

CONTENTS

Foreword.....	2
Contents	3

PLENARY SESSION

THE LHC AND THE DISCOVERY OF THE HIGGS BOSON: 50 YEARS OF HIGGS' MECHANISM Royon C.	6
PREHEATING THE UNIVERSE AFTER INFLATION Rudenok I.V., Shtanov Yu.V., Vilchinskii S.I.	11
SOLAR CYCLES – TO UPDATING BASIC PARAMETERS Ryabov M.I.	15
ON THE SEPARATION OF SOLAR AND LUNAR CYCLES Sidorenkov N.S., Zhigailo T.S.	18
GRAVITATIONAL MICROLENSING AND EXTENDED SOURCE MODELS Sliusar V.M., Zhdanov V.I.	21

COSMOLOGY, COSMOMICROPHYSICS AND GRAVITATION

DIFFERENT APPROACHES FOR DARK MATTER HALOS OF CLUSTERS OF GALAXIES Brilenkov R., Eingorn M., Zhuk A.	23
COSMOLOGICAL PERTURBATIONS IN PRESENCE OF SCALAR FIELDS Burgazli A.Yu., Eingorn M.V., Zhuk A.I.	24
ENVIRONMENTAL PROPERTIES OF GALAXIES AT $Z < 0.1$ FROM THE SDSS VIA THE VORONOI TESSELLATION Dobrycheva D.V., Melnyk O.V., Vavilova I.B., Elyiv A.A.	26
THE ASYMMETRIC DRIFT AND THE ROTATION CURVE OF THE GALAXY Golubov O.	28
MORPHOLOGICAL TYPES OF 254 RICH PF GALAXY CLUSTERS Panko E.A., Andrievsky A.M., Gotsulyak A.V.	30
THE ELLIPTICITIES OF GALAXIES IN GALAXY CLUSTERS OF DIFFERENT MORPHOLOGICAL TYPE Panko E., Flin P.	32
NEUTRINO IN GRAVITATIONAL FIELD Plyatsko R.M., Fenyk M.T.	34
DETERMINATION OF DARK MATTER TYPE BY X-RAY SOURCES STATISTICS Tugay A.V.	36

ASTROPHYSICS

DETERMINATION OF SIZE OF THE EMITTING REGION IN ECLIPSING CATAclysmic VARIABLE STARS Andronov I.L., Andrych K.D.	38
MODELLING OF MOTION OF BODIES NEAR TRIANGULAR LAGRANGIAN POINTS Bobrov O.A.	40
GAMMA RAY BURST FOLLOW-UPS WITH BOOTES-4 Guziy S., Castro-Tirado A.J., Jelínek M., Gorosabel J., Kubánek P., Cunniffe R., Lara-Gil O., Tello J.C., Jeong S., Oates S.R., Xu Y., Pérez-Ramírez D., Cui Ch., Fan Yu., Wan Ch., Bai J., Kheyfets I.	42
EXPLOSIVE NUCLEOSYNTHESIS AT STRONG STELLAR MAGNETIZATION Kondratyev V.N., Korovina Yu.V.	44
REVERBERATION MEASUREMENT OF THE INNER RADIUS OF THE DUST TORUS IN NGC 4151 DURING 2008-2013 Oknyansky V.L., Metlova N.V., Taranova O.G., Shenavrin V.I., Artamonov B.P., Gaskell C.M., Di-Fu Guo	46
PHOTOMETRICAL STUDY OF OVERCONTACT BINARY SYSTEM V859 Cyg Panko E.A., Sergienko O.G., Pomazan A.V., Bodryagin D.V.	49

Subsection Virtual observatories are practice of application**COMPILATION OF CATALOG OF STELLAR EQUATORIAL COORDINATES AND B-MAGNITUDES USING UKRVO PLATE DATABASE**

Andruk V.N., Golovnya V.V., Ivanov G.A., Izhakevich E.M., Pakuliak L.K., Protsyuk Yu.I.,
Shatokhina S.V., Yatsenko A.I., Muminov M.M. 52

COMPARATIVE ANALYSIS OF PROPER MOTIONS OF STARS IN OPEN CLUSTERS BY USING VO TOOLS

Mazhaev A., Protsyuk Yu. 54

ASTROMETRY OF X AND H PERSEI BASED ON PROCESSING OF DIGITIZED PLATES OF ARCHIVE OF THE ASTRONOMICAL INSTITUTE OF THE ACADEMY OF SCIENCES OF THE REPUBLIC OF UZBEKISTAN

Muminov M.M., Yuldoshev Q.X., Ehgamberdiev Sh.A., Kahharov B.B., Andruk V.N., Protsyuk Yu.I. .. 56

SOFTWARE FOR PROCESSING OF DIGITIZED ASTRONEGATIVES FROM ARCHIVES AND DATABASES OF VIRTUAL OBSERVATORY

Protsyuk Yu.I., Andruk V.N., Kazantseva L.V. 58

METHOD FOR EVALUATING THE ASTROMETRIC AND PHOTOMETRIC CHARACTERISTICS OF COMMERCIAL SCANNERS IN THEIR APPLICATION FOR THE SCIENTIFIC PURPOSE

Protsyuk Yu.I., Andruk V.N., Muminov M.M., Yuldoshev Q.X., Ehgamberdiev Sh.A., Eglitis I.,
Eglite M., Kovylinska O.E., Golovnya V.V., Kazantseva L.V., Kashuba S.G. 60

RESULTS OF PROCESSING OF ASTRONEGATIVES WITH COMMERCIAL SCANNER

Protsyuk Yu.I., Kovylinska O.E., Protsyuk S.V., Andruk V.N. 62

THE SCIENTIFIC USE OF THE UKRVO JOINT DIGITAL ARCHIVE: GRBs FIELDS, PLUTO, AND SATELLITES OF OUTER PLANETS

Vavilova I., Golovnya V., Andruk V., Pakuliak L., Yizhakevych O., Shatokhina S., Protsyuk Yu.,
Kazantseva L., Lukianchuk V. 64

POSITIONAL CATALOGUES OF SATURN'S AND JUPITER'S MOONS

Yizhakevych O., Andruk V., Pakuliak L., Lukianchuk V., Shatokhina S. 66

RADIO-ASTRONOMY**USING THE METHODS OF WAVELET ANALYSIS AND SINGULAR SPECTRUM ANALYSIS IN THE STUDY OF RADIO SOURCE BL LAC**

Donskykh G.I., Ryabov M.I., Sukharev A.L., Aller M. 68

DATA NETWORKING SUPPORT SERVICES OF PUSHCHINO RADIO ASTRONOMY OBSERVATORY, ASTRO SPACE CENTER OF LEBEDEV PHYSICAL INSTITUTE

Dumsky D.V., Isaev E.A., Samodurov V.A., Likhachev S.F., Shatskaya M.V., Kitaeva M.A.,
Zaytcev A.Yu., Ovchinnikov I.L., Kornilov V.V. 70

PROSPECTS OF TRANSFERRING THE LARGE VOLUMES OF RADIO ASTRONOMY DATA

Isaev E.A., Tarasov P.A. 72

TRACKING TYPE III RADIO BURST SOURCES IN THE SOLAR CORONA BY HELIOGRAPHIC MEANS

Koval A.A., Stanislavsky A.A., Konovalenko A.A., Volvach Ya.S. 73

THE DAILY 110 MHZ SURVEY (BSA FIAN) IN THE ON-LINE MODE: DATABASE AND PROCESSING METHODS

Samodurov V.A., Kitaeva M.A., Logvinenko S.V., Isaev E.A., Dumsky D.V., Pugachev V.D. 75

VARIABILITY FEATURES OF THE RADIO SOURCE OT 081 IN CENTIMETER WAVELENGTH RANGE

Sukharev A.L., Margo F. Aller 77

PHYSICAL PARAMETERS OF HII/PDR COMPLEX IN ORION BAR ESTIMATED BY OBSERVATIONS OF 8 MM RECOMBINATION LINES. EFFECTIVE TEMPERATURE OF θ 1 C Ori STAR

Tsivilev A.P., Yu.Parfenov S., Sobolev A.M. 80

SUN AND SOLAR SYSTEM

THE RESEARCH OF VARIATION OF THE ROTATION PERIOD AND THE PRECESSION OF THE ROTATION AXIS OF EGP BY USING PHOTOMETRIC MEASUREMENT	
Burlak N., Koshkin N., Korobeynikova E., Melikyants S., Strakhova S., Shakun L.	82
HEAT MODELS OF ASTEROIDS AND THE YORP EFFECT	
Golubov O.	86
INFLUENCE OF SPACE WEATHER EFFECTS ON THE UPPER ATMOSPHERE ACCORDING TO THE DRAG OF ARTIFICIAL EARTH SATELLITES	
Komendant V.H., Koshkin N.I., Ryabov M.I., Sukharev A.L.	88
PROGNOSES AND ANOMALY OF 24TH CYCLE OF SOLAR ACTIVITY	
Lozitsky V.G., Efimenko V.M.	90
DIAGNOSTICS OF LOCAL MAGNETIC FIELDS IN SOLAR FLARES USING FeI 5383 AND MgI 5528 LINES	
Lozitsky V.G., Lozitsky O.V.	92
UNSTABLE ANGINA TREATMENT IN VARIOUS PERIODS OF GEOMAGNETIC ACTIVITY	
Parshina S.S., Tokayeva L.K., Afanas'yeva T.N., Samsonov S.N., Petrova V.D., Dolgova E.M., Manykina V.I., Vodolagina E.S.	94
GEOMAGNETIC ACTIVITY AND EFFECTIVENESS OF MILLIMETER ELECTROMAGNETIC RADIATION IN UNSTABLE ANGINA TREATMENT	
Parshina S.S., Samsonov S.N., Afanas'yeva T.N., Tokayeva L.K., Petrova V.D., Dolgova E.M., Manykina V.I., Vodolagina E.S.	96
INFLUENCE OF SPACE WEATHER ON A CARDIOVASCULAR SYSTEM OF A HUMAN BEING DURING VARIOUS SOLAR CYCLE PHASES	
Samsonov S.N., Manykina V.I., Krymsky G.F., Parshina S.S., Petrova P.G., Palshina A.M., Strelalovskaya A.A., Shadrina L.P., Vishnevsky V.V.	98
EXHIBITING OF EFFECTS OF SPACE WEATHER AND SOLAR CYCLE THE DYNAMICS OF THE EARTH MAGNETIC FIELD	
Sukharev A.L., Sobitnyak L.I., Ryabov M.I., Orlyuk M.I., Orliuk I.M.	100
LARGE-SCALE BIOPHYSICAL EXPERIMENT "GELIOMED-2"	
Vishnevsky V., Gromozova E., Ragoulskaya M.	102