

**20-th Gamow International Astronomical Conference-School  
“ASTRONOMY AND BEYOND: ASTROPHYSICS, COSMOLOGY  
AND GRAVITATION, HIGH ENERGY PHYSICS,  
ASTROPARTICLE PHYSICS, RADIOASTRONOMY AND  
ASTROBIOLOGY”**

*9–16 August, 2020, Odessa, Ukraine*



**The 20-th Gamow conference-school is devoted to:**

- **the 155-th anniversary of the Odessa I.I.Mechnikov National University;**
- **the 55-th anniversary of the discovery of cosmic microwave background radiation of the Universe;**
- **the 140-th anniversary of prof. A.Ya.Orlov (Head of the Odessa Astronomical Observatory in 1913–1944);**
- **the 170-th anniversary of prof A.K.Kononovich (Head of the Odessa Astronomical Observatory in 1881 – 1911).**

### **SCIENTIFIC ORGANIZING COMMITTEE:**

**Chair of SOC:** *V.M.Shulga* (IRA NASU, Kharkov, Ukraine, shulga@rian.kharkov.ua)

**Vice-chair:** *M.I.Ryabov* (IRA NASU, Odessa, Ukraine, ryabov-uran@ukr.net)

**Secretary:** *S.M.Melikyants* (AO ONU, Odessa, Ukraine, sedamelikk@gmail.com)

**Members of SOC:** V.M.Adamyan (ONU), S.M.Andrievsky (ONU), I.L.Andronov (ONMU), A.A.Konovalenko (IRA NASU), N.I.Koshkin (ONU), V.V.Kovtyukh (ONU), T.V.Mishenina (ONU), E.A.Panko (ONU), O.M.Ulyanov (IRA NASU), I.B.Vavilova (MAO), Y.S.Yatskiv (President of UAA), V.V.Zakharenko (IRA NASU), A.I. Zhuk (ONU).

### **LOCAL ORGANIZING COMMITTEE**

**Chair:** *I.N.Koval* (Rector of ONU)

**Vice-Chair:** *M.I.Ryabov*

**Secretary:** *A.A.Pilipenko*

**Members of LOC:** A.Yu.Burgazli, A.V.Chopovsky, A.V.Dragunova, A.Gorbunov, T.I.Kabanova, V.G.Komendant, N.I.Koshkin, S.M.Melikyants, B.A.Murnikov, V.P.Olyeynik, S.L.Strakhova, L.I.Sobitnyak, V.V.Troianskyi.

### **SCIENTIFIC TOPICS:**

Cosmology, gravitation, astroparticle physics, high energy physics, astrophysics, plasma astrophysics, radioastronomy, solar activity, solar system, astrobiology.

# AGENDA

## SECTIONS:

1. **Cosmology, Gravitation, High Energy Physics, Astroparticle Physics**  
(Convener – A.I.Zhuk) **August, 11**
2. **Astrophysics** (Conveners – I.L.Andronov, T.V.Mishenina) **August, 12**  
Subsection «Astroinformatics» (Convener I.B.Vavilova) **August, 11**
3. **Radioastronomy** (Convener – O.A.Litvinenko) **August, 14**
4. **Sun, Solar Activity, Solar-terrestrial Relations and Astrobiology**  
(Convener – M.I.Ryabov) **August, 14**
5. **Solar System and Space Environment**  
(Convener – N.I.Koshkin) **August, 13**
6. **Discussion**  
(Convener – V.P.Olyeynik) **August, 11**

## SCHEDULE OF THE PLENARY AND SECTION SESSIONS

### Plenary sessions:

#### 10 August

**10.00 – 13.40** *Conference Hall – Grand physical Auditorium*

### Section sessions (August, 11–14):

*Conference Hall (Auditorium №27 Faculty of Biology)*

Data Section	11.08	12.08	13.08	14.08
Section 1. <b>Cosmology, gravitation, high energy physics, astroparticle physics</b>	<b>09.30–13.00</b>			
Section 2. <b>Astrophysics</b>		<b>09.30–14.00</b>		
Subsection “Astroinformatics”	<b>13.00–14.00</b>			
Section 3. <b>Radioastronomy</b>				<b>09.30–11.20</b>
Section 4. <b>Sun, Solar activity and Astrobiology</b>				<b>11.50–13.30</b>
Section 5. <b>Solar System and Space Environment</b>			<b>09.30–14.00</b>	
<b>Discussion</b>	<b>14.00–14.30</b>			

## **EVENTS**

### **Monday, 10.08.2020**

- 09.00 – 10.00 REGISTRATION OF PARTICIPANTS** (Entrance the Conference Hall “*Grand Physical Auditorium*”)
- 10.00 – 13.40 OPENING OF THE CONFERENCE, GREETING TALKS AND MEMORIAL REPORTS** (Conference Hall “*Grand Physical Auditorium*”)
- 13.40**            *Photographing of participants after plenary sessions*
- 14.00 – 15.00 Lunch**
- 15.00 – 16.00 Enlarged meeting of the UAA Council**
- 16.00 – 18.00 Excursion to the University Paleontological Museum**
- 19.00 – 21.00 Sea walk and Welcome Party on a boat**

### **Tuesday, 11.08.2020**

- 09.30 – 14.00 SECTION SESSION** (*Faculty of Biology*)
- Excursion to the University's Geological and Mineral Museum**

### **Wednesday, 12.08.2020**

- 09.30 – 14.00 SECTION SESSION** (*Faculty of Biology*)
- 20.00 – 22.00 Visit to the University's Astronomical Observatory and Planetarium**

### **Thursday, 13.08.2020**

- 09.30 – 14.00 SECTION SESSION** (*Faculty of Biology*)
- 16.00 – 18.00 Excursion to the University Botanic Garden**
- 19.00**            *Conference Dinner*

### **Friday, 14.08.2020**

- 09.30 – 13.30 SECTION SESSION** (*Faculty of Biology*)
- 13.30 – 14.00 CLOSING OF THE CONFERENCE** (*Faculty of Biology*)

# PROGRAM

**Monday, 10.08.2020**

**09:00 – 10:00**      **Registration of participants** (*Conference Hall Grand physical Auditorium*)  
**10:00 – 11:30**      **OPENING OF THE CONFERENCE, MEMORIAL REPORTS AND GREETING TALKS** (*Conference Hall “Grand physical Auditorium”*)

**Convener** – *S.M.Andrievsky*

Greetings of the Rector of the Odessa I.I. Mechnikov National University *I.N.Koval*

*On the awarding of the Gamow University Memorial Medal*

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

Greetings of the SOC and LOC *M.I.Ryabov*

## **Presentation new publications:**

- *M.I.Ryabov* “**25<sup>th</sup> Anniversary of Odessa Gamow Conference**”, *A.D.Chernin* “**G.Gamow – physics, cosmology, genetics**”, *I.E.Rikun* “**Gamow and his Family**”, “**Gamows theacher**”
- *A.Korsun, L.Gladkohata, L.Pakuliak, I.Kriachko* **Life and scientific activity of Prof. Oleksandr Orlov: The newest e-book with collection of memoirs and articles**
- *I.L.Andronov, I.B.Vavilova, Ya.S.Yatskiv et al.* “**Knowledge Discovery in Big Data from Astronomy and Earth Observation 1st Edition. Astrogeoinformatics**” / ed. Petr Skoda, Adam Fathallahman. Elsevier, 2020, 472pp.

**11:30 – 12:00**      **Coffee break**

**12:00 – 12:40**      **MEMORIAL SESSION** (*Conference Hall “Grand physical Auditorium”*)

*V.G.Karetnikov* ASTRONOMY IN ODESSA I.I.MECHNIKOV NATIONAL UNIVERSITY – 155 YEARS OF HISTORY

*M.A.Balyshev, I.B.Vavilova* TO THE PERSONALITIES OF UKRAINIAN ASTRONOMY: SCIENTIFIC WORK OF KONSTANTIN SAVCHENKO

**12:40 – 13:40**      **PLENARY SESSION** (*Conference Hall “Grand Physical Auditorium”*)

*Fedorov O.P.* ABOUT THE BREAKDOWN OF THE NEW MODEL OF SPACE ACTION: SPACE VISION OF UKRAINE 2021-2030

*Ozhinskyi V.V., Vlasenko V.P., Poikhalo A.V.* RADIO TELESCOPE RT-32 IN SPACE RESEARCHES

*Kulichenko M.O., Kaliuzhnyi M.P., Bushuev F.I., Shulga O.V., Malynovskyi Ye.V., Savchuk S.G., Yankiv-Vitkovska L.M., Hrudynin B.O.* UKRAINIAN RADIO METEOR NETWORK – DEVELOPMENT AND FIRST RESULTS

## **Information about reports:**

*A.E.Volvach, L.N.Volvach, M.G.Larionov* (Invited talk) GIANT FLARES IN W49N

*M.I.Ryabov, B.A.Murnikov* THE GREATEST ACHIEVEMENTS OF UKRAINIAN COSMONAUTS

**13:40**                      **CONFERENCE PHOTO** (after the Plenary session)

**14:30 – 16:00**              **LUNCH**

**16:00 – 18:00**              **EXCURSION TO THE UNIVERSITY PALEONTOLOGICAL MUSEUM**

**19:00 – 21:00**              **SEA WALK AND WELCOME PARTY ON A BOAT**

**11.08.2020 – 14.08 2020**

**09:30 – 14:00**              **SECTION SESSION** (*Faculty of Biology*)

**Friday, 14.08.2020**

**13:30 – 14:00**              **CLOSING OF THE CONFERENCE** (*Faculty of Biology*)

## SECTION SESSIONS

### COSMOLOGY. GRAVITATION. HIGH ENERGY PHYSICS, ASTROPARTICLE PHYSICS

Tuesday, 11.08.2020

**09:30 – 11:30 Section session** (*Auditorium №27 Biological Department*)

**Convener** – *V.P.Olyeynik*

1. *Minaiev P.* THE ELECTROWEAK PHASE TRANSITION AND GENERATION OF MAGNETIC FIELDS
2. *Neomenko R.G.* EVOLUTION OF COSMOLOGICAL PERTURBATIONS IN THE INTERACTING DYNAMICAL DARK ENERGY
3. *Burgazli A., Shulga V., Yukselci A.E., Zhuk A.* EFFECT OF PECULIAR VELOCITIES ON THE GRAVITATIONAL POTENTIAL IN COSMOLOGICAL MODELS WITH PERFECT FLUIDS
4. *Potiienko O., Yushkevich T., Neboga H.* MODELING THE INTERFERENCE EFFECTS IN INELASTIC HADRONS SCATTERING WITH THE MONTE-CARLO EVENT GENERATOR BASED ON LAPLACE'S METHOD
5. *Rusov V.D., Zelentsova T.M., Le Minh Thanh* BLACK HOLE – SUN CONNECTION THROUGH THE ASYMMETRIC DARK MATTER
6. *Rusov V.D., Smolyar V.P., Eremenko A.M.* SOLAR AXIONS AS THE SOLUTION OF THE CORONA HEATING PROBLEM
7. *Beshley V.* THE RANDOMIZATION METHOD FOR THE DISORDERED COMPONENT OF A MAGNETIC FIELD IN SUPERNOVA REMNANTS AND ITS APPLICATION TO SN 1006
8. *Gladush V.D.* SPHERICALLY SYMMETRIC T- AND R-SOLUTIONS OF THE 5D KALUZA-KLEIN TYPE THEORIES EQUATIONS

**11:30 – 12:00 Coffee break**

**12:00 – 13:00 Section session** (*Auditorium №27 Biological Department*)

**Convener** – *A.I.Zhuk*

9. *Olyeynik V.P.* GRAVITATIONAL FIELDS IN SPACE-TIME: THE PLACE OF RIEMANNIAN GEOMETRY AMONG LINEAR DIFFERENTIAL GEOMETRIES OF SCHOUTEN
10. *Yemelianov S., Panko E.* THE NEW POSSIBILITIES IN CLUSTER CARTOGRAPHY 3 SET
11. *Tugay A.V., Shevchenko S.Yu., Zadorozhna L.V.* DISCRETE X-RAY SOURCES IN GALAXY CLUSTERS
12. *Ryazantsev G.B., Vysotskii V.I., Lavrenchenko G.K., Nedovesov S.S.* POSSIBLE WAYS OF FORMING OF HIGHLY-CONDENSED MATTER. NEUTRON SUBSTANCE AS A PRIMARY COSMOGENIC AND MODERN DARK MATTER
13. *Ryazantsev G.B., Lavrenchenko G.K., Nedovesov S.S.* THE AXIS OF THE UNIVERSE AND THE PROBLEM OF BARYON ASYMMETRY. CRITICAL ANALYSIS OF THE CONCEPT
14. *Ryazantsev G.B., Vysotskii V.I., Nedovesov S.S., Ryazantsev D.A.* NEUTRINO ASTROPHYSICS AND TERRESTRIAL ELECTROCHEMISTRY. POSSIBLE REASON FOR SUCCESS AND TRAGEDY OF FLEISCHMANN AND PONS

### POSTERS

1. *Berdina L.A., Tsvetkova V.S.* OBSERVATIONAL EVIDENCE OF SUPER-EDDINGTON ACCRETION IN Q 2237+0305
2. *Galdina A.N.* CRITICAL PROPERTIES OF THE N-VECTOR MODEL
3. *Bronza S.D., Kotvytskiy A.T., Bronza E.S., Manko N.S.* N-POINT GRAVITATIONAL LENS AS A COVERING MAP OVER A COMPLEX SPHERE
4. *Kotvytskiy A.T., Bronza S.D.* THE DISTANCE BETWEEN IMAGES IN N-POINT GRAVITATIONAL LENS
5. *Jan Novak* SCALAR PERTURBATIONS OF GALILEON COSMOLOGIES IN THE MECHANICAL APPROACH WITHIN THE LATE UNIVERSE
6. *Turinov A.N.* ANALYTIC SOLUTIONS FOR ANISOTROPIC SPHERES WITH LINEAR DEPENDENCE OF PRESSURE COMPONENTS IN GENERAL RELATIVITY

## SUBSECTION “ASTROINFORMATICS”

**Tuesday, 11.08.2020**

**13:00 – 14:00 Section session** (*Auditorium №27 Biological Department*)

**Convener – I.B.Vavilova**

1. *Beatriz Villarreal* “VANISHING & APPEARING SOURCES DURING A CENTURY OF OBSERVATIONS” (VASCO) PROJECT
2. *Protsyuk Yu.I., Maigurova N.V.* RE-REDUCTION OF THE OLD PHOTOGRAPHIC OBSERVATIONS OF INTERAMNIA (704) BASED ON GAIA DR2 REFERENCE CATALOG
3. *Protsyuk Yu.I., Maigurova N.V.* SOFTWARE FOR SEARCH AND MEASURING OF WDS CATALOG DOUBLE AND MULTIPLE STARS FROM DATABASE OF RESULTS OF CCD OBSERVATION
4. *Shatokhina S., Mullo-Abdolov A., Relke H., Yizhakevych O., Yuldoshev O., Protsyuk Yu., Andruk V.* ASTEROID POSITIONS BASED ON DIGITIZED OBSERVATIONS OF THE NORTHERN SKY SURVEY PROJECT IN DUSHANBE
5. *Zolotukhina A.V., Pakuliak L.K., Vavilova I.B.* THE SPECTRAL OBSERVATION ARCHIVE OF THE MAO NAS OF UKRAINE AS A PART OF THE UKRAINIAN VIRTUAL OBSERVATORY
6. *Andruk V.* ON THE COMMUNICATION OF PHOTOMETRIC SYSTEMS FOR REDUCTION OF STAR MEASUREMENTS WITH PHOTOGRAPHIC PLATES

## ASTROPHYSICS

**Wednesday, 12.08.2020**

**09:30 – 11:30 Section session** (*Auditorium №27 Biological Department*)

**Convener – T.V.Mishenina**

1. *Butkovskaya V.V., Plachinda S.I.* PROBE OF MAGNETIC FIELD IN A HOT SUPERGIANT ZET PER
2. *Plachinda S.I., Butkovskaya V.V.* DETECTION OF EMERGENCE OF MAGNETIC FLUX TUBES IN THE PHOTOSPHERE OF DWARF 61 Cyg A, SUBGIANT  $\beta$  GEM AND GIANT  $\beta$  GEM
3. *Gopka V.F.* ON THE EVOLUTIONARY STATUS OF CHEMICALLY-PECULIAR STARS IN THE UPPER PART OF THE MAIN SEQUENCE
4. *Kuznyetsova Y., Pavlenko Y., Kulyk I., Zakhochay O., Korsun P., Borysenko S., Krushevskaya V., Shubina O., Andreev M.* SIGNATURES OF EXOCOMET ACTIVITY AROUND STARS AT DIFFERENT EVOLUTIONARY STAGES
5. *Britavskiy N.* MASSIVE BINARY STAR EVOLUTION IN YOUNG STAR CLUSTERS. WHAT WE CAN LEARN FROM OBSERVATIONS?
6. *Postnikova E.* TIDAL FORMATIONS IN THE AREA OF THE PLEIADES OPEN CLUSTER
7. *Yushchenko V.A., Yushchenko A.V., Gopka V.F., Kovtyukh V.V., Vasilyeva S.V.* STUDIES OF ACTINIUM LINES IN THE SPECTRA OF STARS WITH ANOMALOUS HYDROGEN PROFILES. CEPHEIDS
8. *Mishenina T., Usenko I., Kniazev A., Kovtyukh V.* HD 121135: FEATURES OF ITS CHEMICAL COMPOSITION
9. *Usenko I.A., Kniazev A.Yu., Katkov I.Yu., Kovtyukh V.V., Mishenina T.V., Miroshnichenko A.S., Turner D.G.* SPECTROSCOPIC INVESTIGATIONS OF GALACTIC CLUSTERS WITH ASSOCIATED CEPHEID VARIABLES. IV. COLLINDER 220 AND UW CAR.

**11:30 – 12:00 Coffee break**

**12:00 – 14:00 Section session** (*Auditorium №27 Biological Department*)

**Convener – I.L.Andronov**

10. *Usenko I.A., Miroshnichenko A.S., Danford S., Kovtyukh V.V., Turner D.G.* SPECTROSCOPIC INVESTIGATIONS OF POLARIS ( $\alpha$  UMi) SYSTEM: RADIAL VELOCITY MEASUREMENTS, NEW ORBIT, AND COMPANION'S INFLUENCE FOR THE CEPHEID'S PULSATION ACTIVITY
11. *Breus V.V., Kolesnikov S.V., Andronov I.L.* LEAST SQUARES APPROACH FOR SIMULTANEOUS DETERMINATION OF ALL STOKES PARAMETERS
12. *Breus V., Andronov I.L., Dubovsky P., Petrik K.* SPIN-PERIOD VARIATIONS IN THE INTERMEDIATE POLAR RX J2133.7+5107
13. *Kolesnikov S.V.* ASTROPHYSICAL HIGHLIGHTS OF APERTURE POLARIMETRY OBTAINED AT THE 2.6M SHAIN TELESCOPE IN THIS CENTURY
14. *Doikov D.N., Yushchenko A.V., Yeuncheol Jeong* THE PROPERTIES OF CHARGED CONDENSED MATTER IN THE HARD RADIATION FIELD OF ACTIVE GALAXY NUCLEI. II. MACROSCOPIC INTERSTELLAR DUSTY PLASMA PARAMETERS: CONDUCTIVITY ( $\zeta$ ), VISCOSITY ( $\eta$ ), COMPRESSIBILITY ( $\gamma$ )

## POSTERS

1. *Khokhlov S.A., Miroshnichenko A.S., Zharikov S.V., Manset N., Zakhochay O.V., Kokumbaeva R., Kusakin A.V., Omarov Ch.T., Reva I.V., Usenko I.A., Kuratova A.* THE EMISSION-LINE DUSTY OBJECT IRAS 07080+0605, A LESS-EVOLVED EXAMPLE OF THE RED RECTANGLE
2. *Udovichenko S.N., Keir L.E.* Photometry and the Blazhko effect in the RR Lyr variable star Y Vul
3. *Kudashkina L.S.* MULTI-COMPONENT VARIABILITY OF PULSATING VARIABLE STARS OF RV TAURI TYPE

# SOLAR SYSTEM AND SPACE ENVIRONMENT

**Thursday, 13.08.2020**

**09:30 – 11:30 Section session (Auditorium №27 Biological Department)**

**Convener – N.I.Koshkin**

1. *Kolomiyets S.V., Kolomiets K.A., Kyrychenko I.Y., Prymachov Yu.D.* CENTENARY OF THE BIRTH OF THE FAMOUS UKRAINIAN RESEARCHER OF RADIOMETEORS PROF. B.L.KASHCHEYEV (1920–2004), HIS HERITAGE AND TRAJECTORY MEASUREMENTS TODAY.
2. *Ryabov M.I., Murnikov B.A.* THE GREATEST ACHIEVEMENTS OF UKRAINIAN COSMONAUTS.
3. *Kleshchonok V.V., Karbovsky V.L., Lasko M.V., Buromsky N.I.* MOBILE COMPLEX FOR OBSERVATION OF STAR OCCULTATIONS.
4. *Kleshchonok V.V., Karbovsky V.L., Buromsky N.I., Lasko M.V.* POSSIBLE OCCULTATION OF THE STAR TYC 1280-832-1 BY THE ASTEROID (486) CREMONA AS OBSERVED IN KYIV.
5. *Voitko Anhelina, Ivanova Oleksandra, Husárik Marek.* MONITORING OF COMETARY ACTIVITY OF THE COMET 29P/SCHWASSMANN-WACHMANN 1 WITH 0.61-M TELESCOPE AT THE SKALNATÉ PLESO OBSERVATORY.
6. *Gorbanev Yu. M., Konovalova N. A., Davruqov N.H.* GROUPS OF METEORITE-PRODUCING METEORIODS AND METEORITES IN ASTEROID ORBITS AND THEIR SOURCES.
7. *Troianskyi V.V., Kashuba V.I., Kashuba S.G., Korzhavin S.A.* PHOTOMETRY OF ASTEROIDS WITH THE OMT-800 TELESCOPE
8. *Kozhukhov O.M., Rishchenko S.V., Dementiev T.O., Pasatetskiy V.L., Bezluschenko T.A., Tanasiychuk Y.V.* RESULTS OF NEO OBSERVATIONS IN ‘CSIRP and NFCiN’ 2019–2020.
9. *Kulichenko M.O., Maigurova N.V., Shulga O.V.* INVESTIGATION OF THE PHOTOMETRIC SYSTEM OF THE METEOR TV CCD CAMERAS.

**11:30 – 11:50 Coffee break**

**11:50 – 14:00 Section session (Auditorium №27 Biological Department)**

**Convener – O.V.Shulga**

10. *Kaliuzhnyi M., Bushuev F., Shulga O., Bezrukovs V., Tuccari G.G., Reznichenko O., Bryukhovetsky A., Malynovskyi Y.* UKRAINIAN-LATVIAN-ITALY SIMPLE VLBI NETWORK OF GEOSTATIONARY SATELLITES MONITORING.
11. *Kozhukhov O.M., Prysiashnyi V.I., Piskun O.M., Kozhukhov D.M., Mamariev V.M.* NSFCTC’S SENSORS FOR SPACE SURVEILLANCE – MODERN STATE AND DEVELOPMENT PROSPECTS.
12. *Kozhukhov O.M.* OBSERVATION OF LEO OBJECTS BY AN OPTICAL TELESCOPE AT THE HIGH INTENSITY OF PASSES.
13. *Koshkin N., Shakun L., Korobeynikova E., Melikyants S., Romanyuk Ya., Ryabov A., Strakhova S., Terpan S., Golubovskaya T.* ABOUT DETERMINATION OF THE ROTATIONAL CHARACTERISTICS OF SPACE DEBRIS IN LEO.
14. *Kaliuzhnyi M., Bushuev F., Kryuchkovskiy V., Kulichenko M., Shulga O.* CLARIFYING OF ORBITAL ELEMENTS OF LOW-ORBIT SPACECRAFT BY THE RI "MAO" DOPPLER STATION.
15. *Sukhov P.P.* DEGRADATION OF THE REFLECTION CHARACTERISTICS OF SOME GSS IN SPACE.
16. *Fashchevsky N.N., Podlesnyak S.V., Bondarenko Yu.N., Andrievsky S.M., Romanyuk Ya.O.* NEW WIDE-FIELD TELESCOPE WITH HYPERBOLIC MAIN MIRROR (DIAMETER 60 CM) AND ROSS CORRECTOR: JOINT RESEARCH INSTITUTE PROJECT BETWEEN ASTRONOMICAL OBSERVATORY OF ODESSA NATIONAL UNIVERSITY AND MAIN ASTRONOMICAL OBSERVATORY OF UKRAINE.
17. *Vidmachenko A.P.* HOW DOES THE 2010 EQUINOX ON SATURN DIFFER FROM PREVIOUS THREE?

## POSTERS

1. *Kazantsev A., Kazantseva L.* A SPECIFIC OF MOVING OF BODIES FROM THE OUTER EDGE OF THE ASTEROID BELT TO NEAS AND CENTAURS.
2. *Kondratyuk R.R., Zhilyaev B.E., Vidmachenko A.P., Steklov A.F.* OBSERVATIONS OF DAYTIME METEORS.
3. *Koval'chuk M.M., Vovchyk Ye.B., Baran O.A., Bilinsky A.I., Stodilka M.I., Hirnyak M.B.* APPROXIMATE EVALUATION OF DURATION OF THE ORBITAL MOTION OF ARTIFICIAL SATELLITES OF THE EARTH TAKING INTO ACCOUNT LIGHT PRESSURE.
4. *Psaryov V.A., Konichek V.V., Sinelnikov I.Ye.* METROLOGICAL PROPERTIES OF A PHOTOSENSOR OF THE DIGITAL CAMERA CANON EOS 5D MARK III.



# RADIOASTRONOMY

**Friday, 14.08.2020**

**09:30 – 11:20 Section session** (*Auditorium №27 Biological Department*)

**Convener** – *O.A.Lytvynenko*

1. *Kravtsov I.P., Zakharenko V.V., Vasylieva I.Yu., Shevtsova A.I., Yerin S.M., Ulyanov O.M., Konovalenko O.O., Vasylykivskyi Ye.V., Myasoyed A.I.* INITIAL RESULTS OF THE SECOND DECAMETER PULSAR CENSUS AND REFINING THE PARAMETERS OF PSR J1426+52
2. *Orlov V.V., Lytvynenko O.A., Galanin V.V.* TRENDS, PROBLEMS AND PROSPECTS FOR THE DEVELOPMENT OF DIGITAL SYSTEMS PROCESSING MEASUREMENTS ON THE URAN-4 RADIO TELESCOPE
3. *Ulyanov O.M., Shevtsova A.I., Zakharenko V.V., Skoryk A.O., Yerin S.N.* ROTATION MEASURE PROFILES FOR ANOMALOUSLY INTENSE PULSES OF PSR B0950+08 AND PSR B0809+74
4. *Gorbunov A.A.* PERIODIC AND SPORADIC VARIATIONS OF THE SECULAR VARIATION OF THE CAS A FLUX FROM THE DATA OF ABSOLUTE AND RELATIVE MEASUREMENTS.
5. *Sukharev A., Ryabov M., Bezrukovs V., Orbidans A., Bleiders M., Udovichenko S., Keir L., Eglitits I., Dubovsky P., Kudsey I.* RESULTS OF THE PROGRAM RADIO-OPTICAL OBSERVATIONS OF THE BL LAC OBJECT 3C 371 VARIABILITY
6. *Lytvynenko O.A., Panishko S.K., Shepelev V.O., Georgieva K., Kirov B.* ICME AND IONOSPHERIC SCINTILLATIONS ACCORDING TO IONOSPHERIC MONITORING DATA AT RT URAN-4
7. *Marenkov V.I., Onisko V.V.* STATISTICAL MODEL APPROACH OF “QUASINEUTRAL CELLS” IN THE DESCRIPTION OF BREMSSTRAHLUNG OF HETEROGENEOUS PLASMA FORMATIONS IN THE EARTH'S ATMOSPHERE AND NEAR SPACE

## **POSTERS**

1. *Lytvynenko O.A., Panishko S.K.* DISTRIBUTION OF THE OCCURRENCE OF THE INTENSIVE IONOSPHERE SCINTILLATIONS ON THE OBSERVATIONS OF THE COSMIC RADIO SOURCES AT THE DECAMETER WAVE RANGE
2. *Volavch A.E., Volvach L.N., Larionov M.G.* (Invited talk) GIANT FLARES IN W49N

**11:30 – 11:50**      *Coffee break*

# SUN, SOLAR ACTIVITY, SOLAR-TERRESTRIAL RELATIONS AND ASTROBIOLOGY

**Friday, 14.08.2020**

**11:50 – 13:30 Section session** (*Auditorium №27 Biological Department*)

**Convener** – *M.I.Ryabov*

1. *Chornogor S., Kondrashova N.* FEATURES OF THE DEVELOPMENT OF A CIRCULAR SOLAR FLARE
2. *Isaeva E.A.* THE RELATIONSHIP OF SCR, CME AND CORONAL SHOCK WAVES WITH PARAMETERS OF SOLAR RADIO BURSTS IV AND II TYPE
3. *Orlyuk M.I., Romanets A.A.* SPATIOTEMPORAL CHANGE IN THE GEOMAGNETIC FIELD: ENVIRONMENTAL ASPECT
4. *Komendant V.H., Ryabov M.I.* DRAG OF THE INTERNATIONAL SPACE STATION (ISS) DURING PERIODS OF SOLAR AND GEOMAGNETIC ACTIVITY
5. *Larkov S.N., Prisiagnii V.I., Lizunov G.V., Volokh K.F., Moskalenko S.A., Piskun O.N., Piankova O.V., Pipko S.E.* ROCKET SOUNDING SYSTEM FOR LOWER IONOSPHERE RESEARCH
6. *Lozitsky V.G., Osipov S.M., Stodilka M.I.* ANOMALOUS VERTICAL DISTRIBUTION OF MICROTURBULENT VELOCITIES IN A SUNSPOT: SUPERSTRONG MAGNETIC FIELDS?
7. *Ryabov M.I., Sobitnyak L.I., Sukharev A.L., Orlyuk M.I., Romanets A.O., Sumaruk Yu.P., Pilipenko A.A.* APPLICATION OF THE CATALOG OF MAGNETIC STORMS FOR THE ANALYSIS OF MONITORING DATA FOR RADIO SOURCE FLUXES AT RT URAN-4 IN THE MAGNETIC ANOMALY ZONE

## POSTERS

1. *Krivodubskij V.* THE ROLE OF MACROSCOPIC TURBULENT DIAMAGNETISM IN ENSURING LONG-TERM STABILITY OF SUNSPOTS
2. *Kuznyetsova Y., Vidmachenko A., Steklov A.* ASTROBIOLOGY ASPECTS OF MOON' STUDY IN THE PROCESS OF COLONIZATION
3. *Perov S.P.* EXPLORATION OF ION-AEROSOL PLASMA BY AIR-BORN INSTRUMENTATIONS IN THE LOWER IONOSPHERE AND IN THE OZONE LAYER
4. *Perov S.P., Perov A.S., Sidorenkov N.S.* SPACE WEATHER AND LUNAR-SOLAR GRAVITATIONAL TIDES
5. *Perov S.P., Sidorenkov N.S.* GEOMAGNETIC STORM OF 1859 ("CARRINGTON EVENT")
6. *Sokhatsky S.P., Kruchenitsky G.M., Nikolayev A.V., Perov S.P., Statnikov K.A.* ALLEGED THE GENESIS OF A LONG-TERM STRATEGY VARIABILITIES INDEX F 10.7 AND IT'S DUAL FREQUENCY REGRESSION MODEL
7. *Sokhatskyi S.P., Kruchenitsky G.M.* ANALYSIS OF THE PROBLEM OF CALCULATING THE TRAJECTORY OF A RAY IN MEDIA WITH A GIVEN REFRACTIVE INDEX FIELD
8. *Yakovkin I.I., Lozitsky V.G.* ON THE POSSIBLE EXISTENCE OF SUPERSTRONG MAGNETIC FIELDS IN A LIMB SOLAR FLARE
9. *Efimenko V.M.* ON THE POSSIBLE EXISTENCE OF ANNUAL VARIATION IN THE AREAS OF SUNSPOT GROUPS IN 12-24 SOLAR ACTIVITY CYCLES

## IN DISCUSSION

**Tuesday, 11.08.2020**

**14:00 – 14:30** (*Auditorium №27 Biological Department*)

**Convener** – *V.P.Olyeynik*

1. *Boyko Y.I., Kopyt N.Kh., Kopyt N.N.* A VIEW AT DIMENSIONLESSNESS AND CONSERVATION OF MOTION PARAMETERS IN COSMOLOGY
2. *Danylchenko P.* THE EVIDENCE OF ABSENCE OF THE ACCELERATING EXPANSION OF THE UNIVERSE
3. *Danylchenko P.* SOLUTION OF EQUATIONS OF THE GALAXY GRAVITATIONAL FIELD
4. *P.Trokhimchuck* THEORIES OF EVERYTHING: CONCEPTS AND RESULTS