

**XXV GAMOW INTERNATIONAL ASTRONOMICAL CONFERENCE:
"ASTRONOMY AND BEYOND: ASTROPHYSICS, COSMOLOGY AND
GRAVITATION, ASTROPARTICLE PHYSICS, RADIO ASTRONOMY,
ASTROBIOLOGY AND GENETICS"**

August 18 - 22, 2025, Odesa, Ukraine

(Attention, the indicated time corresponds to the time in Odesa, i.e. UTC+3)

August 18 (09:30 – 12:25)

Zoom Meeting

<https://us02web.zoom.us/j/7278931881?pwd=TgFE2mx0okYh3Lnn4P9ZtFfbpRif7P.1&omn=87173506357>

Meeting ID: 7278931881

Passcode: 13579

(Convener – **O. M. Ulyanov**)

09:30-09:50 OPENING OF THE CONFERENCE

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*

MEMORIAL SESSION

1. 09:50-10:25 ***M. Capaccioli*** (Naples University, Italy)
The contributions of Edwin Hubble to the XX century revolutions in astrophysics and cosmology.
2. 10:25-10:45 ***M. Ryabov*** (RI NASU)
25 years of annual Gamow conferences and traditions of Odessa astronomy.
3. 10:45-11:20 ***Remo Ruffini*** (Director of ICRANet, Italy)
The role of Georgii Antonovich Gamow guiding Enrico Fermi in revealing the physics of the very early Universe, today further verified by the "red-dots" observed by the James Webb Telescope.
4. 11:20-11:55 ***Bohdan Novosyadlyj*** (Astronomical Observatory of Ivan Franko National University of Lviv, Ukraine)
From Gamow's Prediction of CMB up to now and beyond (to the 60th Anniversary of Discovery).
5. 11:55-12:25 ***I. E. Rikun***
The Epoch of Academician A.Y. Orlov in the History of Astronomy in Odessa

August 18 (13:00 – 18:10)

Zoom Meeting

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PLENARY SESSION

(Convener – **V. I. Zhdanov**)

Cosmology (35 min + 5 min)

1. 13:00-13:40 **Emmanuel N. Saridakis** (Research director of National Observatory of Athens, Greece)
Tensions in Cosmology: Are we Approaching New Physics?
2. 13:40-14:20 **Alexander Zhuk** (Odesa National University, Ukraine; CASUS, Germany)
Phantom Dynamic Dark Energy: Towards a Solution to the Cosmological H₀ Tension
3. 14:20-15:00 **Mariam Bouhmadi-López** (Department of Physics & EHU Quantum Center, University of the Basque Country UPV/EHU, Bilbao, Spain; IKERBASQUE, Basque Foundation for Science, Bilbao, Spain)
Probing Cosmic Acceleration: Dark Energy and Modified Gravity
4. 15:30-16:10 **Alexander Kamenshchik** (Dipartimento di Fisica e Astronomia, Università di Bologna, Bologna, Italy)
Singularities and their Crossing in Gravity and Cosmology
5. 16:10-16:50 **Claus Kiefer** (University of Cologne, Faculty of Mathematics and Natural Sciences, Institute for Theoretical Physics, Cologne, Germany)
From a Quantum World to our Classical Universe
6. 16:50-17:30 **Günther Hasinger** (Director of Deutsches Zentrum für Astrophysik, Görlitz, Germany)
A possible role of Primordial Black Holes in the Early Universe?
7. 17:30-18:10 **Adam Riess**, Nobel Laureate (Department of Physics and Astronomy, Johns Hopkins University, Baltimore, USA)
JWST Weighs in on the Hubble Tension

August 19 (09:00 – 13:00)

Zoom Meeting

<https://us02web.zoom.us/j/7278931881?pwd=TgFE2mx0okYh3Lnn4P9ZtFfbpRif7P.1&omn=87173506357>

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PLENARY SESSION

(Convener – *I. L. Andronov*)

Astrophysics (30 min + 5 min)

1. 09:00-09:35 ***Eugene (Gene) F. Milone*** (University of Calgary, Canada)
A Perspective on Eclipsing Binary Star studies in the Post-Gaia Era
2. 09:35-10:10 ***Włodimierz Godłowski*** (Institute of Physics, Opole University, Poland)
Investigations of Galaxy alignment - significance and results
3. 10:10-10:45 ***Bohdan Melekh*** (Department of Astrophysics, Ivan Franko National University of Lviv, Ukraine)
Multicomponent modeling of nebular environments surrounding active star-forming regions
4. 10:45-11:20 ***Ernst Paunzen*** (Department of Theoretical Physics and Astrophysics, Masaryk University, Brno, Czechia)
Stellar Populations and Star Clusters
5. 11:20-11:55 ***Peter Berczik*** (Main Astronomical Observatory, National Academy of Sciences of Ukraine)
Nuclear Star Cluster formation by the first generation globular clusters disruption
6. 11:55-12:30 ***Roberto Ragozzoni*** (President of INAF, Italy)
Pushing the observational niches: new tools for new frontiers
7. 12:30-13:05 ***Ivan L. Andronov*** (Department of Mathematica, Physics and Astronomy, Odesa National Maritime University, Odesa, Ukraine)
Variable Stars: The Diversity, Classification and Statistically Optimal Phenomenological Mathematical Modelling

August 20 (09:00 – 13:00)

Zoom Meeting

<https://us02web.zoom.us/j/7278931881?pwd=TgFE2mx0okYh3Lnn4P9ZtFfbpRif7P.1&omn=87173506357>

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PLENARY SESSION

(Convener – *M. I. Ryabov*)

Solar Activity and Solar-Terrestrial Relations (30 min+5 min)

1. 09:00-09:35 ***I. Usoskin*** (Oulu University, Finland)
Solar activity cycles beyond the telescopic era: A New look through cosmogenic radiocarbon
2. 09:35-10:10 ***J. Semkova*** (Space Research and Technology Institute, Sofia, Bulgaria)
The best time interval in the solar cycle for a future manned trip to Mars, regarding the radiation safety
3. 10:10-10:45 ***Gianpaolo Piotto*** (Padua University and director of CISAS, Italy)
Search for exoplanets: towards Earth analogous and Biosignatures
4. 10:45-11:20 ***Nataliia Shchukina*** (Main Astronomical Observatory, National Academy of Sciences, Ukraine)
Recent Advances in Solar Physics
5. 11:20-11:55 ***O. Ulyanov*** (Institute Radio Astronomy NAS of Ukraine), C. Tiburzi, P. Zarka, A. Shevtsova, V. Zakharenko, O. Konovalenko, O. Wucknitz, L. Lamy, G-M. Griesmeier, M. Skoryk, I. Kravtsov, V. Bezrukovs, J. Šteinbergs, K. Skirmante, A. Brazhenko, A. Frantsuzenko, A. Skoryk
Probing the Solar Corona with Low-Frequency Pulse Radio Emission of Galactic Sources
6. 11:55-12:30 ***A.A. Stanislavsky*** (Institute Radio Astronomy NAS of Ukraine), I. M. Bubnov, L. A. Stanislavsky, A. A. Konovalenko, P. Zarka, A. Loh, C. Viou, R. V. Vaschishyn, A. V. Frantsuzenko, V. I. Myrhorod
Investigating Supernova Remnants at Low Frequencies
7. 12:30-13:05 ***A. Zalizovski, O. Koloskov, Yu. Yampolski*** (Radio Astronomical Institute NAS of Ukraine)
Geospace and Space Weather: a view from Ukraine, Antarctic and Arctic
- 13:05-13:35 ***Andrey Sopin*** (Radio Astronomical Institute NAS of Ukraine)
Online Excursion to the Vernadsky Research Base (Ukrainian Antarctic research station)

SECTION SESSIONS

August, 19 – 22

SECTIONS:

1. **Cosmology, gravitation, astroparticle physics, high energy physics** (Chair *A.I.Zhuk*)
August, 19 (14:00 – 18:00)
2. **Astrophysics: nucleosynthesis, stellar atmospheres, kinematics, structure and chemical evolution of the Galaxy** (Chair *T.V.Mishenina*)
August, 20 (14:30 – 17:50)
3. **Astrophysics: Interacting Binary Systems and Variable Stars** (Chair *I.L.Andronov*)
August, 21 (09:15 – 13:15)
4. **Astrophysics: Extragalactic astronomy and Astroinformatics** (Chair *I.B.Vavilova*)
August, 22 (09:30 – 13:00)
5. **Solar System, Exoplanets and Near-Earth astronomy** (Chair *N.I.Koshkin*)
August, 21 (10:00 – 13:00, 14:00 – 18:00)
6. **Radio Astronomy** (Chairs *O.M.Ulyanov, O.A.Litvinenko*)
August, 21 (09:30 – 17:30)
7. **Sun, solar activity, solar-terrestrial relations and astrobiology**
(Chairs *V.M.Efimenko, M.I.Ryabov*)
August, 22 (09:30 – 14:40)
8. **Biologic section «The importance of G. Gamow's ideas for biology of the 21st century»**
(Chair *S.V.Chebatar*)
August, 19 (10:00 – 13:00, 14:30 – 16:30)
9. **Astronomical education and Astronomy Outreach** (Chair *I.L.Andronov*)
August, 21 (14:00 – 17:00)
10. **Popularization of Astronomy and Planetarium in Ukraine**
(Chairs *G.V.Zheleznyak, M.I.Ryabov*)
August, 22 (16:00 – 18:00)

Program and abstracts will be posted on the web page of the Conference:

www.gamow.odessa.ua

In case of problems with uploading abstract texts, please send them to

S.L.Strakhova: okioao26@gmail.com

For more details regarding the Conference, please contact us:

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Secretary: sedamelikk@gmail.com

Web-site:

www.gamow.odessa.ua

SECTION SESSIONS

COSMOLOGY, GRAVITATION, ASTROPARTICLE PHYSICS, HIGH ENERGY PHYSICS

August, 19
(14:00 – 18:00)

Zoom Meeting

<https://us02web.zoom.us/j/7278931881?pwd=TgFE2mx0okYh3Lnn4P9ZtFfbpRif7P.1&omn=82985307832>

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(Chair – A. I. Zhuk)

(15 + 5 minutes for the report)

1. 14:00-14:20 *Alexander Kamenshchik* TWO TIME PHYSICS, CARROLL PARTICLES AND JORDAN ALGEBRAS
2. 14:20-14:40 *Alina Mierna, Gabriele Perna, Sabino Matarrese, Nicola Bartolo, Angelo Ricciardone* QUANTUM PRODUCTION OF GRAVITATIONAL WAVES AFTER INFLATION
3. 14:40-15:00 *B. Novosyadlyj, Yu. Kulinich, N. Fortuna, A. Rudakovskiy* IMPACT OF PRIMORDIAL MAGNETIC FIELDS ON THE REDSHIFTED 21 CM SIGNAL FROM DARK AGES
4. 15:00-15:20 *Anton Rudakovskiy, Maksym Tsizh, Franco Vazza* CAN WE CONSTRAIN A COSMOLOGICAL MAGNETIC FIELD VIA NETWORK ANALYSIS?
5. 15:20-15:40 *Yu. Kulinich, B. Novosyadlyj, M. Tsizh* THE IMPACT OF THE HELICITY OF THE PRIMORDIAL MAGNETIC FIELDS ON THE THERMAL AND CHEMICAL HISTORY IN THE EARLY UNIVERSE
6. 15:40-16:00 *Serhii Skolota, Elena Bannikova, Volodymyr Akhmetov, Peter Berczik, Massimo Capaccioli, Maryna Ishchenko* THE DYNAMICS OF A SUPERMASSIVE BLACK HOLE UNDER THE INFLUENCE OF A CLUMPY SELFGRAVITATING TORUS
7. 16:00-16:20 *Denys Ilchenko, Elena Bannikova, Albert Kotvytskiy* STRONG GRAVITATIONAL LENSING AND MICROLENSING BY A TOROIDAL STRUCTURE WITH A CENTRAL MASS
8. 16:20-16:40 *V.I.Zhdanov* UNIVERSAL STRUCTURE OF STATIC SPHERICALLY SYMMETRIC SOLUTIONS OF $F(R)$ GRAVITY
9. 16:40-17:00 *Vahnuyk B.I., Tugay A.V.* STABILITY OF RELATIVISTIC SYSTEMS WITH FRACTIONAL POWER-LAW SCALAR FIELDS
10. 17:00-17:20 *Dmitri Doikov, Katrin Doikov* A NOVEL IMAGE RECONSTRUCTION APPROACH IN THE X- AND γ -RAY DOMAIN
11. 17:20-17:40 *Marko Doikov* THE NOVEL γ -RAY SPECTROGRAPH CONFIGURATION IN THE ENERGY RANGE 0.1–5 MEV
12. 17:40-18:00 *O.I. Gerasymov, L.S. Kudashkina* THE EXCESS ENTROPY IN STRUCTURED DISCRETE CONGLOMERATES AT MULTIPLE SCALES

ASTROPHYSICS 1
(nucleosynthesis, stellar atmospheres, kinematics, structure
and chemical evolution of the galaxy)

August, 20
(14:30 – 17:50)

Zoom Meeting

<https://us02web.zoom.us/j/7278931881?pwd=TgFE2mx0okYh3Lnn4P9ZtFfbpRif7P.1&omn=88398820550>

Meeting ID: 7278931881

Passcode: 13579

(Chair – **T. V. Mishenina**)

1. 14:30-14:50 A.M.Dmytrenko, P.M.Fedorov, V.S.Akhmetov, A.B.Velichko, S.I.Denyshchenko, V.P.Khramtsov, I.B.Vavilova, D.V.Dobrycheva, A.A.Vasylenko, O.M.Sergijenko, O.V.Kompaniets VELOCITY ELLIPSOIDS OF THE GAIA DR3 GIANTS AND SUBGIANTS IN THE GALACTIC PLANE
2. 14:50-15:10 T.Mishenina, T.Gorbaneva, M.Pignatari, T.Kurtukian Nieto ENRICHMENT WITH THE FIRST- AND SECOND-PEAK S-PROCESS ELEMENTS IN GALACTIC DISC GIANTS
3. 15:10-15:30 V.A.Yushchenko, V.F.Gopka, A.V.Yushchenko, S.V.Vasil'eva THE ABUNDANCE OF RADIOACTIVE ELEMENT IN THE ATMOSPHERE OF STARS. PROMETHIUM.
4. 15:30-15:50 A.H.Alili, Kh.M.Mikhailov, K.I.Alishева DETERMINATION OF ELECTRON TEMPERATURE AND IONIZED MASS OF PLANETARY NEBULA OF NGC7009
5. 15:50-16:10 Zabit S. Farziyev THE ROLE OF MOLECULAR HYDROGEN IN THE ENERGY BALANCE OF GIANT PLANETS
6. 16:10-16:30 A.B.Hasanova, A.M.Khalilov, A.Sh.Baloglanov, G.M.Haciyeva VARIATION OF THE HA LINE PROFILE IN THE SPECTRUM OF THE SUPERGIANT STAR HD 207260(A2 Iae)
7. 16:30-16:50 Samedov Z.A., Aliyeva Z.F, Hajiyeva G.M. DETERMINATION OF THE EFFECTIVE TEMPERATURES AND SURFACE GRAVITIES OF SEVERAL A-TYPE STARS BASED ON PHOTOMETRIC PARAMETERS
8. 16:50-17:10 Yelyzaveta Melnychuk ESTIMATING PHOTOMETRIC AND COLOR VARIABILITY OF F7V PLANET HOST WASP-1 TIC 57984377: MAGNETIC MODULATIONS AND ROTATIONAL SIGNATURES
9. 17:10-17:30 Mahammad A. Nurmammadov NEW APPROACHES MATHEMATICAL JUSTIFICATION STEADY OF THERMODYNAMICALLY EQUILIBRIUM OF GIANT PLANETS
10. 17:30-17:50 Mahammad A. Nurmammadov NEW APPROACHES THEORETICAL ASTROPHYSICS FOR APPLICATION TO SOME ASTRONOMICAL OBJECTS: AN APPLICATION OF NON-CLASSICAL EQUATION MATHEMATICAL PHYSICS TO THE MAGNETO-HYDRODYNAMIC EQUILIBRIUM FOR TOROIDAL MAGNETIC STARS

ASTROPHYSICS 2 (Interacting Binary Systems and Variable Stars)

August, 21
(09:15 – 13:15)

Zoom Meeting

<https://us04web.zoom.us/j/73651769430?pwd=bkRlSTNPRzZEUnpBWxU1TnExZ3RpQT09>

Meeting ID: 73651769430

Passcode: 4iQH5n

(Chair – ***I.L.Andronov***)

1. 09:15-09:30 *Adigozalzade H.N., Bashirova U.Z., Ismailov N.Z.* PROLONGED VARIABILITY IN THE PRE-MAIN-SEQUENCE STAR V1295 Aql
2. 09:30-09:45 *S.Achkassova, Sh.Nurmakhametova, A.Miroshnichenko, N.Vaidman, S.Khokhlov* PERIODIC VARIATIONS OF THE OPTICAL SPECTRUM AND BRIGHTNESS OF THE POST-AGB OBJECT LN Hya
3. 09:45-10:00 *Kamala I. Alisheva, Khidir M. Mikayilov* INVESTIGATION OF NOVA SCO□2024
4. 10:00-10:15 *V.V.Breus, I.L.Andronov* SPIN-UP OF THE WHITE DWARF IN THE INTERMEDIATE POLAR V2069 Cyg
5. 10:15-10:30 *N.Britavskiy, L.Mahy, D.Lennon & BLOeM collaboration* MULTIPLICITY OF EARLY B-TYPE SUPERGIANTS IN THE SMALL MAGELLANIC CLOUD
6. 10:30-10:45 *Marsakova V.I., Shugarov S.Yu., Andronov I.L.* MULTICOLOR ANALYSIS OF VARIABILITY IN THE SYMBIOTIC STAR V407 Cyg
7. 10:45-11:00 *Shakhida T. Nurmakhametova, Nadezhda L. Vaidman, Anatoly S. Miroshnichenko, Aldiyar T. Agishev* HR 4049: A SPECTROSCOPIC ANALYSIS OF A POST-AGB OBJECT
8. 11:10-11:15 *S.O.Mammadov, V.I.Aliyeva, B.N.Rustamov* SPECTRAL STUDY OF THE HERBIG Ae STAR HD 31648. THE H α AND H β EMISSION LINES
9. 11:15-11:30 *J.N.Rustamov, A.R.Iskandarova, U.J.Poladova* THE PHOTOMETRIC VARIABILITY OF HIGH-MASS X-RAY BINARY HD 226868
10. 11:30-11:45 *A.B.Rustamova, Kh.M.Mikailov, B.N.Rustamov* ORBITAL SPECTRAL VARIABILITIES IN SYMBIOTIC STAR AG PEGASI
11. 11:45-12:00 *A.B.Rustamova, Kh.M.Mikailov, B.N.Rustamov* OPTICAL SPECTROSCOPY OF SYMBIOTIC STAR EG And. Ha ORBITAL VARIABILITIES.
12. 12:00-12:15 *L.S.Kudashkina* MATHEMATICAL MODELING OF NONLINEAR DYNAMIC PROCESSES IN PULSATING VARIABLE STARS. PERMUTATION ENTROPY METHOD.
13. 12:15-12:30 *L.E.Keir, M.Yu.Pyatnytskyy, E.A.Panko* VARIATIONS OF THE FI SGE LIGHT CURVE SHAPE ACCORDING TO TESS DATA
14. 12:30-12:45 *I.L.Andronov, L.L.Chinarova, N.I.Savchuk, S.I.Iovchev, H.M.Akopian, V.I.Marsakova* PHENOMENOLOGICAL MODELING OF TOTAL ECLIPSES AND TRANSITS
15. 12:45-13:00 *I.L.Andronov, S.V.Kolesnikov* VARIABILITY OF THE PROTOTYPE POLAR AM HERCULIS FROM SECONDS TO DECADES
16. 13:00-13:15 *K. Kaziemova, D. Rusanova, D. Zazubyk, A.Simon, A. Kasianchuk, M. Solomakha, A. Grytsai* IDENTIFICATIONS OF SELECTED GAIA OBJECTS AS SU

UMA TYPE CATAclysmic VARIABLES

EXTRAGALACTIC ASTRONOMY AND ASTROINFORMATICS

August, 22
(09:30 – 13:00)

Zoom Meeting

<https://us02web.zoom.us/j/84115474202?pwd=UlhER0FmSUxEeStjTk5XVWRySUVIDz09>

Meeting ID: 841 1547 4202

Passcode: 597343

(Chair – I.B. Vavilova)

1. 09:30-09:50 S.Ye. Apunevych CLUSTERING OF OBSERVED COSMIC WEB
2. 09:50-10:10 B.Mrzygłód, W.Godłowski DERIVING THE LUMINOSITY FUNCTION OF GALAXY CLUSTERS USING DATA FROM THE SLOAN DIGITAL SKY SURVEY
3. 10:10-10:30 V.Akhmetov, L.Filipello, M.Crosta, M.G.Lattanzi, B.Bucciarelli and U.Abbas CONSTRAINTS ON THE LOW-FREQUENCY STOCHASTIC GRAVITATIONAL-WAVE BACKGROUND FROM GAIADR3 QUASAR PROPER MOTIONS
4. 10:30-10:50 E.Panko, S.Yemelianov USING CLUSTER CARTOGRAPHY 2D FOR DETECTING SUBSTRUCTURES IN THE SIMULATED 3D GALAXY CLUSTERS
5. 10:50-11:10 V.Korshunov, E.Panko, S.Yemelianov THE INNER STRUCTURE OF GALAXY CLUSTERS IN ISOLATED PAIRS OF GALAXY CLUSTERS

11:10-11:20 Coffee break

6. 11:20-11:40 A.Dzygunenko, A.Baransky, R.Ridden-Harper SHORT-TERM OPTICAL VARIABILITY AND QPOS IN BLAZARS FROM TESS OBSERVATIONS
7. 11:40-12:00 O.O.Hetmantsev, D.V.Dobrycheva, I.B.Vavilova, A.Shportko., O.Guginin, O.V.Kompaniets DEEP LEARNING-DRIVEN DISCOVERY OF POLAR RING GALAXY CANDIDATE
8. 12:00-12:20 A.Velichko, Y.Revaz, A. De Cia, C.Ledoux, J.-K.Krogager, C.Péroux, B.Casavecchia CHEMODYNAMICAL PROPERTIES OF GAS-RICH GALAXIES: A COMPARISON OF OBSERVATIONS AND SIMULATIONS
9. 12:20-12:40 O.Kompaniets, O.Pastoven, I.Vavilova, D.Dobrycheva MULTIWAVELENGTH SED ANALYSIS OF MILKY WAY GALAXIES-ANALOGUES: THE CASE OF NGC3521
10. 12:40-13:00 V.Khramtsov, D.Dobrycheva, I.Vavilova, P.Fedorov, A.Dmytrenko, O.Kompaniets, A.Vasylenko, O.Sergijenko AUTOMATED GALAXY MORPHOLOGY WITH VISION-LANGUAGE MODELS: A FRAMEWORK FOR IDENTIFYING MILKY WAY ANALOGS

SOLAR SYSTEM, EXOPLANETS AND NEAR-EARTH ASTRONOMY

August, 21

(10:00 – 13:00, 14:00 – 18:00)

Zoom Meeting

<https://us02web.zoom.us/j/9341146289?pwd=2USr4YVjJBsCvDOr01NhMz91680o1d.1&omn=85479708913>

Meeting ID: 934 114 6289

Passcode: 665323

10:00 – 13:00 Section session (15 + 5 min)

(Convener – N. I. Koshkin)

1. 10:00-10:20 *Alexandr Golubaev, Alona Mozgova.* IMPROVING THE EFFICIENCY OF METEOR OBSERVATIONS BY AUTOMATING AND INTEGRATING THE RMS PLATFORM WITH ARTIFICIAL INTELLIGENCE TOOLS INTO THE VIDEO-SPECTRAL COMPLEX OF THE ASTRONOMICAL OBSERVATORY OF TARAS SHEVCHENKO NATIONAL UNIVERSITY OF KYIV
2. 10:20-10:40 *Kuznyetsova Yu., Vidmachenko A., Velichko S.* TYPES OF VOLCANIC FORMATIONS ON THE MOON
3. 10:40-11:00 *Vadym Kaydash, Yuriy Shkuratov, Nickolay Opanasenko, Sergey Velichko, Yehor Surkov.* CHARACTERIZATION OF LUNAR IRREGULAR MARE PATCH INA WITH A SYNTHESIS OF SPACE AND TELESCOPIC MEASUREMENTS
4. 11:00-11:20 *S.Velichko, V.Korokhin, V.Kaydash, Yu.Shkuratov, Yu.Kuznyetsova* PHOTOMETRIC ANALYSIS OF IMP SOSIGENES BASED ON LROC NAC DATA AND ITS POSSIBLE VOLCANIC ORIGIN
5. 11:20-11:40 *Valeriia Rychahova, Ivan Slyusarev, Vadym Kaydash, Yehor Surkov, Irina Belskaya, Vasiliy Shevchenko.* REFLECTANCE SPECTRA OF DISTINCT SURFACE UNITS IN THE MARCIA CRATER REGION ON VESTA
6. 11:40-12:00 *Karastan Mykyta, Bazyey Oleksander.* DETERMINING THE ORBIT OF THE TEMPORARY EARTH SATELLITE OF ASTEROID 2024 PT5
7. 12:00-12:20 *Enver Emine Humatova.* THE DISTRIBUTION OF TEMPERATURE IN THE DETAILS OF JUPITER'S DISK BASED ON THE ABSORPTION LINES OF THE NH₃ λ 6450 Å BAND
8. 12:20-12:40 *Zabit S. Farziyev.* DETERMINATION OF ROTATIONAL TEMPERATURE IN THE ATMOSPHERE OF URANUS AND NEPTUNE
9. 12:40-13:00 *Mariia Lobodenko, Charles Cockell.* THE POSSIBILITY OF DETECTING MAJOR ORGANIC MOLECULES ON THE SURFACE AND IN THE ATMOSPHERES OF EXOPLANETS

13:00 – 14:00 Lunch break

14:00 – 17:30 Section session (15 + 5 min)

(Convener – **O. A. Bazyey**)

10. 14:00-14:20 *Kozyriev Ye.S., Maigurova N.V., Shulga O.V.* ASSESSMENT OF THE FEASIBILITY OF USING A COLOR CMOS CAMERA FOR PHOTOMETRIC OBSERVATIONS
11. 14:20-14:40 *V.Psaryov, Yu.Velikodsky.* COMPARATIVE ANALYSIS OF CANON EOS CAMERAS CMOS SENSORS
12. 14:40-15:00 *S.P.Pukha, M.I.Buromsky, V.L.Karbivsky, V.V.Kleshchonok, M.V.Lashko.* FOCUSING SYSTEM UPGRADE OF THE AZT-8 TELESCOPE FOR ENHANCED OBSERVATIONAL PERFORMANCE
13. 15:00-15:20 *Ye.Vovchyk, I.Salnikov, Z.Bekirov.* THE PROBLEM OF MONITORING NEAR SPACE
14. 15:20-15:40 *O.Kozhukhov, N.Koshkin, F.Piergentili, L.Mariani, L.Cimino, O.Briyukhovetskyi, L.Shakun, E.Korobeynikova, S.Melikyants, S.Strakhova.* LONG-TERM EVOLUTION OF ROTATION PARAMETERS OF ROCKET BODIES ON LEO (ON THE EXAMPLE OF OBJECT 18340)

(Convener – **I. V. Lukyanyk**)

15. 15:40-16:00 *Oleksander Shulga, Mykola Kaliuzhnyi, Felix Bushuev, Yuri Protsyuk, Dmytro Motorkin, Vladyslav Khramtsov.* TIME SYNCHRONIZATION IN THE RADIO AND AUDIO FREQUENCY RANGES TO OBSERVE ARTIFICIAL EARTH SATELLITES AND METEOROIDS
16. 16:00-16:20 *Oleksander Shulga, Yindun Mao, Mykola Kaliuzhnyi, Felix Bushuev, Mykola Kulichenko, Nadiia Maigurova, ZhengHong Tang.* CREATING A PROTOTYPE NETWORK OF TWO DOPPLER STATIONS FOR ACCURATE ORBIT DETERMINATION OF LOW-EARTH SATELLITES WITH BEACON
17. 16:20-16:50 *A.Pechko, E.Panko.* LIGHT CURVES OF THE SELECTED EXOPLANETS' TRANSITS
18. 16:50-17:00 *Vira Vasylychenko, E.Panko, N.Miroshnik.* THE DETERMINATION OF THE EXOPLANET TYPE FROM ITS TRANSIT LIGHT CURVE
19. 17:00-17:10 *Strautman Albin, Bazyey Oleksandr.* DURATION OF SUNLIGHT EXPOSURE OF NEAR-EARTH SATELLITES DURING THE YEAR

RADIO ASTRONOMY

August, 21
(09:30 – 17:05)

Zoom Meeting

<https://us05web.zoom.us/j/4474527124?pwd=bkmyajgdtSrckxnXthicyvngH8bgmi.1&omn=89802073122>

Meeting id: 447 452 7124

Passcode: fviae3

(Chairs – O. M. Ulyanov, O. A. Litvinenko)

1. 09:30-09:45 Valerii O. Shepeliev MEASUREMENT OF TOTAL SPECTRA OF COSMIC RADIO SOURCES AT DECAMETER WAVELENGTHS IN INTERFEROMETRIC STUDIES WITH THE URAN NETWORK
2. 09:50-10:05 Valerii O. Shepelev, *R.V.Vashchishyn, G.S.Podgorny* MONITORING RFI IN INTERFEROMETRIC STUDIES WITH URAN
3. 10:10-10:25 Rostislav V. Vashchishin, *V.O. Shepelev, O.O. Litvinenko, A.B. Lozinsky* ANGULAR STRUCTURE OF RADIO GALAXY 3C20 AT DECAMETER WAVELENGTHS
4. 10:30-10:45 Andrii Lozynskyy, *B. Rusyn, O. Ivantyshyn, V. Marukha, R. Lozynskyy, A. Zavediya, B. Kharchenko* ON THE ISSUE OF IMPLEMENTING APERTURE SYNTHESIS TECHNOLOGY ON THE URAN-3 RADIO TELESCOPE
5. 10:50-11:05 Mykola V. Shevchuk, *Bubnov I. M., Dorovskyy V. V., Stanislavsky L. A., Konovalenko A. A., Stanislavsky A. A., Yerin S. M., Tokarsky P. L., Reznichenko A. M., Selin V. Yu., Belov A. S., Shevchenko V. V., Khristenko A. D., Zakharenko V. V., Ulyanov O. M.* PERSPECTIVES OF THE SOLAR RADIO EMISSION STUDIES WITH THE ADVANCED GURT ANTENNA ARRAY POWERED BY SOLAR ENERGY

11:10-11:30 Coffee break

6. 11:30-11:45 Yevgen V. Vasylykivskyi, *O. O. Konovalenko, S. V. Stepkin, V. V. Zakharenko, O. M. Ulyanov, L. O. Stanislavsky, A. I. Brazhenko, A. V. Frantsuzenko* MULTI-FREQUENCY STUDIES OF DECAMETER CARBON RADIO RECOMBINATION LINES AT UKRAINIAN UTR-2 AND URAN-2 RADIO TELESCOPES
7. 11:50-12:05 Yevgen V. Vasylykivskyi, *I. P. Kravtsov, O. O. Konovalenko, V. V. Zakharenko, O. M. Ulyanov, L. O. Stanislavsky, A. O. Skoryk, M. V. Skoryk, A. I. Shevtsova, S. M. Yerin, S. V. Stepkin, M. A. Sydorchuk, A. I. Brazhenko, A. V. Frantsuzenko* ON THE POSSIBILITY OF JOINT ANALYSIS OF OBSERVATIONAL DATA OF PULSED, CONTINUUM, AND MONOCHROMATIC RADIO EMISSION IN THE DECAMETER RANGE
8. 12:10-12:25 Nataliya O. Tsvyk JUPITER'S DAM RADIO EMISSION AND SOLAR ACTIVITY: IO:DEPENDENT AND NON:IO SOURCES

9. 12:30-12:45 Alla P. Miroshnichenko KNOTS OF RADIO EMISSION OF THE NORTH POLAR SPUR AND CYCLIC ACTIVITY OF OUR GALAXY
10. 12:50-13:05 Oleg O. Lytvynenko, S.K.Panishko, V.G.Derevyahin BEHAVIOR OF IONOSPHERIC SCINTILLATION CHARACTERISTICS OF COSMIC RADIO SOURCES DURING THE SOLAR ECLIPSE OF MARCH 29, 2025
11. 13:10-13:25 Dmytro Shulga, Aleksey Korolev, Yuriy Karelin, Dmytro Chechotkin, Valeriy Myshenko SPECTRAL INVERSION EFFECT OF "ELECTROMAGNETIC SMOG" IN THE SHORT AND ULTRASHORT WAVE RANGES
12. 13:30-14:30 Svitlana Kolomiyets UNESCO HERITAGE PAGES IN RADIO ASTRONOMY ASSOCIATED WITH BERNARD LOVELL AND BORIS KASHCHEYEV: DISCUSSION
- Lunch**
13. 14:30-14:45 Ihor M. Bubnov, A.A.Stanislavsky, S.M.Yerin, P.L.Tokarsky, A.A.Konovalenko, L.A.Stanislavsky, R.V.Vaschishyn, A.S.Belov, V.V.Shevchenko LOW- FREQUENCY ANTENNA FOR RADIO ASTRONOMY STUDIES OF THE UNIVERSE FROM THE FAR SIDE OF THE MOON
14. 14:50-15:05 Ihor M. Bubnov, R.V.Vaschishyn, A.A.Stanislavsky, A.A.Konovalenko, O.M.Ulyanov, L.A.Stanislavsky, M.V.Shevchuk, S.M.Yerin, V.V.Zakharenko, A.M.Reznichenko, A.S.Belov, V.Yu.Selin, A.V.Frantsuzenko, V.V.Shevchenko RESTORATION AND DEVELOPMENT OF THE GURT RADIO TELESCOPE NETWORK: NEW OPPORTUNITIES FOR OBSERVATIONS UNDER WARTIME CONDITIONS
15. 15:10-15:25 Vyacheslav I. Myrhorod, I.M. Bubnov, V.Yu. Selin VISUALIZATION AND ANALYSIS OF VECTOR NETWORK ANALYZER MEASUREMENTS FOR THE EXPERIMENTAL ACTIVE ANTENNA MODEL OF THE GURT RADIO TELESCOPE
16. 15:30-15:45 Volodymyr V. Orlov, O.A. Lytvynenko, V.G.Derevyahin MODELING OF AN ADAPTIVE INTERFERENCE SUPPRESSION SYSTEM FOR LONG:WAVELENGTH RADIO ASTRONOMY APPLICATIONS
- 15:50-16:10 Coffee break**
17. 16:10-16:20 Daniil A. Zabora, Ryabov M.I., Sukharev A.L. PERIODIC PROCESSES IN AGNs AND THEIR JETS BASED ON MOJAVE VLBI MONITORING OBSERVATIONS
18. 16:25-16:30 Oleg O. Lytvynenko, V. O. Shepeliev METHODOLOGY FOR STUDYING TRANSIENT RADIO EMISSION IN THE SOLAR SYSTEM AND THE GALAXY BASED ON THE ANALYSIS OF THE EXISTING ARCHIVAL DATABASE OF THE URAN VLBI
- 16:35-17:30 **Discussion and closing of the Radio Astronomy section**

SUN, SOLAR ACTIVITY, SOLAR-TERRESTRIAL RELATIONS AND ASTROBIOLOGY

August, 22

(09:30 – 12:10, 12.20 – 14.40)

Zoom Meeting

<https://us05web.zoom.us/j/4474527124?pwd=bkmyajgdtSrckXnxthicyvngH8bgmi.1&omn=89802073122>

Meeting ID: 447 452 7124

Passcode: fviae3

09:30-12:10 Section session (15 min + 5 min)

(Convener – **M. I. Ryabov**)

1. 09.30-9.50 *Bezrukovs Vladislavs, Bezrukovs Dmitri, Aguirre Endika, Bouzarhoun El Asry Wassim, Janices Iñaki, Šteiberngs Jānis, Orbidans Artu* RECENT ADVANCES IN SOLAR RADIO OBSERVATIONS AND IMAGING WITH THE RT-32 RADIO TELESCOPE AT IRBENE
2. 9.50-10.10 *Oleksandr Bilokon* METHODS FOR IDENTIFICATION OF QUASI-PERIODIC PULSATION IN SOFT AND HARD X-RAY RADIATION OF SOLAR FLARES
3. 10.10-10.30 *Dmytro Chechotkin, Oleksiy Dudnik, Robert F. Wimmer-Schweingruber, Bogdan Dudnik, Glenn Mason* A STUDY OF THE CHARACTERISTICS OF ASSOCIATED SOLAR FLARE-CME EVENTS
4. 10.30-10.50 *Efimenko V., Lozitsky V.* FEATURES OF THE 25TH CYCLE OF SOLAR ACTIVITY IN THE MAXIMUM PHASE OF ITS DEVELOPMENT
5. 10.50-11.10 *Anatoliy Kazantsev* THE INFLUENCE OF LUNAR-SOLAR TIDES IN THE EARTH'S ATMOSPHERE ON THE VISIBILITY OF COSMIC BODIES IN UKRAINE IN THE NEXT THREE YEARS
6. 11.10-11.30 *N.M. Kondrashova, M.M. Pasechnik* MORPHOLOGICAL FEATURES OF EXTREME GEOMAGNETIC STORM SOURCES
7. 11.30-11.50 *Krivodubskij V. N.* NORTH-SOUTH ASYMMETRY OF SUNSPOT ACTIVITY DURING THE MAUNDER MINIMUM
8. 11.50-12.10 *M.I.Ryabov, A.L.Sukharev, V.Komendant* 25 CYCLE OF ACTIVITY OF THE NORTHERN AND SOUTHERN HEMISPHERES OF THE SUN

12:10 – 12:30 Coffee break

12:20-14:40 Section session

(Convener – **V. M. Efimenko**)

9. 12.20-12.40 *V.G. Lozitsky* POSSIBLE SIGNATURES OF EXTREMELY STRONG MAGNETIC FIELDS OBSERVED IN A SUNSPOT USING SPECTRO-POLARIMETRY IN A SPECTRAL RANGE OF 75 ANGSTROM AROUND THE D3 LINE
10. 12.40-13.00 *V.N.Melnik, V.V.Dorovskyy* SPECTRAL FEATURES OF A SINGLE TYPE III BURST IN THE FREQUENCY RANGE OF 0.3-19 MHZ ACCORDING TO PSP DATA
11. 13.00-13.20 *M.I.Orlyuk, A.A.Romenets* REGARDING THE CONNECTION BETWEEN SOLAR ACTIVITY WITH THE SUN'S LARGE-SCALE MAGNETIC FIELD AND THE EARTH'S MAIN MAGNETIC FIELD
12. 13.20-13.40 *Diana Zazubyk, Asen Grytsai* ATMOSPHERIC OZONE RESPONSE ON SOLAR ACTIVITY BY MLS VERTICAL DISTRIBUTION DATA
13. 13.40-14.00 *A.L.Sukharev, M.I.Orlyuk, M.I.Ryabov, I.Usoskin, A.Kero, A.Romenets, Yu.Sumaruk, V.I.Kashuba, V.Bezrukovs, J.Steinbergs* EFFECTS OF THE SOLAR ECLIPSE ON MARCH 29, 2025 ACCORDING TO RADIO ASTRONOMICAL AND MAGNETOMETRIC OBSERVATIONS IN THE STRUVE GEODETIC ARC REGION
14. 14.00-14.20 *M.A.Didenko, M.I.Ryabov, E.M.Strakhov, A.L.Sukharev* TEMPORAL AND SPATIAL DISTRIBUTION OF POWERFUL FLARES ON THE SUN IN 23-25 CYCLES OF ACTIVITY DETERMINED BY CLUSTER ANALYSIS
15. 14.20-14.40 *Zabora D.A., Ryabov M.I. , Sukharev A.L, Shymbarova O.O.* DIGITIZATION BY MACHINE VISION OF ANALOG RECORDINGS OF MONITORING OF POWERFUL RADIO SOURCES ON THE URAN-4 RADIO TELESCOPE IN THE 22ND CYCLE OF SOLAR ACTIVITY

ASTRONOMICAL EDUCATION AND ASTRONOMY OUTREACH

August, 21
(14:00 – 17:00)

Zoom Meeting

<https://us04web.zoom.us/j/73651769430?pwd=bkRlSTNPRzZEUnpBWXU1TnExZ3RpQT09>

Meeting ID: 73651769430

Passcode: 4iQH5n

(Chair – I.L.Andronov)

1. 14.00-14.15 *Ernst Paunzen* OPEN EUROPEAN JOURNAL ON VARIABLE STARS, ALIAS OEJV
2. 14.15-14.30 *Marsakova V.I., Kudashkina L.S., Andronov I.L., Chinarova L.L.* METHODOICAL GUIDE "PRACTICAL ASTRONOMY ACTIVITIES"
3. 14.30-14.45 *Bohdan Ya. Melekh* THE NEW BACHELOR'S EDUCATIONAL PROGRAM 'ASTROPHYSICS AND SPACE PHYSICS' AT IVAN FRANKO NATIONAL UNIVERSITY OF LVIV
4. 14.45-15.00 *Anastasiia K. Pechko, E. A. Panko* UNISTELLAR EVSCOPE 2: TECHNICAL SPECIFICATIONS, USER COMMUNITY, AND PROSPECTS FOR APPLICATION
5. 15.00-15.15 *Maksym Pyatnytskyy* OBSERVATORY 'OSOKORKY': FROM STARS TO BYTES AND BACK AGAIN
6. 15.15-15.30 *Svitlana Malchenko* THE ROLE OF THE ASTROPHYSICAL COMPONENT IN UPDATING THE CONTENT OF SECONDARY SCIENCE EDUCATION IN UKRAINE
7. 15.30-15.45 *L.Kazantseva* LIMITATIONS AND OPPORTUNITIES OF UKRAINIAN UNIVERSITY MUSEUMS
8. 15.45-16.00 *Ivan L. Andronov* DETERMINISTIC AND STOCHASTIC PROCESSES AND MODELLING OF THEM
9. 16.00-16.15 *L.S.Kudashkina* ASTROTOURISM AS AN INTERDISCIPLINARY STRATEGY FOR REGIONAL DEVELOPMENT: EDUCATION, SCIENCE AND PARTNERSHIP IN WAR AND POST-WAR CONDITIONS
10. 16.15-16.30 *V.V.Breus* USING ASTRONOMICAL PHENOMENA IN SCIENCE POPULARIZATION AND EVENT TOURISM
11. 16.30-16.45 *L.L.Chinarova, I.L. Andronov, N.I.Savchuk, S.I.Iovchev, H.M.Akopian* PHYSICS. TASKS WITH SOLUTIONS. A TEXTBOOK (2025ARXIV250700064C)
12. 16.45-17.00 *Lidiia L. Chinarova* FROM EQUATIONS TO STARS: STRATEGIES FOR AVOIDING STRESS WHILE STUDYING PHYSICS, MATHEMATICS AND ASTRONOMY

POPULARIZATION OF ASTRONOMY AND PLANETARIUM IN UKRAINE

August, 22
(16:00-18:00)

Zoom Meeting

<https://us05web.zoom.us/j/4474527124?pwd=bKMYajGdTsrcKxnXTHicyVNGH8BgmI.1&omn=89802073122>

Meeting ID: 447 452 7124

Passcode: fViAE3

(Chairs – G. V. Zheleznyak, M. I. Ryabov)

1. 16:00-16:20 *N.I.Koshkin, M.I.Ryabov* (Co-editors Odesa Astronomical Calendar)
The Odesa Astronomical Calendar is an encyclopedia of astronomy and cosmonautics
2. 16:20-16:40 *M.I.Ryabov* (Odessa Astronomical Society) **Odessa Planetarium – yesterday, today and tomorrow**
3. 16:40-18:00 **Speeches and Discussion**
representatives of Planetariums and astronomical museums