

**23-th Gamow International Astronomical Conference
 “ASTRONOMY AND BEYOND: ASTROPHYSICS,
 COSMOLOGY AND GRAVITATION,
 ASTROPARTICLE PHYSICS, RADIOASTRONOMY,
 ASTROBIOLOGY AND GENETICS”**

August 21-25, 2023, Odesa, Ukraine

SCHEDULE OF THE PLENARY AND SECTION SESSIONS

Data	21.08	22.08	23.08	24.08	25.08
Section					
Opening of the Conference and Memorial Sessions	10.00 – 12.00				
Plenary Sessions	12.30 – 18.15	09.30 – 13.00 14.00 – 17.30			
Section 1. Cosmology, gravitation, astroparticle physics, high energy physics			10.00 – 12.40 13.30 – 16.30		
Section 2. Astrophysics				10.00 – 13.00 14.00 – 18.40	
Section 3. Solar System and Space Environment			10.00 – 13.00 14.00 – 16.30		
Section 4. Sun, Solar activity and Astrobiology				10.00 – 12.30 13.30 – 16.30	
Section 5. Radioastronomy					09.20 – 13.10 14.10 – 16.40
Section 6. Astronomical Education and Outreach					10.00 – 12.25
Section 7. Biology Section			10.00 – 17.00		

Monday, 21.08.2023

10:00 – 10:20 OPENING OF THE CONFERENCE AND GREETING TALKS

Zoom Meeting

<https://us05web.zoom.us/j/6615355322?pwd=bnBoSEnvbTN6U2Nnc3UwbVRQSmZCZz09>

Meeting ID: 661 535 5322

Passcode: 12345

(Convener *O.M.Ulyanov*)

Greetings of the Rector of the Odessa I.I.Mechnikov National University *V.I.Truba*

Greetings of the President of the Ukrainian Astronomical Association *Ya.S.Yatskiv*

10:20 – 12:00 MEMORIAL SESSION

- **The 155th anniversary of Prof. K.D.Pokrovsky – Director of the Astronomical Observatory of Odessa I.I.Mechnikov State University from 1934 to 1944**
(*M.I.Ryabov*);
- **Prof. K.D. Pokrovsky – Odessa period of the life of Professor K.D.Pokrovsky**
(*I.E.Rikun*);
- **"Heavenly Physics" by Isaac Newton (the 380th anniversary of Isaac Newton)**
(*A.A.Bazyey*);
- **To the 85th anniversary of Professor Nikolay Komarov** (*T.V.Mishenina*);
- **The memory of Academician V.M.Shulga, the chair of SOC of the Gamow conferences from 2012 to 2022** (*V.V.Zakharenko*).

12:30 – 14:15 PLENARY SESSION (30 + 5 minutes for the report)

(Convener *A.I.Zhuk*)

John Ellis (King's College London, UK and CERN, Switzerland)

"Atom interferometry to search for gravitational waves and dark matter"

Alexander Vikman (CEICO, Institute of Physics of the Czech Academy of Sciences, Czech Republic)

"Gravitational Waves and Dark Matter from Melting Domain Walls"

Massimo Capaccioli (Naples University Federico II, Italy)

"The birth of modern cosmology"

14:15 – 14:30 Coffee break

14:30 – 16:15 PLENARY SESSION (30 + 5 minutes for the report)

Alexander Zhuk (ONU, Odesa, Ukraine and CASUS, Görlitz, Germany)

"N-body simulation of the cosmic screening effect"

Serge Parnovsky (KNU, Kyiv, Ukraine and University of Geneva, Switzerland)

"Do astronomical observations rule out the possibility of an anisotropic Big Bang?"

Viatcheslav Mukhanov (Ludwig Maximilian University of Munich, Germany)

"How predictive are the cosmological theories?"

16:15 – 16:30 Coffee break

16:30 – 18:15 PLENARY SESSION (30 + 5 minutes for the report)

Roman Konoplya (Silesian University in Opava, Opava, Czech Republic)

"The sound of the event horizon"

Jutta Kunz (University of Oldenburg, Oldenburg, Germany)

"Scalarized black holes in alternative gravities"

Valery Zhdanov, Yuri Shtanov, Oleksandr Stashko (KNU, Kyiv, Ukraine; Bogolyubov Institute for Theoretical Physics, Kyiv, Ukraine; Goethe Universitat, Frankfurt am Main, Germany; Princeton University, Princeton, USA)

"Scalar fields and $f(R)$ gravity in isolated spherically symmetric configurations"

Tuesday, 22.08.2023

Zoom Meeting

<https://us05web.zoom.us/j/6615355322?pwd=bnBoSEnvbTN6U2Nnc3UwbVRQSmZCZz09>

Meeting ID: 661 535 5322

Passcode: 12345

09:30 – 10:00 Congratulations to Professor V.G.Karetnikov on his 85th birthday!

10:00 – 13:00 **PLENARY SESSION** (30 + 5 minutes for the report)

(Convener *O.M.Ulyanov*)

Roberto Ragazzoni (Astronomical observatory of Padova, Italy)

“Telescopes from the ground and from space to discover and characterize alien worlds”

Enrichetta Iodice (Capodimonte Astronomical Observatory in Naples, Italy)

“The assembly history of galaxies in a cluster environment”

Ilya Usoskin (University of Oulu, Finland)

“Extreme solar eruptive events: rare and dangerous”

Maria Madjarska (Max Planck Institutes for Solar System Research, Germany)

“Small-scale loop systems and their associated dynamic activity”

Alexandr Yushchenko, Jeong Y., Yushchenko V., Demessinova A., Jeong K.S. (Astrocamp Contents Research Institute, Korea; Astronomical Observatory, Odesa National University, Ukraine; Department of History, Sejong University, Korea; Main Astronomical Observatory of National Academy of Sciences of Ukraine; Physico-Technical Department, Al Farabi Kazakh National University, Almaty, Kazakhstan; Institute of Liberal Education, Incheon National University, Incheon, Korea)

“New telescopes and our understanding of the Universe”

13:00 – 14:00 *Lunch*

14:00 – 17:00 **PLENARY SESSION** (30 + 5 minutes for the report)

(Convener *I.L.Andronov*)

Jordanka Semkova (Space Research and Technology Institute, Bulgaria)

“Space radiation weather at Mars”

Anatoly Miroschnichenko (University of North Carolina at Greensboro, USA)

“Nature and Processes in Circumstellar Disks of Stars with Be and B[e] Phenomena”

David Mkrtichian (NARIT, Thailand)

“Nonradial pulsations in the rapidly-rotating and binary A-F stars”

Nataliia Shchukina (Main Astronomical Observatory National Academy of Sciences of Ukraine)

“Magnetometry of the solar corona”

Ivan Andronov, Lidiia Chinarova, Larysa Kudashkina (Odesa National Maritime University, Odesa, Ukraine)

“Statistically Optimal Mathematical Modeling of Physical Variability of Irregularly Spaced Signals”

17:00 – 17:30 **CLOSING OF THE PLENARY SESSION.** Announcement of the 2024 conference dedicated to the 120th anniversary of George Gamow!

SECTION SESSIONS

August, 23 – 25

- 1. Cosmology, gravitation, astroparticle physics, high energy physics**
(Chair – *A.I.Zhuk*)
August, 23 (10:00 – 12:40, 13:30 – 16:30)
Zoom Meeting
<https://us05web.zoom.us/j/6615355322?pwd=bnBoSENvbTN6U2Nnc3UwbVRQSmZCZz09>
Meeting ID: 661 535 5322
Passcode: 12345
- 2. Astrophysics** (Chairs – *I.L.Andronov, T.V.Mishenina*)
August, 24 (10:00 – 13:00, 14:00 – 18:40)
Zoom Meeting
<https://us04web.zoom.us/j/73651769430?pwd=bkRISTNPRzZEUnpBWxU1TnExZ3RpQT0973651>
Meeting ID: 769430
Passcode: 4iQH5n
- 3. Solar system and space environment** (Chair – *N.I.Koshkin*)
August, 23 (10:00 – 13:00, 14:00 – 16:30)
Zoom Meeting
<https://us02web.zoom.us/j/85110878181?pwd=d0RpRDdGVUloZzhsQ2hUNVILQjhOdz09>
Meeting ID: 851 1087 8181
Passcode: 361807
- 4. Sun, Solar activity, Solar-terrestrial relations and Astrobiology**
(Chairs – *V.M.Efimenko, M.I.Ryabov*)
August, 24 (10:00 – 12:30, 13:30 – 16:30)
Zoom Meeting
<https://us05web.zoom.us/j/6615355322?pwd=bnBoSENvbTN6U2Nnc3UwbVRQSmZCZz09>
Meeting ID: 661 535 5322
Passcode: 12345
- 5. Radioastronomy** (Chairs – *O.M.Ulyanov, O.A.Litvinenko*)
August, 25 (09:20 – 13:10, 14:10 – 16:40)
Zoom Meeting
<https://us05web.zoom.us/j/6615355322?pwd=bnBoSENvbTN6U2Nnc3UwbVRQSmZCZz09>
Meeting ID: 661 535 5322
Passcode: 12345
- 6. Astronomical Education and Outreach**
(Chair – *I.L.Andronov*)
August, 25 (10:00 – 12:25)
Zoom Meeting
<https://us04web.zoom.us/j/73651769430?pwd=bkRISTNPRzZEUnpBWxU1TnExZ3RpQT0973651>
Meeting ID: 769430
Passcode: 4iQH5n
- 7. Biology section “The Importance of G. Gamow's Ideas for Biology of the 21st Century”** (Chair – *S.V.Chebotar*)
August, 23 (10:00 – 17:00)
Zoom Meeting
<https://us05web.zoom.us/j/83056921960?pwd=jKP7ZidovJxTEHfZ38tnscbKiTYnr4.1>
Meeting ID: 830 5692 1960
Passcode: 3101

Program and abstracts will be posted on the web page of the Conference:
www.gamow.odessa.ua

SECTION SESSIONS

COSMOLOGY, GRAVITATION, ASTROPARTICLE PHYSICS, HIGH ENERGY PHYSICS

Zoom Meeting

<https://us05web.zoom.us/j/6615355322?pwd=bnBoSENVbTN6U2Nnc3UwbVRQSmZCZz09>

Meeting ID: 661 535 5322

Passcode: 12345

Wednesday, 23.08.2023

10:00 – 16:30 Section session

Convener – A.I.Zhuk

Cosmology and extragalactic astronomy

10:00 – 12:40 (15 + 5 minutes for the report)

1. *Yu.Kulinich, B.Novosyadlyj* DARK AGES GLOBAL SIGNAL IN THE ROVIBRATIONAL LINES OF THE FIRST MOLECULES
2. *Błażej Mrzygłód, Włodzimierz Godłowski* A NEW METHOD OF INVESTIGATION OF THE ORIENTATION OF GALAXIES IN CLUSTERS IN LACK OF INFORMATION ABOUT THEIR MORPHOLOGICAL TYPES
3. *Włodzimierz Godłowski, Błażej Mrzygłód* APPLICATION OF THE NEW METHOD OF INVESTIGATION THE ALIGNMENT OF GALAXIES IN CLUSTERS IN THE ABSENCE OF INFORMATION ON THEIR MORPHOLOGICAL TYPES
4. *O.I.Gerasymov, L.S.Kudashkina* TOWARDS THEORETICAL MODELLING OF DISTRIBUTION OF MATTER AT UNIVERSE
5. *O.Kompaniets* MULTIWAVELENGTH PROPERTIES OF THE ISOLATED AGNs at $z < 0.05$
6. *M.Berkovskyi, E.Panko, N.Miroshnik* GALAXY CLUSTER MERGERS: COMPUTER MODELING
7. *O.Hetmantsev, D.Dobrycheva, I.Vavilova* POLAR RING GALAXIES IN THE SDSS: VISUAL INSPECTION AND AUGMENTATION
8. *M.Vasylenko, I.Vavilova, D.Dobrycheva, A.Elyiv, O.Melnyk, V.Khramtsov* THE PROBLEM POINTS OF GALAXY CLASSIFICATION WITH MACHINE LEARNING TECHNIQUES

12:40 – 13:30 Lunch

Gravitation

13:30 – 14:10 (15 + 5 minutes for the report)

9. *Serhiy Skolota, Elena Bannikova, Massimo Capaccioli* EXTERNAL GRAVITATIONAL POTENTIAL OF AN INHOMOGENEOUS TORUS
10. *V.D.Gladush* THE STRUCTURE OF THE CONFIGURATION SPACE OF A SPHERICALLY SYMMETRIC SYSTEM OF INTERACTING SCALAR AND GRAVITATIONAL FIELDS

High energy physics and astroparticle physics

14:10 – 16:30 (15 + 5 minutes for the report)

11. *László Jenkovszky, Erzsébet Nagy* DISTRIBUTION OF MATTER AND PRESSURE IN NUCLEONS
12. *László Jenkovszky* SATURATION OF THE HAGEDORN SPECTRUM
13. *P.Minaiev, V.Skalozub* THE PARAMETRIC SPACE FOR TWO HIGGS DOUBLETS MODEL
14. *Yu.I.Fedorov* THE HELIOSPHERIC MODULATION OF GALACTIC COSMIC RAYS DURING SOLAR ACTIVITY MINIMUM
15. *A.Tugay, Y.Sahai, O.Prikhodko, L.Zadorozhna, N.Pulatova, D.Malyshv, D.Savchenko* THE STUDY OF X-RAY SPECTRUM OF COMA GALAXY CLUSTER
16. *D.N.Doikov, M.D.Doikov* FLASHING IN THE ATMOSPHERES OF PLANETS OF THE SOLAR SYSTEM AND EXOPLANETS
17. *M.D. Doikov* MULTICHANNEL SPECTROGRAPH IN γ -OPTICAL AND NIR SPECTRA WITH SIMULTANEOUS REGISTRATION OF THE LOCAL MAGNETIC FIELD FROM LIGHTING

ASTROPHYSICS

(stellar atmospheres, interacting binary systems, variable stars)

Zoom Meeting

<https://us04web.zoom.us/j/73651769430?pwd=bkRISTNPRzZEUnpBWXU1TnExZ3RpQT0973651>

Meeting ID: 769430

Passcode: 4iQH5n

Thursday, 24.08.2023

10:00 – 13:00 Section session (15 + 5 minutes for the report)

Convener – *T.V.Mishenina*

Astrophysics I

1. *V.S.Akhmetov, B.Bucciarelli, M.Crosta, M.G.Lattanzi, A.Spagna, P. Re Fiorentin, E.Yu.Bannikova* NEW KINEMATIC MODEL OF THE GALAXY: ANALYSIS OF THE STELLAR VELOCITY FIELD FROM GAIDR3
2. *N.Britavskiy* TOWARDS AN UNDERSTANDING OF THE NATURE OF MASSIVE FAST-ROTATORS
3. *T.Mishenina, I.Usenko, A.Kniazev, T.Gorbaneva* MANIFESTATION OF STELLAR EVOLUTION IN METAL-DEFICIENT STARS
4. *I.A.Gabitova, A.S.Miroshnichenko, S.V.Zharikov, A.Amantayeva, S.A.Khokhlov* DOPPLER TOMOGRAPHY OF THE CIRCUMSTELLAR DISK OF THE BE STAR K DRACONIS
5. *Kh.M.Mikhailov, A.H.Alili, K.I.Alishева* DETERMINATION OF TEMPERATURE OF CENTRAL STARS' OF CHOSEN PLANETARY NEBULAE
6. *E.Paunzen, M.Piecka, J.Supíková* TWO TOOLS FOR ESTIMATING STAR CLUSTER PARAMETERS
7. *B.N.Rustamov, Kh.M.Mikhailov, K.I.Alishева, S.O.Mammadova, Sh.A.Agayeva, O.Maryeva* SPECTRAL OBSERVATIONS OF THE ALGOL – TYPE BINARY STAR δ LIBRAE
8. *Z.A.Samedov, U.R.Rustem, G.M.Hajiyeva, Z.F.Aliyeva* FUNDAMENTAL PARAMETERS OF SUPERGIANT STAR HD40589(A0IAB)
9. *V.Yushchenko, V.Gopka, A.Yushchenko, A.Shavrina, Ja.Pavlenko, F.Musaev, S.Vasil'eva, Y.Jeong, K.S.Jeong* RADIOACTIVE ELEMENTS IN STELLAR ATMOSPHERES. A QUANTITATIVE INVESTIGATION OF PROMETHIUM ABUNDANCE.
10. *I.Usenko, A.S.Miroshnichenko, S.Denford, D.Turner, D.Majaess, D.Balam* SPECTROSCOPIC STUDIES OF STARS IN THE FIELD OF THE POLARIS

13:00 – 14:00 Lunch

14:00 – 18:40 Section session (15 + 5 minutes for the report)

Convener – *I.L.Andronov*

Astrophysics II

1. *Kh.M.Mikhailov, B.N.Rustamov, A.B.Rustamova, A.J.Orujova* THE H α AND H β LINES IN THE SPECTRUM OF CH CYG IN 2016
2. *V.Marsakova, S.Shugarov, I.Andronov* MULTIWAVELENGTH RESEARCH OF THE FAST AND SLOW VARIABILITY OF SYMBIOTIC VARIABLES PU VUL, RT SER AND CH CYG
3. *V.O.Borshchenko, I.L.Andronov* A NOVEL RUNNING SINE APPROXIMATION PROGRAM VOB WITH ENHANCED ACCURACY AND TREND ANALYSIS. APPLICATION TO SEMI-REGULAR DISCRETE SIGNALS
4. *V.Breus, I.L.Andronov, P.Dubovsky, K.Petrik* VARIABILITY OF THE INTERMEDIATE POLARS V405 AUR AND RX J2133.7+5107
5. *M.Yu.Pyatnytsky* TESS SURVEY AND THE MYSTERY OF AN ELUSIVE ECLIPSING VARIABLE STAR NQ HERCULIS
6. *L.E.Keir* THE NEW APPROACH TO THE LIGHT CURVE ANALYSIS OF RR LYR TYPE PULSATING STARS WITH BLAZHKO EFFECT
7. *V.Andruk* COMPARISON OF PHOTOGRAPHIC V MAGNITUDES OF STARS OBTAINED FROM THE PROCESSING OF SCANS FROM THE ARCHIVES OF THE SCHMIDT TELESCOPES IN BALDONE AND TAUTENBURG
8. *A.Dzygunenko, A.Baransky* PERIOD ANALYSIS OF THE SEMIREGULAR VARIABLE STAR RX LEPORIS?
9. *I.L.Andronov, S.V.Kolesnikov, L.L.Chinarova* BZ CAM: VARIABILITY OF THE NOVA-LIKE VY SCL-TYPE CATAclysmic VARIABLE FROM MINUTES TO DECADES
10. *S.I.Iovchev, I.L.Andronov, L.L.Chinarova, N.V.Savchuk, H.M.Akopian* CATALOGUE OF THE PARAMETERS OF POORLY STUDIED BINARY SYSTEMS: EW:
11. *N.V.Savchuk, I.L.Andronov, L.L.Chinarova, S.I.Iovchev, H.M.Akopian* CATALOGUE OF THE PARAMETERS OF POORLY STUDIED BINARY SYSTEMS: EA
12. *H.M.Akopian, I.L.Andronov, L.L.Chinarova, S.I.Iovchev, N.V.Savchuk* CATALOGUE OF THE PARAMETERS OF POORLY STUDIED BINARY SYSTEMS: EB
13. *L.L.Chinarova, I.L.Andronov* CATALOGUE OF MAIN CHARACTERISTICS OF PULSATIONS OF 173 SEMI-REGULAR STARS. II
14. *I.L.Andronov, L.S.Kudashkina, L.L.Chinarova* STUDYING THE VARIABILITY OF PULSATING STARS USING STATISTICALLY OPTIMAL MATHEMATICAL MODELING

SOLAR SYSTEM AND SPACE ENVIRONMENT

Zoom Meeting

<https://us02web.zoom.us/j/85110878181?pwd=d0RpRDdGVUloZzhsQ2hUNVILQjhOdz09>

Meeting ID: 851 1087 8181

Passcode: 361807

Wednesday, 23.08.2023

10:00 – 13:00 Section session (15 + 5 minutes for the report)

Convener – N.I.Koshkin

1. *V.G.Chiorny, V.G.Shevchenko, I.G.Slyusarev, O.I.Mikhailchenko, Yu.N.Krugly, D.Oszkiewicz* PHOTOMETRY OF SMALL ASTEROIDS OF DIFFERENT FAMILIES AND DYNAMICAL GROUPS WITH A SHORT ROTATION PERIODS
2. *O.Ivanova, J.Licandro, F.Moreno, I.Luk'yanyk, J.Markkanen, D.Tomko, M.Husárik, A.Cabrera-Lavers, M.Popescu, E.Shablovinskaya, O.Shubina* RESULTS OF OBSERVATIONS OF ASTEROID (248370) 2005 QN173
3. *I.Eglitis, K.Nagainis, A.Sokolova, G.Campbell* LIGHT CURVE ANALYSIS OF MAIN BELT ASTEROIDS WITH EARTH MOID LESS THAN 1AU
4. *O.Kozhukhov, M.Medina* NOAP – SCRIPT PACKAGE FOR PLANNING AND ANALYSIS OF NEO OBSERVATIONS
5. *A.Golubaev, A.Mozgova* THERMAL DESORPTION OF THE DUST PARTICLES MATTER NEAR THE SUN. DATA ANALYSIS OF METEOR OBSERVATIONS AND THEIR INTERPRETATION
6. *D.Chechotkina, Ye.Surkov, Yu.Shkuratov, V.Kaydash* ON ASSESSMENT OF LUNAR SURFACE TEMPERATURE
7. *V.Kaydash, Ye.Surkov, Yu.Shkuratov* LUNAR OPPOSITION EFFECT EXPLORATION USING LROC NAC DATA
8. *A.A.Humbatova* THE GREAT RED SPOT ON JUPITER'S DISK DYNAMICS WITH THE ENVIRONMENT
9. *A.V.Golubaev, A.P.Zheleznyak, V.G.Kaydash* ASSESSMENT OF THE ASTROCLIMATIC CONDITIONS OF THE OBSERVATION COMPLEX AT THE INSTITUTE OF ASTRONOMY OF KHARKIV NATIONAL UNIVERSITY

13:00 – 14:00 Lunch

14:00 – 16:30 Section session (15 + 5 minutes for the report)

Convener – O.A.Bazyey

10. *L.Shakun, K.Kaminski, O.Kozhukhov, O.Briukhovetskyi, E.Wnuk, Ju.Golebiewska, M.Kaminska, M.Kruzynski, N.Koshkin* CALIBRATING OPTICAL ASTROMETRIC MEASUREMENTS OF RESIDENT SPACE OBJECTS IN EARTH ORBIT AND TELESCOPE LOCATIONS OF THE UKRAINIAN-POLISH TELESCOPE NETWORK
11. *O.Kozhukhov, Yu.Omelchenko, D.Kozhukhov, M.Kulichenko, O.Shulga, Ye.Kozyrev, N.Maigurova* TEST OPTICAL OBSERVATIONS OF THE COSMOS 1408 FRAGMENTS
12. *O.Shulga, M.Kaliuzhnyi, F.Bushuev, M.Kulichenko, N.Maigurova* LEO SATELLITES RADIO OBSERVATIONS IN THE RESEARCH INSTITUTE "MAO" USING THE DOPPLER EFFECT
13. *N.Koshkin, L.Shakun, O.Kozhukhov, A.Bilinsky, O.Briukhovetskyi, V.Dragomiretsky, O.Dzyhadlo, T.Golubovskaya, E.Korobeinikova, V.Kudak, S.Melikyants, Y.Omelchenko, V.Omelchenko, V.Perig, A.Ryabov, S.Strakhova, S.Terpan, S.Tsvihun, O.Vasiltsun, Ye.Vovchik, S.Zolotov* DETERMINATION OF THE RSO ROTATION AXIS
14. *M.Kulichenko, Y.Kozyryev, N.Maigurova, O.Shulga* COLOR-INDEX DETERMINATION OF LEO SATELLITES USING COLOR IP-CAMERAS
15. *O.M.Yizhakevych, S.V.Shatokhina, V.M.Andruk* SOME Asteroid positions OF THE TAUTENBURG DIGITIZED ASTROPLATES
16. *S.V.Shatokhina, H.Relke, O.M.Yizhakevych, V.M.Andruk, A.Sh.Mullo-Abdolv* ASTEROID POSITIONS BASED ON THE DUSHANBE PART OF THE FON PROJECT OBSERVATIONS

SUN, SOLAR ACTIVITY, SOLAR-TERRESTRIAL RELATIONS AND ASTROBIOLOGY

Zoom Meeting

<https://us05web.zoom.us/j/6615355322?pwd=bnBoSENVbTN6U2Nnc3UwbVRQSmZCZz09>

Meeting ID: 661 535 5322

Passcode: 12345

Thursday, 24.08.2023

10:00 – 16:00 Section session (15 + 5 minutes for the report)

Conveners – V.M.Efimenko, M.I.Ryabov

1. *V.M. Efimenko, V.G. Lozitsky* THE OPTIMAL INTERVAL FOR DETERMINING THE GROWTH RATE OF SOLAR ACTIVITY FOR THE PREDICTION OF THE MAXIMUM AMPLITUDE OF THE 25th CYCLE
2. *N.M. Kondrashova, V.N. Krivodubskij* ANOMALOUS MAGNETIC REGIONS ON THE SUN
3. *N.I. Lozitska, I.I. Yakovkin, V.G. Lozitsky* COMPARISON OF MAGNETIC FIELDS BY D1, D2 AND NII LINES MEASURED IN THE AREAS OF THE SEISMIC SOURCE OF A POWERFUL SOLAR FLARE AND IN A SUNSPOT WITHOUT FLARES
4. *V.G. Lozitsky, S.M. Osipov* TRIAL SPECTRAL-POLARIZATION OBSERVATIONS IN THE H-ALPHA LINE FOR THE SEARCH FOR SUPER-STRONG MAGNETIC FIELDS IN SUNSPOTS AT THE CHROMOSPHERE LEVEL
5. *S. Osipov* SCATTERED LIGHT IN THE SPECTROGRAPH OF ERNEST GURTOVENKO SOLAR TELESCOPE
6. *M.M. Pasechnik* SPECTRAL STUDY LOWER SOLAR ATMOSPHERE OF THE ACTIVE REGION SITE WITH THE ELLERMAN BOMB AND ACCOMPANYING H α -EJECTIONS
7. *N.G. Shchukina, Javier Trujillo Bueno* EUV CORONAL SPECTROPOLARIMETRY
8. *R. Kostik* BRIGHTNESS IN THE SOLAR FACULA

12:30 – 13:30 Lunch

13:30 – 16:30 Section session (15 + 5 minutes for the report)

Conveners – V.M.Efimenko, M.I.Ryabov

9. *M. Pishkalo* FLATTENING INDEX OF THE SOLAR CORONA IN THE SOLAR CYCLE AND ITS RELATION WITH PARAMETERS OF MAGNETIC FIELD OF THE SUN
10. *E.A. Isaeva* THE RELATIONSHIP OF THE PROTON FLUX OF SCR WITH THE PARAMETERS OF TYPE II RADIO BURSTS
11. *M.I. Ryabov, A.L. Sukharev* ON THE ANOMALOUS RISE OF CYCLE 25 AS A RESULT OF THE MANIFESTATION ACTIVITY OF THE NORTHERN AND SOUTHERN HEMISPHERES OF THE SUN
12. *P. Sumaruk, M. Neska* SOLAR AND GEOMAGNETIC ACTIVITY IN 19-24 CYCLES
13. *M.I. Orlyuk, A.A. Romenets* THE EARTH'S MAGNETIC FIELD AND THE LARGE-SCALE MAGNETIC FIELD OF THE SUN: THE SOLAR-TERRESTRIAL CONNECTION
14. *M.I. Ryabov, A.L. Sukharev, M.I. Orlyuk, D.M. Ryabov, Yu.P. Sumaruk, L.I. Sobitniak, A.O. Romenets* ASSESSMENT OF THE POSSIBILITY OF USING NEURAL NETWORKS AND WAVELET ANALYSIS FOR PROCESSING THE DATA OF MONITORING OBSERVATIONS OF GEOMAGNETIC VARIATIONS FOR INVESTIGATION SPACE WEATHER
15. *L.I. Sobitnyak, M.I. Ryabov, A.L. Sukharev, M.I. Orlyuk, D.M. Ryabov, A. Romenets, Yu. Sumaruk* COMPARATIVE ANALYSIS OF THE CATALOGS OF PLANETARY MAGNETIC AND IONOSPHERIC STORMS WITH THE CATALOG OF MAGNETIC STORMS FOR THE ZONE OF THE ODESSA MAGNETIC ANOMALY
16. *M.I. Orlyuk, A.A. Romenets, I.M. Orliuk* SARS-CoV-2 VIRUS SPREADING IN RELATION TO THE EARTH'S MAGNETIC FIELD
17. *O.V. Dudnik, A. Wawrzaszek, A. Képa, M. Karlický, A. Awasthi, T. Mrozek, J. Sylwester* SOLAR FLARES IN MAY 2021 AND THEIR MANIFESTATIONS IN THE INTERPLANETARY SPACE AS DETECTED WITH STIX, EPD, MAG, AND SWA INSTRUMENTS ONBOARD THE SOLAR ORBITER

RADIOASTRONOMY

Zoom Meeting

<https://us05web.zoom.us/j/6615355322?pwd=bnBoSENVbTN6U2Nnc3UwbVRQSmZCZz09>

Meeting ID: 661 535 5322

Passcode: 12345

Friday, 25.08.2023

09:20 – 13:05 Section session (15 minutes for the report)

Convener – Oleg Ulyanov

09:25 – 09:30 Opening of the Radio Astronomy Section

1. *V.N.Melnik, A.I.Brazhenko, A.V.Frantsuzenko, V.V.Dorovskyy, M.V.Shevchuk* DECAMETER TYPE IV BURST WITH HIGH POLARIZATION ON 13 JULY 2022
2. *V.V.Dorovskyy, V.N.Melnik, A.I.Brazhenko* GROUND BASED SUPPORT OF THE SPACE MISSION PARKER PERFORMED WITH UKRAINIAN LOW FREQUENCY RADIO TELESCOPES
3. *Koval A., Stanislavsky A., Karlicky M., Wang B., Yerin S., Konovalenko A., Barta M.* MORPHOLOGY OF SOLAR TYPE II BURSTS CAUSED BY SHOCK PROPAGATION THROUGH TURBULENT AND INHOMOGENEOUS CORONAL PLASMA
4. *O.Ulyanov, C.Tiburzi, A.Shevtsova, V.Zakharenko, A.Konovalenko, P.Zarka, J-M.Grieffmeier, S.Yerin, I.Kravtsov, A.Brazhenko, A.Frantsuzenko* THE USE OF PULSAR PULSES FOR COSMIC MAGNETOACTIVE PLASMA DIAGNOSING
5. *Vladislavs Bezrukovs* RECENT RADIO ASTRONOMICAL ACTIVITIES AT THE VENTSPILS INTERNATIONAL RADIO ASTRONOMY CENTRE

11:10 – 11:30 Coffee break

6. *Ye.Vasylkivskyy, O.Konovalenko, S.Stepkin* LARGE-SCALE STUDIES OF DECAMETER CARBON RADIO RECOMBINATION LINES IN GALAXY
7. *L.O.Stanislavsky, I.M.Bubnov, O.O.Stanislavsky, S.M.Yerin* EVOLUTION OF FREE-FREE ABSORPTION PARAMETERS IN CASSIOPEIA A
8. *V.Shepelev, R.Vashchishin, V.Dorovskyy, V.Melnik, M.Shevchuk* INTERFEROMETRIC OBSERVATIONS OF THE QUIET SUN AT DECAMETER WAVELENGTHS UNDER STRONG RADIO FREQUENCY INTERFERENCE
9. *R.V.Vashchishyn, V.A.Shepelev, O.A.Litvinenko, G.S.Podgorny, A.V.Loizinsky* ANGULAR STRUCTURE OF THE RADIO GALAXY 3C280 AT DECAMETER WAVELENGTHS
10. *A.Loizynskyy, O.Ivanyshyn, B.Rusyn, O.Ulyanov* THE “INTERFEROVISION” PROJECT : WHAT WE WANT, WHAT WE HAVE AND WHAT WE ARE WORKING HARD ON NOW

13:10 – 14:10 Lunch

14:10 – 16:40 Section session (15 minutes for the report)

Convener – Oleg Litvinenko

11. *A.Konovalenko, V.Zakharenko, O.Ulyanov, P.Tokarsky, M.Sidorchuck, S.Stepkin, P.Zarka, J.Girard, J-M.Grieffmeier, M.Tagger, R.Vermeulen, L.Gurvits, H.O.Rucker, A.Lecacheuh, N.Kalinichenko, A.Stanislavsky, V.Melnik, V.Dorovsky, N.Shevchuk, V.Shepelev, Y.Vasilkovsky, A.Brazhenko, A.Frantsuzenko, O.Ivanyshin, A.Loizinsky, I.Bubnov, M.Ryabov, O.Litvinenko, A.Reznichenko, V.Bortsov, S.Yerin* PERSPECTIVES OF LOW-FREQUENCY RADIO ASTRONOMY IN UKRAINE
12. *A.L.Sukharev, M.I.Ryabov, [V.V.Galanin]* ABOUT RESEARCH PROGRAMS AT THE RADIO TELESCOPE "URAN-4" OF THE RADIO ASTRONOMY INSTITUTE OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE (MONITORING OF FLUXES OF POWERFUL RADIO SOURCES, STUDY OF THE SUN'S SUPERCORONA BY PASSAGE OF THE CRAB NEBULA, OBSERVATIONS OF SOLAR ECLIPSE)
13. *N.O.Tsvyk* THE DICHOTOMY OF THE MECHANISMS OF DECAMETER RADIO EMISSION FROM JUPITER: THE INFLUENCE OF STREAMER INHOMOGENEITIES AND MHD PERTURBATIONS IN THE SOURCE
14. *D.Zabora, M.Ryabov, A.Sukharev, V.Bezrukovs* MOTION KINEMATIC OF COMPONENTS IN AGN'S JETS ACCORDING TO VLBI MOJAVE MONITORING DATA
15. *V.V.Orlov, O.A.Lytvynenko, V.G.Derevyagin* MODELING OF AN ADAPTIVE INTERFERENCE SUPPRESSION SYSTEM IN LONGWAVE RADIO ASTRONOMY
16. *O.A.Lytvynenko, S.K.Panishko, V.G.Derevyagin* SEPARATION OF DIURNAL AND SEASONAL EFFECTS IN THE RADIO ASTRONOMICAL METHOD OF THE IONOSPHERE SOUNDING
17. *O.A.Lytvynenko, S.K.Panishko, V.G.Derevyagin* THE LONG-TERM OBSERVATIONS OF THE POWER COSMIC RADIO SOURCES ON THE RADIO TELESCOPE URAN-4 AT THE DECAMETER WAVELENGTH RANGE
18. *Miroshnichenko A.P.* THE JET KINETIC LUMINOSITIES FOR THE UTR-2 SOURCES WITH THE STEEP LOW-FREQUENCY SPECTRA

16:40 – 17:10 Coffee break/Dinner

17:10 – 18:40 Workshop URAN Group

ASTRONOMICAL EDUCATION AND OUTREACH

Zoom Meeting

<https://us04web.zoom.us/j/73651769430?pwd=bkRISTNPRzZEUnpBWXU1TnExZ3RpQT0973651>

Meeting ID: 769430

Passcode: 4iQH5n

Friday, 25.08.2023

10:00 – 12:25 Section session (15+5 minutes for the report)

Convener – Ivan Andronov

10:00 – 10:05 Opening of the Section “Astronomical Education and Outreach”

1. *I.B.Vavilova, B.Ya.Melekh* ASTRONOMICAL TEXTBOOKS AND MONOGRAPHS FOR THE HIGHER EDUCATION
2. *V.Ivchenko, V.Marsakova, B.Melekh, B.Novosyadlyj, V.Reshetnyk, A.Simon, O.Vernydub.* ASTRONOMY OLYMPIAD ACTIVITY IN UKRAINE
3. *O.Golubov* ASTRONOMY IN UKRAINIAN WIKIPEDIA
4. *I.L.Andronov* ASTRONOMY OUTREACH IN UKRAINE
5. *V.V.Marsakova* ASTRONOMICAL ACTIVITY IN CENTER OF STEM-EDUCATION OF ODESA REGION
6. *M.Yu.Pyatnytskyy* OBSERVING VARIABLE STARS AT THE "OSOKORKY" OBSERVATORY
7. *T.Karasova* ASTROSANDBOX PROJECT

BIOLOGICAL SESSION “THE IMPORTANCE OF G. GAMOW'S IDEAS FOR BIOLOGY OF THE 21ST CENTURY”

Zoom Meeting

<https://us05web.zoom.us/j/83056921960?pwd=jKP7ZidovJxTEHfZ38tnscbKiTYnr4.1>

Meeting ID: 830 5692 1960

Passcode: 3101

10:00 – 17:00 Section session (30 or 20 minutes for report)

Convener – *S.V.Chebotar*

1. *J.Kumlehn* CAS ENDONUCLEASE TECHNOLOGY IN CEREALS: FROM SITE-DIRECTED MUTAGENESIS TOWARDS MORE PRECISE GENOME EDITING
2. *S.Griffiths* THE RHT8 SEESAW
3. *M.Nagel* CHANGES OF SEED METABOLITE AFTER 40 YEARS OF LONG-TERM COLD STORAGE IN WHEAT AND BARLEY
4. *M.Schierenbeck, A.M.Alqudah, S.G.Thabet, E.G.Avogadro, U.Lohwasser, M.R.Simón, A.Börner* GENETIC DISSECTION FOR SEEDLING DROUGHT STRESS TOLERANCE IN A WINTER WHEAT PANEL
5. *G.Chebotar, A.Börner, M.Nagel* HOW TO FIND CANDIDATE GENE – GWAS – WITH SPECIAL EMPHASIS ON BARLEY LONGEVITY
6. *Yu.A.Popovych, O.M.Blagodarova, S.V.Chebotar* PREFERENCES OF MOLECULAR MARKERS FOR DETECTING OF ALLELIC VARIANTS OF GLIADINS
7. *S.Okoń, T.Ociepa, A.Nucia, K.Kowalczyk* IDENTIFICATION AND CHROMOSOMAL LOCALIZATION OF *PM11* AND *PM12* POWDERY MILDEW RESISTANCE GENES IN OAT (*AVENA SATIVA* L.)
8. *E.Bucher* PLANT GENOME AND EPIGENOME DYNAMICS IN THE CONTEXT OF CLIMATE CHANGE
9. *O.Yushchuk, F.Marinelli, V.Fedorenko* GLYCOPEPTIDE ANTIBIOTIC RESISTANCE GENES: AN UPDATED POINT OF VIEW
10. *A.Kachor, O.M.Gromyko* GENOMIC CHARACTERIZATION OF ACTINOMYCETE STRAIN MUMIA SP. PV 4-285 ISOLATED FROM PHYLLOSTACHYS VIRIDIGLAUCESCENS RHIZOSPHERE
11. *Y.O.Tynkevich, I.I.Moysiyenko, I.I.Panchuk, R.A.Volkov* 5S RIBOSOMAL DNA IN THE TRIBE LIMONIEAE (PLUMBAGINACEAE): MOLECULAR ORGANIZATION, POLYMORPHISM, AND TAXONOMIC APPLICATION
12. *D.Sirokha, V.Kalynovskyi, N.Zelinska, O.Gorodna, L.Livshits* THE OLIGOGENIC IMPACT OF KIAA1210 & CFAP47 MUTATIONS ON THE DEVELOPMENT OF DSD FEATURES IN A PATIENT WITH A C.34G>C GATA4 MUTATION
13. *Yu.Monczak* MOLECULAR DNA TRACKING OF CORD BLOOD STEM CELL TRANSPLANTATION WITH MULTI-DONOR POOLS: WHEN ONE DONOR IS NOT ENOUGH
14. *G.Segre* GEORGE GAMOW’S FRIEND MAX DELBRUCK, THE FOUNDER OF MODERN VIRUS STUDIE