□ <u>XV школа-конференция с международным участием «Проб</u>... > Расписание

# **U** Plenary

#### 22/04/2024

- 8:30 Participants registration
- 12:30
- 12:30 Lunch break
- 13:30

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#### **Main Conference Hall**

#### Plenaries | Chair Vladimir Semenov

13:30	Conference opening	
- 13:45		
13:45	Tatevossian Ruben	Macroseismiic studies: Historical earthquakes
- 14:45		Solicited talk
14:45	Kiselev Andrey	<u>Yesterday, today, and tomorrow of the Earth's climate</u>
- 15:45		<u>system</u> Solicited talk
		Online
15:45	Coffee break	
- 16:15		
16:15	Kubyshkina Daria	Beyond the Solar System: methods of detection,
- 17:15		<u>characterisation, and classification of exoplanets</u> Solicited talk
17:15	Concert by Sergei Pulinets	
- 18:15		
18:15	Welcome refreshment	
- 19:30		

# **OLD Ozone Layer Dynamics**

#### 24/04/2024

## **Atmospheric Physics Dept, Room 314**

## Chair Smyshlyaev S.P.

9:50	Yuri, Polyakov Alexander, Rozanov Eugene, Virolainen Yana	<u>ozone behavior in the 21st century</u>
9:50 - 10:10	<b>Popov Andrey</b> , Gavrilov Nikolai, Shiokawa Kazuo	<u>Climatology of mesoscale perturbations of OH and O<sub>2</sub></u> <u>rotational temperature in Rikubetsu, Shigaraki and</u> <u>Sata</u>
10:10 - 10:30	<b>Imanova Anastasia</b> , Rozanov Eugene, Smyshlyaev Sergey	<u>Comparative analysis of photolysis rates calculated</u> <u>using Cloud-J and LibRadran tools</u>
10:30 - 10:50	<b>Kriukovskikh Ekaterina</b> , Polyakov Alexander, Virolainen Yana, Nerobelov Georgy, Timofeyev Yuri	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	<b>Efimov Matvey</b> , Gavrilov Nikolai	<u>Parameters of sudden stratospheric warmings from</u> <u>the reanalysis database jra-55</u>
11:10 - 11:30	<b>Akishina Svetlana</b> , Virolainen Yana, Polyakov Alexander, Timofeyev Yury, Nerobelov Georgy, Zubov Vladimir, Rozanov Eugene	<u>The variability of stratospheric gases in the vicinity of</u> <u>St. Petersburg</u>
11:30	Coffee break	
- 12:00		

# Chair Divin A.V.

12:00 - 12:20	<b>Akishina Svetlana</b> , Polyakov Alexander, Virolainen Yana	Information content of the outgoing thermal radiation spectra with respect to vertical ozone distribution
12:20	<b>Smyshlyaev Sergei</b> , Usacheva	Numerical modeling of simultaneous changes of
-	Margarita, Rozanov Eugene,	ozone content in the lower and middle atmosphere in
12:40	Zubov Vladimir	the past, present and future
12:40	<b>Bordovskaia Iuliia</b> , Timofeyev	Analysis of the synergetic ground-based MW+IR
-	Yuriy, Virolainen Yana,	method for determining vertical profiles of ozone
13:00	Poberovskii Anatolij	content

13:00 - 13:20	<b>Zubov Vladimir</b> , Rozanov Eugene, Mironov Andrey	<u>The vertical profiles of O<sub>3</sub>, CH<sub>4</sub>, and N<sub>2</sub>O into the polar stratosphere of the SH. Model investigation with CCM SOCOL</u>
13:20 - 13:40	<b>Usacheva Margarita</b> , Rozanov Eugene, Smyshlyaev Sergey, Zubov Vladimir	<u>Sensitivity of the ozone content and temperature to</u> <u>different forcing</u>
13:40 - 14:00	Lukianova Renata	<u>Formation of the extreme Arctic stratospheric polar</u> vortex of winter 2019/2020 and related ozone loss
14:00 -	Lunch break	
15:00		

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

# **PERM Paleomagnetism and Rock Magnetism**

#### 23/04/2024

#### Earth Phys Dept, Room 507

#### Paleomagnetism I | Chair Alexei Didenko

9:00 - 9:20	<b>Pavlov Vladimir</b> , Lebedev Ivan	Paleosecular variations indicate the specific mode of geodynamo operation during the Cretaceous Normal Polarity Superchron
9:20 - 9:40	<b>Pasenko Aleksandr</b> , Lebedev Ivan, Dudanova Varvara, Sirotin Kirill, Zaika Georgy	Paleomagnetism of rocks of the Okhotsk-Chukotka volcanic-plutonic belt of the Krest Bay (Chukotka): questions and tasks
9:40 - 10:00	<b>Lebedev Ivan</b> , Pasenko Alexander	<u>Late Cretaceous-Cenozoic tectonic history of</u> <u>Chukotka according to new paleomagnetic data</u>
10:00 - 10:20	<b>Anosova Maiia</b> , Shcherbakova Valentina, Zhidkov Grigoriy, Shcherbakov Valeriy, Lebedev Ivan, Latyshev Anton	<u>High-Latitude paleointensities after the end of the</u> <u>Cretaceous Normal Superchron from the Okhotsk–</u> <u>Chukotka Volcanic Belt</u>
10:20 - 10:40	<b>Shcherbakova Valentina</b> , Zhidkov Grigoriy, Shcherbakov Valeriy, Afinogenova Natalia	<u>Geomagnetic paleointensity at ~1.75 Ga of</u> <u>Paleoproterozoic volcanic rocks from the Ukrainian</u> <u>Shield</u>
10:40	Coffee break	

11:10

#### 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	<b>Meshcheriakova Olga</b> , Khormali Farhad, Kurbanov Redjep, Kazansky Alexey	<u>Rock magnetic characteristics of loess -soil series in</u> <u>Tajikistan (based on materials from the study of the</u> <u>reference section Khonako-II)</u>
12:10 - 12:30	<b>Peskov Aleksey</b> , Didenko Aleksey, Klimin Mikhail, Karetnikov Anatolii, Arkhipov Mikhail, Tikhomirova Anna, Tsygankova Viktoria	<u>Paleomagnetic and rock magnetic studies on peats</u> <u>from the Nerpichiy bay coast, Southwestern</u> <u>Priokhotie</u>
12:30 - 12:50	<b>Trubikhin Valeriy</b> , Vardanyan Hasmik, Stakhovskaya Rita	<u>Record of climatic and paleomagnetic events of the</u> <u>late Holocene in takyr deposits of western</u> <u>Turkmenistan</u>
12:50	Lunch break	

13:50

# Rock magnetism I | Chair Alexey Kazansky

13:50 - 14:10	<b>Didenko Alexei</b> , Nosyrev Mikhail, Arkhipov Mikhail, Gilmanova Gulshat, Krutikova Valeriya	<u>Deep structure model of the Taragai area of the</u> <u>Sutarsky ridge (Lesser Khingan) from geophysical field</u> <u>and magnetic petrology data interpretation</u>
14:10 - 14:30	Pozhidaeva Daria	<u>Changes in rock magnetic data in Late Pleistocene-</u> <u>Holocene sediments of the glacial lake Sosednee</u> <u>(Upper Kolyma region)</u>
14:30 - 14:50	<b>Leonova Mariia</b> , Markov Gennady	Can the traces of the impact events in the sedimentary sequences be recorded by rockmagnetic properties?
14:50 - 15:10	<b>Sergienko Elena</b> , Kharitonskii Petr, Gareev Kamil, Yanson Svetlana, Dubeshko Danil	<u>Study of biomineralization of iron oxyhydroxides by</u> <u>magnetometric methods</u>
15:10 - 15:40	Coffee break	

# Rock magnetism II | Chair Vladimir Pavlov

15:40 - 16:00	Shcherbakov Valery, <b>Sycheva</b> Natalia	<u>Theory of anhysteretic remanent magnetization of</u> randomly oriented single-domain grains
16:00 - 16:20	<b>Shcherbakov Valeriy</b> , Gribov Sergey, Tselmovich Vladimir, Afinogenova Natalia	Experiments on samples carrying a sum of laboratory induced TRM and TCRM imparted perpendicular each other

16:20	<b>Belokon Valery</b> , Dyachenko
-	Olga, Lapenkov Roman
16:40	

<u>Heat capacity of spin glasses in the model of random</u> <u>interaction fields</u>

16:40 Kosterov Andrei

17:00

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When magnetite is truly magnetite?

#### 24/04/2024

9:30 - 13:00	Poster viewing	
GC2024- PERM005	<b>Pilipenko Olga</b> , Tsetlin Yuri	<u>Rockmagnetic and archaeomagnetic</u> investigations of ceramics of the multilayer archaeological site Ivanovskoe III
GC2024- PERM009	<b>Pilipenko Olga</b> , Markov Gennady, Tsetlin Yuri, Aphinogenova Natalya	<u>Thellier's experiments on artificial ceramics to</u> <u>determine the magnitude of the magnetic field</u>
GC2024- PERM020	Shcherbakova Valentina, <b>Zhidkov Grigoriy</b> , Afinogenova Natalia	<u>Ultralow geomagnetic paleointensity at ~2 Ga of</u> <u>Paleoproterozoic igneous rocks from the</u> <u>Ukrainian Shield</u>
GC2024- PERM041	<b>Sirotin Kirill</b> , Aleksandr Pasenko, Lebedev Ivan, Dudanova Varvara	<u>Volcanogenic rocks of the Kresta Bay (Chukotka):</u> petrographic studies in the context of substantiating the nature of the paleomagnetic signal
GC2024- PERM051	<b>Latyshev Anton</b> , Latanova Elena, Anosova Maiia, Bergal- Kuvikas Olga, Belyaev Alexey	<u>Paleomagnetism and Anisotropy of Magnetic</u> <u>Susceptibility in the Late Quaternary Lava Flows</u> <u>from the Tolmachev Dol area (the Southern</u> <u>Kamchatka)</u>
GC2024- PERM058	<b>Fedyukin Ivan</b> , Zhang Rui, Pavlov Vladimir, Pasenko Alexandr	AMS study of the evolution of the Middle-Late Ordovician sea basin in the North of the Siberian platform
GC2024- PERM012	<b>Fattakhova Leysan</b> , Kuzina Dilyara, Antonenko Vadim	<u>Magnetic properties of the soil cover of active</u> arable lands
GC2024- PERM048	<b>Meshcheriakova Olga</b> , Kononov Yuri, Kurbanov Rejep, Ivanov Andrew, Timireva Svetlana	<u>Rock magnetic characteristics of loess-soil series</u> in the Azov region (Beglitsa and Chumbur-Kosa sections)
GC2024- PERM008	<b>Minyuk Pavel</b> , Pozhidaeva Dasha	<u>Iron sulfides in the lacustrine sediments of North-</u> <u>East Russia</u>
GC2024- PERM045	<b>lliushin Ilia</b> , Kharitonov Vladimir, Afremov Leonid	<u>Dependence of the magnetic properties of the</u> <u>metal/metal oxide system on the degree of</u>

<u>oxidation</u>

GC2024- PERM023	<b>lusupova Anastasiia</b> , Kuzina Dilyara	<u>Holocene paleoclimate history of the lakes</u> <u>Bolshoe and Maloe Miassovo (Southern Urals)</u> <u>based on magnetic and geochemical</u> <u>investigations</u>
GC2024- PERM036	<b>Kosareva Lina</b> , Kosarev Victor, Kuzina Dilyara, Yusupova Anastasia, Nourgalieva Nuriia, Antonenko Vadim	<u>Local, regional and global components of</u> <u>environmental variability of the Southern Urals in</u> <u>the Neopleistocene-Holocene on the basis of</u> <u>petromagnetic parameters of modern lakes</u> <u>sediments</u>
GC2024- PERM037	<b>Kuzina Dilyara</b> , Shcherbakov Valery, Salnaia Natalia, Yusupova Anastasiia, Nurgaliev Danis	<u>Relative paleointensity of geomagnetic field</u> obtained from the sediments of Lake Shira (Khakassia)
GC2024- PERM034	<b>Khosnullina Tansylu</b> , Piskarev Alexey, Elkina Daria, Gusev Evgeny	<u>Paleomagnetic studies of marine sediments</u> <u>collected from the northern Barents Sea during</u> <u>the 2023 expedition</u>
GC2024- PERM055	<b>Elkina Daria</b> , Gusev Evgeny, Ryabchuk Daria, Piskarev Alexey, Sergeev Alexander, Gostenina Anna, Khosnullina Tansylu, Yarzhembosky Yaroslav, Krylov Alexey	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
GC2024- PERM043	<b>losifidi Alexandr</b> , Salnaia Natalia	<u>Devonian deposits of the southern Timan:</u> <u>Paleomagnetic data</u>
GC2024- PERM057	<b>Pavlov Vladimir</b> , Zhang Rui, Fedyukin Ivan, Pasenko Alexandr	<u>Current update of the magnetostratigraphic</u> <u>scheme of the key Ordovician section of the</u> <u>Moyero River and the behavior of the</u> <u>geomagnetic field on the eve of the Moyero</u> <u>superchron</u>
GC2024- PERM059	Rudko Dmitrii, Zhang Rui, <b>Pavlov Vladimir</b>	<u>Cyclostratigraphic study of the Upper Cambrian</u> <u>deposits of the Kulyumbe key section (NW of the</u> <u>Siberian platform) aimed to constrain the duration</u> <u>of magnetic zones and δ<sup>13</sup>C SPICE anomaly</u>
GC2024- PERM015	Golovanova Inessa, <b>Salmanova</b> <b>Raushaniya</b> , Danukalov Konstantin, Parfiriev Nikita	<u>A cyclostratigraphic study of the Katav Formation,</u> (Upper Riphean, Southern Urals)
GC2024- PERM027	<b>Danukalov Konstantin</b> , Golovanova Inessa, Parfiriev Nikita, Salmanova Raushaniya	<u>Study of the morphology of geomagnetic reversals</u> in the Late Riphean Katav Formation. New results
13:00 - 14:00	Lunch break	

# Sightseeing trip to Kronstadt — from 15:00

#### 25/04/2024

#### Earth Phys Dept, Room 507

#### Paleomagnetism II | Chair Dilyara Kuzina

9:00 - 9:20	<b>Kovalenko Dmitry</b> , Buzina Margarita	<u>Problems of paleomagnetism in the Altai-Sayan</u> region and Mongolia
9:20 - 9:40	<b>Kovalenko Dmitry</b> , Yarmolyuk Vladimir, Kozlovsky Alexander, Buzina Margarita	<u>Paleomagnetism of the Phanerozoic Sequences of the</u> <u>Central Part of the Central Asian Fold Belt</u>
9:40 - 10:00	<b>Golovanova Inessa</b> , Danukalov Konstantin, Parfiriev Nikita, Salmanova Raushaniya	<u>Current issues of paleomagnetism of the Katav</u> Formation (Upper Riphean, Southern Urals <u>)</u>
10:00 - 10:20	<b>Parfiriev Nikita</b> , Danukalov Konstantin, Golovanova Inessa, Salmanova Raushaniya	<u>Test of intraformational conglomerates for the Katav</u> Formation of the Upper Riphean (Southern Urals). New data
10:20 - 10:40	<b>Lubnina Nataliya</b> , Bychkov Andrey	<u>Remagnetization during hydrothermal process:</u> paleomagnetic data and geodynamic consequences
10:40	Coffee break	
- 11:10		

#### Magnetostratigraphy | Chair Vladimir Vodovozov

11:10 - 11:50	Guzhikov Andrey	<u>Magnetostratigraphic method in geology: current</u> <u>state, problems and the ways to their solutions</u> Solicited talk
11:50 - 12:10	<b>Dudanova Varvara</b> , Konstantinov Evgeniy, Veselovskiy Roman, Pasenko Aleksandr	<u>The Matuyama-Brunhes reversal in the loess-paleosol</u> <u>series of the Otkaznoe section (Terek-Kuma Lowland)</u>
12:10 - 12:30	Shelepov Dmitry, <b>Guzhikov</b> Andrey	<u>Magnetostratigraphy of the Danian stage from the</u> <u>Saratov Volga region</u>
12:30 - 12:50	<b>Gnibidenko Zinaida</b> , Marinov Vladimir, Levicheva Aleksandra, Semakov Nicolay	<u>Cretaceous Magnetostratigraphy of the Severnaya</u> <u>Sosva River (Northern Urals)</u> Online
12:50	Lunch break	

13:30

#### Paleomagnetism III | Chair Inessa Golovanova

13:30	<b>Luzan Margarita</b> , Metelkin
-	Dmitriy, Bragin Vasiliy

<u>Analysis of the Devonian paleomagnetic direction</u> <u>distribution in the Minusa basin</u>

13:50 - 14:10	<b>Salnaia Natalia</b> , Alexandr Iosifidi	<u>Devonian paleomagnetic data on the East European</u> <u>Platform in the context of the problem of complicated</u> <u>magnetic field record and the presence of atypical</u> <u>Devonian components</u>
14:10 - 14:30	Vodovozov Vladimir	<u>Paleomagnetism of Mesoproterozoic intrusive</u> complexes of the Bunger Hills (East Antarctica)
14:30 - 14:50	<b>Fedyukin Ivan</b> , Shatsillo Andrey, Romanyuk Tatyana, Latysheva Irina, Novikova Anastasia, Kuznetsov Nikolay	<u>Paleomagnetic data of Jurassic igneous rocks of the</u> <u>Greater Caucasus: comparison with Lesser Caucasus</u>
14:50 - 15:10	Doroshenkov Mikhail	<u>Prospects of studying and possibilities of indication of catastrophic flood deposits by petromagnetic methods</u>
15:10 - 15:30	<b>Ushakov Dmitrii</b> , Lebedev Ivan, Pavlov Vladimir	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 -	Coffee break	
16:00		

#### Geomagnetism | Chair Andrei Kosterov

16:00 - 16:20	<b>Sanchez Rodriguez Cesar Julio</b> , Merkuryev Sergei	<u>Study of the structure and evolution of the axial zone</u> of the Carlsberg Ridge
16:20 - 16:40	Starchenko Sergey	<u>RMS velocities and magnetic fields in the Earth's liquid</u> <u>core</u>
16:40 - 17:00	<b>Starchenko Sergey</b> , Yakovleva Svetlana	<u>Statistics of dipole and non-dipole geomagnetic</u> <u>energy</u>
17:00 - 17:20	Riabova Svetlana	<u>Spectral analysis of geomagnetic field variations at</u> <u>the Eskdalemuir Observatory in the range of 2-41</u> <u>years</u> Online

17:20 General discussion, PERM section closing

17:50

# SG Seismology and Geodynamics

#### 23/04/2024

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

#### **Blue Hall**

9:00 - 9:20	<b>Fedorov Ivan</b> , Fedorov Andrey, Asming Vladimir	Experiments on the use of seismic and infrasound methods for remote recording of snow avalanches
9:20 - 9:40	<b>Isaev Igor</b> , Guskov Artem, Obornev Ivan, Obornev Eugeny, Rodionov Eugeny, Shimelevich Mikhail, Dolenko Sergey	<u>Using the transfer learning approach in neural</u> network solution of inverse problems of exploration geophysics
9:40 - 10:00	<b>Polovkov Viacheslav</b> , Terekhina Yana, Ponomarenko Andrey, Kudinov Artem, Bulanova Irina, Rakhimov Emil, Tokarev Mikhail, Gorbachev Sergei, Solovyova Marina	<u>Technology for surface waves processing recorded</u> <u>using seismic streamers to study the upper part of</u> <u>the Pechora Sea shelf section</u>
10:00 - 10:20	Ponasenko Svyatoslav	Automated system for seismological monitoring
10:20 - 10:40	<b>Ponomarenko Andrey</b> , Stanyulis Alexander, Polovkov Viacheslav, Troyan Vladimir	<u>On the geophone coupling function in marine</u> <u>research</u>
10:40 - 11:05	Coffee break	
11:05 - 11:35	<b>Kitov Ivan</b> , Sanina Irina	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	<b>Sychev Vladimir</b> , Sycheva Nailia	<u>Nonextensive analysis of earthquakes and man-</u> made impacts
11:55 - 12:15	<b>Baranov Sergey</b> , Shebalin Peter, Motorin Alexander	Earthquake Productivity Solicited talk
12:15 - 12:35	<b>Malyshkin Timur</b> , Gordeev Nikita	<u>Development of a method for identifying surface</u> <u>faults using active and passive sensors in remote</u> <u>sensing data</u>
12:35 - 12:55	<b>Lobodenko Ivan</b> , Fihieva Luiza, Malofeev Aleksey, Menschikova Viktoria	<u>Solving direct and inverse geophysics and</u> <u>geodynamics problems in site selection,</u> <u>construction and operation of nuclear power</u> <u>plants in accordance with federal norms and rules</u> <u>for the atomic energy use</u>

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

Online

12:55 - 13:20	Kislov Konstantin	<u>Fiber optics in geophysics. Distributed acoustic</u> <u>sensing (DAS)</u> Solicited talk
13:20 - 14:20	Lunch break	
14:20 - 14:40	<b>Tezikov Artemii</b> , Chugaev Aleksandr, Trapeznikova Anna	<u>Spectral analysis of passive DAS data for</u> <u>monitoring of an undermined massif at a salt</u> <u>deposit</u> Solicited talk Online
14:40 - 15:00	<b>Nikitin Sergei</b> , Spiridonov Egor, Bengalskiy Danil, Kharasov Danil, Ashkar Georgiy, Kostenko Mikhail, Kislov Konstantin, Nanii Oleg, Starovoyt Yuriy, Treshchikov Vladmir	<u>Applications of fiber</u> <u>optical DAS equipment for teleseismic observations</u> <u>and tomography tasks in seismology</u>
15:00 - 15:20	<b>llinskiy Dmitry</b> , Gorshkov Boris, Simikin Denis	<u>Application of a distributed acoustic measurement</u> system for active and passive seismic studies Solicited talk
15:20 - 15:40	<b>Belov Mikhail</b> , Tokarev Mikhail, Potemka Andrey	<u>The Lomonosov Moscow State University</u> <u>experience in fiber optic sensors technology</u>
15:40 - 16:00	Coffee break	

#### 16:00

# Distributed acoustic sensing & Poster viewing

GC2024- SG047	Kislov Konstantin, Ashkar Georgy, Bengalskii Danil, Gravirov Valentin, <b>Kostenko Mikhail</b> , Kharasov Danil, Vasiliev Alexey, Treshchikov Vladimir	<u>Demonstration of the capabilities of Distributed</u> <u>Acoustic Sensing technology</u>
GC2024- SG013	Ashkar Georgy, Bengalskii Danil, <b>Gravirov Valentin</b> , Kislov Konstantin, Kostenko Mikhail, Kotov Andrey, Presnov Dmitry, Spiridonov Egor, Shurup Andrey	<u>Full-Scale Testing of the Use of Distributed Acoustic</u> <u>Sensing (DAS) Technology to Determine Ice Cover</u> <u>Parameters</u>
GC2024-	<b>Gravirov Valentin</b> , Kislov	<u>Advantages and Disadvantages of Distributed</u>
SG015	Konstantin	<u>Acoustic Sensing Technology for Geophysics Tasks</u>
GC2024-	Kislov Konstantin, <b>Dmitrienko</b>	<u>Performance of Seismic Observations by DAS</u>
SG042	<b>Maxim</b>	<u>Technology in Different Environments</u>
16:55 - 17:15	Coffee break	
GC2024-	<b>Gravirov Valentin</b> , Pershin	<u>The Influence of Earthquakes on the Temperature</u>
SG008	Sergey, Sobisevich Alexey,	<u>Regime of Rocks</u>

	Grishin Michail, Likhodeev Dmitry, Myasnikov Andrey	
GC2024- SG012	<b>Gravirov Valentin</b> , Likhodeev Dmitry	Precision Rock Temperature Monitoring System
GC2024- SG014	Gravirov Valentin	<u>Digital Data Acquisition Systems for Data Capturing</u> of Geophysical Information: Methods for Testing Performance in the Field
GC2024- SG044	<b>Kislov Konstantin</b> , Marchenkov Alexey	Designing a side-by-side experiment to compare low-power impulsive artificial seismic sources
GC2024- SG021	Gravirov Valentin, Sobisevich Alexey, Zhostkov Ruslan, Presnov Dmitry, <b>Kotov Andrey</b>	<u>lce Geo-Hydroacoustic Buoy</u>
GC2024- SG022	Gravirov Valentin, <b>Kotov</b> <b>Andrey</b> , Presnov Dmitry, Nuzhdaev Ivan, Toshchov Sergey	<u>Study of the Internal Structure of Geothermal</u> <u>Deposits in the Southern Part of the Kamchatka</u> <u>Peninsula</u>
GC2024- SG045	<b>Kasimova Victoria</b> , Chebrov Danila, Kopylova Galina	<u>Integrated geophysical observations at the</u> <u>Petropavlovsk-Kamchatsky test site, Kamchatka</u> <u>Peninsula</u>
GC2024- SG037	Solovieva Maria, Kopylova Galina, Korkina Galia, Bulatova Nadezhda, <b>Kasimova Victoria</b>	<u>Disturbances of the lower ionosphere during</u> <u>strong seismic activity in 2023-2024 as observed on</u> <u>the Kamchatka peninsula</u>

#### 24/04/2024

#### **Blue Hall**

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

9:00 - 9:25	Filippova Alena	Seismic moment tensor: a review Solicited talk
9:25 - 9:40	<b>Filippova Alena</b> , Burlakov Ilya, Fomochkina Anastasia	<u>Focal mechanisms of earthquakes occurred in 1927–</u> 2022 in the East Arctic region
9:40 - 10:00	<b>Sokolova Inna</b> , Aristova Irina, Komekbayev Darkhan	<u>Study of the wave pattern of various nature events</u> <u>from the area of the Novaya Zemlya Test Site</u> <u>according to historical seismic and infrasound records</u> <u>by Central Asia stations</u>
10:00 - 10:20	<b>Zotov Oleg</b> , Guglielmi Anatol, Zavyalov Alexey, Klain Boris	<u>Energy flows and the spatio-temporal structure in the</u> <u>earthquake source</u> Online

10:20 - 10:40	<b>Petrova Nataliya</b> , Gabsatarova Irina, Kurova Anna	<u>Distance corrections to surface-wave magnitudes of</u> <u>Far East shallow earthquakes</u> Online
10:40 - 11:00	<b>Fomochkina Anastasia</b> , Filippova Alena	<u>Source parameters of earthquakes in the Laptev Sea</u> (1996, 1997 and 2023) from surface wave records
11:00 - 11:20	Coffee break	
Regional Seismicity   Chair Vladimir Troyan		

#### 11:20 Sokolova Inna, Gabsatarova Uqturpan earthquake with Mw=7.0 on January 22, 2024, in the south of the Tien Shan Irina, Berezina Anna, Kopnichev 11:35 Yuri, Aristova Irina 11:35 Motorin Alexander, Baranov Aftershock domain estimation by first aftershocks on Sergey, Shebalin Peter the example of the Khibiny deposits 11:50 Online 11:50 Burmin Valeriy, Petrosyan Some Features of Earthquakes Distribution in Goharik Turkmenistan 12:10 Online 12:10 Tsiareshchanka Kseniya, Seismic effects of industrial explosions in a granite <u>quarry in Belarus</u> -Aronov Arkady, Bialiayeva 12:30 Victoriia, Martinovich Yuliya 12:30 Coffee break 12:50 12:50 Sokolova Inna, Gabsatarova The source and consequences of the Kungey earthquake on March 4, 2024 (mpv=5.8) in the Irina, Berezina Anna, Pershina 13:05 Northern Tien Shan region Flena 13:05 Zvereva Anastasia, Skorkina The relationship between *M*<sub>w</sub> and other magnitude Anna scales for earthquakes of the North Caucasus 13:20 13:20 Zvereva Anastasia, Klianchin Earthquake on January 24, 2024 in the in the region of Andrey Krasnodar city (North-West Caucasus) with M<sub>w</sub>=4.1, 13:35 <u>10=4-5</u> 13:35 Surkov Vadim, Pilipenko Ionospheric perturbations caused by a complex of atmospheric acoustic waves radiated during and after Vyacheslav, Sorokin Valery, 13:50 Yashchenko Aleksey <u>earthquakes</u> **Surkov Vadim** Theoretical models of atmospheric and ionospheric 13:50 anomalies that can be interpreted as earthquake 14:05 precursors

14:05 Lunch

## Sightseeing trip to Kronstadt — from 15:00

#### 25/04/2024

#### **Blue Hall**

## Rock Mechanics and Mining Sciences | Chair Valeriy Khimulya

9:00 - 9:20	<b>Khimulia Valerii</b> , Karev Vladimir, Barkov Svyatoslav	<u>Comprehensive study of stress effect on filtration- capacitance properties of underground gas storage</u> <u>reservoirs using geomechanical and CT-based</u> <u>approach</u> Online
9:20 - 9:40	<b>Kovalenko Yury</b> , Barkov Svyatoslav, Khimulia Valerii	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
9:40 - 10:00	<b>Ivanov Zakhar</b> , Panteleeva Arina, Golosov Andrey	<u>The influence of layer orientation on the mechanical</u> <u>properties of 3D printed models</u> Online
10:00 - 10:20	<b>Kozhevnikov Evgenii</b> , Turbakov Mikhail, Riabokon Evgenii, Guzev Mikhail, Qi Chengzhi, Li Xiaozhao	<u>Comparative analysis of the reduction in permeability</u> <u>under loading in laboratory and field conditions</u> Online
10:20 - 10:40	Coffee break	
10:40 - 11:00	<b>Panteleeva Arina</b> , Ivanov Zakhar, Kozhevnikov Evgenii	The influence of rock conductivity on the of detached particles size distribution during filtration and cyclic loading Online
11:00 - 11:20	<b>Riabokon Evgenii</b> , Turbakov Mikhail, Evgenii Kozhevnikov, Guzev Mikhail	<u>Modelling the influence of acoustic vibrations on the</u> <u>movement of plastic particles through rocks</u> Online
11:20 - 11:40	Panteleev Ivan, <b>Zaitsev</b> <b>Aleksey</b> , Ustinov Konstantin, Shevtsov Nikolay, Valeriy Khimulya, Mubassarova Virginiya, Karev Vladimir, Kovalenko Yuri	<u>A Kaiser Damage-Memory Effect in Sandstone under</u> <u>Cyclic and Rotated Triaxial Stresses</u> Online

11:40	Zaitsev Aleksey, Demus
-	Michael, Kourov Roman, Fukalov
12:00	Anton

<u>The Equilibrium State of a Hollow Horizontal</u> <u>Orthotropic Thick-walled Cylinder, which is Subject to</u> <u>a Nonuniform Internal Lateral Pressure and Weight</u> <u>Forces</u>

Online

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

12:00 -	Goev Andrey	<u>Upper mantle – classic ideas and new insights</u> Solicited talk
12:20		Solicited talk
12:20 - 12:40	<b>Usoltseva Olga</b> , Ovtchinnikov Vladimir	Lateral variations in travel times of reflected from the inner core waves and their connection with thermal and gravitational fields
12:40 - 13:00	<b>Sokolova Inna</b> , Kopnichev Yuri, Khachikyan Galina	<u>Temporal variations of S wave attenuation field</u> <u>structure in the region of Zaili Alatay ridge: possible</u> <u>correlation with solar activity and large earthquakes</u>
13:00	Lunch break	
14:00		
14:00 - 14:20	<b>Filippov Sergey</b> , Abramova Darya	<u>Lithospheric magnetic anomalies over the Anatolian</u> <u>Plate (Turkey) as a reflection of the crust-mantle</u> <u>interaction processes</u> Solicited talk
14:20	Vakarchuk Roman	Typification of the Earth's Crust
- 14:40		
14:40 - 15:00	<b>Filippov Sergey</b> , Filippova Alena, Sokolova Tatiana, Pankratov Oleg	<u>Lithospheric magnetic sources in the East Arctic</u> <u>region</u>
15:00 - 15:20	<b>Koroleva Tatiana</b> , Zarochentsev Andrey	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	Filippova Alena, Sokolova	Integrated geophysical modeling of the lower crustal
- 16:00	Elena, Filippov Sergey, Bolshakov Egor	<u>- upper mantle structure in the area of the Yenisei-</u> <u>Khatanga trough</u>
16:00 - 16:20	<b>Egorushkin Igor</b> , Koulakov Ivan, Jakovlev Andrey, Huang Hsin- Hua, Gordeev Eugeny, Abkadyrov Ilyas, Chebrov Danila	<u>Insights into the crustal structure beneath Central</u> <u>Kamchatka revealed by ambient noise tomography</u> Online
16:20 - 16:40	<b>Sannikov Konstantin</b> , Lyskova Evgenia, Sannikov Alexander	<u>New data on radial anisotropy in the European region</u> from surface waves

#### 26/04/2024

## **Blue Hall**

# Geodynamic Processes | Chair Alena Filippova

9:30 - 9:50	Rodkin Mikhail	Earthquake forecast algorithm based on the set of typical anomalies obtained in the general vicinity of large earthquake
9:50 - 10:10	<b>Mikheeva Anna</b> , Kalinnikov Igor	On the possibilities and problems of using creepex as a characteristic of the seismogenic environment stress-strain state Online
10:10 - 10:30	<b>Sycheva Nailia</b> , Rebetsky Yuriy	<u>Research of the features of seismicity and</u> <u>seismotectonic deformations of some areas of the</u> <u>Altai-Sayan mountain region</u>
10:30 - 10:50	Rodkin Mikhail	<u>The role of geodynamics and the deep fluid regime in</u> seismicity, and oil and ore generation processes
10:50 - 11:20	Coffee break	

# Earth Phys Dept, Room 507

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

13:20 Lunch break

15:00

# Interpretation of Geophysical Fields | Chair Vladimir Troyan

## Blue Hall

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

# **STP Solar-Terrestrial Physics**

#### 23/04/2024

#### **Main Conference Hall**

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

9:00 - 9:20	<b>Lavrukhin Alexander</b> , Alexeev Igor	<u>Aurora boundaries during magnetic storm</u>
9:20 - 9:40	<b>Manina Alina</b> , Kalegaev Vladimir, Nikolaeva Vera, Sarajev Roman, Ivanova Alexandra, Vlasova Natalya	<u>Dynamics of the Earth's high-latitude</u> <u>magnetosphere during a magnetic storm on</u> <u>02.27.2023</u>
9:40 - 10:00	<b>Saladukhin Ihar</b> , Aronov Genady, Aronov Arkady, Laziuk Valiantsina, Pustoshilo Larisa	<u>Analysis of the magnetic storms and variations of the geomagnetic field components at the Pleshchenitsy Observatory, Republic of Belarus</u>
10:00 - 10:20	<b>Bryzhakhina Diana</b> , Apatenkov Sergey	<u>Observation of stationary current sheet in the</u> <u>magnetosphere</u>
10:20 - 10:35	Coffee break	

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

10:35 - 10:55	<b>Antonova Elizaveta</b> , Ovchinnikov Ilya, Naiko Daniil, Kirpichev Igor, Vorobjev Vyacheslav, Yagodkina Oksana, Stepanova Marina	<u>Plasma sheet turbulence and topology of</u> <u>magnetospheric domains</u> Online
10:55 - 11:15	<b>Petrashchuk Aleksandr</b> , Klimushkin Dmitri, Mager Pavel	<u>Numerical analysis of ballooning modes in Earth's magnetosphere and their connections with MHD oscillation branches</u>
11:15 - 11:35	<b>Leonenko Makar</b> , Grigorenko Elena, Zelenyi Lev	<u>Strong electrostatic fluctuations associated with</u> intense electric currents in the plasma sheet of the Earth magnetotail
11:35 - 11:55	<b>Troshichev Oleg</b> , Dolgacheva Svetlana, Sormakov Dmitry, Stepanov Nikita	<u>Different origin of magnetic disturbances evaluated</u> <u>by AL index in course of the growth and expansion</u> <u>substorm phases</u>
11:55 - 12:10	Coffee break	

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

12:10 - 12:30	<b>Shukhtina Maria</b> , Sergeev Victor, Nikolaev Alexander, Stepanov Nikita	<u>Relationship between dipolarizations and Energetic</u> <u>Electron injections at the Geosynchronous orbit</u>
12:30 - 12:50	<b>Sergeev Viktor</b> , Stepanov Nikita, Ogawa Yasunobu, Rozanov Eugene	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	<b>Stepanov Nikita</b> , Sergeev Victor, Ogawa Yasunobu	<u>On the influence of the long-term history of</u> <u>magnetospheric activity on the precipitation of</u> <u>energetic electron fluxes into the D layer of the</u> <u>auroral ionosphere</u>
13:10 - 13:30	<b>levenko Igor</b> , Parnikov Stanislav	<u>Dynamics of the proton aurora and current sheet</u> <u>in the magnetosphere. Ground-based and satellite</u> <u>observations</u> Online
13:30 -	Lunch break	

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

14:30 - 15:10	Kalegaev Vladimir, Basilevskaya Galina, Vlasova Nataliya, Grankin Dmitry, Gruzdov Danil, Demekhov Andrey, Ivanova Alexandra, Kaportseva Ksenia, Mironova Irina, Myagkova Irina, Popova Tatiana, Rosanov Eugeny, Shugay Yulia, Yahnina Tatiana
15:10 -	<b>Gruzdov Danil</b> , Kalegaev

15:30 Vladimir, Vlasova Natalia, Ivanova Alexandra, Andrey Demekhov, Galina Bazilevskaya, Yahnina Tatyana

15:30 -Ivanova Alexandra, Kalegaev 15:50 Vladimir, Basilevskaya Galina, Vlasova Natalia, Gruzdov Danil, Demekhov Andrey, Kaportseva Ksenia, Mironova Irina, Myagkova Irina, Shugay Yalia, Yahnina Tatyana

Acceleration and losses of the outer radiation belt energetic electrons during period of long duration auroral activity Solicited talk

<u>Spatial-energy dependencies of maximum electron</u> fluxes of the outer radiation belt during geomagnetic activity

Online

Features of energetic electron precipitation of different mechanisms from the outer radiation belt during geomagnetic disturbances

15:50 -Coffee break

16:05

14:30

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

16:05 -	Pilipenko Vyacheslav, Kozyreva
16:45	Olga, Sakharov Yaroslav

Is the global MHD modeling of the magnetosphere adequate for GIC prediction?

Solicited talk

#### 16:45 - **Kostarev Danila** 17:05

#### 17:05 - Belakhovsky Vladimir,

- 17:25 Pilipenko Vjacheslav, Sakharov Yaroslav, Selivanov Vasiliy
- 17:25 Marchuk Roman, Mishin
  17:45 Vladimir, Klibanova Yuliya,
  Denskikh Yuri, Mikhalov,
- Penskikh Yuri, Mikhalev Alexander

17:45 - Coffee break

18:00

Impact of space weather on pipelines in high latitude regions

Extreme growth of GIC in power lines on the Kola Peninsula and in Karelia during 11 years of observations

Online

<u>Features of development of geomagnetic activity</u> <u>and night sky airglow at mid-latitudes during the 20</u> <u>Dec 2015 storm</u>

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

GC2024- STP078	<b>Zotov Oleg</b> , Klain Boris, Kurazhkovskaya Nadezhda, Kurazhkovskii Alexander	<u>Hysteresis cycles and invariance of the <i>Dst</i> index</u> form during geomagnetic storm development Online
GC2024- STP004	<b>Kozyreva Olga</b> , Pilipenko Vyacheslav, Myagkova Irina, Belakhovsky Vladimir	<u>Correspondence between the dynamics of the</u> outer radiation belt, auroral oval, and ULF power
GC2024- STP035	<b>Demekhov Andrei</b> , Yahnina Tatyana, Popova Tatyana, Kalegaev Vladimir, Lubchich Andris, Ivanova Alexandra, Gruzdov Danil	Influence of wave properties on energetic charged particle precipitation during a magnetic storm of 10-16 October 2017
GC2024- STP037	<b>Yahnina Tatiana</b> , Demekhov Andrey, Kalegaev Vladimir, Bazilevskaya Galina, Gruzdov Danil, Ivanova Aleksandra	<u>Dynamics of energetic electrons and protons</u> <u>precipitation according to data from low-orbit</u> <u>satellites of the NOAA/POES and Meteor M2 during</u> <u>a magnetic storm on October 10-16, 2017</u>
GC2024- STP052	<b>Popova Tatyana</b> , Yahnina Tatyana, Demekhov Andrey	<u>A study of the influence of geomagnetic field</u> <u>asymmetry on relativistic electron fluxes at low</u> <u>Earth orbit altitudes</u>
GC2024- STP011	<b>Despirak Irina</b> , Kleimenova Natalia, Gromova Lyudmila, Lubchich Andris	<u>Global location of the maximum of very intense</u> <u>substorms</u>
GC2024- STP013	<b>Lubchich Andris</b> , Despirak Irina, Kleimenova Natalia, Setsko Pavel, Malysheva Lyudmila	Polar substorms and solar activity
GC2024- STP064	Kurazhkovskaya Nadezhda, <b>Klain Boris</b> , Kurazhkovskii Alexander	<u>Effect of interplanetary conditions and auroral</u> <u>activity on intermittency regularities of <i>Pi3</i> irregular <u>geomagnetic pulsations</u> Online</u>

<u>The effect of the carrier frequency decreasing of</u> <u>serpentine emission in the polar cap during weak</u> <u>geomagnetic activity</u>

Online

#### 24/04/2024

#### Main Conference Hall

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

9:30 - 9:50	<b>Myagkova Irina</b> , Shiroky Vladimir, Vladimirov Roman, Gadzhiev Ismail, Dolenko Sergey	<u>Prediction of the state of the Earth's magnetosphere</u> <u>using machine learning in SINP MSU Space Weather</u> <u>Analysis Center</u>
9:50 - 10:10	Erkaev Nikolai	<u>Dayside magnetosheath properties related to the</u> magnetic reconnection
10:10 - 10:30	<b>Tsyganenko Nikolai</b> , Semenov Vladimir, Erkaev Nikolai, Gubaidulin Nikita	<u>Magnetic fields and electric currents around the</u> <u>dayside magnetopause as inferred from large sets of</u> <u>in situ data</u>
10:30	Apatenkov Sergey	Space weather effects on low altitude satellite orbits
- 10:50		
10:50	Coffee break	
- 11:05		

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

11:05 -	<b>Nikitenko Alexander</b> , Fedorenko Yuriy, Kleimenova	Auroral hiss on Spitsbergen and "polar" substorms
11:25	Natalia, Gromova Liudmila, Malysheva Liudmila, Beketova Elena	Online
11:25	<b>Mikhailova Olga</b> , Mager Pavel	The first experimental confirmation of the existence
- 11:45		<u>of a near-equatorial resonator for ion-ion hybrid</u> modes in the magnetosphere
11:45	<b>Grach Veronika</b> , Demekhov Andrei	Interaction of Relativistic Electrons with
- 12:05	Andrei	<u>Electromagnetic Ion-Cyclotron Wave Packets of a</u> <u>Finite Length</u>
12:05	<b>Ismagilov Valery</b> , Kopytenko	Investigation of Pc5 geomagnetic pulsations on two-
- 12:25	Yury	<u>dimensional network of stations</u> -
12:25	Coffee break	

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

12:40	<b>Vlasov Aleksandr</b> , Kozlov Daniil	Determining the transverse structure of Alfvén waves
- 13:00		<u>recorded by the Van Allen Probes satellites by means</u> of the "phase portraits" technique
13:00 - 13:20	<b>Semenov Vladimir</b> , Kubyshkin Igor, Kubyshkina Marina, Tsyganenko Nikolai, Erkaev Nikolai	<u>The role of the ring current in the Dungey cycle from</u> <u>the point of view of Stokes' theorem</u>
13:20 - 13:40	<b>Paramonik Igor</b> , Divin Andrey, Rumenskich Marina, Chibranov Aleksey, Shaikhislamov Ildar, Semenov Vladimir	<u>The ions counterclockwise motion near the</u> <u>diamagnetic cavity edge</u>
13:40 - 14:00	<b>Ragulskaya Maria</b> , Obridko Vladimir	<u>24th and 25th cycles of solar activity: features and predictors</u> Online
14:00	Lunch break	
- 15:00		

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

#### 25/04/2024

#### Main Conference Hall

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

9:30 - 9:50	<b>Savelyeva Natalia</b> , Pilipenko Vyacheslav	<u>Study of ionospheric variations before the great</u> <u>Tohoku earthquake in search of precursors of</u> <u>catastrophic earthquakes</u> Online
9:50 - 10:10	<b>Denisenko Valery</b> , Bakhmetieva Nataliya	<u>The ionospheric electric field variations caused by</u> the release of radon from the ground
10:10 - 10:30	<b>Liperovskaya Elena</b> , Rodkin Mikhail	<u>Spatiotemporal features of seismoionospheric</u> anomalies in the F-layer, Japan region
10:30 - 10:50	Kirillov Andrey	<u>Electronically excited molecular nitrogen in the upper and middle atmospheres of Titan and Earth</u>
10:50 -	Coffee break	

11:05

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

- 11:05 Dashkevich Zhanna, Ivanov
- 11:25 Vladimir
- 11:25 Dashkevich Zhanna, Ivanov
- 11:45 Vladimir
- 11:45 Klimov Pavel, Nikolaeva Vera,
- 12:05 Shchelkanov Konstantin, Saraev Roman, Sigaeva Ksenia, Belov Alexander, Murashov Alexei, Kozelov Boris, Roldugin Alexei, Sharakin Sergei
- 12:05 Kotikov Andrey, Nikolaeva
  12:25 Vera, Klimov Pavel, Shchelkanov Kostantin

<u>Time dependent physicochemical model of</u> <u>ionospheric components excitation during auroral</u> <u>events</u>

<u>Variation of the effective recombination coefficient</u> <u>during auroral electron precipitation</u>

<u>UV-microbursts of atmospheric emission in auroral</u> <u>zone</u>

<u>Geomagnetic conditions during UV-microbursts</u> <u>measurements by PAIPS photometer</u>

- 12:25 Coffee break
- 12:40

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

- 12:40 **Mironova Irina**, Grankin
- 13:00 Dmitry, Rozanov Eugene, Kalegaev Vladimir, Bazilevskaya Galina, Ivanova Alexandra, Yahnina Tatiana, Demekhov Andrey
- 13:00 Grankin Dmitry, Mironova
- 13:20 Irina, Rozanov Eugene
- 13:20 Bessarab Fedor, Kurdyaeva
  13:40 Yuliya, Borchevkina Olga, Klimenko Maxim
- 13:40 Belyuchenko Kupriyan,
- 14:00 Klimenko Maxim, Ratovsky Konstantin, Vesnin Artyom, Klimenko Vladimir
- 14:00 Lunch break
- 15:00

<u>Forced atmospheric-ionospheric effects by</u> <u>precipitation of energetic electrons during a</u> <u>magnetic storm on October, 2017</u>

<u>The response of the ionosphere and upper</u> <u>atmosphere to the energetic particles precipitation.</u>

<u>Spatial features of the ionospheric disturbance</u> <u>caused by a meteorological squall</u>

Online

<u>Identification of spatial area that gives main</u> <u>contribution to positive storm-time response in</u> <u>high-latitude regional electron content</u>

- Ionosphere and atmosphere | Chair: Divin A.V.
- 15:00 -Medvedeva Irina, RatovskyLong-term variations in characteristics of upper<br/>neutral atmosphere and ionosphere from<br/>spectrometric and radio sounding measurements
- 15:20 -Larchenko Alexey, Nikitenko15:40Alexander, Lebed Olga,Fedorenko Yury1

<u>The influence disturbances in the ionosphere</u> <u>caused by electron precipitation on</u> <u>the propagation of VLF signals</u> 15:40 - **Pulinets Sergey**, Budnikov

16:00 Pavel, Pulinets Maria

Identification and filtration of different sources of the ionosphere variability

16:00 - Coffee break

16:15

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

GC2024- STP066	<b>Potapov Alexander</b> , Guglielmi Anatol, Feygin Felix	<u>On ponderomotive acceleration of heavy ions in</u> <u>magnetospheric plasma</u>
		Online
GC2024- STP027	<b>Petrashchuk Aleksandr</b> , Klimushkin Dmitri, Mager Pavel	On the dispersion properties of coupled Alfven and slow waves in two-dimensionally inhomogeneous model of the magnetosphere
16:21 - 16:24	<b>Veretenenko Svetlana</b> , Dmitriev Pavel	<u>Long-term effects of solar activity on extratropical</u> <u>cyclone movement in different regions of the North</u> <u>Atlantic</u>
GC2024- STP026	Titova Mariia	<u>The technique of processing of radiotechnical and</u> <u>geophysical information about conditions of</u> <u>satellite radio signal propagation for studying</u> <u>lithospheric–ionospheric manifestations</u>
GC2024- STP040	<b>Egorov Ivan</b> , Blagoveshchenskaya Nataly, Borisova Tatiana, Kalishin Aleksei	<u>The features of small-scale artificial field-aligned</u> <u>irregularities, induced by the O- and X-mode HF</u> <u>pumping by the EISCAT/Heating facility</u>
GC2024- STP044	<b>Ljubchich Vladimir</b> , Ivanov Nikita, Shapovalova Julia	<u>Distortion of the results of impedance</u> <u>measurements interpretation on the Kola</u> <u>Peninsula due to the proximity of ionospheric</u> <u>sources of the natural electromagnetic field</u>
GC2024- STP042	<b>Denisenko Valery</b> , Klimenko Maxim, Klimenko Vladimir, Anisimov Sergei, Frank- Kamenetsky Alexandr, Nagorskiy Petr, Pustovalov Konstantin, Pilipenko Viacheslav, Smirnov Sergey	<u>Mathematical simulation of the atmospheric</u> <u>electric field disturbances caused by a magnetic</u> <u>storm</u>
GC2024- STP010	<b>Mandrikova Oksana</b> , Fetisova Nadezhda	<u>Analysis of the ionospheric parameter dynamics</u> <u>during increased geomagnetic activity and strong</u> <u>earthquakes in Kamchatka</u> Online
GC2024- STP012	<b>Despirak Irina</b> , Setsko Pavel, Lubchich Andris, Sakharov Yaroslav, Selivanov Vasiliy	<u>Large pulses of solar wind dynamic pressure and the appearance of intense GICs</u>
GC2024- STP075	<b>Ostrovskii Victor</b> , Kadyshevich Elena	<u>PFO-CFO Theory of Solar System Formation and</u> <u>Transformation: Foundation, method,</u> <u>explanations, proofs, and predictions</u>

#### Main Conference Hall

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

9:30 - 9:50	Mandrikova Oksana, <b>Mandrikova Bogdana</b>	<u>Method for detecting sporadic manifestations of solar</u> activity in cosmic ray variations
		Online
9:50 - 10:10	Svertilov Sergey	<u>Multi-satellite constellation of Moscow university</u> <u>"Sozvezdie-270" for monitoring of space weather</u> <u>effects and electromagnetic transients</u>
10:10 - 10:30	Bogomolov Vitalii	<u>Solar gamma-ray spectrometers on MSU cubesats:</u> experimental methodology and first results
10:30 - 10:50	<b>Kholodkov Kirill</b> , Burov Vyacheslav, Kondratov Andrey, Aleshin Igor	<u>Efforts of China-Russia Consortium at Global Aviation</u> <u>Space-Weather Service</u>
10:50	Coffee break	
- 11:05		

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

11:05 - 11:25	<b>Polukhina Sofia</b> , Kashapova Larisa	<u>Limb Flare with Failed Eruption</u> Online
11:25 - 11:45	Gorbunova Ksenia	<u>Two-dimensional hydrodynamic outflow from</u> <u>exoplanets</u>
11:45 - 12:05	<b>Vakhrusheva Anna</b> , Shugay Yulia, Kaportseva Ksenia, Eremeev Valeriy, Kalegaev Vladimir	<u>Two-dimensional cone models of geoeffective coronal</u> <u>mass ejections</u>
12:05 - 12:25	Kadyshevich Elena, <b>Ostrovskii</b> <b>Victor</b>	<u>Determining role of the solar protuberance activity in</u> <u>the Earth's climate current warming</u>
12:25 - 12:40	Coffee break	

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

12:40	Riabova Svetlana	Geophysical effects caused by the flyby and explosive
-		<u>destruction of the fireball on September 02, 2023</u>
13:00		Online

13:00 - 13:20	<b>Vladimirov Roman</b> , Shirokiy Vladimir, Barinov Oleg, Dolenko Sergey, Myagkova Irina	<u>Multistage time series forecasting algorithm based on</u> machine learning methods used to forecast the state of the earth's magnetosphere
13:20 - 13:40	Cherniakov Sergei	<u>Winter effects of a night meteor explosion in high</u> <u>latitudes</u>
13:40 - 14:40	Lunch break	
Space climate and Sun-Earth connections   Chair: Semenov V.S.		

	14:40 - 15:00	<b>Novikov Victor</b> , Sorokin Valery	<u>Space weather and seismic activity: Possible triggering</u> of earthquakes by strong solar flares of X-class Online
	15:00 - 15:20	<b>Kropotina Julia</b> , Bykov Andrei	<u>The impact of rotational discontinuities on ions</u> acceleration at the Earth's bow shock
<b>UCP</b> Политика	-	sal Conference Portal <b>Kupriyanova Elena</b> , Mikhalchuk Agneshka Iциальности	Quasi-periodic fast propagating Wave trains as a seismological tool for plasma structures in the solar MMA* corona
	15:40 - 16:00	<b>Malkin Evgeniy</b> , Cherneva Nina, Kazakov Evgeniy, Cherneva Veronika, Makhlai Dmitriy, Akbashev Rinat, Sannikov Dmitriy, Malkina Olga, Lichtenberger Janos, Koronczay	email* <u>Recording of whistlers during Bezymyanniy and</u> <u>Shiveluch volcano eruptions</u> Сообщение*
	16:00	David, Andreeva Marina Discussion	Отправить

-16:30