Joint European and National Astronomical Meeting for 1998

J E N A M - 9 8

7th European and 65th Czech Astronomical Society Conference

9 – 12 September 1998, Prague, Czech Republic

PROSPECTS OF ASTRONOMY AND ASTROPHYSICS FOR THE NEW MILLENNIUM

PRELIMINARY PROGRAM

Tuesday - September 8

at the **Faculty of Civil Engineering of the Czech Technical University**
Thákurova 7, Praha 6 - see map 1 and 2

8:00 - 11:00, 16:00 - 21:00: Registration

9:00 - 18:00 The 1999 Solar Eclipse Workshop - Room C210

18:00 - 21:00 Welcome party

Wednesday - September 9 - Morning

at **Žofín** - historical hall in the town center - see map 3

9:30 Official Opening: addresses by

the President of the Czech Republic **Václav Havel**
the Chancellor of the Charles University **Karel Malý**
the President of the Academy of Sciences **Rudolf Zahradník**
the President of the European Astronomical Society **Jean-Paul Zahn**
the Chairman of the Czech Astronomical Society **Jiří Borovička**

10:00 F. Praderie: *Euroscience: a Contribution to Science Integration in Europe*
10:25 L. Woltjer: *European Strategies in Astronomy and Astrophysics*

10:50 - 11:10 Coffee / Tea

11:10 R. Bonnet: *Future Prospects of European Space Sciences*
11:35 M. Tarenghi: *Very Large Telescope / Very Large Telescope Interferometer*
12:00 P. Shaver: *Large Southern Array*

13:00 - 14:30 Lunch

Wednesday - September 9 - Afternoon

at the **Faculty of Civil Engineering of the Czech Technical University**
Thákurova 7, Praha 6

14:00 - 18:00 Registration

14:30 - 16:00 Parallel Sessions: P-1, P-2, P-5, P-6, P-7, D-1

16:00 - 16:30 Coffee / Tea & *viewing of posters*

16:30 - 18:00 Parallel Sessions: P-1, P-2, P-4, P-5, P-7, D-2

20:00 - 21:30 Public lecture
at **Planetárium, Královská obora 233, Praha 7** - see map 4

F. Mirabel: *Black Holes in the Universe*

Thursday - September 10

at the **Faculty of Civil Engineering of the Czech Technical University**
Thákurova 7, Praha 6

8:00 - 19:00 Registration

9:00 - 10:30 Plenary lectures - Room B 286

9:00 F. J. Pijpers: *Sensing the Solar Interior with Sound*
9:45 J. Trümper: *X-ray Emission from Neutron Stars*

10:30 - 11.00 Coffee / Tea & *viewing of posters*

11:00 - 12:30 Parallel Sessions: P-1, P-2, P-4, P-5, P-6, P-7

12:30 - 14:30 Lunch

14:30 - 16:00 Plenary lectures - Room B 286

14:30 F. Mirabel: *Microquasars in the Galaxy*
15:15 I. Novikov: *Old and New Horizons in Black Hole Physics and Astrophysics*

16:00 - 16:30 Coffee / Tea & *viewing of posters*

16:30 - 18:00 Parallel Sessions: P-1, P-2, P-4, P-5, P-6, P-7

18:00 - 19:00 Poster Session

17:00 EAS Council Meeting together with the representatives of the National Astronomical Societies

20:00 Conference Dinner

Friday - September 11

at the **Faculty of Civil Engineering of the Czech Technical University**
Thákurova 7, Praha 6

8:00 - 13:00 Registration

9:00 - 10:30 Plenary lectures - Room B 286

9:00 M. A. C. Perryman: *Milliarcsec Astrometry: some Scientific Results from HIPPARCOS*
9:45 M. Šidlichovský: *Dynamics of Asteroid Belt and Chaos*

10:30 - 11:00 Coffee / Tea & *viewing of posters*

11:00 - 12:00 General Assembly of the EAS — Room B 286

12:00 EAS Council Meeting — Room B 286

12:30 - 14:30 Lunch

14:30 - 18:00 Excursion *"Praga Astronomica"*

18:00 - 19:00 Refreshments in the **Historical Building of the Charles University - Karolinum**, Ovocný trh 5, Praha 1 - see map 3

19:00 - 20:00 Aula Magna - Karolinum

Spiritual Music: Across the Ages
String quartet: Antonín Dvořák

21:00 - 22:30 Reception by the **Mayor of Prague**
at his **Residence in Municipal Library** - Mariánské náměstí 2, Praha 1- see map 3

Saturday - September 12

at the **Faculty of Civil Engineering of the Czech Technical University**
Thákurova 7, Praha 6

8:00 - 13:00 Registration

9:00 - 10:30 Plenary lectures - Room B 286

9:00 J. Schneider: *Beyond the discovered planetary systems*
9:45 Sir Martin Rees: *Gamma-ray bursts*

10:30 - 11:00 Coffee / Tea - *viewing of posters*

11:00 - 12:30 Parallel Sessions: D-3, P-3, P-4, P-5, P-6, P-7

12:30 - 14:30 Lunch

14:30 - 18:00 Historical Instruments and Astronomy at the Charles University
at the **National Technical Museum**, Kostelní 42, Praha 7

14:30 - 18:00 Excursion to the **Ondřejov Observatory**

Sunday - September 13

at **Planetárium**, Královská obora 233, Praha 7 - see map 4

10:00 - 16:00 65th Plenary Meeting of the Czech Astronomical Society

10.00 opening

10.05 Prof. Livio Scarsi (University of Palermo and CNR Palermo): *"The BeppoSAX satellite and the progress in understanding gamma-ray bursts"* (invited lecture)

11.15 Kviz award ceremony and lecture

12.15 lunch break

13.30 Highlights from the 7th Conference of the European Astronomical Society (presented by the Czech convenors of the parallel sessions)

16.00 closing

Note: The language of the meeting will be Czech, the lecture of prof. Scarsi will be translated to Czech.

The 1999 Solar Eclipse Workshop

Convenors: V. Rušín, E. Marková & P. Kotrč

Tuesday - September 8

09:00 - 09:10 P. Kotrč, V. Rušín : Opening of the Workshop

09:10 - 09:50 S. Koutchmy (Invited): High Resolution Analysis of the Eclipse Solar Corona

09:50 - 10:10 J.-R. Gabryl, P. Cugnon and F. Clette: Polarization Observations and Results of the 1998 February 26th Solar Corona

10:10 - 10:30 V. O. Danylevskyj: The Solar Diameter Determination From Data of the 1991 July 11 Solar Eclipse Photoelectric Observations

10:30 - 10:50 A. B. Gaina: Light Postnewtonian Deflection Angle During the Solar Eclipse

10:50 - 11:20 Coffee / Tea

11:20 - 11:40 R. A. Gulyaev and P. V. Shcheglov: Interferometric Observations of Emission Features in the F-Corona

11:40 - 12:00 M. Bělík, E. Marková and V. Rušín: White-Light Coronal Structures During 1988 – 1998 Eclipses

12:00 - 12:15 C. A. Mendoza-Briceno: Energy Balance in Hydrostatic Solar Coronal Loops

12:15 - 12:30 V. G. Nagnibeda and B.A. Rozanov: Solar Source Structure From Eclipse Observations at Millimeter Wavelengths

12:30 - 14:00 Lunch

14:00 - 14:40 V. Rušín and M. Rybanský (Invited): Proposed Observations (International) During the 1999 Eclipse

14:40 - 15:10 F. Clette and P. Cugnon: JOSO Working Group 7 : Preparation of the August 1999 Eclipse

15:10 - 15:30 A. Özgüç, T. Ataç and L. Altaş: The Last Total Eclipse of the Millennium in Turkey

15:30 - 15:50 M. Stavinschi: The Maximum of the 99 Eclipse Will Be in Romania

15:50 - 16:10 V. M. Grigoriev, V. G. Eselevich, L. K. Kashapova, R. T. Salakhutdinov and V. I. Skomorovsky: A Program of Observations for the August 11, 1999 Total Solar Eclipse

16:10 - 16:30 Yu. A. Kupryakov and P. Kotrč: Panoramatic Photometry for the 1999 Solar Eclipse

16:30 - 17:00 Coffee / Tea

17:00 - 17:20 A. Oncica: Arcsecond Mapping of Solar Active Regions Through Eclipse Observations: A Case Study for Ecl'99

17:20 - 18:00 **Posters:**

Dorotovič, B. Lukáč, M. Minarovjech T. Pintér, M. Rybanský and J. Sýkora: Total Solar Eclipse '98

R. A. Gulyaev: Eclipse Observations of Coronal Plumes in the Past and in Future

F. Clette, P. Cugnon and J.-R. Gabryl: The Program of the Royal Observatory of Belgium for the Total Eclipse of August 1999

A. Oncica: Radio Spectroscopy of Solar Active Regions Through Eclipse Observations: A Project for Ecl'99

M. Türker Özkan: Eclipse Studies in Turkey

Closing remarks

PARALLEL SESSIONS

All the contributions to the **Parallel Sessions** have been reviewed by SOC in the collaboration with Convenors and selected for **oral** or **poster** presentation. The **Preliminary Program** below gives the time schedules of the **Parallel Sessions** and the **List of Posters**. Due to very large number of participants and contributions it was necessary to shift many of the contributions to poster presentation. In order to include the posters as much as possible into the conference, a special poster session will be organized on Thursday, September 10 18:00 - 19:00.

P-1: Solar Physics

Convenors: V. Berezinski, P. Heinzel & M. Huber

Wednesday - September 9

14:30 - 14.50 M.C.E. Huber: Status report on SOHO

14.50 - 15.20 J.C. Vial: SOHO: Recent progress in our understanding of the outer atmosphere

15.20 - 15.40 M. Varady: Analysis of CDS and SXT observations of a decaying post-flare loop system

15.40 - 16.00 P. Gouttebroze: Chromospheric oscillations: Observations and modelling

16.00 - 16.30 Coffee/Tea

16.30 - 17.00 F. Kneer: Ground-based observations of the Sun with high spatial resolution

17.00 - 17.20 M.A. Loukitcheva: S-component source structure based on millimeter observations

17.20 - 17.40 E.W. Cliver: Solar flare nuclear gamma rays and energetic particles in space

17.40 - 18.00 L.K. Kashapova: The spectropolarimetric investigation of the 'Ellerman bombs' in the H-alpha radiation

Thursday - September 10

11.00 - 11.30 E. Tikhomolov: Hydrodynamic instabilities at the base of solar convection zone

11.30 - 11.50 P. Ambrož: Large-scale flows resulting from the transport of the magnetic flux

11.50 - 12.10 V. A. Kotov: Rotation of the magnetic Sun: A resonance with Mercury?

12.10 - 12.30 A. Özgüç: Effects of hysteresis of some solar indices

12.30 - 14.30 Lunch

16.30 - 16.50 U. Anzer: Magnetic dips in prominences

16.50 - 17.10 B.P. Filippov: Saddle structures and magnetic nulls in the solar corona

17.10 - 17.30 C. Dumitrache: Numerical model of prominence formation

17.30 - 17.50 O.B. Smirnova: 2D NLTE model of a quiescent filament based on simultaneous HI and CaII spectral line observations

18.00 - 19.00 Poster Session

P-2: Small Bodies in the Solar System

Convenors: J. Borovička & M. Fulchignoni

Wednesday - September 9

14.30 - 14.45 N. Artem'eva, V.Shuvalov: Meteoroid break-up with radiative transfer and ablation

14.45 - 15.00 P. Spurný: Photographic monitoring of fireballs in Central Europe

15.00 - 15.15 N.A. Konovalova, G.I. Kokhirova: Photographic fireball observations in Tajikistan

15.15 - 15.30 J. Borovička: Some results of meteor spectroscopy

15.30 - 15.45 V. Smirnov: Some peculiarities of meteor radiation

15.45 - 16.00 P.M. Kozak, O.O. Rozhilo: Low-light meteor mass distribution from TV observations in Kyiv

16.00 - 16.30 Coffee/Tea

16.30 - 16.45 O.P. Popova, I.V.Nemtchinov, R.E.Spalding: Impacts of the 1-10 m - in - diameter meteoroids into the Martian atmosphere

16.45 - 17.00 V.V. Shuvalov: S-L9 Comet impact: influence of fragments' structure on the penetration process

17.00 - 17.15 K.I. Churyumov, V.V.Kleshchonok, F.A. Mussayev, G.N.Galazutdinov: Peculiarities of the high resolution spectrum of comet Hale-Bopp (C/1995 O1) April 17, 1997

17.15 - 17.30 S. Ibadov: In situ measurements in the comae of comets

17.30 - 18.00 **Short Poster Presentations**

- E.M. Pittich, J. Klačka: Numerical simulation of Encke meteoroids orbital elements
- R. Štork, J. Borovička, J. Boček, M. Šolc: Alpha Monocerotid TV spectra
- K.I. Churyumov, Borysenko S.A., Evtushevsky O.M., Kravtsov F.I.: Polarimetry of the near nuclear region of comet Hale-Bopp (C/1995 O1)
- K.I. Churyumov, Evtushevsky O.M., Kravtsov F.I.: Helix structures in the near nuclear region of comet Hale-Bopp (C/1995 O1) and rotation of its nucleus
- P. Gronkowski: The analytical model of the cometary outburst – application to P/Halley
- K.I. Churyumov, Stepanov V.A.: On isotopic composition of carbon in comets
- N.L. Shabas: Variation of physical conditions in the new plasma tail of comet 1P/Halley during the disconnection event 6-8 January, 1986

Thursday - September 10

11.00 - 11.15 K.L. Maslennikov: Observations of Kuiper Belt objects with BTA-6m telescope: A photometrical approach to protoplanet disc chemistry

11.15 - 11.30 O.P. Bykov: The Kuiper Belt objects: Accuracy of their positional observations, fast orbit determination and ephemeris service

11.30 - 11.45 P. Pravec, M. Wolf, L. Šarounová: From points in the sky to real objects: Binary asteroids and monolithic bodies among NEAs

11.45 - 12.00 J. Tichá, M. Tichý, Z. Moravec: Follow-up astrometry of Near Earth Objects at Klet Observatory – present and future

12.00 - 12.15 S. Berinde: Statistical results on discovered Near-Earth Asteroids

12.15 - 12.30 N. Mateshvili, I. Mateshvili, G. Mateshvili: Interplanetary dust in circumterrestrial space from twilight scattered light photometry

12.30 - 14.30 Lunch

16.30 - 16.45 T.J. Kalvouridis: Long period particle motions in the ring problem

16.45 - 17.00 N.A. Solovaya: Secular perturbations in motion of the pericentron in the three body problem

17.00 - 17.15 N.V. Kulikova, A.V. Mychev: Computer experiment of the small bodies dynamics. Stochastic method

17.15 - 17.30 **Short Poster Presentations**

- V. Mioc, M. Stavinschi: The polygonal Schwarzschild problem in the solar system
- J. Tichá, M. Tichý, Z. Moravec: Klet photographic search programme for minor planets (overview)
- N.O. Komarova: Identification of the celestial bodies in a real time of their CCD-observations
- A.V. Shkondin: Preliminary orbit determination of the celestial bodies from their positional short arc CCD-observations

17.30 - 19.00 Viewing the Posters

P-3: Extra-Solar Planetary Systems

Convenors: M. Wolf & M. Mayor

Saturday - September 12

11:00 - 11:20 Deeg H.J. et al.: Planet detection with the transit method: TEP network observations

11.20 - 11.40 Zakharov A.F.: Probability of extra-solar planetary system detection during microlensing

11.40 - 12.00 Kiselev A.A., Shakht N.A., Grosheva E.A.: Visual double star ADS 11632

12.00 - 12.20 Vezolainen A.V.: Possible characteristics of flashes produced by planetisimal impacts with a star

P-4: Astrophysics of Interacting Binaries

Convenors: A. M. Cherepashchuk & J. Kubát

Wednesday - September 9

16.30 - 16.50 Andronov I.L.: Variability of accreting binaries from seconds to decades: Observations vs. mathematical models

16.50 - 17.10 Lipunova G.V.: Supercritical accretion disks with mass loss

17.10 - 17.30 Chinarova L.L.: Cycle length variations in dwarf novae

17.30 - 17.50 Khruzina T., Voloshina I.: UBV-photometry Derived Parameters of Dwarf Nova SS Cyg

Thursday - September 10

11.00 - 11.30 Zdziarski A.A.: X-rays and gamma-rays from black hole binaries and accretion disk models

11.30 - 11.50 Ergma E.: Formation of the black holes and neutron stars

11.50 - 12.10 Karitskaya E.A.: Instability of Accretion in X-Ray Binary Cyg X-1 As It Follows From Observations

12.10 - 12.30 Chernyakova M.A., Illarionov A.F.: Non-pulsed radiation from PSR B1259-63

12:30 - 14:30 Lunch

16.30 - 16.50 Raguzova N.V., Lipunov V.M.: High-eccentric X-ray binaries: evolution, wind rose effect, accretor-propeller luminosity gap

16.50 - 17.10 Tsiopa O.: Circumstellar Matter in Presupernova Binaries

17.10 - 17.30 Cherepashchuk A.M.: Photometric Investigation of SS 433 during 1979 - 1997

Saturday - September 12

11.00 - 11.20 Schmid H.M.: Raman scattering and the geometric structure of symbiotic stars

11.20 - 11.40 Hadrava P.: Disentangling of spectra of binaries

11.40 - 12.00 Bisikalo D.V., Boyarchuk A.A., Chechetkin V.M., Kuznetsov O.A., Molteni D.: Numerical simulations of gas flow structure in binaries. 3D versus 2D models

12.00 - 12.20 Bisikalo D.V., Boyarchuk A.A., Chechetkin V.M., Kuznetsov O.A., Molteni D.: Mass-transfer in semidetached binaries. Results of 3D simulation models

12.20 - 12.40 Kunze S., Speith R., Riffert H.: Simulations of the stream disk impact in CVs

P-5: Dynamical Studies of Star Clusters and Galaxies

Convenors: P. Kroupa, J. Palouš & R. Spurzem

Each talk has 15 Minutes incl. discussions

Wednesday - September 9

Interstellar Matter

14.30 - 14.45 Wiebe D.S., Shustov B.M., Tutukov A.V.: *Contribution of spiral galaxies to the chemical enrichment of the intracluster medium*

14.45 - 15.00 Silich S.A.: *Interstellar bubbles: is it possible to avoid contradictions with a standard bubble model?*

15.00 - 15.15 Ehlerová S.: *Distribution of HI in the Milky Way around* $l = 60°$

15.15 - 15.30 Berczik P.:*Chemo-dynamical, multi-fragmented SPH code for evolution of star forming disk galaxies*

15.30 - 15.45 Fridman A.M., Khoruzhii O.V., Lyakhovich V.V., Ozernoy L., Sil'chenko O.K., Blitz L.: *Ionized gas in the Galactic Center: Dynamics and Morphology*

16.00 - 16.30 Coffee/Tea

Globular Clusters

16.30 - 16.45 Paresce F., Marchi G.De: *Deep IR/optical luminosity functions of globular clusters: what they are telling us about the IMF and cluster evolution*

16.45 - 17.00 Goodwin S.P.: *The initial conditions of globular clusters*

17.00 - 17.15 Capuzzo-Dolcetta R.: *Decaying globular cluster systems and galactic nuclear activity*

17.15 - 17.30 Portegies Zwart S.F., Takahashi K.: *The disruption of globular star clusters in the galaxy: A comparative analysis between N-body and Fokker-Planck models*

17.30 - 17.45 Deiters S., Spurzem R.: *Gaseous models of globular clusters with stellar evolution*

17.45 - 18.00 Theis Ch.: *Collapsing shells: A formation scenario for globular cluster?*

Thursday - September 10

Associations and Galactic Clusters

11.00 - 11.15 Valtonen M.J.:*Statistical solutions of the general three-body problem and applications to binary stars*

11.15 - 11.30 Deiss B.M., Saiyadpour A., Stutzki J., Winnewisser G.: *Dynamical evolution of young stellar clusters embedded in their parental molecular clouds*

11.30 - 11.45 Mülläri A.A., Orlov V.V.: *Moving clusters in the Solar neighbourhood*

11.45 - 12.00 Kontizas M., Gouliermis D., Korakitis R., Dapergolas A., Morgan D. H., Kontizas E.: *Stellar Associations in the LMC*

12.00 - 12.15 Efremov Y.N.: *The large-scale star formation in the LMC and M31*

12.15 - 12.30 Kroupa P.: *The dynamical evolution of a young star cluster*

The Galaxy

16.30 - 16.45 Gerhard O.: *The Galactic bar and spiral arms*

16.45 - 17.00 Rastorguev A.S., Glushkova E.V., Dambis A.K., Zabolotskich M.V.: *Open clusters, cepheids and problems of the distance scale*

17.00 - 17.15 Lerner M.S., Thomasson M., Sundin M.: *Bar-induced mass ejection from a galactic disc*

17.15 - 17.30 Kylafis N.D., Xilouris E., Papamastorakis J.: *Distribution of stars and dust in spiral galaxies*

17.30 - 17.45 Just A., Möllenhoff C.: *Dynamical heating and the star formation history of the disk of NGC 5907*

Stellar and Galactic Dynamics

18.15 - 18.30 Gurzadyan V.G.: *Relative Chaos in stellar systems*

18:30 - 18:45 Hemsendorf M.: *Application of a parallel hybrid N-body SCF code*

18.45 - 19.00 Malkov E.A., Omarov Ch.T.: *The non-linear spheroidal oscillations of self-gravitating systems*

19.00 - 19.15 Jungwiert B., Combes F., Palouš J.: *The rôle of Stellar Mass-Loss in Dynamics of Spiral Galaxies*

Saturday - September 12

Galaxy Interactions

11.00 - 11.15 Ibata R.A., Lewis G.F., Totten E., Irwin M.J.: *Dynamics of the tidal stream of the Sagittarius dwarf galaxy and the shape of the Galactic halo*

11.15 - 11.30 Fellhauer M.: *First steps towards a self-consistant N-body model of the local group*

11.30 - 11.45 Rakos K.D., Schombert J.M.: *Starburst Galaxies in Clusters*

11.45 - 12.00 Mirabel I.F.: *ISO highlights on galaxy interactions*

12.00 - 12.15 Bochkarev N.G., Shapovalova A.I.: *Optical monitoring of AGNs*

P-6: High and Ultra–High Energy Astrophysics

Convenors: J. Greiner, R. Hudec & E. Lorenz

Wednesday - September 9

Session I Gamma–Ray Bursts

14.30 - 15.00 Coletta A.: Gamma Ray Burst detection and results at the BeppoSAX Scientific Operation Centre

15.00 - 15.15 Vrba F.: Optical and Near Infrared Observations of the Proposed Double M Star Counterparts of SGR 1900+14

15.15 - 15.30 Pizzichini G.: Statistical properties of GRBs with low hardness ratio

15.30 - 15.45 Derishev E.V.: Cosmological gamma–ray bursts from induced collapse of a neutron star triggered by a primordial black hole

15.45 - 16.00 Horvath I.: Three types of gamma–ray bursts

Thursday - September 10

Session II Galactic and Extragalactic Sources

11.00 - 11.30 Zdziarski A.: X–rays and gamma–rays from Seyferts, BLRGs, and black hole binaries

11.30 - 11.45 Kranich D.: Observation of BL Lac objects Mkn 501 and Mkn 421 in the TeV-range

11.45 - 12.00 Valtonen M.J.: The 1998 optical flux minimum in OJ287 and its significance to the binary black hole model

12.00 - 12.15 Augusto P.: A sample of kpc–scale flat spectrum radio loud AGN candidates

12.15 - 12.30 Belyanin A.A.: Electron–positron jets from Galactic superluminal sources

12.30 - 14.30 Lunch

Session III Recent and Future Satellite Experiments

16.30 - 16.55 Scarsi L.: BeppoSAX first two years in operation: Highlights and significant results

16.55 - 17.10 Bruca L.: The ground segment facilities of the BeppoSAX mission

17.10 - 17.30 Voges W.: The variable X-ray sky as seen with ROSAT

17.30 - 17.45 Georgii R.: The spectrometer SPI onboard INTEGRAL

17.45 - 18.00 Hudec R.: X–Ray optics for astrophysics

Saturday - September 12

Session IV Ultra-High Energy Astrophysics

11.00 - 11.30 Magnussen N.: Ground–based gamma–ray astronomy

11.30 - 11.45 Petry D.: The MAGIC telescope– bridging the gap at 10–200 GeV

11.45 - 12.00 Rose J.: The Very Energetic Radiation Imaging Telescope Array System: project status and future prospects

12.00 - 12.15 Smith D.A.: CELESTE: first ground–based detection of 100 GeV gamma rays

12.15 - 12.30 de Botton N.: The ANTARES demonstrator towards a large undersea high energy neutrino telescope

Note: The long talks (25 and 30 min) include 5 min for discussion. The brief talks (15 and 20 min) include 3 min for discussion.

P-7: Relativistic Astrophysics and Cosmology

Convenors: M. Abramowicz & J.Bičák

September 9 (Wednesday) sessions, 14.30 - 16.00 and 16.30 - 18.00, are devoted primarily to physics and astrophysics of black holes, accretion discs, numerical relativity and related topics.

September 10 (Thursday) morning session, 11.00 - 12.30, covers gravitational waves, and afternoon session, 16.30 - 18.00, cosmology.

September 12 (Saturday) session, 11.00 - 12.30, contains primarily contributions on observational aspects.

It is assumed that 2 minutes of each presentation will be left for discussion.

Wednesday - September 9

14.30 - 14.45 M.A. Abramowicz, S. Sonego: Black holes: The Švejk paradigm

14.45 - 15.00 R. Meinel: The general relativistic continuation of the Maclaurin disk

15.00 - 15.10 T. Ledvinka, M. Žofka, J. Bičák: Energy conditions for disc-like sources of Kerr and Kerr-Newman spacetimes

15.10 - 15.20 O. Semerák, M. Žáček, T. Zellerin: Black holes with rings or discs as Weyl superpositions

15.20 - 15.25 Z. Stuchlík, S. Hledík: Black-hole spacetimes with a repulsive cosmological constant

15.25 - 15.30 L. Šubr: Evolution of a stellar cluster under the influence of a massive black hole and an accretion disc

15.30 - 15.40 A. Martocchia, V. Karas, G. Matt: On X-ray line profiles from active galactic nuclei

15.40 - 15.50 P. Hadrava, R. Řezáč, E. Østgaard: Eccentric rings around black holes

15.50 - 16.00 S. V. Repin, A. F. Zakharov: Observational manifestations of general relativity in the accretion discs around the supermassive black holes

16.00 - 16.30 Coffee/Tea

16.30 - 16.45 E. Seidel: Numerical relativity

16.45 - 16.55 J. Bičák, V. Pravda, A. Pravdová: Boost-rotation symmetric spacetimes as test beds in relativistic astrophysics

16.55 - 17.05 K. Glampedakis: Modelling of Gravitational Waves from Supermassive Black Holes

17.05 - 17.15 C. Blaga, P. A. Blaga: On the geodesics for a spherically symmetric dilaton black holes

17.15 - 17.25 A. Gaina: Particles generation by black holes and the black-hole bomb

17.25 - 17.35 A. F. Zakharov: Non-compact astronomical objects (neutralino stars) as microlenses

17.35 - 17.40 A. F. Zakharov: Degenerate properties of a singular model polarization during microlensing by noncompact objects

17.40 - 17.50 A. A. Belyanin, E. V. Derishev: Prospects for detection of primordial black holes captured in cold dark matter halos around massive objects

17.50 - 18.00 V. Kryvdyk: Particles and Radiation in the Magnetospheres of Collapsing Stars

Thursday - September 10

11.00 - 11.15 V. N. Rudenko: Search for correlation of gravitational detector noise background with astrophysical events accompanied by neutrino and gamma radiation

11.15 - 11.30 S. M. Kopeikin, G. Schäfer: Light propagation effects in gravitational waves from localized sources

11.30 - 11.45 S. M. Kopeikin, V. A. Potapov: Spectral sensitivity of timing parameters of binary pulsars to the low frequency noise

11.45 - 12.00 P. Jaranowski, A. Królak: Probing spinning neutron stars with gravitational waves

12.00 - 12.30 B. Schutz: Gravitational-wave astronomy

12.30 - 14.30 Lunch

16.30 - 16.40 A. D. Dolgov, A. G. Doroshkevitch, D. I. Novikov, I. D. Novikov: Clasification of singular points in polarization field of CMB and eigenvectors of Stokes matrix

16.40 - 16.50 V. N. Lukash: Early LSS formation and Quasars

16.50 - 17.00 S. Gottloeber, B. N. Novosyadlyj: MDM model with a broken scale-invariant primordial perturbation spectra: confrontation of the model predictions with observations

17.00 - 17.10 Y. B. Chornij, B. N. Novosyadlyj: The correlation function of quasars and power spectrum of cosmological perturbations of matter density

17.10 - 17.20 A. Mészáros: An argument against the non-baryonic dark matter

17.20 - 17.30 A. Dimitropoulos: Cosmological perturbations in the early Universe in viscous cosmic media

17.30 - 17.40 J. Bičák, J. Katz, D. Lynden-Bell: Conservation laws and evolution of cosmological perturbations

17.40 - 17.50 E. V. Mikheva: Λ-inflation and CMB Anisotropy

17.50 - 18.00 O. S. Kozhanov: The Evolution of Point Masses in an Expanding Universe

Saturday - September 12

11.00 - 11.10 N. A. Arkhipova: Observational constraints for power-low spectra of density perturbations

11.10 - 11.20 V. S. Artyukh, S. A. Tyul'bashev: The survey of scintillating radio sources with sensitivity $\sim$0.1 Jy at 102.5 MHz

11.20 - 11.30 V. S. Artyukh, S. A. Tyul'bashev: The cosmological evolution of CSS radio sources

11.30 - 11.40 O. V. Verkhodanov, S. A. Trushkin: Investigation of objects of IRAS and Texas 365 MHz catalogues cross-identification

11.40 - 11.50 O. V. Verkhodanov, S. A. Trushkin, V. N. Chernenkov, H. Andernach: The CATS database as a tool of galactic and extragalactic researches

11.50 - 12.00 N. V. Verkhodanova, H. Andernach, N. Loiseau, O. V. Verkhodanov: The properties of decametric sources: study with the CATS database

12.00 - 12.10 O. V. Verkhodanov, A. I. Kopylov, Y. N. Parijskij, N. V. Soboleva, A. V. Temirova, O. P. Zhelenkova: "Colours" estimation of ages of parent galaxies of distant radio sources

12.10 - 12.20 V. Skalský: The Friedmannian model of observed Universe

PANEL DISCUSSIONS

D-1: Instrumentation and Very Large Projects

Convenor: F.Fárník

Wednesday - September 9

14.30 - 16.00

Bougaenko O.I., Cherepashchuk A.M., Kim I.S. and Popov V.V.: Point spread function for a space-borne coronagraphic telescope

Bochkarev, N.G.: Russian Interests in Antarctic Astronomy

Kharin, A. S.: Instruments and Methods of IR Astrometry

Magnussen, N.: The MAGIC Telescope Project

Naumann H., Heilemann W.: Aquisition and guiding unit for Gemini 8m telescopes: a progress report

Plojentsev, D.D.: Fundamental Astrometry: Present State and Future

D-2: Young Astronomers, Teaching of Astronomy & Jobs

Convenors: V. Karas & J.-P. Zahn

Wednesday - September 9

16.30 - 18.00

Bochkarev N. G. and Obridko V. N.: Euro-Asian Astronomical Society

Bochkarev, N.G.: Review of the situation in Astronomy on the Territory of the Former Soviet Union

Gaina A.: Young Astronomers and Astronomy Teaching in Moldavia

Gráf, T.: The use of planetarium for teaching at technical university

Karas, V.: Study texts on astronomy and astrophysics accessible via WWW

D-3: History of Astronomy

Convenors: S. Débarbat & M. Šolc

Saturday - September 12

11.00 - 12.30

Dambis A.: Dating of Ptolemy's Star Catalogue Based on Proper Motions

Gaina, A.: An outstanding researcher of the solar eclipses - Nicolas Donitch

Hadravová A. and Hadrava P.: Astronomy in Prague in 14/15 century - Magisters Cristannus de Prachaticz and Iohannes Schindel

Schuppener, G. and Šolc, M.: Astronomy at Clementinum College in Prague

Stavinschi M. and Mioc V.: Bucharest Observatory - 90 years of Existence

Šolcová, A.: Scientific contacts between astronomers in Prague and other European observatories

Volyanskaya M. Yu.: Eminent Astronomers - Odessa University Graduates - in European Astronomy

Yankiv-Vitkovska, L. and Vavrukh M.: The 100 year of the Astronomy chair at Lviv University

LIST OF POSTERS

Solar Eclipse Workshop

1. Dorotovič, B. Lukáč, M. Minarovjech T. Pintér, M. Rybanský and J. Sýkora: Total Solar Eclipse '98
2. R. A. Gulyaev: Eclipse Observations of Coronal Plumes in the Past and in Future
3. F. Clette, P. Cugnon and J.-R. Gabryl: The Program of the Royal Observatory of Belgium for the Total Eclipse of August 1999
4. A. Oncica: Radio Spectroscopy of Solar Active Regions Through Eclipse Observations: A Project for Ecl'99
5. M. Türker Özkan: Eclipse Studies in Turkey

P-1: Solar Physics

6. Ataç, T. and Özgüç, A.: Flare index of solar cycle 22
7. Bayazitov, U.Sh.: Radial gas motions in atmospheres of quiet sun and solar flares
8. Dudnik, O.V. and Malykhyna, T.V.: The experiment "STEP-F" for solar cosmic rays measurements on the board of Ukrainien-Russian satellite "PHOTON"
9. Dumitrache, C.: Coronal mass ejections - Numerical simulations
10. Dzifčáková, E. and Kulinová, A.: The excitation equilibrium of the Fe XXV in the solar corona for the electron power distribution
11. Dzifčáková, E. et al.: Coronal heating via small-scale magnetic reconnection
12. Firstova N. M., Kashapova L. K., Boulatov A. V.: The Spectropolarimetric Observations of the " Moustaches " phenomenon near the Limb
13. Gigolashvili, V.: Study of some peculiarities of solar differential rotation by hydrogen filaments
14. Gizani, N.A.B. and Alissandrakis, P.K.: Unusual inversion of polarization in sunspot associated with microwave sources
15. Charvátová, I.: The basic cycles of 178.7 years and 2402 years in solar motion and their response in solar activity
16. Issaeva, N.L. and Campos, L.M.B.C.: On a curvilinear coordinate system with astrophysical application: Multipolar coordinates
17. Japaridze D.R.: Results of spectral analysis of the data of hydrogen filaments: Differential rotation
18. Komarov A.S. et al.: The problems of determination of abundances of heavy elements in the atmospheres Sun and K-giants
19. Kontorovich, V.M. and Pimenov, S.F.: Exact solution of the Kompaneets equation for strong explosion in the solar corona

20. Kotrč, P. et al.: On the velocity field and direction of H-alpha polarization in the May 29, 1998 limb flare
21. Krivodubskij, V.N.: On the displacement and period of the solar dynamo-waves
22. Leiko, U. and Efimenko, V.M.: About rotation of the mean magnetic field of the Sun
23. Lozitskij, V.G. and Lozitska, N.: Observations of the magnetic field amplification at peak of the solar flares
24. Mendoza-Briceno, C.A.: Energy balance in hydrostatic solar coronal loops
25. Meszarosová, H. and Karlický, M.: Statistical analysis of the 3 GHz solar radio bursts
26. Nikonova, M.V. and Klochek, N.V.: Quasi-10-day periodicity on Sun and in the processes of different nature
27. Oncica, A.: Spectral evolution of the solar radio flux during the solar cycles 19-22
28. Oncica, A.: Joint time-frequency analysis of some solar radio bursts and the quest for physical processes signature
29. Popov, V.V. et al.: Point spread function for the orbital coronagraphic telescope
30. Predeanu,I. et al.: Joint time-frequency distribution of some geomagnetic indices beginning with solar cycle 11
31. Střeštík, J. and Mikulecký, M.: Long-term prediction of solar activity for 1997 - 2040
32. Yankiv-Vitkovska, L. et al.: Temperature dependence of the width of some atom spectral lines in solar atmosphere

P-2: Small Bodies in the Solar System

33. P. Gronkowski: The analytical model of the cometary outburst – application to P/Halley
34. K.I. Churyumov, Borysenko S.A., Evtushevsky O.M., Kravtsov F.I.: Polarimetry of the near nuclear region of comet Hale-Bopp (C/1995 O1)
35. K.I. Churyumov, Evtushevsky O.M., Kravtsov F.I.: Helix structures in the near nuclear region of comet Hale-Bopp (C/1995 O1) and rotation of its nucleus
36. K.I. Churyumov, Stepanov V.A.: On isotopic composition of carbon in comets
37. Kalenichenko V. V.: Local Ballistic Method for Solving the Inverse Problem of Fireball Physics: their Precision and Reliability
38. N.O. Komarova: Identification of the celestial bodies in a real time of their CCD-observations
39. Markina A. K., Kramer E. N., Skoblikova L. Ya.: Trajectories of Hyperbolic Meteors
40. V. Mioc, M. Stavinschi: The polygonal Schwarzschild problem in the solar system
41. Rosenbush V. K., Kiselev N. N., Jockers K.: Polarimetry of Asteroid Ra-Shalom. Comparison of Polarization Phase Dependences of C and S Asteroids and Comets

42. N.L. Shabas: Variation of physical conditions in the new plasma tail of comet 1P/Halley during the disconnection event 6-8 January, 1986

43. A.V. Shkondin: Preliminary orbit determination of the celestial bodies from their positional short arc CCD-observations

44. R. Štork, J. Borovička, J. Boček, M. Šolc: Alpha Monocerotid TV spectra

45. E.M. Pittich, J. Klačka: Numerical simulation of Encke meteoroids orbital elements

46. J. Tichá, M. Tichý, Z. Moravec: Klet photographic search programme for minor planets (overview)

47. Vitvitska M.: Analysis of Photometric Observations of Mutual Occultations and the System of Jupiter's Satellites in 1991

48. Voloshchuk Yu. I., Vorgul A. V.: Investigation of Fine Structure in Meteor Showers and Associations

P-4: Astrophysics of Interacting Binaries

49. Arai K., Katahira J., Nakamura Y., Okazaki A., Takeuti M., Tanaka A.: An Analysis of AB Cassiopeiae - An Eclipsing Binary System with an delta Scuti Type Component

50. Chochol D., Pribulla T., O'Brien T.J., Bode M.F.: Photometry and spectroscopy of the slow nova V723 Cas

51. Danezis E., Nicolaidis D., Stathopoulou M., Theodossiou E.: A first idea about the envelope structure of HD 175754

52. Dmitrienko E.S.: The high speed photometry of eclipse nova like system UX UMa

53. Dorokhov N.I., Dorokhova T.N.: Why was the great outburst of A0535+26 on 28/29 October 1995 recorded in optical band?

54. Fragoulopoulou E.: UV Leo: a binary with two suns

55. Galis R., Hric L. Niarchos P.: Preliminary light curve analysis of KW Per and UV Leo

56. Houziaux L., Andrillat Y.: Cataclysmic variables observed at Haute-Provence observatory 1949-1997

57. Hric L., Galis R., Petrik K. Friedjung M.: The period problem of symbiotic binary AG Dra

58. Iliev L.H., Borisova A.P.: A Spectral Study of Be/shell Star EW Lac

59. Jerzykiewicz M., Pigulski A., Kopacki G.: Beta Cephei and SPB stars in open clusters

60. Karetnikov V.G.: Orbital angular momentum changes at close binary stars

61. Kopacki G., Pigulski A.: Be stars in open cluster NGC663

62. Kotnik-Karuza D., Jurdana-Sepic R.: CH Cyg: The TiO molecule as a probe for the time evolution of physical parameters in the photosphere of the cool component

63. Kotov S.V., Kotov V.A.: Mysterious oscillation being detected by cataclysmic and low mass X-ray binaries

64. Kraicheva Z., Stanichev V., Genkov V.: TT Ari: peculiarities of disk activity

65. Kraicheva Z., Stanichev V., Genkov V.: MV Lyr: rapid brightness variations at high state

66. Malyuto V.: Recent progress in quantitative spectral classification from stellar spectral libraries

67. Marsakova V.I., Andronov I.L.: Rapid period variations of the Mira-type star R Aql

68. Mossakovskaya L.V.: A relativistic object or a magnetic cycle in the eclipsing binary Y Cam?

69. Neustroev V.V.: Structure of accretion disk of dwarf nova WZ Sagittae

70. Niarchos P.G., Pantazis G.: On the gravity darkening determination in contact binaries of W UMa type: The old methods and a new approach

71. Niarchos P.G., Manimanis V., Hric L. Theodossiou E.: BV photometry and spot modeling of the W UMa system AG Virginis

72. Nugis T.: Mass Loss Parameters of Single and Binary WR Stars

73. Özkan M.T., Ak T.: IUE spectra of dwarf novae: time variability in the UV resonance lines

74. Petrik K., Hric L., Gális R., Niarchos P., Dobrotka, A., Shugarov S.Yu., Novak R.: Preliminary results from the long-term photometry of V Sagittae

75. Puss A., Leedjarv L.: Spectroscopic studies of an interacting binary star AX Monocerotis

76. Pustylnik I., Pustonski V.V.: Modelling Physical Conditions in Low Mass Components of Precataclysmic Binaries

77. Sapar A., Sapar L.: Resonance doublet profiles of hot supergiants formed in the turbulent stellar wind

78. Savanov I.: Analysis of stratification of Cr with depth in the atmospheres of CP stars

79. Shugarov S. Yu., Pavlenko E.P.: Analysis of the optic light variability of the close binares cataclysmic variable MV Lyr

80. Šimon V., Hanzl D., Škoda P.: Photometry of the low-inclination Algol candidate V 1080 Tau

81. Shvelidze T. D., Maljuto V. D.: The Spectrophotometric Data Reduction System for Automated Quantitative Spectral Classification of Stars by Means of Object Prism Spectra and Results of its use in Four Areas of MEGA Programme

82. Teodorani M., Chochol D., Vittone A.A., Errico L.: Eruptive behaviour of FUOR-like system Z CMa

83. Tsikoudi V.: Photospheric far-infrared emission from stars with chromospheric activity

84. Tsiopa O.: Circumstellar Matter in Presupernova Binaries

85. Vakarchuk I., Rykalyuk R., Yankiv-Vitkovska L.: Temperature dependence of the width of some atom spectral lines in Solar atmosphere

86. Valtonen M.J., Pietila H., Lehto H.: The 1998 Optical Flux Minimum in OJ287 and its Significance to the Binary Black Hole Model

87. Volkov I. M.: UU Aqr - Photometry and Light Curve Analysis

P-5: Dynamical Studies of Star Clusters and Galaxies

88. Abbakumov V., David M., Mülläri A.: *On the estimation of parameters in the stellar cluster models*

89. Artemenko T. G., Vavilova I. B.: *Properties of Shakhbasian Compact Groups*

90. Balázs B.: *On the Angular Velocity of the Galactic Spiral Pattern*

91. Berczik P., Kravchuk S.G.: *Evolution of disk galaxy as a multifragmented 3D dynamical system embedded in the dark matter halo. Chemical aspect*

92. Baumgardt H., Dettbarn C., Fuchs B., Wielen R.: *Open Clusters in the Hipparchos Catalogue*

93. Dapergolas A., Nordström B., Andersen J., Kontizas M., Kontizas E., Kaltcheva N.: *The Age-Metalicity Relation(s) of the LMC*

94. Dolidze M. V. Shvelidze T. D.: Regularities of Large-Scale Distribution of Galaxy Aggregates and their Systems

95. Glushkova E.V., Uglova I.M.: *Kinematics of star complexes within the Sgr-Car arm*

96. Jerzykiewicz M., Pigulski A., Kopacki G.: *Beta Cephei and SPB stars in open clusters*

97. Joeveer M.: *Observational properties of binary galaxies*

98. Khoruzhii O.V., Fridman A.M.: *Three dimensional vortex dynamics of galactic disks*

99. Kopacki G., Pigulski A.: *Be stars in open cluster NGC 663*

100. Kovalenko I.G., Lukin D.V.: *The Instability of the Galactic Shock Wave in a Shear Flow*

101. Kozhanov S.: *On the Stability of Star Clusters in the Galaxy*

102. Krivitsky D.S., Kontorovich V.M.: *Quasars in a merger model: comparison with the observed luminosity function*

103. Maragoudaki F., Kontizas M., Dapergolas A., Morgan D. H., Kontizas E.: *Mapping the Stellar Complexes in the LMC*

104. Mickaelian A. M.: *A Project of Digitization of the First Byurakan Survey (FBS) - the largest low-dispersion spectral sky survey*

105. Omarov Ch. T.: *The Self-Consistent Solution with Mass Model of Contractiong Gaseous Sphere with Subsystem of Formating Gravitating Bodies*

106. Petrovskaya I. V.: *The Investigation of Vortice Structure in the Galaxy from 21 cm line profiles*

107. Ryabov M.I.: *Interstellar scintillation of extragalactic radiosources and Local Interstellar Medium*

108. Shulga V. M., Litvinenko L. N., Antjufeev A. V., Myshenko V.V., Torriseva M.: *12CO and 13CO Observations of Bipiolar Outflows in G0042.0-1 Molecular Cloud*

109. Tenjes P., Einasto J.: *Dark and visible matter populations in nearby galaxies*

110. Thomasson M., Donner K.J.: *The shape of the spiral arms and the mass distribution in the galaxies*

111. Vennik J., Hopp U., Popescu C.: *B and R surface photometry of faint emission-line galaxies towards nearby cosmic voids*

P-6: High and Ultra-High Energy Astrophysics

112. Bajkova, A.T.: New methods of VLBI imaging with high angular resolution

113. Balázs, L.G. et al.: Testing the spatial isotropy of gamma-ray bursts

114. Bernas M. et al.: Approaches to lossles and loosy image compression employed in the INTEGRAL OMC

115. Bochkarev, N.G. and Shapovalova, A.I.: Optical monitoring of AGNs

116. Coletta, A. et al.: The Gamma-Ray Burst detection and results at the BeppoSAX Scientific Operation Centre

117. Cusumano, G. and Mineo, T.: Detection of a cyclotron line and its second harmonic in 4U1907+09

118. Degrange B.: New Results from CAT (Cherenkov Array at Themsis)

119. Derishev, E.V. et al.: Cosmological gamma-ray bursts from induced collapse of a neutron star triggered by a primordial black hole

120. Gaina, A.: Gamma-Bursts by primordial Black Holes

121. Gil, J. and Cheng, K.S.: X-rays from rotation-powered neutron stars

122. Gizani, N.A.B. and Leahy, P.: The environment of powerful AGN-Hercules A's magnetic field

123. Guziy, S.S. et al.: An optical search for candidates within 30 GRB error boxes observed by WATCH and BATSE

124. Hroch F.: Centering algorithm for OMC experiment onboard INTEGRAL

125. Hroch F. et al.: INTEGRAL OMC Simulator

126. Hudec R. et al.: Optical transients

127. Hudec R. et al.: Optical investigations of GRBs 960720 and 970402 and possible optical counterparts

128. Kauts,V.L., Burdyuzha,V.V.: Multiple production of mesons in X-ray binaries and how it can be observed

129. Kovalev, Y.Y.: 1-22 GHz observations of gamma-ray emitting AGNs

130. Krivitsky, D.S. and Kontorovich, V.M.: Quasars in a merger model: comparison with the observed luminosity function

131. Kube, P. and Kulhánek, P.: Magnetic pinches in astrophysics and electromagnetic collapse

132. Lutovinov, A.A. et al.: Spectra of X-ray pulsars observed with GRANAT/ART-P

133. Magnussen N. et al.: The MAGIC telescope project

134. Malofeev, Valerij and Malov, Oleg: Investigation of radio pulsar Geminga at low frequencies

135. Malofeev, V.M. and Malov, O.I.: The survey of weak radio pulsars at frequency 102.5 MHz

136. Malov, I.F.: The high energy emission from Geminga and other radio pulsars

137. Massaro, E. et al.:X-ray observations of spin powered pulsars with BeppoSAX

138. Massaro, E. et al.: Optical photometry of bright blazars

139. Mineo, T. et al.: BeppoSAX observations of Vela pulsar

140. Mutafov, A.S.: A search for archive plates with optical transients of the GRB's in the WFPDB

141. Panchenko, I.E. et al.: The GRB spectrum formation from a composition of blacbody spectra

142. Panko E. A. et al.: The identification of the radio, IR and X-ray sources in selected GRB error boxes

143. Popov, S.: The properties and evolution of isolated neutron stars

144. Ptitsyn, D.A.: On the problem of r-elements synthesis

145. Rezek, T. et al.: INTEGRAL Optical Monitoring Camera test device

146. Rózyczka, M. et al.: Driving jets from accretion disks

147. Salata, S.A. and Zhdanov, V.I.: Microlensing events in case of several gravitators

148. Seiradakis J. H.: Probing the Structure of the Cone of Radiation of Pulsars

149. Shlyapnikov, A.A. et al.: The Investigation of the 30 GRB Fields

150. Soldán J. et al.: Burst Alert Robotic Telescope BART - looking for optical counterparts

151. Tyul'bashev, S.A. and Artyukh, V.S.: The survey of scintillating radio sources with sensitivity 0.1 Jy at 102.5 MHz

152. Verkhodanov, O.V. et al.: The CATS database as a tool of galactic and extragalactic researches

153. Verkhodanov, O.V. et al.: Investigation of objects of IRAS and Texas 365 MHz catalogues cross/identification

154. Verkhodanova, N.V. et al.: The properties of decametric sources: study with the CATS database

155. Vilkoviskij, E.Y.: The BAL QSOs in the Unification Scheme

156. Vilkoviskij, E.Y.and Efimov, S.N.: The AGN absorption spectra modelling

157. Voges W.: X-ray catalogues from the ROSAT mission

158. Volvach, A.E. et al.: Radio observations of high red shift quasar OH 471

159. Zavlin V.E. et al.: Thermally emitting neutron stars in supernova remnants

P-7: Relativistic Astrophysics and Cosmology

160. A. Bolčo: Mathematically identical rigid relativistic spacetimes

161. B. Gaina, N. I. Ionescu-Pallas: The fine and hyperfine structure of fermionic levels in gravitational fields

162. M. Jamrozy, J. Machalski: Cosmological evolution of dual-population radio sources

163. V. Karas: On X-ray line profiles from active galactic nuclei

164. J. Machalski: Redshift estimation of distant radio sources from the "luminosity-surface brightness" relation

165. Martocchia A., Karas V., Matt G.: Signatures of Spinning Black Hole Gravitational Field within X-ray Spectral Features

166. E. Tago, H. Andernach: The ACO cluster redshift compilation and the large-scale structure of the Universe

167. A. F. Zakharov: Properties of the non-singular isothermal sphere model for gravitational lensing

168. A. F. Zhukova: "Big Bang" from two different monopoles