

# Overview 15M-S<sup>3</sup> Program

## THE FIFTEENTH MOSCOW SOLAR SYSTEM SYMPOSIUM (15M-S<sup>3</sup>)

IKI RAS, 21-25 October 2024

	21 October	22 October	23 October	24 October	25 October
10.00	OPENING SESSION	VN SESSION	MN SESSION	SB SESSION	EP SESSION
	MS SESSION				
11.00					
11.40	COFFEE	COFFEE	COFFEE	COFFEE	COFFEE
12.00					
13.00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
14.00					
					EP POSTERS
		VN POSTERS			AB SESSION
16.00	COFFEE	COFFEE	COFFEE	COFFEE	COFFEE
16.20		GP SESSION			
				SB POSTERS	
	MS POSTERS				
18.00	WELCOME PARTY			RECEPTION	
		GP POSTERS			
19.00			MN POSTERS		AB POSTERS
		SOCIAL EVENTS IN MOSCOW			SOCIAL EVENTS IN MOSCOW
20.00			SOCIAL EVENTS IN MOSCOW		

**MS SESSION:** MARS SESSION

**VN SESSION:** VENUS SESSION

**GP SESSION:** GIANT PLANETS SESSION

**MN SESSION:** MOON AND MERCURY SESSION

**SB SESSION:** SMALL BODIES (INCLUDING COSMIC DUST) SESSION

**EP SESSION:** EXTRASOLAR PLANETS SESSION

**AB SESSION:** ASTROBIOLOGY SESSION

# 15M-S3 Scientific Program

Monday, 21 October 2024

Lev ZELENYI      **Opening Session**      **10.00-10.40**

**Session 1. MARS**      **10.40-18.05**

**Convener: Oleg KORABLEV**  
conference hall, second floor

15MS3-MS-01      **Anna FEDOROVA et al**      Mars-Express: 20 years of atmospheric and surface measurements in Mars orbit      10.40-11.00

15MS3-MS-02      **Alexander LOMAKIN et al**      Aerosol scattering correction of SPICAM-IR surface spectra      11.00-11.15

15MS3-MS-03      **Mikhail LUGININ et al**      HCl uptake on water ice aerosols in the atmosphere of Mars from the ACS MIR data      11.15-11.30

15MS3-MS-04      **Alexander TROKHIMOVSKIY et al**      Measurements of hydrogen chloride in Martian atmosphere during the aphelion season      11.30-11.50

**Coffee-break**      **11.50-12.10**

15MS3-MS-05      **Denis BELYAEV et al**      Seasonal water vapor abundance and saturation in the Martian mesosphere and thermosphere      12.10-12.30

15MS3-MS-06      **Dariia KOSSOVA et al**      Study of diffusion regimes in the vertical structure of Martian atmosphere      12.30-12.45

15MS3-MS-07      **Ekaterina STARICHENKO et al**      2.5 years of observation of gravity wave activity in the Martian atmosphere from the ACS/TGO experiment      12.45-13.00

**Lunch**      **13.00-14.00**

15MS3-MS-08      **Ekaterina CHOLOVSKAIA and Mikhail IVANOV**      Clay minerals in the upper part of Nirgal Vallis, Mars      14.00-14.20

15MS3-MS-09      **Mikhail IVANOV and James HEAD**      Time constraints on the formation of valley networks on Alba Patera, Mars (preliminary results)      14.20-14.40

15MS3-MS-10      **Jun CHU et al**      Morphological features along the fixed contour lines indicating water level changes in the Holden crater on Mars      14.40-15.00

15MS3-MS-11      **Egor KULIK and Tamara GUDKOVA**      Constraints on the viscoelastic properties of the Martian mantle by the Chandler wobble period      15.00-15.20

15MS3-MS-12      **Anton SALNIKOV et al**      Challenges and Approaches in Constructing Mars' Magnetic Field Models from Satellite Data      15.20-15.40

15MS3-MS-13      **Hui LI et al**      Statistical Properties of Plateau-like Turbulence Spectra in the Martian Magnetosheath: Mavén Observation      15.40-16.00

**Coffee-break**      **16.00-16.20**

15MS3-MS-14      **Jordanka SEMKOVA et al**      Radiation environment on TGO Mars orbit during solar particle events in 2024      16.20-16.40

15MS3-MS-15      **Boris IVANOV**      New craters on Mars - expanding catalog in 2023-2024      16.40-17.00

15MS3-MS-16      **Elena PODOBNAYA et al**      An expanded catalog of recent meteoroid impact sites on Mars      17.00-17.20

15MS3-MS-17      **Elena KARPOVICH et al**      Unmanned aircraft for Mars exploration: preparing a scale model for flight tests      17.20-17.40

**POSTER SESSION, Session Mars**      **17.40-18.05**

**5 posters\*5 min**

15MS3-MS-PS-01      **Nadezhda CHUJKOVA et al**      The evolution of Mars and the possible dynamics of its interior

15MS3-MS-PS-02      **Ekaterina CHOLOVSKAIA and Mikhail IVANOV**      Geological structure of the upper part of Nirgal Vallis, Mars

15MS3-MS-PS-03      **Tatiana MOROZOVA and Sergey POPEL**      Instabilities in dusty plasma in the atmosphere of Mars associated with the passage of meteoroids

15MS3-MS-PS-04      **Daria MOROZOVA and Oleg VAISBERG**      Variation in Plasma Composition During the Rotation of Mars' Magnetopause

15MS3-MS-PS-05      **Sergei KULIKOV and Alexander SKALSKY**      Proxies to interplanetary conditions at Mars by an artificial neural network

**WELCOME PARTY**      **18.05-19.30**

<b>Tuesday, 22 October 2024</b>			
<b>Session 2. VENUS</b>			<b>10.00-16.00</b>
<b>Conveners: Ludmila ZASOVA conference hall, second floor</b>			
15MS3-VN-01	<b>Masahiro TAKAGI et al</b>	Planetary-scale waves and quasi-periodic variation of the equatorial jet in the Venus atmosphere	10.00-10.20
15MS3-VN-02	<b>Jose SILVA et al</b>	Stationary mesoscale features on Venus' dayside clouds	10.20-10.40
15MS3-VN-03	<b>Liudmila ZASOVA et al</b>	Peculiarities of the Venus Upper Cloud Layer Circulation During the 24-th Solar Activity Cycle	10.40-11.00
15MS3-VN-04	<b>Dmitrij TITOV</b>	Venus atmospheric dynamics: digging into the Venus Express observations	11.00-11.20
15MS3-VN-05	<b>Yutian CAO et al</b>	Modeling studies of Venusian ionosphere and upper atmosphere	11.20-11.40
<b>Coffee-break</b>			<b>11.40-12.00</b>
15MS3-VN-06	<b>Elizaveta FEDOROVA et al</b>	Distributions of CO <sub>2</sub> , HDO and H <sub>2</sub> O concentration and temperature in the mesosphere of Venus based on SOIR/VEx observations for 2006-2014	12.00-12.15
15MS3-VN-07	<b>Daria EVDOKIMOVA et al</b>	Venus lower atmosphere properties from SPICAV-IR/VEX measurements in NIR transparency windows	12.15-12.30
15MS3-VN-08	<b>Arina SHIMOLINA et al</b>	Geological history of Theia Mons and graben system (mostly dyke swarm) mapping in the northern area of Beta Regio	12.30-12.45
15MS3-VN-09	<b>Dmitry DOBRITSA et al</b>	Meteoroid impacts analysis for a spacecraft en route to Venus	12.45-13.00
<b>Lunch</b>			<b>13.00-14.00</b>
15MS3-VN-10	<b>Lev ZELENYI et al</b>	Venera-D mission for comprehensive study of Venus	14.00-14.20
15MS3-VN-11	<b>Vladislav ZUBKO et al</b>	Analysis of the prospective mission scenario with determination of attainable landing sites on Venus under technical restrictions to lander-orbiter functioning	14.20-14.40
15MS3-VN-12	<b>Piero D'INCECCO et al</b>	The active volcanoes of Kamchatka as suitable terrestrial analogs within the AVENGERS initiative: an opportunity for in-situ operational tests for future landing Venus missions.	14.40-15.00
15MS3-VN-13	<b>Joshita SHARMA</b>	Payload Module for Long Duration Venus Exploration	15.00-15.20
<b>POSTER SESSION, Session Venus</b>			<b>15.20-16.00</b>
<b>10 posters*4 min</b>			
15MS3-VN-PS-01	<b>Marina PATSAEVA et al</b>	Wind speed variations at the Venus cloud top level from UVI/Akatsuki images (283 and 365 nm)	
15MS3-VN-PS-02	<b>Dmitry GORINOV et al</b>	Horizontal winds in the lower clouds of Venus from VIRTIS/VEx and IR2/Akatsuki 1.74 μm observations	
15MS3-VN-PS-03	<b>Vladimir OGIBALOV et al</b>	Emissions in the 4.3-1.05 μm bands of carbon dioxide molecules, outgoing from a planetary atmosphere on existence of a layer with wind velocity gradient	
15MS3-VN-PS-04	<b>Evgeniya GUSEVA and Mikhail IVANOV</b>	The spatial-genetic relationship of the coronae sourcing lava flows and large volcanoes of Venus	
15MS3-VN-PS-05	<b>Danil MALYSHEV and Mikhail IVANOV</b>	Preliminary insights into the evolution of central type volcanism on Venus	
15MS3-VN-PS-06	<b>Vladislav ZUBKO and A.A. BELYAEV</b>	A simple geometrical approach for solving the eclipse problem	
15MS3-VN-PS-07	<b>Tamara GUDKOVA and Alexey BATOV</b>	On load numbers for Venus	
15MS3-VN-PS-08	<b>Oliveira AMORIM and Tamara GUDKOVA</b>	The effect of the dense atmosphere of Venus on the Love numbers	
15MS3-VN-PS-09	<b>Oliveira AMORIM and Tamara GUDKOVA</b>	On the Chandler Wobble of Venus	
15MS3-VN-PS-10	<b>Oliveira AMORIM and Tamara GUDKOVA</b>	The validation of the method for calculating the Chandler Wobble of Venus	
<b>Coffee-break</b>			<b>16.00-16.20</b>
<b>Session 3. GIANT PLANETS</b>			<b>16.20-19.00</b>
<b>Convener: Valery SHEMATOVICH conference hall, second floor</b>			
15MS3-GP-01	<b>Igor ALEXEEV et al</b>	Alfven wings in the sub-Alfvenic flow of magnetized plasma formed outside the magnetosphere of a celestial body, and the possible generation	16.20-16.40

		of auroras in the atmosphere of the central body and in the atmosphere of the satellite	
<b>15MS3-GP-02</b>	<b>Andrey KIRILLOV</b>	The study of the role of metastable nitrogen in collisional molecular processes of the upper and middle atmosphere of Titan	16.40-17.00
<b>15MS3-GP-03</b>	<b>Nikolai KISELEV et al</b>	Changes in the longitude polarization dependence of Jupiter's moon Io as evidence of the long-term variability of its volcanic activity	17.00-17.20
<b>15MS3-GP-04</b>	<b>Nikita SIMBIREV et al</b>	The flight to Neptune and its moons Triton and Nereid as a demonstration of the possibility of using low-thrust engines in missions to giant planets	17.20-17.40
<b>15MS3-GP-05</b>	<b>Anatoly GOLOVKOV and I.Yu. ILYINA</b>	Calculation of the position of the beginning point of the galactic year in the orbit of the Solar system in the Galaxy	17.40-18.00
<b>15MS3-GP-06</b>	<b>Phiilipp VYSIKAYLO</b>	Non-stationary 3D perturbation theory for describing nonlinear interaction of electric field with matter in plasma with current. Vysikaylo's electric field shock waves and plasma nozzles	18.00-18.20
<b>15MS3-GP-07</b>	<b>Zhonghua YAO</b>	The Frontiers of Jovian Sciences and Perspective on Future Explorations	18.20-18.40

**POSTER SESSION, Session Giant Planets**

**18.40-19.00**

**3 posters\*6 min**

<b>15MS3-GP-PS-01</b>	<b>Vladimir VDOVICHENKO et al</b>	Absorption variations in the ammonia bands of 645 and 790 nm along the central meridian of Jupiter in 2023
<b>15MS3-GP-PS-02</b>	<b>Vladimir VDOVICHENKO et al</b>	Investigation of variations in methane absorption bands along the central meridian of Jupiter in 2023
<b>15MS3-GP-PS-03</b>	<b>Vladimir VDOVICHENKO</b>	Methodological aspects of the study of ammonia-methane absorption variations in the atmosphere of Jupiter

Wednesday, 23 October 2024

**Session 4. MOON AND MERCURY**

**10.00-19.45**

**Conveners: Igor MITROFANOV, Maxim LITVAK**  
conference hall, second floor

15MS3-MN-01	Alexander KOZYREV et al	MGNS experiment science investigation during cruise to Mercury onboard ESA MPO/BepiColombo mission	10.00-10.20
15MS3-MN-02	Zhiyong XIAO et al	Recent geological activity on Mercury	10.20-10.40
15MS3-MN-03	Olga CHERNENKO	Design and optimizing an interplanetary trajectory of a spacecraft to Mercury	10.40-11.00
15MS3-MN-04	Anton SANIN	Mapping of polar lunar water	11.00-11.20
15MS3-MN-05	Alexander BASILEVSKY et al	Lobate rimmed craters in PSR parts of the lunar south-polar craters Faustini and Shoemaker	11.20-11.40

**Coffee-break**

**11.40-12.00**

15MS3-MN-06	Iliia KUZNETSOV et al	Lunar dusty plasma and its investigation proposal	12.00-12.20
15MS3-MN-07	Michael SHPEKIN and R. T. FERREYRA	Lunar craters without signs of the matter melting and the matter emissions	12.20-12.40
15MS3-MN-08	Lianghai XIE and Lei LI	Global Hall MHD Simulations of the Solar Wind Implantation Flux on the Lunar Surface	12.40-13.00

**Lunch**

**13.00-14.00**

15MS3-MN-09	Lev ZELENYI and Igor MITROFANOV	Lunar mission on the Northern and Southern Poles with two identical landers: goals and objectives	14.00-14.20
15MS3-MN-10	Mikhail MALENKOV et al	Development of a project of key objects of mobile robotics for the lunar station	14.20-14.40
15MS3-MN-11	Ivan AGAPKIN and Egor SOROKIN	Application of Selective Laser Melting for lunar soil analogue	14.40-15.00
15MS3-MN-12	Artem LYSENKO	3D printing of lunar regolith: testing physical conditions for implementation of SLM technology	15.00-15.20
15MS3-MN-13	Andrey SHUGAROV et al	A concept of a simple small-sized (5-10 kg) lunar astronomical UV telescope using high TRL components	15.20-15.40
15MS3-MN-14	Habibullo ABDUSSAMATOV	Moon-based continuous coordinate- photometric monitoring of the asteroid-comet hazard throughout the celestial sphere	15.40-16.00

**Coffee-break**

**16.00-16.20**

15MS3-MN-15	Huijuan WANG et al	Recent progress on the lunar-based UV-Optical-IR telescope for ILRS	16.20-16.40
15MS3-MN-16	Maya DJACHKOVA et al	Optical imaging of the Moon landing site, as the data for hazard avoidance	16.40-17.00

**LUNAR REGOLITH**

**Convener: Mikhail GERASIMOV**  
conference hall, second floor

**17.00-19.00**

15MS3-MN-17	Svetlana DEMIDOVA et al	Unexpected components in Chang'E-5 soil sample	17.00-17.20
15MS3-MN-18	Egor SOROKIN et al	Experimental data on the occurrence and chemical composition of metallic iron nanospherules and comparison with data from the Chang'E- 5 lunar soil	17.20-17.40
15MS3-MN-19	Mikhail GERASIMOV et al	Morphology of impact induced condensates: lunar findings and experiment	17.20-18.00
15MS3-MN-20	Maxim ZAITSEV et al	Volatiles in the lunar regolith delivered by Chang'E-5 mission: preliminary results	18.00-18.20
15MS3-MN-21	Sergei VOROPAEV et al	Olivine studies under lunar surface conditions	18.20-18.40
15MS3-MN-22	Lidiia LAKHMANOVA and Svetlana DEMIDOVA	Spinel-bearing lithologies in the lunar highland meteorites	18.40-19.00

**POSTER SESSION, Session Moon and Mercury**

**19.00-19.45**

**15 posters\*3 min**

15MS3-MN-PS-01	Jinsong PING et al	Preliminary ground optical polarization observation of the Moon	
15MS3-MN-PS-02	Alexander BASILEVSKY et al	Photogeological analysis of ShadowCam images on the permanently shadowed floor of lunar crater Shoemaker	
15MS3-MN-PS-03	Ekaterina FEOKTISTOVA and Zhanna RODIONOVA	Analysis of the crater depths in the polar regions of the Moon and Mercury	

<b>15MS3-MN-PS-04</b>	<b>Yury NEFEDYEV et al</b>	Creation of a comprehensive fundamental selenographic catalog of impact craters based on data from modern lunar missions and satellite remote monitoring
<b>15MS3-MN-PS-05</b>	<b>Yuri BONDARENKO et al</b>	Radar mapping of the South Polar region of the Moon at 4.2 cm wavelength
<b>15MS3-MN-PS-06</b>	<b>Alexander KOSOV et al</b>	Moon's gravity field investigation by PKD instrument deployed on Luna-26 Orbiter
<b>15MS3-MN-PS-07</b>	<b>Polina SAVVATIMOVA et al</b>	Application of cryocooling systems for the mission of Lunar polar sample return
<b>15MS3-MN-PS-08</b>	<b>Alexandra UVAROVA and M.Yu. MAKOVCHUK</b>	Creation of soils-analogues for scientific equipment testing
<b>15MS3-MN-PS-09</b>	<b>Alexander GUSEV et al</b>	Infrastructure development of the Moon IX: 3D printing on lunar regolith
<b>15MS3-MN-PS-10</b>	<b>Ekaterina FABER and R. R. KASPRANSKY</b>	Challenges and innovations in lunar environment simulation for analog missions
<b>15MS3-MN-PS-11</b>	<b>Olga TURCHINSKAYA and Evgeny SLYUTA</b>	Landing site choice for Luna-27 mission in the Moon South Polar Region
<b>15MS3-MN-PS-12</b>	<b>Alexander KRASILNIKOV et al</b>	The three-dimensional geological model of the VIPER mission landing area
<b>15MS3-MN-PS-13</b>	<b>Alexander N. SAFRONOV</b>	Theory of the origin of terrestrial and lunar ores
<b>15MS3-MN-PS-14</b>	<b>Vladimir NAZAROV et al</b>	Joint Luna Data Center (JLDC) Project
<b>15MS3-MN-PS-15</b>	<b>Azariy BARENBAUM</b>	Influence of Sun, Moon and planets on Earth's gravitational field: discovery of gravitons and estimation their energy

Thursday, 24 October 2024

**Session 5. SMALL BODIES (including cosmic dust)**

**10.00-18.15**

**Conveners: Alexander BASILEVSKY, Alexander ZAKHAROV**  
**conference hall, second floor**

15MS3-SB-01	Sergey POPEL et al	Dusty plasma processes in the vicinity of comets	10.00-10.20
15MS3-SB-02	Nikolay BORISOV	Influence of the dielectric permittivity of the surface layer on charging of dust grains on airless cosmic bodies	10.20-10.40
15MS3-SB-03	Alexander KROT and Irina SAVINYKH	Development of radiotomography algorithms for the study of electron clouds in the ionosphere and structures in the dusty plasma using low-orbital satellite systems	10.40-11.00
15MS3-SB-04	Vladimir BUSAREV et al	Sublimation-driven dust activity of primitive asteroids suggests that they contain water ice	11.00-11.20
15MS3-SB-05	Jian-Yang LI and DART Investigation Team	Long-Term Evolution of the Dimorphos Tail	11.20-11.40
<b>Coffee-break</b>			<b>11.40-12.00</b>
15MS3-SB-06	Sergei IPATOV	Migration of bodies ejected from Mars	12.00-12.10
15MS3-SB-07	Evgeniya PETROVA and V. I. GROKHOVSKY	Experimental transformation of the Chelyabinsk LL5 meteorite matter of light-colored lithology into dark-colored lithology	12.10-12.20
15MS3-SB-08	Anna KARTASHOVA et al	Analysis of the meteor showers characteristics	12.20-12.30
15MS3-SB-09	Sergey PAVLOV et al	Association of sporadic meteors with NEAs of the rubble pile type	12.30-12.40
15MS3-SB-10	Akos KERESZTURI et al	Mineral changes by laboratory based proton irradiation on meteorites to understand space weathering and asteroid properties	12.40-12.50
15MS3-SB-11	Yulia IZVEKOVA et al	Atmospheric Dunes as Possible Manifestation of Meteoric Dusty Plasma	12.50-13.00
<b>Lunch</b>			<b>13.00-14.00</b>
15MS3-SB-12	Marina SHCHERBINA et al	Preliminary Results of the Polarimetric Observation Program of NEAs at the 2.6-m Telescope of CrAO and the 2-m Telescope of the Peak Terskol Observatory	14.00-14.10
15MS3-SB-13	Ilya Kuznetsov et al	Ultraviolet irradiation influence on the Lunar dust dynamics	14.10-14.20
15MS3-SB-14	Mohamad Abdelaal et al	Electromagnetic Phenomena in Dust Particle Dynamics under Simulated Martian Atmosphere: An Experimental Study	14.20-14.30
15MS3-SB-15	Alina Merkulova et al	The Effect of Cometary Outbursts on the Orbits of Comets in the Oort Cloud	14.30-14.40
15MS3-SB-16	Kristina Lobanova and Alexander Melnikov	Influence of size and shape of an asteroid on perturbations in its rotational dynamics during close approach to the Earth	14.40-14.50
15MS3-SB-17	Aleksandr Tolstoy et al	3D shape reconstruction of an asteroid from its light curves as a convex polyhedron	14.50-15.00
15MS3-SB-18	Eduard Kuznetsov et al	Analysis of scenarios for the formation of the young Emilkowalski asteroid family	15.00-15.10
15MS3-SB-19	Galina O. Ryabova	The PSP/WISPR dust trail and the Geminid stream	15.10-15.20
15MS3-SB-20	Vladislav Sidorenko	Some remarks about the Earth's quasi-satellites population	15.20-15.30
15MS3-SB-21	Gleb Kucherov et al	Accumulation and recombination of radicals as an energy source for active processes in icybodies of the Solar System	15.30-15.40
15MS3-SB-22	Andrey Shugarov and Boris Shustov	A system to detect day-time asteroids (SODA) of the "Milky Way" project	15.40-15.50
15MS3-SB-23	Boris Kondratyev and V. S. Kornoukhov	Secular evolution and stability of rings around rotationally asymmetrical bodies. Revisiting the problem	15.50-16.00
<b>Coffee-break</b>			<b>16.00-16.20</b>
15MS3-SB-24	Boris Kondratyev	The new formula for the angular velocity of rotating equilibrium figures	16.20-16.30
15MS3-SB-25	Maxim Pupkov et al	Construction of transfer trajectories of the spacecraft to asteroids passing near Sun-Earth libration points	16.30-16.40
15MS3-SB-26	Yuri Medvedev et al	On the outbursts of the Centaur 174P/Echeclus	16.40-16.50
15MS3-SB-27	Maxim Nyrtsov et al	Analysis of the surfaces of celestial bodies applying equal-area projections of the triaxial ellipsoid	16.50-17.00
15MS3-SB-28	Tatiana Salnikova and E.I. Kugushev	Long-term presence of cosmic masses near libration points	17.00-17.10
15MS3-SB-29	Roman Zolotarev and Boris Shustov	On the parameters of NEOs encounters with the Earth	17.10-17.20

<b>15MS3-SB-30</b>	<b>Vladimir Tchernyi and S.V. Kapranov</b>	Unsolved problems of gravitational models of the origin of Saturn's visible dense rings and how J. K. Maxwell's discovery in 1865 that dense rings are not solid, but consist of separate pieces of matter, can help in this	17.20-17.30
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**POSTER SESSION, Session Small Bodies (including cosmic dust)**

**17.30-18.15**

**15 posters\*3 min**

<b>15MS3-SB-PS-01</b>	<b>Maria Sergienko et al</b>	Connection of the April chi-Librids meteor shower with Near-Earth asteroids
<b>15MS3-SB-PS-02</b>	<b>Dmitry Shokhrin et al</b>	Low-frequency nonlinear dust-acoustic perturbations in the dusty magnetosphere of Saturn: Zakharov-Kuznetsov equation description
<b>15MS3-SB-PS-03</b>	<b>Stanislav Kuznetsov and Vladimir Busarev</b>	Dust injection into the plasma sheath near the surface of active asteroids
<b>15MS3-SB-PS-04</b>	<b>Tatiana Morozova and Sergey Popel</b>	The influence of the magnetic field on the processes occurring in the dusty plasma of meteoroid tails
<b>15MS3-SB-PS-05</b>	<b>Yulia Izvekova et al</b>	Mercurian dusty exosphere: effects of anomalous dissipation
<b>15MS3-SB-PS-06</b>	<b>Andrey Dubinsky et al</b>	Water formation on asteroids and dusty plasma system above the asteroid's surface
<b>15MS3-SB-PS-07</b>	<b>Marina Shcherbina and D.A. Kovaleva</b>	Spectral analysis and classification of near-Earth and Mars-crossing asteroids using Gaia DR3 Data
<b>15MS3-SB-PS-08</b>	<b>Valeria Khlestunova et al</b>	New map of Europa: Update from Juno mission data
<b>15MS3-SB-PS-09</b>	<b>Maksim Khovrichev et al</b>	Astrometric remeasurement of Pulkovo photographic observations of the 433 Eros taken from 1900 to 1940
<b>15MS3-SB-PS-10</b>	<b>Maksim Khovrichev et al</b>	Verification of the association between the 2002GJ8, 2016 NO16 asteroids and the August Draconids (AUD)
<b>15MS3-SB-PS-11</b>	<b>Vladimir Efremov et al</b>	Determination of the small meteor particles properties from observational data
<b>15MS3-SB-PS-12</b>	<b>Mirhusen Narziev and H.F. Khujanazarov</b>	Streams and associations of meteoroids according to the results of radar observations in HisAO for January 1970
<b>15MS3-SB-PS-13</b>	<b>Vladimir Vdovichenko et al</b>	Asteroid (4) Vesta: spectrophotometric presuppositions of the presence of a large crater 20 years before its discovery by the Dawn spacecraft.
<b>15MS3-SB-PS-14</b>	<b>Nickolay Perov and A.I. Smirnov</b>	A model of giant planets satellites mass distributions over the semimajor axes of the orbits
<b>15MS3-SB-PS-15</b>	<b>Nickolay Perov and A. S. Nikolaeva</b>	On the evolution of initial circular orbits of comets with variable mass

**RECEPTION**

**18.15-20.00**



<b>Friday, 25 October 2024</b>			
<b>Session 6. EXTRASOLAR PLANETS</b> Convener: Alexander TAVROV conference hall, second floor			<b>10.00-15.20</b>
15MS3-EP -01	Sergei Ipatov	Migration of planetesimals in the TRAPPIST-1 and GLISSE 581 exoplanetary systems	10.00-10.20
15MS3-EP -02	Alexander Krot	Development of the analytical models of protoplanetary formation in extrasolar systems within the framework of the statistical theory	10.20-10.40
15MS3-EP -03	Eduard Kuznetsov and Alexander Perminov	Study of stability of the compact planetary system K2-72	10.40-11.00
15MS3-EP -04	Anastasiia Ivanova et al	The mass-period distribution of low-mass exoplanets discovered by the radial velocity method. Improvement of the observational selection correction method	11.00-11.20
15MS3-EP -05	Vladislava Ananyeva and Alexander Tavrov	Website on exoplanets Planetary Systems (allplanets.ru)	11.20-11.40
<b>Coffee-break</b>			<b>11.40-12.00</b>
15MS3-EP -06	Ildar Shaikhislamov et al	Kinetic modelling of the Super-Hot Jupiter Kelt9b	12.00-12.20
15MS3-EP -07	Anton Krotov et al	Magnetosphere of Osiris in the stellar wind stream	12.20-12.40
15MS3-EP -08	Marina Rumenskikh et al	Chemical diversity of exoplanetary atmospheres and its observational evidence	12.40-13.00
<b>Lunch</b>			<b>13.00-14.00</b>
15MS3-EP -09	Anastasiia Avtaeva et al	A self-consistent model of the influence of the host star on the atmosphere of sub-neptune GJ3470b	14.00-14.20
15MS3-EP -10	Roman Evdokimov and Valery Shematovich	Comparative analysis of the photoevaporation and core-powered mass-loss efficiency for the atmosphere of the young mini-neptune HD207496b	14.20-14.40
15MS3-EP -11	Maksim Golubovsky et al	Measurement of reaction rates of metastable helium atom for astrophysical applications	14.40-15.00
<b>POSTER SESSION, Session Extrasolar Planets</b> 2 posters*10 min			<b>15.00-15.20</b>
15MS3-EP-PS -01	Valery Kotov	Superfast exoplanets and motion of the Sun and Earth	15.00-15.10
15MS3-EP -PS-02	Elena Belenkaya	Magnetic exoplanets in the sub-Alfvénic stellar wind may act as a kind of interplanetary magnetic field collimator	15.10-15.20
<b>Session 7. ASTROBIOLOGY</b> Convener: Oleg KOTSYURBENKO conference hall, second floor			<b>15.20-19.20</b>
15MS3-AB -01	Vladimir Kompanichenko	Thermodynamic transformation of organic microsystems as an impetus for the emergence of life forms on Earth and other planets	15.20-15.40
15MS3-AB -02	Sergey Bulat et al	Thermophiles: the extraordinary extraterrestrials next door	15.40-16.00
15MS3-AB -03	Oleg Kotsyurbenko	Systems approach to astrobiology	16.00-16.20
<b>Coffee-break</b>			<b>16.20-16.40</b>
15MS3-AB -04	Yuming FU et al	Surface Bacterial Dynamics and Biosafety Assessment during the Lunar Palace 365 Bioregenerative Experiment	16.40-17.00
15MS3-AB -05	Valery Shematovich et al	Astrobiological issues of the auroral nitric oxide formation in the N <sub>2</sub> -O <sub>2</sub> atmospheres of the terrestrial-type planets	17.00-17.20
15MS3-AB -06	Sohan Jheeta	Reactive Oxygen Species: Possible Implications for the Emergence of Life	17.20-17.40
15MS3-AB -07	Frank Trixler	No problem with the water problem: using ubiquitous nanogeochemical conditions to achieve abiotic RNA synthesis in water	17.20-18.00
15MS3-AB -08	Anatoliy K. Pavlov	Nearby Supernovas and Gamma Ray Bursts as possible sources the sharply increase of mutations rate and lethal effects for Earth's biosphere	18.00-18.20
15MS3-AB -09	Mikhail Zarubin et al	Biological researches in the deep underground facilities of Baksan Neutrino Observatory and it's relevance to astrobiology analogue studies	18.20-18.40
15MS3-AB -10	Ximena Abrevaya et al	The EXO-UV program: latest advances of experimental studies to investigate the biological impact of UV radiation on exoplanets	18.40-19.00
<b>POSTER SESSION, Session Astrobiology</b> 2 posters*10 min			<b>19.00-19.20</b>
15MS3-AB-PS-01	Alexander Tertyshnikov	Variations of F10,7 on new dates of meteor shower maxima	19.00-19.10
15MS3-AB-PS-02	Alexander Guridov et al	Bacteria of the coolant fluid Triol from the active thermal control system of the International Space Station	19.10-19.20