

18-th Gamow Summer School
“ASTRONOMY AND BEYOND: ASTROPHYSICS,
COSMOLOGY, COSMOMICROPHYSICS,
ASTROPARTICLE PHYSICS, RADIOASTRONOMY
AND ASTROBIOLOGY”

August 12-18, 2018, Odessa, Ukraine

AGENDA

SECTIONS:

- 1. Cosmology, gravitation, astroparticle physics, high energy physics**
(Chairs V.M.Shulga, B.S.Novosyadly) **August, 13-14**
 - 2. Astrophysics** *(Chairs I.L.Andronov, T.V.Mishenina)* **August, 13-14**

 Subsection «**Astroinformatics**» *(Chair I.B.Vavilova)* **August, 17**
 - 3. Radioastronomy** *(Chairs O.A.Litvinenko, O.M.Ulyanov)* **August, 15-16**
 - 4. Solar activity, solar-terrestrial relations, astrobiology**
(Chairs V.M.Efimenko, M.I.Ryabov) **August, 17**
 - 5. Solar system** *(Chair N.I.Koshkin)* **August, 15-16**
- Attached Section “**Ukrainian planetarium association**”
(Chairs V.A.Zakhozhay, G.V.Zheleznyak) **August, 13**
- and Subsection “**Physical and astronomical education within the framework of the Minor Academy of Sciences of Ukraine**” *(Chairs I.L.Andronov, V.P.Olyeynik)* **August, 15**

SCHEDULE OF THE PLENARY AND SECTION SESSIONS

Plenary sessions (August, 13 – 16)

09:30 – 13:00 *Conference Hall “Grand Marine”*

Section sessions (August, 13 – 17)

Conference Rooms of the Sports and Recreation Centre “Chernomorka”

Data Section	13.08	14.08	15.08	16.08	17.08
Section 1. Cosmology, gravitation, astroparticle physics, high energy physics	14.30–18.00 Conference Room (1 floor)	14.30–18.00 Conference Room (1 floor)			
Section 2. Astrophysics	14.30–18.00 Conference Room (2 floor)	14.30–18.00 Conference Room (2 floor)			
Subsection “Astroinformatics”					9.30–13.00 Conference Room (2 floor)
Section 3. Radio-astronomy			14.30–18.00 Conference room (2 floor)	14.30–18.00 Conference room (1 floor)	
Section 4. Sun, Solar activity and Astrobiology					14.30–18.00 Conference room (2 floor)
Section 5. Solar system			14.30–18.00 Conference Room (1 floor)	14.30–18.00 Conference Room (2 floor)	
Attached Section. Planetariums of Ukraine and Education	14.30–18.00 Conference Room (3 floor)		14.30–18.00 Conference Room (3 floor)		
Discussion and Posters					14.30–18.00 Conference room (1 floor)

ПРОГРАММА МЕРОПРИЯТИЙ

12 августа - воскресенье

**Вечер-встреча участников конференции
(программа будет объявлена дополнительно)**

Начало в 19:00

Конференц-зал базы отдыха “Черноморка” (2 этаж)

13 августа - понедельник

Открытие XVIII Гамовской конференции-школы

Начало в 09:30

(Конференц-зал отеля “Гранд Марин”)

**Фотографирование участников конференции после пленарной сессии
(~12:45)**

(Вход в отель “Гранд Марин”)

Фуршет 20:00 – 22:30

14 августа – вторник

Концерт авторской песни

15 августа – среда

Морская прогулка

16 августа – четверг

Заседание Бюро УАА (19:00-20:30)

Товарищеский ужин (20:30-23:00)

18 августа – суббота

Экскурсия по Одессе (пересечение жизненного пути Гамова и Глушко)

PROGRAMM

Monday, 13.08.2018

09:30 – 10:00 **OPENING OF THE CONFERENCE, MEMORIAL REPORTS AND GREETING TALKS** (*Conference Hall “Grand Marine”*)

Convener – V.M.Shulga

Greetings of the rector of Odessa I.I. Mechnikov University *I.N.Koval*

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

10:00 – 11:15 **MEMORIAL SESSIONS** (*Conference Hall “Grand Marine”*)

Yatskiv Ya.S. ASTRONOMY IN UKRAINE (100th ANNIVERSARY OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE)

Рябов М.И., Рукун И.Е. К 110-ЛЕТИЮ В.П.ГЛУШКО

Mishenina T.V. NIKOLAY S. KOMAROV AND DEVELOPMENT OF SPECTROSCOPY AT ODESSA ASTRONOMICAL OBSERVATORY

11:15 – 11:35 **Coffee break**

11:35 – 12:00 **MEMORIAL SESSIONS** (*Conference Hall “Grand Marine”*)

Каретников В.Г., Драгунова А.В. К 150-ЛЕТИЮ Л.Д.ПОКРОВСКОГО

12:00 – 12:40 **PLENARY SESSION** (*Conference Hall “Grand Marine”*)

Chernin A.D. DARK ENERGY AND THE BASIC STRUCTURES OF THE LOCAL UNIVERSE

Tuesday, 14.08.2018

09:30 – 11:00 **PLENARY SESSION** (*Conference Hall “Grand Marine”*)

Convener – A.D.Chernin

Bisnovatyi-Kogan G.S. GRAVITATIONAL LENSING AND BLACK HOLE SHADOW

Zakhozhay V.A. HIERARCHICAL STRUCTURE OF THE UNIVERSE

Panko E. DETAIL MORPHOLOGY OF THE GALAXY CLUSTERS

11:00 – 11:20 **Coffee break**

11:20 – 12:50 **PLENARY SESSION** (*Conference Hall “Grand Marine”*)

Convener – G.S.Bisnovatyi-Kogan

Kovtyukh V.V., Usenko I.A., Knyazev A.Yu. YOUNG OBJECTS OF THE GALAXY: LITHIUM AND BIMODAL CLASSICAL CEPHEIDS

Andronov I.L. ADVANCED METHODS FOR TIME SERIES ANALYSIS OF IRREGULARLY SPACED DATA

Kolesnikov S.V. DEVELOPMENT OF THE METHOD OF APERTURE POLARIMETRY IN THE CRIMEAN SCHOOL: INSTRUMENTS, TECHNIQUES AND SOFTWARE

Wednesday, 15.08.2018

09:30 – 11:00 **PLENARY SESSION** (*Conference Hall “Grand Marine”*)

Convener – *V.A.Zakhozhay*

Miroshnichenko L.I. EXTREME SOLAR FLARES BY THE DATA ON "ANCIENT" PROTON EVENTS

Vavilova I.B. BEHIND THE MILKY WAY AVOIDANCE ZONE: WHAT CAN WE RECOGNIZE BY DIRECT AND INDIRECT METHODS?

Lozitsky V., Yurchyshyn V., Ahn K., Wang H., Lozitska N. SUPER-STRONG MAGNETIC FIELDS IN ACTIVE REGIONS ON THE SUN: HISTORICAL ASPECT AND NEW OBSERVATIONAL DATA

11:00 – 11:20 ***Coffee break***

11:20 – 12:50 **PLENARY SESSION** (*Conference Hall “Grand Marine”*)

Convener – *L.I.Miroshnichenko*

Oknyansky V., Shenavrin V., Metlova N., Gaskell M. RELATIVE WAVELENGTHS INDEPENDENCE OF IR LAGS IN NGC 4151 DURING 2010-2015

Kudashkina L.S. SEMI-REGULAR VARIABLE STARS

Doikov D.N., Andrievsky S.M., Yushchenko A.V. POSITRON SPECTROSCOPY OF ACTIVE GALACTIC NUCLEI

Thursday, 16.08.2018

09:30 – 11:00 **PLENARY SESSION** (*Conference Hall “Grand Marine”*)

Convener – *I.B.Vavilova*

Burduzha V. NEW IN X-RAY AND GAMMA-RAY ASTRONOMY

Stodilka M.I. SOLAR FACULAE: PHYSICAL CONDITIONS, LOCAL DYNAMO, ANISOTROPY OF MICROTURBULENCE

Bezrukovs V., Avotins V., Plume D. VENTSPILS INTERNATIONAL RADIO ASTRONOMY CENTRE: VIEW FROM PAST TO THE FUTURE

11:00 – 11:20 ***Coffee break***

11:20 – 12:30 **PLENARY SESSION** (*Conference Hall “Grand Marine”*)

Convener – *M.I.Stodilka*

Orlyuk M.I. SPATIAL-TEMPORAL PERTURBATION OF THE GEOMAGNETIC FIELD OF CERTAIN TERRITORIES IN THE NORTHERN AND SOUTHERN HEMISPHERES OF THE EARTH: ECOLOGICAL ASPECT

Ryabov M.I. VARIABILITY OF SOLAR CONSTANT AND OTHER INDICES OF SOLAR ACTIVITY AND THE EFFECTS OF THEIR MANIFESTATIONS IN THE SOLAR-TERRESTRIAL RELATIONSHIPS

12:30 – 13:00 **CLOSING OF THE CONFERENCE**

SECTION SESSIONS

COSMOLOGY, GRAVITATION, HIGH ENERGY PHYSICS, ASTROPARTICLE PHYSICS

Monday, 13.08.2018

14:30 – 16:10 Section session (*Conference Room in “Chernomorka”, 1 floor*)

Convener – *B.S. Novosiadlyi*

1. *Bronza S.D., Svyrydova Ju.V., Kotvytska L.A.* THE ANALYSIS OF IMAGES OF A CIRCULAR SOURCE IN N-POINT GRAVITATIONAL LENSES
2. *Savchenko D.O., Iakubovskyi D.A.* RECENT RESULTS ON 3.5 KEV LINE SEARCHES
3. *Kotvytskiy A.T., Shablenko V.Yu., Bronza E.S.* THE RESEARCH OF THE FIXED POINTS OF THE LENS MAPPING
4. *Shevchenko S.Yu., Voitsekhovskiy V.V., Tugay A.V., Tkachuk V.V.* X-RAY EMISSIONS OF ICRF SOURCES
5. *Stashko O.S., Zhdanov V.I.* GEODESIC STRUCTURE OF SPACE-TIMES AROUND STATIC COMPACT OBJECTS WITH SCALAR FIELDS
6. *Turinov A. N.* TWO-LAYER RELATIVISTIC CONFIGURATIONS WITH ANISOTROPY OF PRESSURE IN THE GENERAL THEORY OF RELATIVITY
7. *Tugay A.V., Voycehovskiy V.V.* GAUSSIAN FIELD MODEL FOR GALAXY DISTRIBUTION

16:10 – 16:30 Coffee break

16:30 – 18:00 Section session (*Conference Room in “Chernomorka”, 1 floor*)

Convener – *V.D.Gladush*

8. *Olyeynik V.P.* ON THE TETRAD APPROACH IN GENERAL RELATIVITY: AN ARBITRARY NONORTHOGONAL TETRAD, CONTINUITY EQUATIONS, AND SO ON
9. *Zhoga A.A., Tugay A.V., Pulatova N.G.* NUMERICAL ESTIMATOR FOR LARGE-SCALE COSMIC STRUCTURES
10. *Novosyadlyj B., Shulga V., Han W., Kulinich Yu., Tsizh M.* HALOS IN DARK AGES: FORMATION AND CHEMISTRY
11. *Sergijenko O.* 2-FIELD MODEL OF DARK ENERGY WITH CANONICAL AND NON-CANONICAL KINETIC TERMS
12. *Korshunov V., Yemelianov S., E. Panko E.A.* MORPHOLOGY OF GALAXY CLUSTERS IN SUPERCLUSTERS
13. *Panko E., Yemelianov S., Stepaniuk A.* DETAIL MORPHOLOGY OF THE RICH CONCENTRATED GALAXY CLUSTERS
14. *Zabolotnii V., Yemelianov S., Korshunov V., Panko E.* DETAIL MORPHOLOGY OF THE RICH GALAXY CLUSTERS WITH INTERMEDIATE CONCENTRATION

Tuesday, 14.08.2018

14:30 – 16:10 Section session (*Conference Room in “Chernomorka”, 1 floor*)

Convener – *V.I.Zhdanov*

15. *Dmytriiev M.S., Gladush V.D.* EINSTEIN-HAMILTON-JACOBI EQUATION SOLUTION IN THE T-REGION OF SPHERICALLY SYMMETRIC CONFIGURATION OF GRAVITATIONAL, ELECTROMAGNETIC AND SCALAR FIELDS
16. *Gladush V.D.* ON THE CONFIGURATION SPACE OF A SPHERICALLY SYMMETRIC SYSTEM OF GRAVITATIONAL AND ELECTROMAGNETIC FIELDS

17. *Holovko M.G., Gladush V.D.* SUPERSPACE APPROACH TO THE QUANTIZATION OF CHARGED BLACK HOLES WITH ALLOWANCE FOR THE COSMOLOGICAL CONSTANT
18. *Pankov A.A.* FIRST RESULTS ON PRECISE DETERMINATION OF $Z-Z'$ MIXING WITH ATLAS AND CMS DIBOSON PRODUCTION DATA AT THE LHC AT 13 TeV AND PREDICTIONS FOR RUN 2
19. *Minaiev P., Skalozub V.* THE ELECTROWEAK PHASE TRANSITION IN A SPONTANEOUSLY MAGNETIZED VACUUM
20. *Rudakovskiy A.* DARK MATTER MODEL FAVOURED BY REIONIZATION DATA: 7~KEV STERILE NEUTRINO VS COLD DARK MATTER
21. *Gerasymov O.I., Kudashkina L.S.* THE DENSITY OF MATTER: FROM MICRO-MECHANICAL (GRANULAR) TO MACRO-MECHANICAL (UNIVERSE) SYSTEMS

16:10 – 16:30 *Coffee break*

16:30 – 18:00 **Section session** (*Conference Room in “Chernomorka”, 1 floor*)

Convener – *V.A.Tarasov*

22. *Ryazantsev G.B., Khaskov M.A.* 3D-FORM OF THE PERIODIC SYSTEM OF CHEMICAL ELEMENTS OF GAMOW AND ITS DEVELOPMENT
23. *Ryazantsev G.B., Lavrenchenko G.K., Beckman I.N., Buntseva I.M.* CONDENSATION OF COLD NEUTRONS – IDEA OF G.A.GAMOW. ON THE POSSIBILITY OF OBTAINING A NEUTRON SUBSTANCE IN LABORATORY CONDITIONS.
24. *Chudak N.O.* THE ROLE OF SIMULTANEITY IN THE RELATIVISTIC QUANTUM MECHANICAL MEASUREMENTS
25. *Merkotan K.K.* AN ALTERNATIVE METHOD OF INTRODUCING THE ELECTROMAGNETIC INTERACTION INTO THE STANDARD MODEL
26. *Potiienko O.S.* A NEW METHOD FOR MONTE-CARLO EVENT GENERATORS OF THE SCATTERING PROCESSES
27. *Ptashynskiy D.* THE LAPLACE METHOD FOR LOOPLESS DIAGRAMS IN THE MULTIPARTICLE FIELDS MODEL
28. *Sharph I.V.* THE DYNAMIC MECHANISM OF A SPONTANEOUS SYMMETRY BREAKING IN THE MULTI-PARTICLE FIELDS METHOD

POSTERS

29. *Murnikov B.A.* DARK MATTER IN GALAXIES – ONE OF THE MOST INTRIGUING PUZZLES IN MODERN COSMOLOGY
30. *Chernezhenko S.A., Kakaev A.A., Rybak A.V., Smolyar V.P., Tarasov V.A., Tverdokhlib Y.A., Urbanevich V.V.* THE THEORY AND SIMULATION OF THE NEUTRON MODERATION SPECTRUMS IN HOMOGENEOUS URANIUM-CARBON MEDIA FOR CONTROLLED NUCLEOSYNTHESIS
31. *Shapovalov G.V., Muntyan Yu.N.* ON PLEBANSKI-DEMYANSKI-TYPE METRIC IN GR WITH FLOWS
32. *Bukalov A.V.* THE SOLUTION OF THE COSMOLOGICAL CONSTANT PROBLEM AND THE EVOLUTION OF THE UNIVERSE AND ITS STRUCTURE IN COSMOLOGICAL MODEL WITH SUPERCONDUCTIVITY
33. *Bukalov A.V.* ON THE NUMBER OF BARYONS IN THE OBSERVABLE UNIVERSE, THE MASS OF PROTON, AND THE POSSIBLE ORIGIN OF THE BARYON NUMBER IN THE COSMOLOGICAL MODEL WITH SUPERCONDUCTIVITY
34. *Bukalov A.V.* ON THE NATURE OF TIME

ASTROPHYSICS

dedicated to the 80th anniversary of prof. Nikolay Komarov

Monday, 13.08.2018

14:30 – 16:10 Section session (*Conference Room in “Chernomorka”, 2 floor*)

Convener – *T.V.Mishenina*

1. *Mishenina T.V., Gorbaneva T.I.* MOLYBDENUM AND RUTHENIUM IN THE GALAXY
2. *Gopka V., Yushchenko V., Yushchenko A., Shavrina A., Andrievsky S., Shereta E.* THE CHEMICAL COMPOSITION OF NEUTRON-CAPTURE ELEMENTS IN THE ATMOSPHERES OF BL138 AND BL148
3. *Eglitis I., Sokolova A.* DISTRIBUTION OF CARBON STARS IN THE GALAXY
4. *Kashuba S.V., Andrievsky S.M., Luck R.E.* CORRELATION OF THE 620.2 nm AND 661.4 nm DIFFUSE INTERSTELLAR BANDS IN CEPHEID SPECTRA
5. *Marusiak V., Śzmiga S.* ДИФФУЗНЫЕ МЕЖЗВЕЗДНЫЕ ПОЛОСЫ. КВАНТОВО-ХИМИЧЕСКИЕ РАСЧЕТЫ АДСОРБЦИОННОГО СПЕКТРА ФУЛЛЕРЕНОВ.
6. *Velichko A.B., Fedorov P.N.* KINEMATICS OF THE MILKY WAY FROM VELOCITIES OF YOUNG RED CLUMP GIANTS USING THE PMA AND TGAS DR2 DATA
7. *Huseynov K.* SOLUTION OF THE COAGULATION EQUATION WITH A COAGULATION COEFFICIENT

16:10 – 16:30 Coffee break

16:30 – 18:00 Section session (*Conference Room in “Chernomorka”, 2 floor*)

Convener – *T.V.Mishenina*

8. *Zakhozhay V.A., Akhmetov V.S., Velichko A.B., Denishchenko S.I.* GAIA DATA RELEASE 2: THE PROBLEMS OF THE SOLAR NEIGHBORHOOD
9. *Zakhozhay V.A., Zabuga S.I.* DURATION OF BURNING HELIUM IN STELLAR INTERIOR
10. *Vasil'eva S., Yushchenko A., Gopka V., Kovtykh V., Jeong Y.* THE ABUNDANCES OF HEAVY ELEMENTS IN LOCAL GROUP GALAXIES. CEPHEIDS IN LMC AND SMC.
11. *Shereta E.P.* MOLYBDENUM ABUNDANCE IN SOME OPEN CLUSTERS
12. *Usenko I.A., Miroshnichenko A.S., Danford S., Turner D.G., Protsyuk Yu.I.* SPECTROSCOPIC INVESTIGATIONS OF GALACTIC CLUSTERS WITH ASSOCIATED CEPHEID VARIABLES. II. POLARIS CLUSTER AND ALPHA UMI
13. *Usenko I.A., Kniazev A.Yu., Mishenina T.V., Kovtyukh V.V., Miroshnichenko A.S., Turner D.G., Protsyuk Yu.I.* SPECTROSCOPIC INVESTIGATIONS OF GALACTIC CLUSTERS WITH ASSOCIATED CEPHEID VARIABLES. I. NGC 5662 AND V CEN
14. *Mishenina T., Usenko I., Kniazev A., Kovtyukh V.* REFINEMENT OF STATUS OF METAL-POOR STAR HD 6268

Tuesday, 14.08.2018

14:30 – 16:10 Section session (*Conference Room in “Chernomorka”, 2 floor*)

Convener – *I.L.Andronov*

15. *Adigozalzade A.N.* A STUDY OF HERBIG AE BE STAR HD 179218: VARIABILITY IN HEI, SIII AND OI
16. *Andrych K.D., Andronov I.L.* MAVKA: STATISTICALLY OPTIMAL DETERMINATION OF EXTREMA
17. *Sergienko O.G., Panko E.A., Maleta D.V.* THE OBSERVATION V724 AQL IN THE KALINENKOV ASTRONOMICAL OBSERVATORY IN 2015 AND 2018
18. *Sergienko O.G., Guziy S.S., Panko E.A., Maleta D.V., Getmantsev A.A., Prihodko A.Y.* THE PHOTOMETRICAL V-R-I SYSTEM OF THE TELESCOPE ZTS-702 + SBIG CCD ST-7
19. *Panko E.A., Udovichenko S.N., Keir L.E., Sergienko O.G.* THE PHOTOMETRICAL V-R-I SYSTEM OF THE TELESCOPE AZT-3 WITH CCD ICX 429ALL
20. *Doikov D.N.* POSITRON SPECTROSCOPY OF YOUNG SUPERNOVA REMNANTS
21. *Verlyuk I.A.* SMALL-SCALE ACTIVITY OF THE FLARE STAR YZ CMI

16:10 – 16:30 Coffee break

16:30 – 18:00 Section session (*Conference Room in “Chernomorka”, 2 floor*)

Convener – *I.L.Andronov*

22. *Breus V.V., Andronov I.L., Dubovsky P., Petrik K., Zola S., Hegedus T.* IMPROVED PARAMETERS OF NEWLY DISCOVERED SHORT-PERIOD BINARIES
23. *Breus V.V., Petrik K., Zola S.* NEW RESULTS OF THE LONG-TERM MONITORING OF THE INTERMEDIATE POLAR V2306 CYGNI
24. *Kozytska K.O., Andronov I.L.* DEPENDENCE OF THE PRECESSION PERIOD OF EXOPLANETS IN BINARY STELLAR SYSTEMS ON INITIAL PARAMETERS
25. *Tvardovskyi D.E., Marsakova V.I., Andronov I.L., Shakun L.S.* ORBITAL ELEMENTS OF THE THIRD COMPONENTS IN THE SHORT-PERIOD BINARIES ZZ CAS, BF VIR, AR LAC AND CC HER
26. *Udovichenko S.N.* ON THE IRREGULAR VARIATIONS IN THE LIGHT CURVES OF RY VUL
27. *Chinarova L.L., Andronov I.L.* ”RUNNING SINE” ANALYSIS OF SYMBIOTIC, SEMI-REGULAR AND CATAclysmic VARIABLES
28. *Cook L.M., Andronov I.L.* OBSERVATIONS OF V1028 CYGNUS DURING ITS JULY 2018 SUPEROUTBURST

POSTERS

29. *Gorbaneva T.I., Mishenina T.V.* HAFNIUM ABUNDANCES IN GALACTIC DISC FGK DWARFS
30. *Nazarenko V.V.* ON- AND OFF- STATE GENERATIONS IN THE CASE OF THE LOW MASS ACCRETION RATE ACCRETION DISK

SUBSECTION “ASTROINFORMATICS”

Friday, 17.08.2018

09:30 – 11:10 Section session (*Conference Room in “Chernomorka”, 2 floor*)

Convener – *I.B.Vavilova*

1. *Akhmetov V.S., Fedorov P.N.* GAIA DR2 – FIRST RESULTS OF ASTROMETRIC ANALYSIS
2. *Dmytrenko A.M., Akhmetov V.S.* MODERN STATISTICAL APPROACH TO THE ASTROMETRIC DATA FOR REVEALING OF STELLAR DENSITY INCREASE IN THE GAIA DR2 DATA
3. *Protsyuk Yu.I., Kovylianska O.E., Protsyuk S.V.* CATALOGUE OF STARS PROPER MOTIONS IN +65°—+90° ZONE BY USING IMAGES FROM THE UKRVO ASTROPLATE ARCHIVE
4. *Shlyapnikov A.A.* GENERAL CATALOG OF STARS WITH SOLAR TYPE ACTIVITY
5. *Kashuba S., Tsvetkov M., Golovnia V., Pakuliak L., Vavilova I., Bazyey N.* THE SIMEIZ ASTROPLATE CATALOGUE OF THE ODESSA ASTROPHOTONEGATIVE COLLECTION: DIGITIZATION AND DATABASES
6. *Gorbunov M.A., Gorbachev M.A., Moskvyn V.V., Logachev K.V., Shlyapnikov A.A.* THE PROJECT OF PROTOTYPE INTERACTIVE DATABASE FOR VARIABLE STARS OBSERVED AT THE CRIMEAN ASTROPHYSICAL OBSERVATORY
7. *Maigurova N.V., Bondarchuk L.E., Protsyuk Yu.I.* RESULTS OF THE PROCESSING THE SELECTED WDS MULTIPLE STAR SYSTEMS
8. *Khlamov S.V., Savanevych V.E., Briukhovetskyi O.B., Dikov E.N., Vavilova I.B., Trunova T.O.* DEVELOPMENT AND IMPROVEMENTS OF COMPUTATIONAL METHODS IMPLEMENTED TO COLITEC SOFTWARE

11:10 – 11:30 Coffee break

11:30 – 13:00 Section session (*Conference Room in “Chernomorka”, 2 floor*)

Convener – *V.S.Akhmetov*

9. *Shatokhina S.V., Relke H., Yuldoshev Q., Andruk V.M., Protsyuk Yu.I., Muminov M.* ASTEROID’S SEARCH RESULTS AT THE KITAB PART OF THE NORTHERN SKY SURVEY PROJECT
10. *Eglitis I.* ASTEROIDS EXPLORATION WITH BALDONE SCHMIDT TELESCOPE (10 min)
11. *Maigurova N.V., Pomazan A.V., Shulga O.V.* HIGH-PRECISION FOLLOW-UP OBSERVATIONS OF NEAR-EARTH OBJECTS
12. *Yizhakevych O.M., Andruk V.M., Yuldoshev Q., Pakuliak L.K., Muminov M.M.* THE FIRST RESULTS OF PROCESSING THE PHOTOGRAPHIC OBSERVATIONS OF THE SOLAR SYSTEM BODIES BASED ON THE THE GLASS COLLECTION OF THE ULUGH BEG ASTRONOMICAL INSTITUTE
13. *Yizhakevych O.M., Mullo-Abdolov A.Sh., Relke H.V., Kokhirova G.I., Pakuliak L.K., Andruk V.M.* FIRST RESULTS OF THE SEARCHING OF ASTEROIDS BASED ON THE DATA OF FON-DUSHANBE PROCESSED PLATES
14. *Protsyuk Yu.I., Shukhratov Sh.Sh., Kovalchuk O.M., Muminov M.M., Yuldoshev Q.H., Abdurakhimov R.R., Andruk V.M.* RESULTS OF THE PROCESSING OF CCD OBSERVATIONS OF THE SELECTED OPEN CLUSTERS AT THE MAIDANAK OBSERVATORY
15. *Protsyuk Yu.I., Kovalchuk O.M.* ANALYSIS OF THE CCD OBSERVATIONS OF OPEN CLUSTERS TO IMPROVE THE ACCURACY OF ASTROMETRIC PROCESSING
16. *Akhmetov V.S., Khlamov S.V., Andruk V.M., Protsyuk Yu.I.* ANALYSIS OF STAR’S EQUATORIAL COORDINATES AND B-MAGNITUDES OF THE FON PROJECT
17. *Vavilova I.B., Babyk Iu.V.* NEW APPROACH FOR ANALYSIS OF THE X-RAY DATA IN CORES OF GALAXY CLUSTER

POSTERS

18. *Eglitis I., Eglite V., Andruk V., Protsyuk Yu., Protsyuk S., Kovylianska O.* BALDONE 1.2M TELESCOPE ASTROPLATE ARCHIVE - HIDDEN RESERVES OF THE FON PROJECT
19. *Mullo-Abdolov A., Relke H., Kokhirova G., Yuldoshev Q., Protsyuk Yu., Andruk V.* PROGRESS IN THE REALIZATION OF THE PROJECT “FON-DUSHANBE CATALOGUE”
20. *Yizhakevych O.M., Kazantseva L.V., Relke H., Mullo-Abdolov A.Sh., Yuldoshev Q.H., Shatokhina S.V., Golovnia V.V., Andruk V.M.* ANALYSIS OF ACCURACY OF ASTEROID COORDINATES FROM DIGITIZED OBSERVATIONS OF THE PROJECT FON-KIEV, FON-KITAB, FON-DUSHANBE

RADIOASTRONOMY

15-16.08.2018

14:30 – 18:00 Section session (Conference Room in “Chernomorka”, 1 floor)

Conveners – *O.M.Ulyanov, O.A.Litvinenko*

16.10 – 16.30 Coffee break

1. *Antyufeyev O., Shulga V., Zinchenko I., Patoka O.* LOW-VELOCITY PART OF MOLECULAR OUTFLOW IN 17233-3606
2. *Kravtsov I.P., Zakharenko V.V., Vasyliieva I.Y., Ulyanov O.M., Shevtsova A.I., Skoryk A.O.* SURVEY OF THE NORTHERN SKY IN ORDER TO FIND SPORADIC RADIO EMISSION SOURCES IN DECAMETER WAVE RANGE. RESULTS
3. *Ulyanov O.M., Reznichenko O.M., Zakharenko V.V., Prisiazhnii V.I., Korolev A.M., Antyufeyev O.V., Poihalo V.A., Voytyuk V.V., Chmil V.M., Patoka O.M., Udovenko A.P.* THE RT-32 CREATING PROJECT ON THE BASE OF MARK-4B ANTENNA SYSTEM
4. *Miroshnichenko A.* ESTIMATES OF BLACK HOLE MASSES FOR SOURCES WITH STEEP RADIO SPECTRA
5. *Shepelev V.A., Melnik V. N., Vashchishin R.V.* INTERFEROMETRIC OBSERVATIONS OF THE QUIET SUN RADIOEMISSION IN THE FREQUENCY RANGE OF 8 - 32 MHz
6. *Sobitniak L.I., Ryabov M.I., Panishko S.K.* PECULIARITIES OF THE FLUXES VARIATION OF POWERFUL COSMIC RADIO SOURCES BY OBSERVATIONS AT RT "URAN-4" UNDER VARIOUS SPACE WEATHER CONDITIONS
7. *Ulyanov O.M., Shevtsova A.I., Skoryk A.O.* POLARIZATION OF FINE STRUCTURE OF PULSAR RADIO EMISSION AT LOW FREQUENCIES
8. *Sukharev A.L., Bezrukovs V.V., Bleiders M.Y., Orbidans A.A., Ryabov M.I.* PRELIMINARY RESULTS OF STUDY INTRA-DAY VARIABILITY OF EXTRAGALACTIC RADIO SOURCES ON RADIO TELESCOPES OF THE VENTSPILS RADIO ASTRONOMY CENTER, LATVIA
9. *Tsvyk N.O.* ON THE INFLUENCE OF MHD TURBULENCE ON THE STRUCTURE OF THE RADIOGALAXY LOBES
10. *Sobitnyak L.I., Sukharev A.L., Orlyuk M.I., Ryabov M.I., Romenetz A.A.* SHORT-PERIODIC GEOMAGNETIC VARIATIONS IN REGION OF THE ODESSA MAGNETIC ANOMALY AND THEIR CONNECTION WITH GEOMAGNETIC STORMS
11. *Stepkin S.V., Vasylykivskiy Y.V., Konovalenko O.O.* THE MOST LOW-FREQUENCY SPECTRAL LINES DETECTED IN THE INTERSTELLAR MEDIUM BY RADIO ASTRONOMICAL METHODS
12. *Sukharev A.L., Ryabov M.I.* INVESTIGATION RELATIONSHIP AND VARIABILITY PROPERTIES IN OPTICAL AND RADIO RANGES FOR LACERTIDES OJ 287 AND BL LAC
13. *Ryabov M.I., Gorbunov A.A., Sukharev A.L.* ON THE PROGRAM FOR OBSERVING VARIATIONS IN THE CAS A FLUX IN THE INTERVAL FROM MILLIMETERS TO DECAMETER WAVELENGTHS
14. *Panishko S.K., Lytvynenko O.A.* PECULIARITIES IN THE IONOSPHERE SCINTILLATION SPECTRUM SLOPE BEHAVIOR ON THE OBSERVATIONS OF THE COSMIC RADIO SOURCES AT THE DECAMETER WAVE RANGE
15. *Ulyanov O.M., Zakharenko V.V., Yerin S.N., Shevtsova A.I., Bubnov I.N., Skoryk A.O., Tokarsky P.L., Sidorchuk M.A., Lisachenko V.M.* CALIBRATION OF LARGE PHASED ANTENNA ARRAYS
16. *Galanin V.V., Lytvynenko O.A., Derevyagin V.G., Kravetz R.O.* RADIO TELESCOPE URAN-4 AND THE PROBLEM OF RADIO INTERFERENCE
17. *Lytvynenko O.A., Lytvynenko I.O., Kravetz R.O.* ON THE USE OF GALAXY NOISE FOR THE CALIBRATION OF RADIOTELESCOPES OF THE DECAMETER WAVELENGTH RANGE
18. *Lytvynenko O.A., Derevyagin V. G., Lytvynenko I.O.* FEATURES OF APPLICATION OF SDR RECEIVERS WITH USB INTERFACE FOR RADIO ASTRONOMICAL OBSERVATION
19. *Orlov V.V., Galanin V.V., Lytvynenko O.A.* SPATIAL MULTIPLICATIVE PROCESSING OF MULTI-FREQUENCY SIGNALS
20. *Marenkov V.I.* BRAKE RADIO EMISSION OF HETEROGENEOUS PLASMA FORMATIONS IN THE ATMOSPHERE OF EARTH AND SPACE AND PHYSICAL GROUNDS OF HIS USE FOR TELEDIAGNOSTICS OF RADIATING PLASMA OBJECTS

POSTERS

21. *Podgornyy G.S., Shepelev V.A.* RENOVATION OF CONTROL SYSTEM OF THE URAN-1 RADIO TELESCOPE
22. *Samodurov V.A., Pavlov S.Yu., Tyurin V.A.* DEVELOPMENT OF DATA PROCESSING TECHNIQUES FOR DAILY SURVEY AT 110 MHz BY BSA LPI USING HIGH-PERFORMANCE COMPUTING METHODS

SUN, SOLAR ACTIVITY AND ASTROBIOLOGY

Friday, 17.08.2018

14:30 – 18:00 Section session (*Conference Room in “Chernomorka”, 2 floor*)

Conveners – *V.M.Efimenko, M.I.Ryabov*

16:10 – 16:30 Coffee break

1. *Efimenko V.M., Lozitsky V.G.* LONG-TERM AND SHORT-TERM OSCILLATIONS OF AREAS OF GROUPS OF SUNSPOTS IN 12-24 CYCLES OF ACTIVITY
2. *Koval'chuk M.M., Baran O.A., Stodilka M.I., Hirnyak M.B.* ANALYSIS OF SPATIO-TEMPORAL DYNAMICS OF TWO POPULATIONS OF SUNSPOTS IN THE 22-YEAR MAGNETIC CYCLE OF SOLAR ACTIVITY
3. *Lozitska N.* CHARACTERISTICS OF SUNSPOTS GROUPS PRODUCING PROTON FLARES
4. *Isaeva E.A.* THE RELATIONSHIP OF THE SCR WITH PARAMETERS OF RADIO BURSTS AND CME
5. *Isaeva E.A.* NEW APPROXIMATION OF THE ENERGY SPECTRUM OF PROTON SCR
6. *Орлюк М.И., Онищук И.И., Роменец А.А., Марченко А.В., Яцевский П.И.* МАГНИТНЫЕ И РАДОНОВЫЕ АНОМАЛИИ ТЕРРИТОРИИ УКРАИНЫ И Г. КИЕВА
7. *Koval'chuk M.M., Baran O.A., Stodilka M.I., Hirnyak M.B.* FORECAST OF THE PERTURBATIONS OF THE EARTH'S MAGNETIC FIELD DUE TO THE SOLAR ACTIVITY
8. *Beglaryan M.E., Zelentsova T.N.* AXION MECHANISM OF SOLAR LUMINOSITY VARIATIONS
9. *Shykhovtsev Y.S.* NUMERICAL MODELLING OF INSTRUMENTAL CONTOUR WITH RESPECT TO IRREVERSIBLE PROCESSES
10. *Perov S.P.* EXPLORATION OF ION-AEROSOL PLASMA BY AIR-BORN INSTRUMENTATIONS IN THE LOWER IONOSPHERE
11. *Perov S.P.* PUBLIUS VIRGIL MARON AND ALEKSANDER LEONIDOVICH CHIZHEVSKIY
12. *Perov S.P., Perov A.S.* SYNCHRONIZATION IN THE EARTH-LUNA-SUN SYSTEM
13. *Poghosyan S.S.* THE ADVANTAGES OF THE ASTROPHYSICAL MODEL OF THE SUN WITH A CENTRAL BLACK HOLE
14. *Kzyurov Yu.V.* FLUCTUATIONS IN PLASMA DENSITY NEAR TEMPERATURE MINIMUM OF SOLAR ATMOSPHERE

SOLAR SYSTEM

Wednesday, 15.08.2018

14:30 – 16:10 Section session (Conference Room in “Chernomorka”, 1 floor)

Convener – N.I.Koshkin

1. *Kaliuzhnyi M., Bushuev F., Mazhaev O., Shulga O., Shakun L., Bezrukovs V., Reznichenko O., Moskalenko S., Malynovskyi Ye.* EXTERNAL COMPARISON SATELLITE POSITIONS OBTAINED BY THE NETWORK OF PASSIVE CORRELATION RANGING OF GEOSTATIONARY TELECOMMUNICATION SATELLITES
2. *Kaliuzhnyi M., Bushuev F., Khalaley M., Kryuchkovskiy V., Kulichenko M., Shulga O.* DOPPLER STATION FOR ORBITAL TRACKING OF LOW-ORBIT SPACECRAFTS BY THEIR RADIO BEACON SIGNALS
3. *Shakun L., Shulga A., Koshkin N., Kashuba V., Kaliuzhniy N., Kryuchkovskiy V., Kudak V., Perig V., Romanyuk Ya., Martynyuk-Lototsky K., Marsakova V.* ORBIT ESTIMATION OF GEOSTATIONARY SATELLITES AND ANALYSIS OF RANDOM AND SYSTEMATIC MEASUREMENT ERRORS OF THE UAMOS OBSERVATION STATION USING ASTRODYNAMICS LIBRARY KORBESTLIB
4. *Kozhukhov O.M., Rishchenko S.V., Dementiev T.A., Yepishev V.P., Motrunich I.I., Noybauer I.F., Perig V.M., Yanchevskiy S.L., Kozhukhov D.M., Piskun O.M.* STATE IDENTIFICATION OF CUBESAT-TYPE SATELLITES BY OPTICAL OBSERVATIONS (ON THE EXAMPLE OF ARKYD 6A SPACECRAFT)

16:10 – 16:30 Coffee break

16:30 – 18:00 Section session (Conference Room in “Chernomorka”, 1 floor)

Convener – O.V.Shulga

5. *Koshkin N., Shakun L., Korobeinikova E., Strakhova S., Melikyants S., Terpan S., Dragomiretsky V., Golubovskaya T., Ryabov A.* MONITORING OF SPACE DEBRIS ROTATION BASED ON PHOTOMETRY
6. *Sidorenkov N.S.* THE 206-DAY LUNAR CYCLE AND SPRING TIDES IN THE ATMOSPHERE
7. *Troianskyi V., Breiter S.* EFFECT YARKOVSKY-SCHACH IN ASTEROID SYSTEMS
8. *Kulichenko M.O., Shulga O.V.* RADIANTS AND ORBITAL DATA DISTRIBUTION OF METEORS OBSERVED IN MYKOLAIV
9. *Komendant V.H.* PERIODS OF EXTREME DRAG OF ARTIFICIAL SATELLITES IN CONDITIONS OF HIGH SOLAR AND GEOMAGNETIC ACTIVITY IN 23-24 SOLAR CYCLES

Thursday, 16.08.2018

14:30 – 16:10 Section session (Conference Room in “Chernomorka”, 2 floor)

Convener – V.V. Kleshchonok

10. *Troianskyi V., Oszkiewicz D., Kwiatkowski T.* V-TYPE ASTEROIDS
11. *Nevodovsky P.V., Morozhenko A.V., Vidmachenko A.P.* STUDY OF THE STRATOSPHERIC AEROSOL OF THE EARTH USING ULTRAVIOLET POLARIMETRY
12. *Luk'yanyk I., Ivanova O., Kolokolova L., Das H.S., Afanasiev V.* INVESTIGATION OF DUST ENVIRONMENT OF DISTANT COMET C/2014 A4 (SONEAR)
13. *Velichko S.F., Andreev M.V.* PHOTOMETRY OF COMET C/2009 P1 (GARRADD) BEFORE AND AFTER PERIHELION
14. *Slyusarev I., Glezina D. and Belskaya I.* POSSIBLE REASONS OF DIFFERENCES IN PROPERTIES OF JUPITER

16:10 – 16:30 *Coffee break*

16:30 – 18:00 **Section session** (*Conference Room in “Chernomorka”, 2 floor*)

Convener – *I.V. Luk'yanyk*

15. *Kleshchonok V.* INTERPETATION OF COMET JET STRUCTURE
16. *Kozak P.M.* RESULTS OF TESTING MULTI-INSTRUMENTAL AUTOMATED MOBILE COMPLEX FOR OBSERVATIONS OF ANOMALOUS METEORS
17. *Konovalova N.A., Gorbaney Yu.M., Davrugov N.H.* THE EXISTENCE OF THE GROUPS OF METEORITE-PRODUCING BOLIDES AND METEORITES IN COMETARY ORBITS
18. *Troianskyi V., Kashuba V., Krugly Yu.* PHOTOMETRY OF SELECTED ASTEROIDS ON THE OMT-800 TELESCOPE
19. *Ponomarenko V.A., Simon A.O., Vasylenko V.V., Baransky A.R.* ANALYSIS OF OPTICAL MONITORING OF FIVE ACTIVE GALACTIC NUCLEI

POSTERS:

20. *Vidmachenko A.P.* JUPITER'S NORTHERN TROPICAL ZONE BECAME DARKEN AFTER THE PASSING OF APHELION IN 2016
21. *Vidmachenko A.P., Nevodovsky P.V., Morozhenko A.V.* POLARIMETRIC MEASUREMENTS OF THE SKY IN ULTRAVIOLET SPECTRAL REGION
22. *Ponomarenko V.A., Churyumov K.I., Kleshchonok V.V.* LUMINESCENT COMETARY CONTINUUM AND OTHER PHYSICAL PARAMETERS OF GAS AND DUST COMETARY ATMOSPHERES
23. *Steklov A.F., Zhilyaev B.E., Vidmachenko A.P.* SPACE INVASION. AS IS.

ATTACHED SECTION "UKRAINIAN PLANETARIUM ASSOCIATION"

Monday, 13.08.2018

14:30 – 16:10 Section session (*Conference Room in "Chernomorka", 3 floor*)

Convener – *Железняк Г.В.*

1. *Захожсай В.А.* О РАБОТЕ ПЛАНЕТАРИЕВ И АСТРОНОМИЧЕСКОМ ОБРАЗОВАНИИ В УКРАИНЕ
2. *Кушерец В.И.* ПЕРСПЕКТИВЫ РАЗВИТИЯ ПЛАНЕТАРИЕВ В СТРУКТУРЕ ОБЩЕСТВА «ЗНАНИЕ» УКРАИНЫ
3. *Железняк Г.В.* О КОНФЕРЕНЦИИ МЕЖДУНАРОДНОГО ОБЩЕСТВА ПЛАНЕТАРИЕВ В 2018 ГОДУ И ТЕНДЕНЦИЯХ РАЗВИТИЯ АСТРОНОМИЧЕСКОГО ОБРАЗОВАНИЯ (ТУЛУЗА, ФРАНЦИЯ)
4. *Рябов М.И.* О СОЗДАНИИ ОБРАЗОВАТЕЛЬНОГО ЦЕНТРА "ОДЕССКИЙ УНИВЕРСИТЕТСКИЙ ПЛАНЕТАРИЙ"
5. *Кузьменков С.Г.* АКТУАЛЬНЫЕ ПРОБЛЕМЫ ОБЩЕГО АСТРОНОМИЧЕСКОГО ОБРАЗОВАНИЯ

16:10 – 16:30 Coffee break

16:30 – 18:00 Section session (*Conference Room in "Chernomorka", 3 floor*)

Convener – *Захожсай В.А.*

6. *Железняк Г.В.* О ПЕРСПЕКТИВАХ МЕЖДУНАРОДНОГО СОТРУДНИЧЕСТВА ПЛАНЕТАРИЕВ УКРАИНЫ
7. *Мартинюк М.Т., Ткаченко І.А.* НАВЧАЛЬНО-ВИХОВНИЙ ЦЕНТР "ПЛАНЕТАРИЙ" ЯК ЗАСІБ АСТРОНОМІЧНОЇ ОСВІТИ МОЛОДІ
8. *Лесная О.* О РАБОТЕ ДНЕПРОПЕТРОВСКОГО ПЛАНЕТАРИЯ
9. *Творун В.Т.* О РАБОТЕ ОБОРУДОВАНИЯ ДЛЯ ЗВЕЗДНЫХ ЗАЛОВ
10. *Ломака Е.* ОПЫТ ЭКСКУРСИОННОЙ РАБОТЫ В ХАРЬКОВСКОМ ПЛАНЕТАРИИ
11. *Михеев Б.В.* ВИННИЦКИЙ ПЛАНЕТАРИЙ НА СОВРЕМЕННОМ ЭТАПЕ

SUBSECTION “PHYSICAL AND ASTRONOMICAL EDUCATION WITHIN THE
FRAMEWORK OF THE MINOR ACADEMY OF SCIENCES OF UKRAINE”

Wednesday, 15.08.2018

14:30 – 16:10 Section session (*Conference Room in “Chernomorka”, 3 floor*)

Convener – *Андронов І.Л.*

1. *Шиховцева Л.Є., Шиховцев Ю.С., Черкес Н.Б.* ДЕЯКІ НАПРЯМИ РОБОТИ НАВЧАЛЬНО-ЛАБОРАТОРНОГО КОМПЛЕКСУ «МАНЛАБ» НЦ «МАНУ»
2. *Підгорний О.В.* ВИКОРИСТАННЯ МОБІЛЬНИХ ДОДАТКІВ У ВИВЧЕННІ ШКІЛЬНОЇ АСТРОНОМІЇ
3. *Баранский А.* О ВОЗРОЖДЕНИИ ЖУРНАЛА «НАШЕ НЕБО»
4. *Андронов І.Л.* СЕКЦІЯ АСТРОНОМІЇ ОДЕСЬКОГО ВІДДІЛЕННЯ МАЛОЇ АКАДЕМІЇ НАУК: ПОПУЛЯРИЗАЦІЯ ТА ПРОФОРІЄНТАЦІЯ
5. *Marsakova V.I.* VARIABLE STARS OBSERVING AS AN EFFECTIVE METHOD OF GENERAL TRAINING FOR YOUNG ASTRONOMERS
6. *Кудашикіна Л.С., Андронов І.Л.* КОМП’ЮТЕРНІ ПРОГРАМИ У ВИКЛАДАННІ КУРСІВ «ЗАГАЛЬНА АСТРОНОМІЯ» ТА «МОРЕХІДНА АСТРОНОМІЯ»

16:10 – 16:30 Coffee break

16:30 – 18:00 Section session (*Conference Room in “Chernomorka”, 3 floor*)

Convener – *Олейнік В.П.*

7. *Козицька К.О.* ЕКСКУРСІЯ НА ВЕЛИКИЙ АДРОННИЙ КОЛАЙДЕР У ЖЕНЕВІ ПРИЗЕРІВ ВСЕУКРАЇНЬКОГО КОНКУРСУ МАН З АСТРОНОМІЇ ТА ФІЗИКИ
8. *Хмарська А.А.* КОНКУРС «МАН – ЮНІОР ДОСЛІДНИК 2018» ТА ДОСЛІДЖЕННЯ СОНЯЧНО-ЗЕМНИХ ЗВ’ЯЗКІВ
9. *Олейнік В.П., Завальнюк В.В.* ФОРМАТ ОСВІТНЬОЇ ГРИ У ЛІТНІЙ ШКОЛІ МАН: ДОСЯГНЕННЯ ТА ПЕРСПЕКТИВИ
10. *Андрич К.Д.* ПЕРШИЙ ДОСВІД КЕРУВАННЯ ГРУПОЮ НА ВСЕУКРАЇНСЬКІЙ АСТРОНОМІЧНІЙ ОЛІМПІАДІ ТА КОНСУЛЬТУВАННЯ ЮНИХ АСТРОНОМІВ НА ЛІТНІЙ ШКОЛІ МАН
11. *Марченко С.В.* ДОСЛІДЖЕННЯ ВПЛИВУ СЛАБКИХ ПОЛІВ НА РОСЛИНИ У РОБОТАХ МАН
12. *Завальнюк В.В.* ЕФЕКТ «СПОВІЛЬНЕНОЇ ЗЙОМКИ» ЯК ІНСТРУМЕНТ ДОСЛІДЖЕННЯ В РОБОТАХ МАН