Plenary

April 22, 2024

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 Solicited talk
14:45 - 15:45	**Kiselev Andrey**	Yesterday, today, and tomorrow of the Earth's climate system Solicited talk **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 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.

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.

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

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

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

11:10 - 11:50	**Kazansky Alexey**	Rock-magnetic indicators of climate in subaerial deposits, how do they work? 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

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

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

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

	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

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

11:10 - 11:50	**Guzhikov Andrey**	Magnetostratigraphic method in geology: current state, problems and the ways to their solutions 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) **Online**
12:50 - 13:30	**Lunch break**	

Paleomagnetism III | Chair Inessa Golovanova

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

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 **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

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 **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

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 Solicited talk **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 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

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 **Online**

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

12:55 - 13:20	**Kislov Konstantin**	Fiber optics in geophysics. Distributed acoustic sensing (DAS) 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 Solicited talk **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 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

	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

	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

09:00 - 09:25	**Filippova Alena**	Seismic moment tensor: a review 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 **Online**
10:20 - 10:40	**Petrova Nataliya**, Gabsatarova I., Kurova A.	Distance corrections to surface-wave magnitudes of Far East shallow earthquakes **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

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 **Online**
11:50 - 12:10	Burmin V., **Petrosyan Goharik**	Some Features of Earthquakes Distribution in Turkmenistan **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**	

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

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 **Online**

Blue Hall

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 **Online**
09:40 - 10:00	**Ivanov Zakhar**, Panteleeva A., Golosov A.	The influence of layer orientation on the mechanical properties of 3D printed models **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 **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 **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 **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 **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 **Online**
12:00 - 12:20	**Goev Andrey**	Upper mantle – classic ideas and new insights Solicited talk

Earth's Structure | Chairs Andrey Goev & Vladimir Troyan

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 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 **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

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 **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

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 **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 **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) **Online**
13:00 - 13:20	**Morozov Alexey**, Asming V.	Relocation of Early Instrumental Earthquakes in the Arctic **Online**

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

Interpretation of Geophysical Fields | Chair Vladimir Troyan

Blue Hall

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 **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 **Online**
15:40 - 16:00	**Vishniakov Dmitrii**, Lygin I.	On correlation of magnetic field variations with large seismic events **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 **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 **Online**
17:10 - 17:30	**Zotov Leonid**, Sidorenkov N., Bizouard C.	Chandler wobble changes in 2020s **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) **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 **Online**

Solar-Terrestrial Physics

April 23, 2024

Main Conference Hall

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

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.

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.

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

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 **Online**
13:30 - 14:30	**Lunch break**	

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

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 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 **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.

16:05 - 16:45	**Pilipenko Vyacheslav**, Kozyreva O., Sakharov Y.	Is the global MHD modeling of the magnetosphere adequate for GIC prediction? 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 **Online**

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.

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.

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.

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.

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

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 **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.

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.

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.

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.

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.

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.

	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

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.

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.

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.

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

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

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

14:40 - 15:00	**Novikov Victor**, Sorokin V.	Space weather and seismic activity: Possible triggering of earthquakes by strong solar flares of X-class **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	