

**5-th Gamow International Conference in Odessa  
"ASTROPHYSICS AND COSMOLOGY AFTER GAMOW:  
PROGRESS AND PERSPECTIVES"**

and

**15-th Gamow Summer School  
"ASTRONOMY AND BEYOND: ASTROPHYSICS,  
COSMOLOGY, COSMOMICROPHYSICS,  
ASTROPARTICLE PHYSICS, RADIOASTRONOMY  
AND ASTROBIOLOGY"**

*16-23 August, 2015, Odessa, Ukraine*

**AGENDA**

**Sunday, 16.08.2015**

**Arrival**

- 08.00 – 22.00 Registration of participants  
20.00 – 22.00 *Video lecture by Nobel laureate John C. Mather «From the Big Bang to the Nobel Prize»*

**Monday, 17.08.2015**

- 05.57 Sunrise**  
09.00 – 13.00 Registration of participants  
09.30 – 10.30 **Opening of the conference and Memorial**  
10.30 – 11.00 Coffee break  
11.00 – 13.00 **Plenary session**  
13.00 – 14.30 Lunch  
14.30 – 16.00 **Section session**  
16.00 – 16.30 Coffee break  
16.30 – 18.00 **Section sessions**  
18.30 – 19.00 Dinner  
19.00 – 20.00 *Guitar concert in memory of A.Shevchenko. Performing musician D.Pechkin. Musical director N.Shevchenko.*  
**20.05 Sunset**  
21.00 – 23.00 Welcome Party

**Tuesday, 18.08.2015**

- 05.58 Sunrise**  
09.30 – 11.00 **Plenary session**  
11.00 – 11.30 Coffee break  
11.30 – 12.45 **Plenary session**  
12.45 – 13.00 **Photographing of participants**  
13.00 – 14.30 Lunch  
14.30 – 16.00 **Section sessions**

16.00 – 16.30 Coffee break  
16.30 – 18.00 **Section sessions**  
18.30 – 19.00 Dinner  
**19.00 – 22.00** *Cognac tasting in Odessa Shustov Cognac Winery Museum*  
**20.04** **Sunset**

**Wednesday, 19.08.2015**

**06.00** **Sunrise**  
09.30 – 11.00 **Plenary session**  
11.00 – 11.30 Coffee break  
11.30 – 13.00 **Plenary session**  
13.00 – 14.30 Lunch  
14.30 – 16.00 **Section sessions**  
16.00 – 16.30 Coffee break  
16.30 – 18.00 **Section sessions**  
18.30 – 19.00 Dinner

*Optionally tour of evening Odessa and Visit the world famous Odessa Opera and Ballet Theater and Philharmonic Hall (depending on the repertoire and time of the performances)*

**20.02** **Sunset**

**Thursday, 20.08.2015**

**06.01** **Sunrise**  
09.30 – 11.00 **Plenary session**  
11.00 – 11.30 Coffee break  
11.30 – 13.00 **Plenary session**  
13.00 – 14.30 Lunch  
14.30 – 16.00 **Section sessions**  
16.00 – 16.30 Coffee break  
16.30 – 18.00 **Section sessions**  
18.30 – 19.00 Dinner  
**19.58** **Sunset**  
20.00 – 23.00 *Conference Dinner*

**Friday, 21.08.2015**

**06.02** **Sunrise**  
09.30 – 11.00 **Plenary session**  
11.00 – 11.30 Coffee break  
**11.30 – 13.00** **Plenary session and Conference closing**  
13.00 – 14.30 Lunch  
14.30 – 15.30 **Section sessions**  
15.30 – 16.00 Coffee break  
16.00 – 18.00 **Section sessions**  
18.30 – 19.00 Dinner  
**19.00 – 22.00** *Wine tasting at the Institute of wine and brandy “Dulov”*  
**19.59** **Sunset**

**Saturday, 22.08.2015**

**06.03 Sunrise**

**XII-th Congress of the Ukrainian Astronomical Association (The program will be announced later)**

*A boat trip on the Black Sea (if we will have a sufficient number of participants)*

**19.57 Sunset**

**Sunday, 23.08.2015**

**06.05 Sunrise**

**Departure**

**19.55 Sunset**

**SECTIONS:**

- 1. Cosmology, gravitation, astroparticle physics, high energy physics** (*Head A.I.Zhuk*) **(17-19 August)**
- 2. Astrophysics** (*Head I.L.Andronov*) **(17-18 August)**
- 3. Radioastronomy** (*Head O.A.Litvinenko*) **(19 August)**
- 4. Sun, Solar activity and Astrobiology** (*Head V.M.Efimenko*) **(20 August)**
- 5. Solar system** (*Head N.I.Koshkin*) **(20 August)**
- Subsection “Virtual Observatory and Intensive Data”** (*Head I.B. Vavilova*) **(21 August)**
- Attached section “Planetarium of Ukraine”** (*Head V.A.Zakhozhay*) **(21 August)**

# SCHEDULE OF THE PLENARY AND SECTION SESSIONS

## Plenary sessions:

**17 August**

**9.30 – 13.00**    *Conference Hall «Sovinyon»*

**18–21 August**

**9.30 – 13.00**    *Conference Hall «Grand Marine»*

## Section sessions (17–21 August):

*Conference Rooms of the Sports and Recreation Centre "Chernomorka"*

Data Section	17.08	18.08	19.08	20.08	21.08
Section 1. <b>Cosmology, gravitation, astroparticle physics, high energy physics</b>	<b>14.30–18.10</b> Conference Room (2 floor)	<b>14.30–18.00</b> Conference Room (2 floor)	<b>14.30–18.20</b> Conference Room (2 floor)		
Section 2. <b>Astrophysics</b>	<b>14.30–18.00</b> Conference Room (1 floor)	<b>14.30–18.00</b> Conference Room (1 floor)			
Subsection <b>“Virtual Observatory and Intensive Data”</b>					<b>14.30–18.00</b> Conference Room (1 floor)
Section 3. <b>Radio-astronomy</b>			<b>14.30–18.00</b> Conference room (1 floor)		
Section 4. <b>Sun, Solar activity and Astrobiology</b>				<b>14.30–18.00</b> Conference room (2 floor)	
Section 5. <b>Solar system</b>				<b>14.30–18.30</b> Conference Room (1 floor)	
Att. Section <b>“Planetarium of Ukraine”</b>					<b>14.30–18.00</b> Conference Room (2 floor)

**5-th Gamow International Conference in Odessa**  
***"Astrophysics and Cosmology after Gamow:  
progress and perspectives"***  
**and**  
**15-th Gamow Summer School**  
***"Astronomy and beyond: Astrophysics, Cosmology, Cosmomi-  
crophysics, Astroparticle Physics, Radioastronomy  
and Astrobiology"***  
*(Ukraine, Odessa, Chernomorka, 16-23 August, 2015)*

**PRELIMINARY SCIENTIFIC PROGRAM**

**Sunday, 16.08.2015**

**DAY OF ARRIVAL**

**08.00 – 22.00 REGISTRATION OF PARTICIPANTS**

**19.30 – 22.00 Video lecture by Nobel laureate John C. Mather «From the Big Bang to the Nobel Prize»**

**Monday, 17.08.2015**

*Convener G.S.Bisnovaty-Kogan*

**09.30 – 10.30 OPENING OF THE CONFERENCE, MEMORIAL REPORTS AND GREETING TALKS**

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

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

Welcome on behalf of the Scientific Organizing Committee

**MEMORIAL REPORTS:**

*Andrievsky S.M.* ASTRONOMY IN ODESSA UNIVERSITY: 150 YEARS OF THE HISTORY

*Ryabov M.I., Zhuk A.I.* ODESSA ON THE WORLD LINE OF GEORGE GAMOW

*Flin Piotr* POLISH ASTRONOMERS IN ODESSA UNIVERSITY

**10.45 – 11.15 *Coffee break***

**11.15 – 13.00 PLENARY SESSION**

*Convener V.M.Shulga*

*De Roeck A.* (CERN, Geneva, Switzerland) NEWS FROM THE LARGE HADRON COLLIDER

*Rubakov V.A.* (INR RAS, Moscow, Russia) TOWARDS CREATING A UNIVERSE IN THE LABORATORY

## **Tuesday, 18.08.2015**

### **09.30 – 11.00 PLENARY SESSION**

***Convener V.A.Rubakov***

*Novosyadlyj B.* (Ivan Franko National University of Lviv, Lviv, Ukraine) FROM GAMOW HYPOTHESIS TO PLANCK SPACE OBSERVATORY (TO 50 ANIVERSERY OF DISCOVERY OF CMB)

*Antoniadis I.* (Albert Einstein Center - University of Bern and LPTHE CNRS, Paris, France) ASPECTS OF STRING PHENOMENOLOGY IN PARTICLE PHYSICS AND COSMOLOGY

**11.00 – 11.30 *Coffee break***

### **11.30 – 13.00 PLENARY SESSION**

***Convener A.D.Chernin***

*Bisnovatyi-Kogan G.S.* (SRI RAS, Moscow, Russia) GRAVITATIONAL LENSING

*Churyumov K.I.* (Kyiv Shevchenko National University, Kyiv, Ukraine) SPACE MISSION ROSETTA-PHILAE TO COMET 67P/CHURYUMOV-GERASIMENKO NUCLEUS: THE FIRST SCIENTIFIC RESULTS

## **Wednesday, 19.08.2015**

### **09.30 – 11.00 PLENARY SESSION**

***Convener A.D.Dolgov***

*Gorbunov D.* (INR RAS, Moscow, Russia) INITIAL CONDITIONS FOR THE INFLATION WITH FLAT POTENTIAL

*Zhuk A.I., Eingorn M.V.* (Odessa I.I.Mechnikov National University, Odessa, Ukraine) DISCRETE COSMOLOGY

**11.00 – 11.30 *Coffee break***

### **11.30 – 13.00 PLENARY SESSION**

***Convener I.Antoniadis***

*Eingorn M., Zhuk A., Brilenkov M., Vlahovic B.* (North Carolina Central University, CREST and NASA Research Centers, USA) THREE SELECTED PROBLEMS RELEVANT TO COSMOLOGICAL SIMULATIONS

*Dolgov A.* (NSU, Novosibirsk and ITEP, Moscow, Russia ; University of Ferrara, Italy) CREATION OF QUASARS GAMMA BURSTERS, AND SUPENOVAE IN VERY EARLY UNIVERSE

## **Thursday, 20.08.2015**

### **09.30 – 11.00 PLENARY SESSION**

*Convener D.S.Gorbunov*

*Blas D., Garny M., Ivanov M., Sibiryakov S. (CERN, Geneva, Switzerland) TSPT: TIME-SLICED PERTURBATION THEORY FOR LARGE SCALE STRUCTURE*

*Arbuzova E.V., Dolgov A.D. (Dubna University, Novosibirsk State University, Russia) INSTABILITY IN CLASSICAL AND MODIFIED GRAVITY*

**11.00 – 11.30** *Coffee break*

### **11.30 – 13.00 PLENARY SESSION**

*Convener F.A.Danevich*

*Chernin A.D. (SAI MSU, Moscow, Russia) DARK MATTER AND DARK ENERGY IN THE NEAREST GALAXY FLOWS*

*Bernabei R. (University of Rome “Tor Vergata”, Roma, Italy) RECENT RESULTS FROM DAMA/LIBRA-PHASE1 AND PERSPECTIVES*

## **Friday, 21.08.2015**

### **09.30 – 11.00 PLENARY SESSION**

*Convener R. Bernabei*

*Danevich F.A. (INR NASU, Kyiv, Ukraine) DOUBLE BETA DECAY EXPERIMENTS TO STUDY PROPERTIES OF NEUTRINO AND WEAK INTERACTION*

*Andronov I.L. et al. (Odessa National Maritime University, Ukraine) MULTI-COMPONENT VARIABILITY OF STARS: THE CLUES FROM THE "INTER-LONGITUDE ASTRONOMY" CAMPAIGN*

**11.00 – 11.30** *Coffee break*

### **11.30 – 13.00 PLENARY SESSION and CLOSING OF THE CONFERENCE**

*Convener G.S.Bisnovatyi-Kogan*

*Krelowski Ja. (Center for Astronomy, Nicolaus Copernicus University, Torun, Poland) MOLECULES IN TRANSLUCENT INTERSTELLAR CLOUDS*

*Demianski M. (University of Warsaw, Poland; Williams College, Williamstown, USA) – to be confirmed*

*Flin Piotr (Jan Kochanowski University, Institute of Physics, Poland) LUDWIK SILBERSTEIN (1872-1948) AND THE GENERAL RELATIVITY*

## SECTION SESSIONS

### Section 1. Cosmology, gravitation, astroparticle physics, high energy physics

**Monday, 17.08.2015**

#### **14.30 – 16.10 Section session “Gravitation»**

***Convener A.Zhuk***

1. *Shtanov Yu.V.* PURE-CONNECTION THEORY OF GRAVITY (20 min)
2. *Zaslavskii O.B.* HIGH ENERGY PARTICLE COLLISIONS NEAR BLACK HOLES (20 min)
3. *Tanatarov I.V., Zaslavskii O.B.* BANADOS-SILK-WEST EFFECT WITH NON-GEODESIC (20 min) PARTICLES
4. *Chopovsky A.V., Eingorn M.V., Zhuk A.I.* PROBLEMATIC ASPECTS OF KALUZA-KLEIN MODELS WITH EINSTEIN INTERNAL SPACES (20 min)
5. *Gladush V.D.* THE MODEL FOR FINAL STAGE OF GRAVITATIONAL COLLAPSE MASSLESS SCALAR FIELD (20 min)

#### **16.10 – 16.30 Coffee break**

#### **16.30 – 17.45 Section session “Gravitation»**

6. *Turinov A.N.* A PROBLEM OF COSMOLOGICAL TIME IN THE DE SITTER SPACE-TIME (15 min)
7. *Olyeynik V.P.* ON GRAVITATIONAL SOLITARY WAVES WITH ROTATION IN GR (15 min)
8. *Novák Jan* MATHEMATICAL THEORY OF PERTURBATIONS IN EXTENSIONS OF GENERAL RELATIVITY (15 min)
9. *Rasulova A.M.* THE PROPERTIES OF TIDAL FORCES IN THE KERR METRIC (15 min)
10. *Shaymatov S.R.* THE EFFECT OF A TEST MAGNETIC FIELD ON THE PROCESS OF OVERSPINNING A ROTATING BLACK HOLE (15 min)

#### **17.45 – 18.10 Posters**

1. *Gladush V.D.* FIVE-DIMENSIONAL BOOSTS AND ELECTRIC FIELD IN THE KALUZA-KLEIN THEORY
2. *Brilenkov R.D., Eingorn M.V., Zhuk A.I.* DISCRETE COSMOLOGY APPLICATION CONCERNING DARK MATTER HALOS
3. *Murnikov B.A., Olyeynik V.P.* ROTATION CURVES OF GALAXIES AND RESTRICTIONS ON ISLAND MODEL PARAMETERS IN GR
4. *Bukalov A.V.* THE DOMINANCE OF DARK ENERGY LEADS TO REDUCTION OF THE ENTROPY OF GALAXIES FLOW AND ENTROPY OF THE UNIVERSE
5. *Balitsky Ja.* QUANTUM ORIGIN OF SUPPRESSION FOR VACUUM FLUCTUATIONS OF ENERGY



## Tuesday, 18.08.2015

### **14.30 – 16.00 Section session «HEP»**

*Convener Yu.Shtanov*

1. *Pankov A.A.* PRECISE DETERMINATION OF  $Z - Z'$  MIXING AT THE CERN LHC (20 min)
2. *Pashitskii E.A.*, *Pentegov V.I.* “BIG BANG” AS A RESULT OF THE CURVATURE-DRIVEN FIRST-ORDER PHASE TRANSITION IN THE EARLY COLD UNIVERSE (20 min)
3. *Pashitskii E.A.* ON THE MECHANISM OF THE MAGNETOHYDRODYNAMIC VORTICES FORMATION IN SOLAR CHROMOSPHERE (20 min)
4. *Fedorov Yu.I.*, *Shakhov B.A.*, *Kolesnyk Yu.L.* THE EVOLUTION OF SPECTRA OF ENERGETIC PARTICLES ACCELERATED IN SOLAR FLARES (15 min)
5. *Fedorov Yu.I.*, *Gnatyk R.B.*, *Hnatyk B.I.*, *Kolesnyk Yu.I.*, *Shakhov B.A.*, *Zhdanov V.I.* THE DYNAMICS OF SPECTRUM OF ULTRA HIGH ENERGY COSMIC RAYS FROM NEARBY SOURCE (15 min)

### **16.00 – 16.30 Coffee break**

### **16.30 – 17.30 Section session «HEP»**

6. *Iakubovskiy D.A.* MEASUREMENT of an EXTRA EMISSION LINE at 3.5 keV in X-ray SPECTRA of DARK MATTER-DOMINATED OBJECTS (15 min)
7. *Savchenko D.O.*, *Iakubovskiy D.A.* IDENTIFYING DECAYING DM TARGETS USING WAVELET SLIDING WINDOW TECHNIQUE (15 min)
8. *Moskaliuk S.S.* MULTISCALE MODELING IN NONCOMMUTATIVE ASTROPARTICLE PHYSICS (15 min)
9. *Zavestovskaya I.N.* THEORETICAL MODELING OF LASER FRAGMENTATION OF MEYAL NANOPARTICLES (15 min)

### **17.30 – 18.00 Posters**

1. *Ivanchenko I.* VACUUM CURRENT AND MAGNETIC FIELD INDUCED BY AN IMPENETRABLE MAGNETIC FLUX TUBE
2. *Igdi-Sen M.* LOCATIONS of STARBURST GALAXIES IN CFHTLS W4
3. *Panko E.*, *Emelyanov C.* THE DETERMINATION OF THE MORPHOLOGICAL TYPES OF GALAXY CLUSTERS USING CLUSTER CARTOGRAPHY
4. *Gotsulyak A.* THE ROLE OF BRIGHT GALAXIES IN OPEN GALAXY CLUSTERS OF PF CATALOGUE
5. *Panko E.*, *Pugachov M.* THE MORPHOLOGY TYPES OF PF GALAXY CLUSTERS IN SUPERCLUSTERS

**Wednesday, 19.08.2015**

**14.30 – 16.00 Section session «Cosmology»**

***Convener S.Parnovsky***

1. *Shulga V.M., Kotvytskiy A.T.* GRAVITATIONAL LENSING ON COSMIC STRING AND ANTI-STRING (15 min)
2. *Rusov V.D., Eingorn M.V., Smolyar V.P.* AXION MECHANISM OF SUN LUMINOSITY VARIATIONS: LIGHT SHINING THROUGH THE RADIATION ZONE (15 min)
3. *Zhdanov V.I., Sliusar V.M., Fedorova E.V., Alexandrov A.N., Del Popolo A., Surdej J.* OBSERVATIONAL MIMICRY OF EXTENDED MASSES AS GRAVITATIONAL MICROLENTSES (15 min)
4. *Novosyadlyj B., Tsizh M., Kulinich Yu.* DYNAMICS OF SCALAR FIELD DARK ENERGY IN THE EXPANDING UNIVERSE AND IN THE GRAVITATIONALLY BOUND SYSTEMS (15 min)
5. *Parnovsky S.S.* BIG RIP AND OTHER SINGULARITIES IN HOMOGENEOUS COSMOLOGICAL MODELS WITH ARBITRARY EQUATION OF STATE (15 min)
6. *Avsajanishvili O.N.* COSMOLOGICAL TESTS OF DARK ENERGY (15 min)

**16.00 – 16.20 *Coffee break***

**16.20 – 18.20 Section session «Cosmology»**

7. *Sergijenko O.* PRIMORDIAL GRAVITATIONAL WAVES IN COSMOLOGICAL MODELS WITH DYNAMICAL DARK ENERGY (15 min)
8. *Magd Kahil* STABILITY of STELLAR SYSTEMS ORBITING Sgr A\* (15 min)
9. *Tugay A.V.* HYDRODYNAMICAL SIMULATION OF SINGLE GALAXY FILAMENT (15 min)
10. *Bannikova E.Yu.* CLOUDS DISTRIBUTION IN OBSCURING TORI OF ACTIVE GALACTIC NUCLEI (15 min)
11. *Igdi-Sen M.* THE VELOCITIES OF IRREGULAR GALAXIES HAVE  $z_s$  VALUES IN CFHTLS W4 (15 min)
12. *Panko E., Gutsulyak A., Andrievsky S.* THE RICH PF GALAXY CLUSTERS WITH DIFFERENT GALAXY POPULATION (15 min)
13. *Vasylenko A.A., Vavilova I.B., Babyk Iu.V., Pulatova N.G.* X-RAY PROPERTIES OF THE ISOLATED LOW LUMINOSITY AGNs (15 min)
14. *Dobrycheva D.V., Melnyk O.V., Vavilova I.B., Elyiv A.A.* SINGS OF MERGING IN THE FORMATION OF EARLY-TYPE GALAXIES (15 min)

## ASTROPHYSICS

**Monday, 17.08.2015**

**14.30 – 16.00 Section session “Stellar Atmospheres”**

***Convener T.Mishenina***

1. *Gopka V., Vasileva S., Shavrina A., Yushchenko V., Yushchenko A., Andrievsky S.* THE RESULTS OF ANALYSIS OF R- AND S-PROCESS ELEMENT ABUNDANCES IN THE ATMOSPHERES OF MAGELLANIC CLOUDS RED SUPERGIANTS
2. *Ismailov N.Z., Khalilov O.V., Bahaddinova G.R.* HE I 5876 LINE STRUCTURE IN THE SPECTRA OF IL CEP A
3. *Kuznyetsova Yu., Vidmachenko A., Matsiaka O., Shliakhetskaya Y., Krushevskaya V.* RESEARCHES OF LONG-TERM VARIATIONS IN SPECTRA OF URANUS AND NEPTUNE
4. *Y.M.Maharramov* SPECTRAL VARIABILITY OF THE STAR HD142983 (48 LIB)
5. *Yushchenko A.V., Vasileva S.V., Gopka V.F.* THE SPECTRAL INVESTIGATION OF BETELGEUSE
6. *Yushchenko V., Yushchenko A., Gopka V., Shavrina A., Kovtyukh V., Mkrtichian D., Hong K.S.* HIP 13962 – THE POSSIBLE FORMER MEMBER OF BINARY SYSTEM WITH SUPERNOVA
7. *Mishenina T., Paramonova O.* SULFUR ABUNDANCES BEHAVIOUR IN THE STARS OF GALACTIC DISC

**16.00 – 16.30 Coffee break**

**16.30 – 18.00 Section session “Binary stars”**

***Convener N.Ismailov***

8. *Andrych K.D., Andronov I.L., Chinarova L.L., Marsakova V.I.* "ASYMPTOTIC PARABOLA" FITS FOR SMOOTHING GENERALLY ASYMMETRIC LIGHT CURVES
9. *Babiyk Iurii* THE X-RAY OBSERVATIONS OF THE BINARY SYSTEM PSR B1259-63/LS 2883 AROUND THE 2014 PERIASTRON PASSAGE
10. *Bobrov O.A., Andronov I.L.* STATISTICALLY OPTIMAL APPROXIMATIONS OF OVERLAPPED STELLAR IMAGES USING SUPERPOSITIONS OF RELATIVELY SHIFTED 2D GAUSSIAN FUNCTIONS
11. *Breus V., Hric L., Kundra E., Petrik K.* NEW RESULTS FROM BY-PRODUCTS OF THE LONG-TERM MONITORING OF THE INTERMEDIATE POLARS
12. *Marsakova V.I., Tvardovskiy D.E., Andronov I.L.* PERIOD CHANGES OF  $\beta$  LYRAE-TYPE ECLIPSING BINARY STARS
13. *Sergienko O., Panko E.* THE OBSERVATION OF V724 AQL IN THE KALINENKOV ASTRONOMICAL OBSERVATORY IN 2013 AND 2015
14. *Tkachenko M.G., Andronov I.L., Chinarova L.L.* REVISION OF THE PHENOMENOLOGICAL CHARACTERISTICS OF THE ALGOL-TYPE STARS USING THE NAV ALGORITHM

**Tuesday, 18.08.2015**

**14.30 – 16.00 Section session**

***Convener I.Andronov***

1. *Gronowski Marcin, Turowski Michał, Custer Thomas, Szczepaniak Urszula, Kołos Robert* ISOMERIC VARIETIES OF INTERSTELLAR MOLECULES: THEORETICAL AND EXPERIMENTAL STUDIES
2. *Ikhsanov N.R., Kim V.Yu.* ORIGIN OF THE ISOLATED NEUTRON STAR WITH ANOMALOUSLY LONG PERIOD 6.7HR
3. *Ismailov N.Z.* LIGHT CURVE TYPES OF T TAURI STARS
4. *Kondratyev V.N., Korovina Yu.V.* NUCLEAR MAGICS AT MAGNETOROTATIONAL SUPERNOVA EXPLOSION
5. *K.S.Kuratov, A.S. Miroshnichenko, A.V.Kusakin, N.Sh.Alimgazinova, A.K.Kuratova* A STUDY OF MASS LOSS AND DUST FORMATION NEAR HOT STARS
6. *Kuratov K.S., Zakhzhay V.A., Miroshnichenko A.S., Zakhzhay O.V.* IRAS 22150+6109: A POORLY STUDIED YOUNG STAR
7. *Zakhzhay V.A., Kuratov K.S., Maylybayev A.T.* THE DESCRIPTION OF CASCADE FRAGMENTATION IN PROTOSYSTEMS WITH SMALL ANGULAR MOMENTUM WITH GRAPHS

**16.00 – 16.30 Coffee break**

**16.30 – 18.00 Section session**

***Convener V.Zakhzhay***

8. *Moiseenko S.G.* CORE-COLLAPSED SUPERNOVAE. MAGNETIC FIELD AND ROTATION
9. *Bodryagin D., Maigurova N.* RESULTS OF DOUBLE STARS OBSERVATIONS AT RI NAO TELESCOPES
10. *Gorbar E.V., Rudenok Igor, Vilchinskii S.I.* MAGNETIC FIELDS AND CHIRAL ASYMMETRY IN PRIMORDIAL PLASMA
11. *Kryvdyk V.G.* NONTHERMAL ELECTROMAGNETIC RADIATION FROM STARS
12. *Oknyansky V.L., Gaskell C.M.* THE RELATIVE WAVELENGTH INDEPENDENCE OF IR LAGS IN AGNS: IMPLICATIONS FOR THE DISTRIBUTION OF THE HOT DUST
13. *Shulga V.M., Antyufeev A.V.* CAN A STAR BIRTH DESTROY THE HOST MOLECULAR CLOUD?
14. *Siparov S., Samodurov V., Laptev G.* PERIODIC COMPONENTS IN SPACE MASER SIGNAL – OBSERVATIONS AND INTERPRETATION

***Posters:***

*Kashuba S.V.* INVESTIGATION OF DIFFUSE INTERSTELLAR BANDS OF ORGANIC MOLECULES IN THE SPECTRA OF CEPHEID STARS

**SUBSECTION**  
**"VIRTUAL OBSERVATORY AND INTENSIVE DATA"**

**Friday, 21.08.2015**

**14.30 – 16.00 Section session**

***Conviner I.Vavilova***

1. *Akhmetov V.S., Fedorov P.N., Velichko A.B.* THE CATALOGUE XPM2
2. *Akhmetov V.S., Fedorov P.N., Shulga V.M.* THE KINEMATICS PARAMETERS OF THE GALAXY USING DATA OF MODERN ASTROMETRIC CATALOGUES
3. *Andruk V., Golovnia V., Ivanov G., Yizhakevych E., Pakuliak L., Protsyuk Yu., Shatohina S.* CATALOG OF POSITIONS AND B MAGNITUDES OF STARS IN THE CIRCUMPOLAR REGION OF NORTHERN SKY SURVEY (FON) PROJECT
4. *Andruk V.M., Protsyuk Yu.I., Muminov M.M., Ehgamberdiev Sh.A., Yuldoshev Q.X., Relke H., Golovnya V.V., Vavilova I.B.* COMPARISON OF ZERO ZONE CATALOGS OF THE FON PROGRAM BASED ON THE KYIV AND KITAB OBSERVATIONS
5. *Elizarova N.V., Gorbunov M.A., Shlyapnikov A.A.* SCANNING, CALIBRATION AND EXAMPLES OF OPERATION WITH A DIGITAL VERSION OF ARCHIVE SBPOSS
6. *Golovnya V.V., Andruk V.M., Vavilova I.B., Pakuliak L.K.* CATALOGUES OF THE FAINT OBJECTS AROUND AREAS WITH GAMMA-RAY BURSTS
7. *Gorbunov M.A., Shlyapnikov A.A.* IDENTIFICATION AND ANALYSIS OF OBJECTS FROM THE BRODSKAYA'S (B1963) AND RAZNIK'S (R1963) CATALOGS

**16.00 – 16.30 Coffee break**

**16.30 – 18.00 Section session**

8. *Kazantseva L.V., Andruk V.M., Shatohina S.V.* RESEARCH OF THE LONG-TERM BEHAVIOUR OF THE PLEIADES BY USING OF PHOTOGRAPHIC PLATES FROM UKRVO DIGITAL ARCHIVE
9. *Klyuyeva A.I.* A CATALOG OF FORBUSH DECREASES CAUSED BY FAST SOLAR WIND STREAMS FROM CORONAL HOLES
10. *Protsyuk Yu., Andruk V., Mazhaev A., Kovylianska O., Protsyuk S., Golovnya V.* DETERMINATION OF PROPER MOTIONS OF CIRCUMPOLAR STARS BY USING IMAGES FROM UKRVO PLATE ARCHIVES
11. *Protsyuk Yu.I., Kovalchuk A.N.* CREATION OF LARGE CATALOGUES BY USING OF VIRTUAL OBSERVATORIES
12. *Protsyuk Yu., Andruk V., Kovylianska O., Protsyuk S., Yizhakevych O., Kashuba S., Kazantseva L.* DATA PROCESSING OF PLATES CONTAINING IMAGES OF URANUS AND NEPTUNE FROM UKRVO DIGITAL ARCHIVE: STRUCTURE, QUALITY ANALYSIS
13. *Protsyuk Yu.I., Andruk V.M., Relke H.* THE COMPILE CATALOGUE OF PHOTOVOLTAIC UBVR MAGNITUDES OF STARS IN THE TYCHO2 SYSTEM
14. *Shlyapnikov A.A.* ANALYSIS OF THE FLARE ACTIVITY OF STARS FROM THE GTSH10 CATALOG
15. *Yizhakevych O.M., Andruk V.M., Pakuliak L.K.* CATALOG OF ASTRONOMICAL POSITIONS OF SATURN'S MOONS, OBTAINED BY PHOTOGRAPHIC OBSERVATIONS ON MAO NASU IN 1961-1991
16. *Zolotukhina A.V.* OBSERVATIONAL CCD-ARCHIVE OF STAR'S POSITIONS IN EQUATORIAL ZONE OF THE SKY

# RADIOASTRONOMY

**Wednesday, 19.08.2015**

**14.30 – 16.00 Section session**

***Convener O.Litvinenko***

1. *Zakharenko V.V., Kravtsov I.P., Vasylieva I.Y., Ulyanov O.M., Shevtsova A.I., Skoryk A.O., Mykhailova S.S., Konovalenko O.O., Zarka P.* THE FIRST RESULTS OF TRANSIENT SIGNAL PROCESSING IN DECAMETER PULSAR/TRANSIENT SURVEY OF NORTHERN SKY
2. *Miroshnichenko A.P.* GALAXIES AND QUASARS WITH STEEP RADIO SPECTRUM AT RADIO LUMINOSITY-SIZE DIAGRAM
3. *Shepelev V.A., Vashchishin R.V., Lozinskyy A.B., Lytvynenko O.A.* OBSERVATIONS OF PULSARS WITH THE URAN AT DECAMETER WAVELENGTHS
4. *Tsvyk N.O.* ON THE ELECTRON-PROTON COSMIC RAYS AS MEDIATORS OF VISCOUS FORCES THAT CREATE SHOCK FRONT AND VORTEX STRUCTURES IN THE COCOON OF RADIO GALAXIES
5. *Vasilenko N.M., Sidorchuk M.A.* DIFFERENTIATION OF RADIO EMISSION AT DECAMETER WAVELENGTHS
6. *Stanislavsky A.A., Konovalenko A.A., Volvach Ya.S., Koval A.A.* GROUP OF SOLAR TYPE III BURSTS WITH HIGH-FREQUENCY CUTOFF
7. *Dumsky D.V., Isaev E.A., Samodurov V.A.* MONITORING THE COMMUNICATION CHANNEL FROM PUSCHSHINO TO MOSCOW IN THE PROJECT OF SPACE RADIO TELESCOPE "RADIOASTRON"

**16.00 – 16.30 Coffee break**

**16.30 – 18.00 Section session**

8. *Samodurov V.A., Rodin A.E., Kitaeva M.A., Isaev E.A., Dumskij D.V., Pugachev V.D., Churakov D.D., Manzyuk M.O.* THE DAILY 110 MHZ SKY SURVEY (BSA FIAN): ON-LINE DATABASE, SCIENCE AIMS AND FIRST RESULTS OF DATA PROCESSING
9. *Sukharev A., Ryabov M., Aller M.* VARIABILITY DYNAMICS OF THE QUASAR 3C454.3 AND FORECAST CHANGES IN THE RADIO FLUX BASED ON ITS QUASIPERIODIC OSCILLATIONS
10. *Donskykh G.I., Ryabov M.I., Sukharev A.L., Aller M.F.* THE STUDY OF EXTRAGALACTIC SOURCES 3C 446 AND 3C 345 WITH USING THE SINGULAR SPECTRUM ANALYSIS AND WAVELET ANALYSIS
11. *Lytvynenko O.A., Panishko S.K.* SEASONAL VARIATIONS OF THE IONOSPHERE SCINTILLATIONS PARAMETERS OBTAINED FROM THE LONG OBSERVATIONS OF THE POWER COSMIC RADIO SOURCES AT THE DECAMETER WAVE RANGE
12. *Lytvynenko O., Lytvynenko I., Derevyagin V.* RAPID VARIATIONS OF GPS-COORDINATE ERRORS AND THE IONOSPHERE TURBULENCE
13. *Gorbunov A.A., Ryabov M.I., Panishko S.K.* SECULAR DECREASE THE FLUX OF SUPERNOVA REMNANT CAS A ON MONITORING RESULTS TO TELESCOPE "URAN-4" IRA NASU

# SUN, SOLAR ACTIVITY AND ASTROBIOLOGY

**Thursday, 20.08.2015**

## **14.30 – 16.00 Section session**

***Convener V.Efimenko***

1. *Krivodubskij V.N.* DOUBLE MAXIMA IN 11-YEAR SOLAR CYCLES
2. *Leiko U.M.* LONG-TERM CHANGES OF ASYMMETRY OF SOLAR ACTIVITY
3. *Ryabov M.I., Sukharev A.L.* THE MAIN PROPERTIES OF THE ACTIVITY OF THE NORTHERN AND SOUTHERN HEMISPHERES IN 23-24 SOLAR CYCLES
4. *Lozitsky V.G., Gordovskyy M.* DIAGNOSTICS OF SPATIALLY UNRESOLVED MAGNETIC FIELDS IN SOLAR FLARES AND SUNSPOTS
5. *Lozitsky V., Masliukh V., Botygina O.* MAGNETIC FIELDS IN PROMINENCES AND LIMB FLARES ON THE SUN
6. *Osipov S.N., Lozitsky V.G.* SIMULTANEOUS MAGNETIC FIELD MEASUREMENTS IN SUNSPOTS USING FIVE SPECTRAL LINES OF MNI, FEI AND NII
7. *Pishkalo M.I., Leiko U.M.* SUN'S POLAR MAGNETIC FIELD REVERSALS IN SOLAR CYCLE 24

## **16.00 – 16.30 Coffee break**

## **16.30 – 18.00 Section session**

8. *Lozitska N.Y.* PROBLEM OF MISTAKES IN DATABASES, PROCESSING AND INTERPRETATION OF OBSERVATIONS OF THE SUN
9. *Galanin V.V., Isaeva E.A.* CONNECTION BETWEEN THE CME VELOCITIES AND DECAMETER RADIO BURSTS PARAMETERS FROM URAN-4 OBSERVATIONS
10. *Kravetz R.O., Galanin V.V.* PECULIARITIES OF IONOSPHERE LAYERS PARAMETERS SEASON VARIATIONS DURING THE SOLAR ACTIVITY MAXIMUM
11. *Gromozova E.N., Kachur T.I., Voychuk S.I., Kharchuk M.S.* THE REACTION OF PHOSPHORUS-CONTAINING INTRACELLULAR INCLUSIONS ON THE CHANGE OF SPACE WEATHER
12. *Ragul'skaya M., Rudenchik E., Obridko V., Hramova E., Gromozova E.* FACTORS OF SPACE WEATHER AND BIOSPHERE: THE DYNAMICS IN 23–26 CYCLES OF SOLAR ACTIVITY
13. *Parshina S.S., Samsonov S.N., Manykina V.I., Afanasyeva T.N., Petrova P.G., Petrova V.D., Strekalovskaya A.A., Tokayeva L.K., Kaplanova T.I., Potapova M.V.* PECULIARITIES OF A GROUP RESPONSE OF CARDIOVASCULAR SYSTEM OF VOLUNTEERS AT DIFFERENT LATITUDES TO CHANGES OF SPACE WEATHER PARAMETERS
14. *Shakhov B.A., Fedorov Yu.I., Kolesnyk Yu.L., Gromozova H.N., Vyshnevsky V.V., Sychev A.S.* GALACTIC COSMIC RAYS AS ONE OF THE MAIN POSSIBLE FACTORS OF THE INFLUENCE OF SPACE WEATHER ON EARTH'S BIOSPHERE PROCESSES AT THE CELLULAR LEVEL

## ***Posters:***

1. *Galanin V.V., Isaeva E.A.* EVALUATION OF CORONAL SHOCK WAVE VELOCITIES FROM THE II TYPE RADIO BURSTS PARAMETERS
2. *Kravetz R.O., Galanin V.V.* IONOSPHERE EFFECTS ON ST PATRICK'S DAY

# SOLAR SYSTEM

**Thursday, 20.08.2015**

## **14.30 – 16.00 Section session**

***Convener N.Koshkin***

1. *Sidorenkov N.S.* SYNCHRONIZATION OF TERRESTRIAL PROCESSES WITH FREQUENCIES OF THE EARTH-MOON-SUN SYSTEM
2. *Bizouard Christian.* ELLIPTICAL POLARISATION OF THE EARTH'S POLAR MOTION EXCITATION
3. *Ibadov Subhon.* ON THE POSSIBILITY OF APPEARANCE OF HOT PHASE IN COMETS
4. *Churyumov K.I., Ponomarenko V.O., Kleschonok V.V.* THE PHYSICAL PARAMETERS OF THE GAS AND DUST IN COMETARY ATMOSPHERES
5. *Kleshchonok V.V., Luk'yanyk I.V., Gorbaney Yu.M., Kashuba V.I., Nyshenko R.O.* PHOTOMETRY OF PLASMA TAIL OF THE COMET C/2014 Q2 (LOVEJOY)
6. *Mozgova A.M., Churyumov K.I., Borovichka J., Gorbaney Yu.M.* THE COMPARATIVE ANALYSIS OF METEOR SPECTRA PROCESSING

## **16.00 – 16.30 Coffee break**

## **16.30 – 18.30 Section session**

7. *Golubaev A.V.* A TECHNIQUE FOR CALCULATING THE BASIC KINEMATIC PARAMETERS OF METEORS BASED ON THE SUPER-LONG STATION OBSERVATIONS (~152 km)
8. *Zhantayev Zh.Sh., Kuratov K.S., Alimgazinova N.Sh., Beisebayeva A.S., Nauryzbayeva A.Zh., Kuratova A.K.* THE RESEARCH OF PHOTOMETRIC CHARACTERISTICS AND ORBITS OF COMETS AND ASTEROIDS APPROACHING THE EARTH
9. *Kleshchonok V.V., Buromsky M.I., Mazur V.Jo.* TELEVISION OBSERVATION OF STAR OCCULTATION BY THE MOON IN 2014
10. *Kazanetseva L.V., Yizhakevich E.M., Muminov M.M., Ehgamberdiev Sh.A., Kahharov B.B.* REPROCESSING OF LUNAR OCCULTATIONS OBSERVATIONS MADE IN UZBEKISTAN DURING 1882-1996
11. *Pomazan A.V., Maigurova N.V., Kryuchkovskiy V.F.* THE RESULTS OF OBSERVATIONS OF MUTUAL PHENOMENA OF THE GALILEAN SATELLITES OF JUPITER IN 2009 AND 2015 IN NIKOLAEV ASTRONOMICAL OBSERVATORY
12. *Troianskyi V., Andruk V., Bazyey A., Kashuba V., Yizhakevych E., Zhukov V.* THEORY OF MOTION OF SELECTED SATURN'S SATELLITES
13. *Koshkin N., Shakun L., Korobeynikova E., Melikyants S., Strakhova S., Dragomiretsky V., Ryabov A., Golubovskaya T., Terpan S.* REMOTE SENSING OF THE SATELLITE ROTATION AROUND CENTER OF MASS USING PHOTOMETRY
14. *Komendant V.H., Koshkin N.I., Ryabov M.I., Sukharev A.L.* STUDY OF QUASI-PERIODIC VARIATIONS IN DRAG OF ARTIFICIAL SATELLITE AND EFFECTS OF SPORADIC CHANGES DURING 23–24 SOLAR CYCLES
15. *Sukharev A.L., Ryabov M.I., Orlyuk M.I., Romanets A.A., Sobitnyak L.I.* GEOMAGNETIC FIELD VARIATIONS IN THE AREA OF ODESSA REGIONAL MAGNETIC ANOMALY

### ***Posters:***

1. *Ivanenko N., Bazyey A.* KINEMATICS MOTION OF SOME BINARY NEAR-EARTH ASTEROIDS
2. *Ivanova O., Lukyanyk I., Shubina E., Kiselev M.I., Afanasiev V.* SOME PHYSICAL PARAMETERS OF THE COMET 103P/HARTLEY2