Plenary

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Registration from 08:30, Ground floor lobby

April 6 morning — Work by sections

Conference Hall

15:00 - 15:10	Welcome by Program Committee Chair Vladimir S. Semenov	
15:10 - 16:40	**Oganov Artem**	Prediction of novel compounds in planetary interiors and atmospheres □□□□

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Registration from 08:30, Ground floor lobby

Conference Hall

Chair: Andrei Kosterov

09:30 - 09:50	Welcome by Program Committee Chair Vladimir S. Semenov	
09:50 - 10:40	**Didenko Alexei**	Copper-porphyry deposits of the Pacific Ring of Fire □□□□
10:40 - 11:30	**Surkov Vadim**	Is it possible to explain the existence of non-seismic earthquake precursors? Review of modern theoretical models □□□□
11:30 - 12:10	**Coffee break**	

Chair: Irina Mironova

12:10 - 13:00	**Sergeev Victor**, Millan R., Ukhorskiy A.	CINEMA project: Adressing unsolved problems of magnetotail dynamics and ionosphere-magnetosphere interactions □□□□
13:00 - 13:50	**Tlatov Andrei**	The 25th solar activity cycle: Forecasts and actual implementation □□□□
13:50 - 15:00	**Lunch**	

Paleomagnetism and Rock Magnetism

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Registration from 08:30, Ground floor lobby

Room 1220

Paleointensity

Chair Andrei Kosterov

10:40 - 11:00	**Salnaia Natalia**	The perspectives use the pseudo-Thellier method to determine the absolute paleointensity of samples with thermoremanent magnetization
11:00 - 11:20	**Grachev Roman**, Pilipenko O., Maksimochkin V.	L-Shaped Arai–Nagata Diagrams in Ceramics: Air vs Argon Experiments and Numerical Modeling
11:20 - 11:40	**Shcherbakova Valentina**, Shcherbakov V., Zhidkov G., Aphinogenova N.	New data on the weak magnetic field in the Proterozoic and an analysis of the field geometry in the Precambrian
11:40 - 12:00	**Eliseev Andrey**, Metelkin D.	Geomagnetic field intensity at the Permian–Triassic boundary based on data from the Kuznetsk basin in the context of the Mesozoic Dipole Low problem
12:00 - 12:30	**Coffee break**	

Geomagnetic field modelling

Chair Elena Sergienko

12:30 - 12:50	**Riabova Svetlana**	Identifying the geomagnetic jerk period using spectral estimation based on Eskdalemuir Observatory data **Online**
12:50 - 13:10	**Starchenko Sergey**, Yakovleva S.	Comparative evolution and statistics of the components of the total geomagnetic energy for three models based on direct measurements
13:10 - 13:30	**Starchenko Sergey**	The simplest model of the geodynamo
13:30 - 13:50	**Korobeynikov Denis**, Sokolov D., Pavlov V.	Duration of the geomagnetic field inversion in the framework of the low-mode geodynamo model
13:50 - 15:00	**Lunch**	
15:00 - 16:40	Plenary	

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Registration from 08:30, Ground floor lobby

09:30 - 11:30	Plenaries	
11:30 - 12:10	**Coffee break**	
12:10 - 13:50	Plenaries	
13:50 - 15:00	**Lunch**	

Room 1220

Magnetism of loess and lake sediments

Chair Andrey Guzhikov

15:00 - 15:20	**Kulakova Ekaterina**, Dudanova V.	Magnetic fabric of loess deposits: physical principles, experimental data and paleoclimatic implication
15:20 - 15:40	**Dudanova Varvara**, Konstantinov E., Pasenko A.	A full sequence of the Matuyama–Brunhes geomagnetic reversal in the Otkaznoe loess plateau: a high-resolution paleomagnetic and normalized remanence records
15:40 - 16:00	**Kulakova Ekaterina**, Schneider R., Stevens T.	A 1.1 Myr record of dust-transporting winds in the Afghan-Tajik basin: Insights from the anisotropy of magnetic susceptibility of loess-paleosol deposits
16:00 - 16:20	**Urbanovich Svetlana**, Gusev A.	Rock-magnetic characteristics of Quaternary formations of the Tukaevo section (Kiginsky district, Bashkortostan)
16:20 - 16:50	**Coffee break**	
16:50 - 17:10	**Kazansky Alexey**, Bezrukova E., Krainov M., Shchetnikov A.	The Late Holocene History of Ordynskoe Lake (Predbaikalia) Based on Rock Magnetic and Grain-size Data
17:10 - 17:30	**Iusupova Anastasiia**	Comparative analysis of the magnetic and geochemical characteristics of bottom sediments from Lake Kandrykul (Cis-Urals) and the Bolshoe/Maloe Miassovo lakes (Southern Urals)
17:30 - 17:50	**Kosareva Lina**, Nourgalieva N., Krylov P., Glukhov M., Yusupova A., Chernova I.	Preliminary results of multidisciplinary studies of Lake Turgoyak sediments

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Registration from 09:00, near Room 1222, Ground floor

Room 1220

Rock magnetism and its applications

Chair Andrei Kosterov

10:00 - 10:40	**Lubnina Natalia**, Bychkov A.	Chemical remagnetization and Geofluids: Theory, Practice, and Experiment □□□□
10:40 - 11:00	**Andreev Andrey**, Lubnina N.	Two Stages of Chemical Remagnetization in the Paleoproterozoic Rocks of the Belomorian Mobile Belt
11:00 - 11:20	**Zaripov Timur**, Lubnina N.	The first results of the separation of magnetite and pyrrhotite in banded iron formation of the Kostomuksha greenstone belt of the Karelian craton based on petromagnetic data
11:20 - 11:40	**Belokon Valery**, Dyachenko O.	Pressure as a Control Parameter of Exchange Interaction in Magnetite: Calculation of the Curie Temperature within the Random Field Method
11:40 - 12:00	**Tselebrovskiy Alexey**, Rytov R., Maksimochkin V., Grachev R.	Potential of magnetic force microscopy for research in rock magnetism
12:00 - 12:30	**Coffee break**	

Chair Alexey Kazansky

12:30 - 12:50	**Maksimochkin Valery**, Rytov R., Tselebrovsiy A., Grachev R.	Magnetic properties of titanomagnetite in pillow basalt from Tolbachik volcano: Dependence on the distance to the hardened crust
12:50 - 13:10	**Kosterov Andrei**, Starunov V., Iosifidi A.	Toward classifying magnetic properties of impact melts — An example from the Boltysh astrobleme
13:10 - 13:30	Sergienko E., **Dubeshko Danil**, Kharitonskii P., Gareev K., Yanson S., Levitskiy I., Shermatov Z., Kozlov V.	Magnetic state of iron oxides in synthetic analogs of Zhamanshin impact glasses: Influence of precursor composition and quenching regime
13:30 - 13:50	**Kuzina Dilyara**, Gattacceca J., Gouilloux H., Mertens H., Lacube R., Demory F., Lorenz C.	Magnetic properties change as indicator of terrestrial weathering on ordinary chondrites
13:50 - 14:50	**Lunch**	

Paleomagnetism I

Chair Aleksandr Pasenko

14:50 - 15:10	**Metelkin Dmitry**	Synchronicity of geomagnetic field variations and global mantle plume activity: Implications for the nature of the Devonian and Vendian periods of GAD disturbance
15:10 - 15:30	**Luzan Margarita**, Metelkin D.	Evidence for non-dipole sources in the Devonian Geomagnetic field from analysis of paleomagnetic vectors in rocks of the south-western incarnation of Siberian Platform
15:30 - 15:50	**Fetisova Anna**, Veselovskiy R., Ladygina L.	Paleomagnetic studies of the Permian-Triassic Bolshoe Bogdo section (south-east of the Eastern European platform)
15:50 - 16:10	**Lebedev Ivan**, Dudanova V., Fedukin I., Sirotin K.	New Magnetostratigraphic Age Constraints for the Final Stage of the Okhotsk-Chukotka Volcanogenic Belt, West Okhotsk Sector
16:10 - 16:30	Tonkoshkurov I., Vishnevskaya V., **Guzhikov Andrey**, Ryabov I., Fomin V.	Magnetostratigraphic and micropaleontological data from the Campanian–Mastrichtian section near Levashi Village (Daghestan)
16:30 - 16:50	**Pavlov Vladimir**, Guzhikov A., Baraboshkin E., Zaika G.	New Eurasian Late Cretaceous paleomagnetic pole and some its applications
16:50 - 17:10	**Coffee break**	
17:10 - 19:00	Poster viewing I, Ground floor	

Chair Dilyara Kuzina

	Gavryushkin Dmitry, Markov G., Karimova O.	Identifying magnetic mineral with Curie temperature ~710°-730°C
	Puginskaya Ulyana, Rytov R., Tselebrovskiy A., Grachev R., Maksimochkin V.	Reconstruction of the magnetic moment of magnetite and titanomagnetite nanoparticles from magnetic force microscopy data using an evolutionary algorithm
	Shcherbakov V., **Sycheva Natalia**	Potential barriers and transformations of the domain structure in submicron magnetite particles exposed to an external magnetic field determined by micromagnetism methods
	Gribov S., **Shcherbakov Valeriy**, Tselmovich V., Aphinogenova N.	Properties of orthogonal and Arai–Nagata diagrams on titanomagnetite-bearing basalts with laboratory-induced mutually perpendicular thermoremanent and chemical remanent magnetizations (new experimental data)
	Pilipenko Olga, Tsetlin Y.	Testing of the implementation of the Thellier-Coe method on experimental ceramics

Salnaia Natalia, Kireev P.	Rock-and paleomagnetic studies of ceramics from Pereyaslavl-Ryazansky (present-day Ryazan). Archeomagnetism is used in archaeology, and vice versa
Sergienko Elena, Dubeshko D., Danilovich D., Kharitonskii P., Gareev K.	Thermal evolution of magnetic minerals in clay rocks: preliminary results of a laboratory experiment
Dudanova Varvara, Kurbanova F., Konstantinov E.	Rock magnetic indicators of the pyrogenic horizons at the Kostenki-17 archaeological site
Oshkin Ilya, Kazansky A., Guzhikov A.	Coercivity spectra and magnetic domain state analysis of Campanian-Maastrichtian deposits from the Bolshevik quarry (Volsk)
Elkina Daria, Piskarev A., Khosnullina T., Bazhenova I., Getman K.	Paleomagnetic Evidence for Controls on Quaternary Sedimentation in the Deep Arctic Basin
Kuznetsov Egor, Khosnullina T., Bochkarev A., Yarzhembovsky Y., Bogin V.	Paleomagnetic studies of bottom sediments of the Bering Sea
Latyshev Anton, Latanova E., Bergal-Kuvikas O.	Paleomagnetism of the Holocene lava flows of the Koryaksky volcano (Kamchatka): implications for the secular geomagnetic variations analysis
Demina Irina, Merkuriev S.	Experience of application of the wavelet transform on marine magnetic anomalies to identify temporal cyclicity in the change of magnetic field
Tonkoshkurov Ilya, Kisilev D., Lutikov O.	Preliminary magnetostratigraphic data on the boundary interval of the Lower-Middle Jurassic of the North Caucasus (Karachay-Cherkessia)
Fedyukin Ivan, Shatsillo A.	Paleomagnetic results of early Jurassic volcanic rocks from western Transbaikalia
Parfir'ev Nikita, Golovanova I., Valieva R., Danukalov K.	Paleomagnetic study of the rocks of the Zilmerdak formation of the upper riphean (Southern Urals)

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Registration from 09:00, near Room 1222, Ground floor

09:00 - 10:20	Poster viewing II, Ground floor	

Room 1220

Paleomagnetism II

Chair Vladimir Pavlov

10:20 - 10:40	**Kovalenko Dmitry**, Buzina M.	Paleomagnetic method for solving problems of intraplate magmatism in the Central Asian Fold Belt
10:40 - 11:00	**Pasenko Aleksandr**, Malyshev S., Shalamova A., Pavlov V., Korobejnikov D.	First paleomagnetic results of Precambrian strata of the Igarka Uplift study (northwestern margin of the Siberian platform)
11:00 - 11:20	**Danukalov Konstantin**, Parfir'ev N., Golovanova I., Valieva R.	Upper paleozoic component of magnetization in rocks of the Katav formation of the upper riphean (Southern Urals)
11:20 - 11:40	**Fedyukin Ivan**, Shatsillo A., Romanyuk T., Latysheva I., Novikova A., Kuznetsov N.	Paleomagnetic results of permian rocks from the greater Caucasus (Scythian plate)
11:40 - 12:00	**Alagiyawanna Indumini Avishka Erandi**, Vinogradov E., Metelkin D.	Paleomagnetic evidence of large strike-slip movements of the Western Sangilen and Tannuola island arc structures in the Early Paleozoic
12:00 - 12:30	**Coffee break**	
12:30 - 12:50	**Latyshev Anton**, Bergal-Kuvikas O., Latanova E., Anosova M.	Reconstruction of the Miocene volcanic activity within the Malko-Petropavlovsk zone of transverse dislocations (Kamchatka) based on rock-magnetic and paleomagnetic data
12:50 - 13:10	**Veselovskiy Roman**, Ovsepyan E., Dudanova V., Novichkova E., Fetisova A.	Paleomagnetism of Deep-Sea Sediments: Methods and Case Studies
13:10 - 13:30	**Ushakov Dmitrii**, Pavlov V.	Numerical Modeling of the Influence of Sedimentation Hiatuses on the Preservation of the Magnetostratigraphic Record
13:30 - 13:50	**Khosnullina Tansylu**, Piskarev A., Elkina D., Gusev E., Getman K., Bazhenova I., Zholondz A., Bezumov D.	Paleomagnetic investigations and their importance for determining the age of the sedimentary sequence of the Laptev Sea shelf

13:50 - 14:10	**Bazhenova Irina**, Elkina D., Gusev E., Piskarev-Vasilyev A., Khosnullina T.	Using petrophysical and paleomagnetic data to date the bottom sediments of the Amundsen Basin
14:10 - 15:10	**Lunch**	

Seismology, Geodynamics, and Geomechanics

2026□4□6□

Registration from 08:30, Ground floor lobby

Room 1221

Earthquake prediction, precursors, and seismic hazard assessments

Chair: Evgenia Poltavtseva

09:30 - 09:50	**Shanker Daya**, Panthi A.	Predictive Modelling and Forecasting Earthquakes Hazard in Northeast India Himalaya and Vicinity □□□□ **Online**
09:50 - 10:10	Kopnichev Y., **Sokolova Inna**	Heterogeneities of S wave attenuation field and ring-shaped seismicity structures forming before large earthquakes
10:10 - 10:30	Rodkin M., **Liperovskaya Elena**	Earthquake forecasting as an example of forecasting of instability
10:30 - 10:50	**Petrushov Andrey**, Smirnov V., Mikhailov V., Polovnikova A., Fomina S.	On anomalies of seismicity preceding the megaquakes in Kamchatka on 29.07.2025 (M8.8) and in Japan on 11.03.2011 (M9.1)
10:50 - 11:10	**Poltavtseva Evgenia**, Sagaryarov I., Malysheva A., Buss Y., Morozova Y., Gavrilov V.	Comparison of long-term series of specific electrical resistivity of the geoenvironment changes based on borehole monitoring data and the ionospheric disturbances based on GNSS observations during the preparation of the Kamchatka mega-earthquake (July 29, 2025, Mw=8.8)
11:10 - 11:30	Lobodenko I., **Fikhieva Luiza**	Confirmation of the predicted values of the Earth's seismicity in the 21st century according to monitoring seismological observations in the Russian Federation **Online**
11:30 - 12:00	**Coffee break**	

Room 1221

Technogenic and induced seismicity and earthquake-related phenomena

Chair: Inna Sokolova

12:00 - 12:20	**Sokolova Inna**, Dubrovin V.	Fireball registration by infrasound and seismic monitoring stations

12:20 - 12:40	**Rodkin Mikhail**, Punanova S.	Geochemical contamination and induced seismicity in shale hydrocarbon development
12:40 - 13:00	**Bataleva Elena**, Nepeina K.	Some relationships between electromagnetic signals and earthquake parameters
13:00 - 13:20	**Saraev Alexander**, Shlykov A., Dembelov M., Zaitsev D., Agrahari S.	Monitoring of the stress-strain state of rocks using data of audiomagnetotelluric soundings
13:20 - 13:40	**Riabova Svetlana**	Ionospheric effect of 8.8 Kamchatka earthquake and its powerful 6.9 aftershock **Online**
13:40 - 14:00	**Tsiareshchanka Kseniya**, Bialiayeva V., Martsinonich Y., Aronov A.	Seismic effects of industrial explosions in a granite quarry in Belarus
14:00 - 15:00	**Lunch**	
15:00 - 16:40	Plenary	

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Registration from 08:30, Ground floor lobby

09:30 - 11:30	Plenaries	
11:30 - 12:10	**Coffee break**	
12:10 - 13:50	Plenaries	
13:50 - 15:00	**Lunch**	

Room 1221

Theoretical aspects and intelligent systems in Earth's structure studies: methods, instruments and data processing

Chair: Vladimir N. Troyan

15:00 - 15:20	**Ponomarenko Andrey**, Stanyulis A.	Estimation of the Reflection Coefficient at the Water-Seabed Interface Based on the Transfer Function Between Geophone and Hydrophone Sensor Data
15:20 - 15:40	**Semenov Vladimir**, Kubyshkin I., Dragunov V., Belishev M.	Application of the Boundary Control Method for Solving the Inverse Problem of Signal Velocity Reconstruction for a One-Dimensional Wave Equation
15:40 - 16:00	**Tsukanov Alexey**, Gorbatikov A.	Theory of the microseismic sounding method in the weak scattering approximation
16:00 - 16:20	**Motorin Alexander**	Deep neural network to classify anthropogenic seismic events in the Khibiny Massif
16:20 - 16:40	**Shaleev Maxim**, Isaev I., Obornev I., Rodionov E., Dolenko S.	Using Transfer Learning for Neural Network Solution of 3D Inverse Problems of Exploration Geophysics on Hierarchical Models
16:40 - 17:00	**Shchurov Nickolay**, Isaev I., Obornev I., Rodionov E., Dolenko S.	Neural Network Solution of the Magnetotelluric Sounding Inverse Problem: Nonlinear Fast Correlation Based Filtering Approach for High-Dimensional Data
17:00 - 17:20	**Gravirov Valentin**, Likhodeev D.	Instrumental Complex of the Baksan Temperature Antenna
17:20 - 17:50	**Coffee break**	

Poster viewing, Ground floor

Theoretical aspects and intelligent systems in Earth's structure studies: methods, instruments and data processing

Chair: Konstantin Kislov

Gravirov Valentin	Development and Modernization of a Controlled Power Supply Unit for a Rocks Temperature Antenna
Gorbatikov Andrei, Tsukanov A.	Practice and prospects for the application of Microseismic Sounding Method in geological exploration of mineral deposits
Gravirov Valentin	DAS-based Virtual Seismometers: Pros and Cons
Gravirov Valentin	Available High-precision Temperature Sensors for Deep Mountain Rock
Gravirov Valentin	Application of Quartz Resonators as Precision Rock Temperature Sensors
Gavrilov V., **Poltavtseva Evgenia**, Morozova Y., Buss Y., Fedoristov O.	The EMR method as a basic method of borehole monitoring of the preparation of strong Kamchatka earthquakes
Kotov Andrey, Pyatunin M., Sanina I.	Small aperture seismic array synthesis in the Yamal-Nenets autonomous district of the Russian Federation
Sidoryk Daniil, Aronov A.	Application of the Nakamura Method in Seismic Microzonation for Critical Facility Siting
Gravirov Valentin	Field Tests of Geophysical Data Acquisition Systems
Presnov D., Gravirov V., Zhostkov R., Fokin I., Shamaev N., Shurup A., Ponomarev I., Fomiryakov E., **Kislov Konstantin**, Spiridonov E., Pyanzov S., Frolov I., Kharasov D.	Klyazma 2: Ice cover characteristics by DAS
Kislov Konstantin, Marchenkov A.	Comparison of Signals Spectra and Amplitudes from Vertical Pulsed Seismic Sources
Vorobyova I., Krushelnitsky K., Grekov E., Skorkina A., Baranov S., Malyutin P., Matochkina S., **Molokova A.**, Shebalin P.	A new approach to determine the most probable depths of earthquakes using the example of the Kuril-Kamchatka subduction zone
Kotov Andrey, Sobisevitch A., Presnov D., Zhostkov R.	Some results of comparative tests of a group of molecular electronic seismometers and a small-aperture seismic array "Mikhnevo"

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Registration from 09:00, near Room 1222, Ground floor

Room 1221

Earth's structure

Chair: Andrey Goev

09:00 - 09:20	**Huang Zhouchuan**, Wu H.	Deep structures and mechanisms of earthquakes and volcanoes in Mongol-Baikal region □□□□ **Online**
09:20 - 09:40	**Rodkin Mikhail**	Deep fluid systems of the lithosphere based on seismic and geochemical data
09:40 - 10:00	**Filippova Alena**, Filippov S.	The lithospheric thermal state under the Barents Sea from geomagnetic and surface wave data □□□□
10:00 - 10:20	Ovtchinnikov V., **Usoltseva Olga**, Oparina D.	Features of the upper part of the inner core beneath Africa based on refracted P-wave data
10:20 - 10:40	**Goev Andrey**	Mantle transition zone of the Russian Far East from receiver function data
10:40 - 11:00	Kulyandina A., Sokolova E., **Filippova Alena**	Crustal structure of the Lena-Anabar trough from gravimetric and geomagnetic data
11:00 - 11:20	**Seminskiy Igor**	Three-dimensional model of electrical conductivity distribution in the southwestern part of the Baikal rift zone and adjacent territories
11:20 - 11:50	**Coffee break**	

Room 1221

Geodynamics and regional seismicity

Chair: Anna Skorkina

11:50 - 12:10	**Sidoryk Daniil**, Aronov A.	Relationship between Meteorological Parameters and Temporal Variations of Microseismic Processes at the Belarusian Antarctic Research Station
12:10 - 12:30	**Strelnikov Andrei**	Paleoseismological studies of the Kyzyl-Adyr uplift in the Talas depression
12:30 - 12:50	Avetisyan A., Burmin V., **Petrosyan Goharik**, Avdalyan A., Asatryan L.	Study of seismicity of the Republic of Armenia and adjacent territories based on the NEIC and ISC catalog data for the period 1991–2024

12:50 - 13:10	**Movsesian Pavel**, Gorshkov V., Scherbakova N., Petrov S., Smirnov S.	Geodynamics of the East European platform based on Russian satellite navigation network
13:10 - 13:30	**Skorkina A.**, Ostapchuk A., Chebrov D., Shebalin P.	Cascade structure of the 2025 Kamchatka megaearthquake
13:30 - 13:50	**Molokova Alisiya**, Skorkina A., Smirnov V.	Inter-magnitude relations for the seicmicity of the Klyuchevskaya group of volcanoes
13:50 - 14:50	**Lunch**	

Room 1221

Earthquake source

Chair: Alena Filippova

14:50 - 15:10	**Filippova Alena**, Melnikova V., Radziminovich Y., Gileva N.	Earthquake focal mechanisms in Transbaikalia (Eastern Siberia)
15:10 - 15:30	**Marshakova Ekaterina**, Smirnov V., Mikhailov V.	Tectonic earthquakes with NDC sources
15:30 - 15:50	**Fomochkina Anastasia**, Filippova A.	Source parameters of the major earthquakes in Alaska (2025) from surface wave records
15:50 - 16:10	**Klyanchin Andrei**	Instrumental and Macroseismoc Parameters of the Earthquake of 02.02.2026 in the South of the Azov Sea
16:10 - 16:30	Krushelnitsky K., Vorobyova I., Gaidalenok O., Malyutin P., Molokova A., **Skorkina A**, Filippova A., Shebalin P.	Preliminary results of determination of most probable earthquake focal mechanism for the Kuril-Kamchatka subduction zone
16:30 - 16:50	**Morozova Kseniya**	Earthquake source development scenarios based on data of the tectonic fault structure
16:50 - 17:20	**Coffee break**	

Poster viewing, Ground floor

Earthquake source & Geodynamics and regional seismicity

Chair: Anastasia Fomochkina

	Gravirov Valentin, Sobisevich A., Likhodeev D.	Influence of Lunar-Solar Tides on the Temperature Regime of the Mountain Rock Near the Elbrus Volcano
	Kotov Andrey, Toshchov S.	Some results of an experimental study of the seismic situation on the Baikal-Amur Mainline section
	Sannikov Konstantin, Lyskova E.	Refined approaches to advanced earthquake quantification based on P-wave spectra

Filonenko Stanislav,
Vinberg F., Fomochkina A.,
Kislov K., Filippova A.

Earthquake focal mechanisms from Distributed Acoustic Sensing data

2026□4□9□

Registration from 09:00, near Room 1222, Ground floor

Room 1221

Geomechanics

Chair Valerii V. Khimulia

09:00 - 09:20	**Barkov Svyatoslav**	Static and Dynamic Elastic Moduli of Tas-Yuryakh Reservoir Rocks: Experimental Determination and Comparative Analysis **Online**
09:20 - 09:40	**Petrovykh Anton**, Parshakov A., Kozhevnikov E.	Experimental study of nanoparticle transport in sand-porous media **Online**
09:40 - 10:00	**Zaitsev Alexey**, Fukalov A.	Initial Strength Analysis of Reinforced Concrete Monolithic Supports for Spherical and Cylindrical Mine Workings **Online**
10:00 - 10:20	**Khimulia Valerii**, Barkov S., Kovalenko Y., Karev V.	Characterization of Permeability and Strength Anisotropy in Arctic Gas-Condensate Reservoirs Using Multiscale Digital Core Analysis and Geomechanical Modeling □□□□ **Online**
10:20 - 10:40	Gladkikh E., **Petrova Natalia**	Laboratory studies of the effect of varying effective pressure on the permeability of oil-saturated visean sandstones **Online**
10:40 - 11:00	**Zaitsev Alexey**, Panteleev I., Shevtsov N., Karev V., Kovalenko Y.	Deformation Mechanisms and Damage Regularities of Rocks under Non-Proportionl Triaxial Loading on the Basis of Acoustic Emission Measurements **Online**
11:00 - 11:30	**Coffee break**	
11:30 - 11:50	**Golosov Andrei**, Sverdlov E.	Machine Learning Detection of Failure Preparation in Rocks Samples Under Uniaxial Compression **Online**
11:50 - 12:10	**Zaitsev Alexey**, Fukalov A., Kourov R.	Identification of Material Constants for Oil-saturated and Extracted Carbonate Rocks Based on the Results of Triaxial Non-proportional Loading **Online**

12:10 - 12:30	**Ivanov Zakhar**	Geomechanical effects of cyclic impact on the bottomhole formation zone in laboratory conditions **Online**
12:30 - 12:50	**Shevtsov Nikolai**	Deformation and Strength Properties of Arctic Shelf Gas-Condensate Reservoir Rocks: True Triaxial Testing **Online**
12:50 - 13:10	**Kozhevnikov Evgenii**, Turbakov M., Riabokon E., Ivanov Z., Gladkikh E., Tyurina G., Guzev M., Kobyakov D.	Analysis of pore-structure evolution in porous media under mechanical loading **Online**
13:10 - 13:30	Panteleev I., **Zaitsev Alexey**, Shevtsov N., Khimulia V., Karev V., Kovalenko Y.	Kaiser Damage-Memory Effect in Sandstone under Cyclic and Rotated Triaxial Stresses **Online**

Solar-Terrestrial Physics

2026□4□6□

Registration from 08:30, Ground floor lobby

Room 1222

Section: Heliophysics

Chair: Mironova I.A. and Zolotova N.V.

09:50 - 10:10	**Zolotova Nadezhda**, Vokhmyanin M.	Reconstruction of solar activity in the seventeenth century: prospects and limitations
10:10 - 10:30	**Kazakov Evgeny**, Vodinchar G.	Two-mode approximation with memory for Solar dynamo
10:30 - 10:50	**Dukanov Ilia**, Yushkov E., Sokoloff D., Frick P.	A New Method for Estimating Reynolds Numbers in Plasma Flows Based on Data from the Parker Solar Probe Mission
10:50 - 11:10	**Starchenko Sergey**	Near-critical MHD energy of the Sun's convective zone
11:10 - 11:30	**Sadykov Aidar**, Sadykov V.	Daily Variations of Observed SDO/HMI Doppler Velocities in Strong Magnetic Fields
11:30 - 11:50	**Kuziy Daria**, Kupriyanova E.	Estimation of Parameter Dynamics for a Global Coronal Wave
11:50 - 12:20	**Coffee break**	

Room 1222

Section: Heliophysics

Chair: Zolotova N.V.

12:20 - 12:40	**Kupriyanova Elena**, Mikhalchuk A., Samofalova B., Dmitriev V.	Fast wave trains in observations of solar flare from radio to hard X-rays
12:40 - 13:00	**Lukmanov Vladislav**, Igor C., Sergei T., Vasilii O.	Solar noise storm in May 2024 by observations on the LPA LPI radio telescope
13:00 - 13:20	**Bauman Mariia**, Kashapova L.	Study of velocity variations of electrons in solar type III radio bursts
13:20 - 13:40	**Kuzmitskiy Alexey**, Kochanov A.	On the transport of high-energy protons in the solar atmosphere and the associated gamma-ray emission

13:40 - 14:00	**Vakhrusheva Anna**, Shugay Y., Kaportseva K., Kalegaev V.	Coronal hole influence on coronal mass ejection propagation during the 15 February 2011 event
14:00 - 15:00	**Lunch**	
15:00 - 16:40	Plenary	
16:40 - 17:10	**Coffee break**	

Room 1222

17:10 - 18:15 Poster Section

Chair: Mironova I.A. and Zolotova N.V.

Kirillov Andrey, Kulikov Y.	Modeling of $O_2(b^1\Sigma_g^+)$ Atmospheric bands in the polar ionosphere
Dashkevich Zhanna, Ivanov V.	The average energy of electron and nitric oxide concentration during average aurora
Malkin E., **Kazakov Evgeny**, Shevtsov B., Cherneva N.	Determination of lightning discharge height by radio interferometric method
Kobyakova Sargylana, Gololobov A., Rustam K., Stepanov A.	Seasonal variations in F2-layer critical frequency trends according to data from the Yakutsk ionospheric station
Kochneva Elina, Mironova I., Bazilevskaya G., Mironov A., Makhmutov V., Rozanov E.	The impact of particle precipitation on the middle atmosphere and ionosphere during the solar–geomagnetic disturbances of October 2003
Belakhovsky Vladimir, Vasilev A., Kalishin A., Jin Y., Miloch W., Dolgacheva S.	The impact of high-latitude ionospheric disturbances on GNSS signals during strong magnetic storms of the 25th solar cycle
Pilipenko Vyacheslav, Kolobov V., Karpov A., Ivonin V., Savelyeva N., Chugunin D.	FENICS-Ionosphere project: Excitation of artificial ULF-ELF emissions by power lines in the Murmansk region
Smolin Sergei	Modeling of ring current proton dynamics driven by wave-particle interactions during a nonstorm period
Belakhovsky Vladimir, Pilipenko V., Selivanov V., Sakharov Y.	Comparative analysis of the influence of geomagnetic pulsations of various frequency ranges on the growth of geomagnetic-induced currents in power lines of the Murmansk region
Karimov Rustam	Ground-based recording of VLF-radiation from high-voltage power lines at mid-latitudes of Northeast Asia during the geomagnetic storm of February 3, 2022

Despirak Irina, Setsko P., Sakharov Y., Selivanov V., Lubchich A.	Geophysical sources of intense GICs during storm on 12-13 November 2025
Popova Tatyana, Yahnina T., Demekhov A.	Position of the electron isotropy boundary on the night side of the magnetosphere
Demekhov Andrei, Yahnina T., Popova T., Ivanova A., Kalegaev V.	Estimates of precipitating fluxes of energetic electrons during the magnetic storm of 10-16 October 2017 based on magnetospheric spacecraft data
Yahnina Tatiana, Demekhov A., Popova T.	Differences in the characteristics of energetic proton precipitation related and unrelated to relativistic electron precipitation according to NOAA POES satellite data
Kryakunova Olga, Belov A., Seifullina B., Abunin A., Abunina M., Tsepakina I., Nikolayevskiy N., Shlyk N., Koichubayev R.	High-energy magnetospheric electron enhancements in geostationary orbit and interplanetary disturbances
Zhong Dahua, Divin A., Paramonik I., Semenov V.	Ion Beam Formation and Its Statistical Cooling via the Hall Electric Field in Collisionless Magnetic Reconnection
Oganov S., **Kalegaev Vladimir**, Vlasova N.	Variations in the fluxes of relativistic electrons of the Earth's outer radiation belt and the sector structure of the interplanetary magnetic field
Balabin Yury	Verification of magnetospheric models T-01 and T-03 using GLE technique
Balabin Yury, Germanenko A., Gvozdevsky B.	Spectrum of solar cosmic rays in the GLE77 event
Grigorieva Irina, Ozheredov V., Struminsky A.	Study of the Distribution of Proton Enhancements and their Sources in the first 5 years of the 25^{th} Solar Cycle
Despirak Irina, Kleimenova N., Gromova L., Lubchich A.	Some features of supersubstorms during very strong magnetic storms
Kozlova Ksenia, Zolotova N.	Study of growth and decay rates of sunspot groups in solar cycle 24 based on Greenwich data
Madimarov Sanjar	Building a Training Dataset of Solar Active-Region Evolution from MDI Magnetograms

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Registration from 08:30, Ground floor lobby

09:30 - 11:30	Plenaries	
11:30 - 12:10	Coffee break	
12:10 - 13:50	Plenaries	
13:50 - 15:00	**Lunch**	

Room 1222

Section: Solar wind, inner magnetosphere

Chair: Apatenkov S.V.

15:00 - 15:20	**Bragina Anastasia**, Arutyunyan D., Lygin I.	Current State and Prospects for the Development of Heliogeophysical Monitoring
15:20 - 15:40	**Azra-Gorskaya Clemence**, Kalegaev V., Vlasova N.	Machine learning-based forecasting of relativistic electron fluences in geostationary orbit three days in advance using data from the 24th solar cycle
15:40 - 16:00	**Azra-Gorskaya Clemence**, Kalegaev V., Vlasova N., Demekhov A.	Non-adiabatic processes affecting outer belt electron fluxes during two magnetic storms occuring in December 2015 and August 2018
16:00 - 16:20	**Savelyeva Natalia**, Pilipenko V.	Features of electromagnetic radiation from industrial power lines in the upper ionosphere
16:20 - 16:50	Coffee break	

Room 1222

Section: Solar wind, Magnetosheath, magnetopause

Chair: Sergeev V.A.

16:50 - 17:10	Tsyganenko N., **Gubaidulin Nikita**, Semenov V., Erkaev N.	Principal characteristics of the terrestrial magnetosheath based on results of empirical modeling
17:10 - 17:30	**Erkaev Nikolai**	Electric field at the dayside magnetopause in case of southward IMF
17:30 - 17:50	**Balabin Yury**, Germanenko A., Gvozdevsky B.	Analysis of the unusual Forbush decrease in September 2025
17:50 - 18:10	**Lavrukhin Alexander**, Kaportseva K., Shiryaev A.	Analysis of interplanetary shock associated geosynchronous magnetic field perturbations

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Registration from 09:00, near Room 1222, Ground floor

Room 1222

Section: Inner magnetosphere, energetic particles

Chair:

09:30 - 09:50	**Ivanova Alexandra**, Demekhov A., Kalegaev V., Yahnina T.	Spectral characteristics of electron precipitation from the Earth's outer radiation belt caused by different scattering mechanisms
09:50 - 10:10	**Shukhtina Maria**, Sergeev V., Stepanov N.	Empirical model of substorm effects in subrelatvstic electron fluxes at geostationary orbit
10:10 - 10:30	**Sergeev V.**, Dibaeva A., Stepanov N.	Energy dependence of energetic electron precipitation rates near the foot of electron isotropy boundary
10:30 - 10:50	**Kokhan Georgy**, Apatenkov S., Sergeev V., Alexandrovich N.	Estimation of the curvature of field lines in the outer radiation belt
10:50 - 11:10	**Kalegaev Vladimir**, Azra-Gorskaya C., Vlasova N., Zykina A.	Outer electron radiation belt variations under solar wind pressure pulses
11:10 - 11:30	**Svertilov Sergey**, Bogomolov V., Bogomolov A., Marchenko O., Myagkova I., Yashin I., Chernyshov A.	Observations of Solar Flare Activity and Charged Particle Flux Variations during Strong Geomagnetic Storms on Ionosfera-M Satellites in 2025 – 2026
11:30 - 12:00	**Coffee break**	

Room 1222

Section: New experiments and methods, energetic particles

Chair: Sergeev V.A.

12:00 - 12:20	**Davydenkov Igor**, Ozheredov V.	Quantitative forecasting of solar proton event characteristics using gradient boosting regression and multiparametric feature engineering
12:20 - 12:40	**Bogomolov Vitaly**, Bogomolov A., Iyudin A., Kucherenko I., Osedlo V., Svertilov S., Vasiliev N., Voskresenskov E.	TGS gamma-ray spectrometer on the SINP-MSU-80 small satellite for studying solar activity and space weather effects

12:40 - 13:00	**Kholodkov Kirill**, Burov V., Kondratov A.	Response of the Radiation Dose Rate Model to Extreme Solar Events of November 10–11, 2025
13:00 - 13:20	**Ozheredov Vadim**, Struminsky A., Grigorieva I., Sadovsky A., Arefyev V., Shtykovsky A., Samorodova A.	Matching Up the Proton Enhancements Detected by Spektr-RG Space Weather Monitor with Their Estimated Sources
13:20 - 13:40	**Sadykov Aidar**, Zolotarev I., Benghin V., Nechaev O., Antonyuk G., Osedlo V., Sazonova A., Lebedev M., Sedykh P.	Simulation of the Response of the KODIZ-2 Detector System to Charged Particle Fluxes
13:40 - 14:00	**Myagkova Irina**	The Role of Low Polar Orbit Experiments in Monitoring Space Weather in Near-Earth Space
14:00 - 15:00	**Lunch**	

Room 1222

Section: New experiments and methods, energetic particles

Chair

15:00 - 15:20	**Myagkova Irina**, Bogomolov A., Bogomolov V., Svertilov S., Iyudin A.	Observation of hard X-ray emission from solar flares in experiments on board the CORONAS-F, Vernov, Lomonosov satellites and the MSU CubeSat nanosatellites using equipment developed by SINP MSU
15:20 - 15:40	**Bogomolov Andrey**, Bogomolov V., Eremeev V., Iyudin A., Myagkova I., Osedlo V., Svertilov S.	Space weather phenomena observed in experiments on Cubesats of the MSU “Sozvezdie 270” during the heliogeophysical disturbances in 2025-2026
15:40 - 16:00	**Antonyuk Georgy**, Benghin V., Lebedev M., Nechaev O., Osedlo V., Sazonova A., Sedykh P., Sadykov A., Zolotarev I.	KODIZ-2 instrument for CubeSat-type satellite
16:00 - 16:20	**Sigaeva Ksenia**, Klimov P., Nikolaeva V.	Statistical analysis of pulsating auroras from the PAIPS experiment data
16:20 - 16:50	**Coffee break**	

Room 1222

Section: Space weather

Chair: Apatenkov S.V.

16:50 - 17:10	**Vakhnina Vera**, Kuvshinov A., Chernenko A., Pudovinnikov R., Fedyai O.	Features of Engineering Monitoring of Hazardous Levels of Geomagnetically Induced Currents in High-Voltage Power Networks

17:10 - 17:30	**Vakhnina Vera**, Fedyai O.	Experimental Studies of the Impact of Geomagnetically Induced Currents on a Single-Phase Transformer
17:30 - 17:50	**Kondratov Andrei**, Kholodkov K., Burov V.	Advances in Space Weather Monitoring for Civil Aviation
17:50 - 18:10	**Semenov Mark**, Myagkova I., Vladimirov R., Shirokiy V., Dolenko S.	Investigation of the dependence of the quality of forecasting space weather factors on the position and length of data sets using the SIBYL system

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Registration from 09:00, near Room 1222, Ground floor

Room 1222

Chair: Zolotova N.V.

Heliophysics

09:30 - 09:50	**Makarova Irina**, Yushkov E., Sokoloff D.	Violation of the law of conservation of magnetic helicity in the mean-field dynamo model

Section: Storms and substorms

09:50 - 10:10	**Ukolov Denis**, Semakov N.	Integral characteristics of the geomagnetic field as a tool for investigating solar–terrestrial relationships
10:10 - 10:30	**Kopytenko Eugene**, Kopytenko Y., Sergushin P.	Instrumental and methodological aspects of spatial-temporal monitoring of electromagnetic geophysical phenomena based on the SPbF IZMIRAN facilities
10:30 - 10:50	**Vasilyev Roman**, Mishin V., Penskih Y., Beletskiy A.	Mid-latitude auroral structures and magnetosphere-ionosphere currents during st.Patrick geomadnetic storm (17 March 2015)
10:50 - 11:10	**Gorbunova Kseniia**	Inferring exoplanet radius from hydrodynamic escape signatures: the role of critical atmospheric levels and stellar EUV flux
11:10 - 11:30	**Paramonik Igor**, Divin A., Semenov V.	Decomposing the Hall term contribution to magnetic field evolution using a specialized induction equation solver
11:30 - 12:00	**Coffee break**	

Room 1222

Section: Storms and substorms

Chair: Pilipenko V.A.

12:00 - 12:20	**Troshichev Oleg**, Stepanov N.	Behaviour of “substorm current wedge” in course of the substorm explosive phase
12:20 - 12:40	**Stepanov Nikita**, Troshichev O.	The PC index value as a standard for estimation of the cosmic noise absorption in the auroral zone
12:40 - 13:00	**Kubyshkina Marina**, Semenov V., Kubyshkin I.	Role of the Solar Wind v_z-component in Substorm Initiation

13:00 - 13:20	**Semenov Vladimir**, Kubyshkin I., Kubyshkina M.	The role of the ring current in the substorm development from the point of view of Stokes' theorem
13:20 - 13:40	**Apatenkov Sergey**, Kokhan G., Bryzhakhina D.	Magnetotail current sheet properties during slow crossings
13:40 - 14:00	**Divin Andrey**, Klimenko M., Bessarab F., Gordeev E., Rozanov E.	Validation of the coupled GSMTIP-GAMERA code for self-consistent simulations of thermosphere/ionosphere/magnetosphere system
14:00 - 15:00	**Lunch**	

Room 1222

Section: Space climate and Sun-Earth connections

Chair: Apatenkov S.V.

15:00 - 15:20	**Veretenenko Svetlana**, Dmitriev P., Obridko V.	Variations in geophysical characteristics associated with the solar Hale cycle and their possible contribution to bidecadal climatic oscillations
15:20 - 15:40	**Volobuev Dmitry**, Makarenko N., Verbitsky M.	Insolation Signal in Climate on Scales from Decades to Millions of Years
15:40 - 16:00	**Ivanov Vjacheslav**	Cosmophysical reasons of the present state climate on Earth
16:00 - 16:20	**Pilipenko Vyacheslav**	Power transmission lines and the near-Earth space as mutually interdependent systems
16:20 - 16:40	**Chernyshov Alexander**, Pulinets S., Yasyukevich Y., Chugunin D., Svertilov S., Padokhin A., Bogomolov V., Bogomolov A., Tsybulya K., Danilchuk E., Mogilevsky M.	Comparative Study of Ionospheric Effects during the Extreme Geomagnetic Storms of November 2025 and January 2026
16:40 - 17:10	**Coffee break**	

Room 1222

Section: Wave phenomena

Chair: Demekhov A.G.

17:10 - 17:30	**Luttseva Ekaterina**, Vodinchar G.	Recognizing a group of whistlers in VLF radio signals
17:30 - 17:50	**Belakhovsky Vladimir**	An alternative view of the mechanism of generation of geomagnetic Pc3-4 pulsations

17:50 - 18:10	**Marchenko Liudmila**, Parovik R.	Analysis of the Application of the Linear Extrapolation Method for Dynamic Spectra of Whistlers Recorded in Kamchatka to Determine the Electron Concentration in the Plasmasphere

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Registration from 09:00, near Room 1222, Ground floor

Room 1222

Section: Ionosphere

Chair: Irina Mironova

09:30 - 09:50	**Trofimov Dmitrii**, Petrov S., Chekunov I., Serov Y.	Solar activity in the coefficients of spherical decomposition of the total electron content of the ionosphere
09:50 - 10:10	**Zinkin Denis**, Surkov V., Pilipenko V.	The influence of solar flares on the parameters of the ionosphere and the Earth-ionosphere waveguide
10:10 - 10:30	**Ismoilov Shohrukh**, Kogogin D.	Detection of ionospheric disturbances related to the passage of the solar terminator in total electron content data
10:30 - 10:50	**Kirillov Andrey**, Tarasenko V.	The kinetics of electronically excited N_2 and N_2^+ in sprites and a discharge chamber
10:50 - 11:10	**Antonenko Olga**, Kirillov A.	Comparison of the results of theoretical calculations of night glow emission with measurement data obtained by both ground-based methods and from space shuttles
11:10 - 11:40	**Coffee break**	

Room 1222

Section: Ionosphere

Chair:

11:40 - 12:00	**Riabova Svetlana**, Vadim S., Zinkin D., Kostina P.	Ionospheric and geomagnetic responses to the X8.1 solar flare on February 1, 2026 **Online**
12:00 - 12:20	**Kobyakova Sargylana**, Gololobov A., Karimov R., Stepanov A.	Variations in the F2-layer critical frequency: dependence on the choice of solar activity index
12:20 - 12:40	**Budovkina Aleksandra**, Edemskiy I., Vasilyev R.	Comparison of nighttime horizontal wind dynamics using Fabry-Perot interferometer and HWM model data
12:40 - 13:00	**Pozdnyakova Daria**, Fedorov E., Pilipenko V.	A model of electric field in the ionosphere excited by MHD waves

13:00 - 13:20	**Kostina Polina**, Pilipenko V., Riabova S.	Ionospheric and geomagnetic responses to interplanetary shocks and solar flares
13:20 - 13:40	**Dashkevich Zhanna**, Ivanov V.	Diagnostics of the average energy of auroral electrons used photometric observations of the 427.8 nm emission
13:40 - 14:40	**Lunch**	

Room 1222

Section: Ionosphere

Chair: Irina Mironova

14:40 - 15:00	**Liperovskaya Elena**, Rodkin M.	Seismo-ionospheric variations of the critical frequency *foF*2 at night and during the day based on data from Tokyo and Tashkent stations
15:00 - 15:20	**Titova Maria**, Zakharov V., Pulinets S.	A tailored methodology for processing radio and geophysical data to study lithospheric-ionospheric interactions and the obtained results of correlations between ionospheric irregularities and specific seismic sources through its application
15:20 - 15:40	**Remenets George**	UREP – A polar geophysical problem is waiting continuation of its investigation in the experiments and theory

Chair: Vladimir Semenov

15:40 - 16:20	Discussion & Closing of the conference