluated by AL index in course of the growth and expansion substorm phases |
| 11:55 - 12:10 | **Coffee break** | |

**Magnetospheric dynamics, storms and substorms | Chair: Kubyshkina M.V.**

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| 12:10 - 12:30 | **Shukhtina Maria**, Sergeev V., Nikolaev A., Stepanov N. | Relationship between dipolarizations and Energetic Electron injections at the Geosynchronous orbit |

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| 12:30 - 12:50 | **Sergeev Viktor**, Stepanov N., Ogawa Y., Rozanov E. | Local time distribution and activity dependence of extreme electron densities in the auroral D-region as an image of energy-dependent energetic electron precipitation |
| 12:50 - 13:10 | **Stepanov Nikita**, Sergeev V., Ogawa Y. | On the influence of the long-term history of magnetospheric activity on the precipitation of energetic electron fluxes into the D layer of the auroral ionosphere |
| 13:10 - 13:30 | **Ievenko Igor**, Parnikov S. | Dynamics of the proton aurora and current sheet in the magnetosphere. Ground-based and satellite observations<br>**Online** |
| 13:30 - 14:30 | **Lunch break** | |

**Magnetospheric dynamics, storms and substorms | Chair: Semenov V.S.**

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|---|---|---|
| 14:30 - 15:10 | **Kalegaev Vladimir**, Basilevskaya G., Vlasova N., Grankin D., Gruzdov D., Demekhov A., Ivanova A., Kaportseva K., Mironova I., Myagkova I., Popova T., Rosanov E., Shugay Y., Yahnina T. | Acceleration and losses of the outer radiation belt energetic electrons during period of long duration auroral activity<br>Solicited talk |
| 15:10 - 15:30 | **Gruzdov Danil**, Kalegaev V., Vlasova N., Ivanova A., Andrey D., Galina B., Yahnina T. | Spatial-energy dependencies of maximum electron fluxes of the outer radiation belt during geomagnetic activity<br>**Online** |
| 15:30 - 15:50 | **Ivanova Alexandra**, Kalegaev V., Basilevskaya G., Vlasova N., Gruzdov D., Demekhov A., Kaportseva K., Mironova I., Myagkova I., Shugay Y., Yahnina T. | Features of energetic electron precipitation of different mechanisms from the outer radiation belt during geomagnetic disturbances |
| 15:50 - 16:05 | **Coffee break** | |

**Magnetospheric dynamics, storms and substorms | Chair Divin A.V.**

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| 16:05 - 16:45 | **Pilipenko Vyacheslav**, Kozyreva O., Sakharov Y. | Is the global MHD modeling of the magnetosphere adequate for GIC prediction?<br>Solicited talk |
| 16:45 - 17:05 | **Kostarev Danila** | Impact of space weather on pipelines in high latitude regions |
| 17:05 - 17:25 | **Belakhovsky Vladimir**, Pilipenko V., Sakharov Y., Selivanov V. | Extreme growth of GIC in power lines on the Kola Peninsula and in Karelia during 11 years of observations<br>**Online** |

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| 17:25 - 17:45 | **Marchuk Roman**, Mishin V., Klibanova Y., Penskikh Y., Mikhalev A. | Features of development of geomagnetic activity and night sky airglow at mid-latitudes during the 20 Dec 2015 storm |
| 17:45 - 18:00 | **Coffee break** | |

**Brief oral presentation of posters | Chair: Kubyshkina M.V.**

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| **Zotov Oleg**, Klain B., Kurazhkovskaya N., Kurazhkovskii A. | Hysteresis cycles and invariance of the *Dst* index form during geomagnetic storm development |
| **Kozyreva Olga**, Pilipenko V., Myagkova I., Belakhovsky V. | Correspondence between the dynamics of the outer radiation belt, auroral oval, and ULF power |
| **Demekhov Andrei**, Yahnina T., Popova T., Kalegaev V., Lubchich A., Ivanova A., Gruzdov D. | Influence of wave properties on energetic charged particle precipitation during a magnetic storm of 10-16 October 2017 |
| **Yahnina Tatiana**, Demekhov A., Kalegaev V., Bazilevskaya G., Gruzdov D., Ivanova A. | Dynamics of energetic electrons and protons precipitation according to data from low-orbit satellites of the NOAA/POES and Meteor M2 during a magnetic storm on October 10-16, 2017 |
| **Popova Tatyana**, Yahnina T., Demekhov A. | A study of the influence of geomagnetic field asymmetry on relativistic electron fluxes at low Earth orbit altitudes |
| **Despirak Irina**, Kleimenova N., Gromova L., Lubchich A. | Global location of the maximum of very intense substorms |
| **Lubchich Andris**, Despirak I., Kleimenova N., Setsko P., Malysheva L. | Polar substorms and solar activity |
| Kurazhkovskaya N., **Klain Boris**, Kurazhkovskii A. | Effect of interplanetary conditions and auroral activity on intermittency regularities of *Pi3* irregular geomagnetic pulsations |
| Kurazhkovskaya N., **Klain Boris**, Kurazhkovskii A. | The effect of the carrier frequency decreasing of serpentine emission in the polar cap during weak geomagnetic activity |

# April 24, 2024

**Main Conference Hall**

**Magnetospheric dynamics, storms and substorms | Chair: Zolotova N.V.**

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|---|---|---|
| 09:30 - 09:50 | **Myagkova Irina**, Shiroky V., Vladimirov R., Gadzhiev I., Dolenko S. | Prediction of the state of the Earth's magnetosphere using machine learning in SINP MSU Space Weather Analysis Center |
| 09:50 - 10:10 | **Erkaev Nikolai** | Dayside magnetosheath properties related to the magnetic reconnection |
| 10:10 - 10:30 | **Tsyganenko Nikolai**, Semenov V., Erkaev N., Gubaidulin N. | Magnetic fields and electric currents around the dayside magnetopause as inferred from large sets of in situ data |
| 10:30 - 10:50 | **Apatenkov Sergey** | Space weather effects on low altitude satellite orbits |
| 10:50 - 11:05 | **Coffee break** | |

**Magnetospheric waves | Chair: Zolotova N.V.**

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| 11:05 - 11:25 | **Nikitenko Alexander**, Fedorenko Y., Kleimenova N., Gromova L., Malysheva L., Beketova E. | Auroral hiss on Spitsbergen and "polar" substorms **Online** |
| 11:25 - 11:45 | **Mikhailova Olga**, Mager P. | The first experimental confirmation of the existence of a near-equatorial resonator for ion-ion hybrid modes in the magnetosphere |
| 11:45 - 12:05 | **Grach Veronika**, Demekhov A. | Interaction of Relativistic Electrons with Electromagnetic Ion-Cyclotron Wave Packets of a Finite Length |
| 12:05 - 12:25 | **Ismagilov Valery**, Kopytenko Y. | Investigation of Pc5 geomagnetic pulsations on two-dimensional network of stations |
| 12:25 - 12:40 | **Coffee break** | |

**Magnetospheric waves and Sun-Earth connections| Chair: Zolotova N.V.**

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| 12:40 - 13:00 | **Vlasov Aleksandr**, Kozlov D. | Determining the transverse structure of Alfvén waves recorded by the Van Allen Probes satellites by means of the "phase portraits" technique |
| 13:00 - 13:20 | **Semenov Vladimir**, Kubyshkin I., Kubyshkina M., Tsyganenko N., Erkaev N. | The role of the ring current in the Dungey cycle from the point of view of Stokes' theorem |

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| 13:20 - 13:40 | **Paramonik Igor**, Divin A., Rumenskich M., Chibranov A., Shaikhislamov I., Semenov V. | The ions counterclockwise motion near the diamagnetic cavity edge |
| 13:40 - 14:00 | **Ragulskaya Maria**, Obridko V. | 24th and 25th cycles of solar activity: features and predictors<br>**Online** |
| 14:00 - 15:00 | **Lunch break** | |

**Sightseeing trip to Kronstadt — from 15:00**

# April 25, 2024

**Main Conference Hall**

**Ionosphere and atmosphere | Chair: Mironova I.A.**

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|---|---|---|
| 09:30 - 09:50 | **Savelyeva Natalia**, Pilipenko V. | Study of ionospheric variations before the great Tohoku earthquake in search of precursors of catastrophic earthquakes **Online** |
| 09:50 - 10:10 | **Denisenko Valery**, Bakhmetieva N. | The ionospheric electric field variations caused by the release of radon from the ground |
| 10:10 - 10:30 | **Liperovskaya Elena**, Rodkin M. | Spatiotemporal features of seismoionospheric anomalies in the F-layer, Japan region |
| 10:30 - 10:50 | **Kirillov Andrey** | Electronically excited molecular nitrogen in the upper and middle atmospheres of Titan and Earth |
| 10:50 - 11:05 | **Coffee break** | |

**Ionosphere and atmosphere | Chair: Mironova I.A.**

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| 11:05 - 11:25 | **Dashkevich Zhanna**, Ivanov V. | Time dependent physicochemical model of ionospheric components excitation during auroral events |
| 11:25 - 11:45 | **Dashkevich Zhanna**, Ivanov V. | Variation of the effective recombination coefficient during auroral electron precipitation |
| 11:45 - 12:05 | **Klimov Pavel**, Nikolaeva V., Shchelkanov K., Saraev R., Sigaeva K., Belov A., Murashov A., Kozelov B., Roldugin A., Sharakin S. | UV-microbursts of atmospheric emission in auroral zone |
| 12:05 - 12:25 | **Kotikov Andrey**, Nikolaeva V., Klimov P., Shchelkanov K. | Geomagnetic conditions during UV-microbursts measurements by PAIPS photometer |
| 12:25 - 12:40 | **Coffee break** | |

**Ionosphere and atmosphere | Chair: Divin A.V.**

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|---|---|---|
| 12:40 - 13:00 | **Mironova Irina**, Grankin D., Rozanov E., Kalegaev V., Bazilevskaya G., Ivanova A., Yahnina T., Demekhov A. | Forced atmospheric-ionospheric effects by precipitation of energetic electrons during a magnetic storm on October, 2017 |
| 13:00 - 13:20 | **Grankin Dmitry**, Mironova I., Rozanov E. | The response of the ionosphere and upper atmosphere to the energetic particles precipitation. |

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| 13:20 - 13:40 | **Bessarab Fedor**, Kurdyaeva Y., Borchevkina O., Klimenko M. | Spatial features of the ionospheric disturbance caused by a meteorological squall **Online** |
| 13:40 - 14:00 | **Belyuchenko Kupriyan**, Klimenko M., Ratovsky K., Vesnin A., Klimenko V. | Identification of spatial area that gives main contribution to positive storm-time response in high-latitude regional electron content |
| 14:00 - 15:00 | **Lunch break** | |

**Ionosphere and atmosphere | Chair: Divin A.V.**

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|---|---|---|
| 15:00 - 15:20 | **Medvedeva Irina**, Ratovsky K. | Long-term variations in characteristics of upper neutral atmosphere and ionosphere from spectrometric and radio sounding measurements |
| 15:20 - 15:40 | **Larchenko Alexey**, Nikitenko A., Lebed O., Fedorenko Y. | The influence disturbances in the ionosphere caused by electron precipitation on the propagation of VLF signals |
| 15:40 - 16:00 | **Pulinets Sergey**, Budnikov P., Pulinets M. | Identification and filtration of different sources of the ionosphere variability |
| 16:00 - 16:15 | **Coffee break** | |

**Brief oral presentation of posters | Chair: Mironova I.A.**

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|---|---|---|
| | **Potapov Alexander**, Guglielmi A., Feygin F. | On ponderomotive acceleration of heavy ions in magnetospheric plasma |
| | **Petrashchuk Aleksandr**, Klimushkin D., Mager P. | On the dispersion properties of coupled Alfven and slow waves in two-dimensionally inhomogeneous model of the magnetosphere |
| 16:21 - 16:24 | **Veretenenko Svetlana**, Dmitriev P. | Long-term effects of solar activity on extratropical cyclone movement in different regions of the North Atlantic |
| | **Titova Mariia** | The technique of processing of radiotechnical and geophysical information about conditions of satellite radio signal propagation for studying lithospheric–ionospheric manifestations |
| | **Egorov Ivan**, Blagoveshchenskaya N., Borisova T., Kalishin A. | The features of small-scale artificial field-aligned irregularities, induced by the O- and X-mode HF pumping by the EISCAT/Heating facility |
| | **Ljubchich Vladimir**, Ivanov N., Shapovalova J. | Distortion of the results of impedance measurements interpretation on the Kola Peninsula due to the proximity of ionospheric sources of the natural electromagnetic field |

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| **Denisenko Valery**, Klimenko M., Klimenko V., Anisimov S., Frank-Kamenetsky A., Nagorskiy P., Pustovalov K., Pilipenko V., Smirnov S. | Mathematical simulation of the atmospheric electric field disturbances caused by a magnetic storm |
| **Mandrikova Oksana**, Fetisova N. | Analysis of the ionospheric parameter dynamics during increased geomagnetic activity and strong earthquakes in Kamchatka |
| **Despirak Irina**, Setsko P., Lubchich A., Sakharov Y., Selivanov V. | Large pulses of solar wind dynamic pressure and the appearance of intense GICs |
| **Ostrovskii Victor**, Kadyshevich E. | PFO-CFO Theory of Solar System Formation and Transformation: Foundation, method, explanations, proofs, and predictions |

# April 26, 2024

**Main Conference Hall**

**New experiments and Methods | Chair: Zolotova N.V.**

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|---|---|---|
| 09:30 - 09:50 | Mandrikova O., **Mandrikova Bogdana** | Method for detecting sporadic manifestations of solar activity in cosmic ray variations **Online** |
| 09:50 - 10:10 | **Svertilov Sergey** | Multi-satellite constellation of Moscow university "Sozvezdie-270" for monitoring of space weather effects and electromagnetic transients |
| 10:10 - 10:30 | **Bogomolov Vitalii** | Solar gamma-ray spectrometers on MSU cubesats: experimental methodology and first results |
| 10:30 - 10:50 | **Kholodkov Kirill**, Burov V., Kondratov A., Aleshin I. | Efforts of China-Russia Consortium at Global Aviation Space-Weather Service |
| 10:50 - 11:05 | **Coffee break** | |

**Space climate and Sun-Earth connections | Chair: Semenov V.S.**

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| 11:05 - 11:25 | **Polukhina Sofia**, Kashapova L. | Limb Flare with Failed Eruption **Online** |
| 11:25 - 11:45 | **Gorbunova Ksenia** | Two-dimensional hydrodynamic outflow from exoplanets |
| 11:45 - 12:05 | **Vakhrusheva Anna**, Shugay Y., Kaportseva K., Eremeev V., Kalegaev V. | Two-dimensional cone models of geoeffective coronal mass ejections |
| 12:05 - 12:25 | Kadyshevich E., **Ostrovskii Victor** | Determining role of the solar protuberance activity in the Earth's climate current warming |
| 12:25 - 12:40 | **Coffee break** | |

**Space climate and Sun-Earth connections | Chair: Semenov V.S.**

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| 12:40 - 13:00 | **Riabova Svetlana** | Geophysical effects caused by the flyby and explosive destruction of the fireball on September 02, 2023 **Online** |
| 13:00 - 13:20 | **Vladimirov Roman**, Shirokiy V., Barinov O., Dolenko S., Myagkova I. | Multistage time series forecasting algorithm based on machine learning methods used to forecast the state of the earth’s magnetosphere |
| 13:20 - 13:40 | **Cherniakov Sergei** | Winter effects of a night meteor explosion in high latitudes |

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| 13:40 - 14:40 | **Lunch break** | |

**Space climate and Sun-Earth connections | Chair: Semenov V.S.**

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|---|---|---|
| 14:40 - 15:00 | **Novikov Victor**, Sorokin V. | Space weather and seismic activity: Possible triggering of earthquakes by strong solar flares of X-class<br>**Online** |
| 15:00 - 15:20 | **Kropotina Julia**, Bykov A. | The impact of rotational discontinuities on ions acceleration at the Earth's bow shock |
| 15:20 - 15:40 | **Kupriyanova Elena**, Mikhalchuk A. | Quasi-periodic fast propagating wave trains as a seismological tool for plasma structures in the solar corona |
| 15:40 - 16:00 | **Malkin Evgeniy**, Cherneva N., Kazakov E., Cherneva V., Makhlai D., Akbashev R., Sannikov D., Malkina O., Lichtenberger J., Koronczay D., Andreeva M. | Recording of whistlers during Bezymyanniy and Shiveluch volcano eruptions |
| 16:00 - 16:30 | Discussion | |
| 16:30 - 16:45 | Conference closing | |