

**XVI NATIONAL CONFERENCE OF ASTRONOMERS OF
SERBIA
Belgrade, 10-12 October 2011**

Venue: Ilija M. Kolarac Foundation, Belgrade, Studentski trg 5

Book of abstracts can be downloaded at <http://nkas.aob.rs/Abstracts.aspx>

Conference program:

Monday, October 10

08:30-09:30 Registration

09:30-10:00 Opening ceremony

10:00-11:00 Cocktail

Session I: Astrophysical spectroscopy and interferometry (Chair S. Jankov)

11:00-11:40 *Henrichs H.F.*

Magnetism in massive stars (*IR*)

11:40-12:15 *Petrov R.G.*

**Astrophysical spectroscopy and interferometry
(*IR*)**

12:15-12:45 *Faurobert M.*

**Searching for weak solar magnetic fields. What
can we learn from the Hanle effect? (*IL*)**

12:45-13:00 *Milić I., Faurobert M.*

**Polarization in emission lines of moving
prominences**

13:00-14:30 Lunch break

Session I: Astrophysical spectroscopy and interferometry (Chair O. Atanacković)

- 14:30-15:00 *Vince I., Danilovic S., Vitas N.* The curious case of the Mn I 539.5 nm line in the solar spectrum: Recent development (*IL*)
- 15:00-15:15 *Burger M., Skočić M., Gavrilov M., Bukvić S., Djeniže S.* Spectral line characteristics in the SN IV spectrum
- 15:15-15:30 *Skočić M., Burger M., Gavrilov M., Bukvić S., Djeniže S.* Behavior of the 398.4 nm Hg II spectral line in the helium and argon plasmas
- 15:30-15:45 *Kuzmanovska-Barandovska O., Atanacković O.* On the use of iteration factors to solve selected radiative transfer problems
- 15:45-16:00 *Zeković V., Šegan S.* Radio-interferometarski niz (SCMA)
- 16:00-16:30 Coffee break

Session II: Instrument robotization and astroinformatics (Chair S. Šegan)

- 16:30-16:45 *Samurović S.* The BELISSIMA project
- 16:45-16:55 *Vince O. and Jurković M.* The Astronomical station Vidojevica: The 60cm telescope
- 16:55-17:05 *Vince I. and Vince O.* On a stellar spectrograph for astronomical station at Vidojevica
- 17:05-17:15 *Jovanović M., Stojanović M., Martinović N.* Astronomical station Vidojevica : Astro-climate
- 17:15-17:25 *Šegan S., Simonović A., Mijajlović Ž* Hartman and Shack-Hart methods for control of optical systems
- 17:25-17:35 *Samardžija B., Šegan S.* Cosmic Navigation and the Movement of a body of Variable Mass

- 17:35-17:45 *Životić S., Šegan S.* Duel or duality: The astronomical data mining or the astronomical data processing? S. Životić versus S. Šegan
- 17:45-17:55 *Glišović P., Glišović N., Šegan S.* NTP servers: astronomical versus civilian time and times scales
- 17:55-18:05 *Ogrizović V., Gučević J., Delčev S.* Ambient temperature changes and the impact to time measurement error
- 18:05-18:15 *Božić N.* New astronomical equipment and facilities at Petnica science center
- 18:15-18:30 Session II : Discussion
- 18:30-20:00 Poster session

Tuesday, October 11

Session III: Stellar physics and physics of interstellar medium (Chair D. Urošević)

- 09:00-09:30 *Skuljan Lj. and Bond I. A.* Variable stars in the MOA database (*IL*)
- 09:30-09:45 *Nikolić S., Van de Ven G., Heng K., Kupko D., Husemann B.* An integral view of shocks
- 09:45-10:00 *Borka Jovanović V.* Estimation of brightnesses and spectral indices of radio loops
- 10:00-10:15 *Onić D.* The search for Galactic supernova remnants with Fermi-LAT
- 10:15-10:30 *Latković O., Cséki A.* Infinity: A new program for modeling binary systems
- 10:30-11:00 Coffee break

Session III: Stellar physics and physics of interstellar medium (Chair D. Urošević)

- 11:00-11:30 *B. Lopez* Perspective of the interferometric MATISSE instrument at the VLTI (*IL*)
- 11:30-11:45 *Čadež V., Jovanović G.* Behavior of gravito-MHD waves at solar photosphere-corona boundary

- 11:45-12:00 *Ćirković M.* Future star formation dynamics revisited
- 12:00-12:15 *Pavlović M., Urošević D., Vukotić B.* New Σ -D relation for Galactic supernova remnants

12:15-12:30 Coffee break

Session IV: Stellar and galactic systems (Chair R. Pavlović)

- 12:30-13:00 *Docobo J.A.* Highlights of the R.M.Aller Astronomical Observatory research on double and multiple stars (*IL*)
- 13:00-13:15 *Ninković S., Cvetković Z., Stojanović M.* On the kinematics of stars from the solar neighbourhood – Halo Case
- 13:15-13:30 *Stojanovic M., Pavlovic R., Cvetkovic Z. and Vince O.* First visual measurements of double star at Vidojevica

13:30-15:00 Lunch break

Session V: Astrometry, dynamical astronomy and planetology (Chair S. Ninković)

- 15:00-15:30 *Novaković B.* Veritas asteroid family still holds secrets? (*IL*)
- 15:30-15:45 *Knežević Z., Milani A.* Attribution of survey observations to known solar system objects
- 15:45-16:00 *Damljanović G., Milić I. S., Maigurova N., Martynov M., Pejović N.* Astrometric positions of ICRF2 radio sources with different reference catalogues
- 16:00-16:15 *Marčeta D., Šegan S.* Some heuristics in determination of proximities of confocal elliptical orbits
- 16:15-16:30 *Novaković B.* Families among high-inclination asteroids
- 16:30-16:45 *Blagojević D., Vasilić V.* Realisation of ETRF2000 as a new Terrestrial Reference Frame in Republic of Serbia
- 16:45-17:00 *Todorović N.* Dynamics of a 4-D steep symplectic map

17:00-17:30 Coffee break

Session VI: Interdisciplinary studies (astrobiology, astrochemistry, geophysics, atmospheric physics, astronautics and space science) (Chair T. Prodanović)

- 17:30-18:00 *Vitas N.* Retrieval of physical parameters from high-resolution spectroscopic observations of the solar and terrestrial atmosphere (*IL*)

18:00-18:30	<i>Premović P.</i>	Astronomical radiation sources and the origin of atmospheric oxygen of the early Earth: a short Review (IL)
18:30-18:45	<i>Vukotić B.</i>	Galactic habitable zone and astrobiological complexity
18:45-19:00	<i>Jovanović D., Šegan S.</i>	Modelovanje raspodele orbitalnog (svemirskog) otpada
19:00-19:15	<i>Vukotić B., Ćirković M.</i>	Hexagonal lattice PCA of the Milky Way astrobiological complexity
19:15-19:30	<i>Šulić D., Nina A., Srećković V., Čadež V.</i>	Statistical analysis of d-region electron density during Solar flares from VLF radio measurements
20:30	Reception at Astronomical Observatory, Volgina 7	

Wednesday, October 12

Session VII: Extragalactic astronomy and cosmology (Chair P. Jovanović)

09:00-09:30	<i>Bogdanovic T.</i>	Signatures of Supermassive Black Hole Coalescence (IL)
09:30-09:45	<i>Gavrilović Bon N.</i>	The contribution of stellar populations in AGN spectra
09:45-10:00	<i>Djordjević G.</i>	On solvable models for Tachyonic inflation
10:00-10:15	<i>Stalevski M., Fritz J., Baes M., Nakos T., Popović L.</i>	Radiative transfer modeling of AGN dusty tori as a clumpy two-phase medium
10:15-10:30	<i>Stalevski M., Jovanović P., Popović L., Baes M., Jakšić T.</i>	Microlensing of infrared radiation from AGN dusty tori
10:30-10:45	<i>Andjelić M., Arbutina B., Stavrev K., Urošević D.</i>	Star formation rate in Holmberg IX dwarf galaxy
10:45-11:00	<i>Bon, E.</i>	Hidden Emission of Accretion Disk in Broad Line Region of Active Galaxies
11:00-11:30	Coffee break	

Session VII: Extragalactic astronomy and cosmology (Chair G. Djordjević)

- 11:30-11:45 *Mićić M.* Sgr A* growth through Hubble time
- 11:45-12:00 *Prodanović T., Fields B., Pavlidou V.* Normal galaxies: A key component of the gamma-ray background
- 12:00-12:15 *Ciprijanović A., Prodanović T.* Cosmological cosmic-ray contribution to the extragalactic gamma-ray background
- 12:15-12:30 *Borka Jovanović V., Borka D., Skeoch R., Jovanović P.* Spectral index distribution of radio AGNs: case study of 3C 349
- 12:30-12:45 *Ilić D., Popović L., Shapovalova A., Kovačević A., Kovačević J., Burenkov* Long-term spectral monitoring of a sample of AGN with broad lines
- 12:45-13:00 *Grujić J.* Some cosmological aspects of nonlocal gravity
Some cosmological solutions with $F(R)$ modified gravity
- 13:00-13:15 *Dimitrijević I.*
- 13:15-13:30 *Dragovich B.* Nonlocal cosmology with p-adic matter
- 13:30-15:00 Lunch break

Session VIII: History, philosophy and teaching of astronomy – Dedicated to Prof. J. Milogradov-Turin (Chair M. Ćirković)

- 15:00-15:15 *Urošević D.* In Memoriam to Prof. J. Milogradov-Turin
- 15:15-15:30 *Stanić N., Otašević A., Jevtović M., Simonović B., Djukić S.* Galileo teacher's training programe
- 15:30-15:45 *Stanić N.* Communicating astronomy with schools - methodological approach
- 15:45-16:00 *Protitch-Benishek V.* Homage to Milorad B. Protitch (1911 - 2011)
- 16:00-16:15 *Božić N.* International year of astronomy 2009 in Serbia
- 16:15-16:30 *Šegan S., Marčeta D.* Toward the Venus transit 2012
- 16:30-16:45 *Pejović N., Mijajlović Ž.* Astronomical books in virtual library of faculty of mathematics in Belgrade
- 16:45-17:00 *Atanacković O.* Astronomy education in Serbia 2008-2011

17:00-17:30 Coffee break

**Session IX: Amateur astronomy, sociology of astronomy, astronomy in arts and culture
(Chair Ž. Mijajlović)**

- 17:30-17:45 *Eskin B., Tarakanov P., and Kostina M.* Astronomy Olympiads in Russia and Their Position in Astronomy Education
- 17:45-18:00 *Aleksić J., Radmilović D.* Amateur Astronomers Association of Serbia - activities and importance of Association in amateur astronomy in Serbia
- 18:00-18:15 *Radmilović D., Aleksić J.* Amateur Astronomers Association of Serbia - International cooperation of astronomical societies
- 18:15-18:30 *Simonović A., Mijajlović Ž., Valjarević A.* Recent activities of astronomical society
Magellanic clouds
- 18:30-18:45 *Tomić Z., Aleksić J.* "Astronomy from the chair" - A new way of doing astronomy over the internet
- 18:45-19:00 *Tadić M.* Orijentacija uzdužnih osa crkava manastira Studenice
- 19:00-19:15 *Muminović M., Mujić N.* Astronomical observatory Sarajevo: past, present, future

19:15-19:30 Closing of Conference

20:00 Conference dinner

POSTERS:

- I-1 *Vince I., Guineva V., Werner R.* What is wrong with the telluric line P21 of the (1,0) B spectral band?
- I-2 *Stevanović Lj., Milojević D.* Compressed hydrogen atom under Debye screening in strong magnetic field
- I-3 *Opsenica S., Arbutina B.* Numerical code for fitting radial emission profile of a shell supernova remnant
- II-1 *Samurović S. et al. (the BELISSIMA collaboration)* The BELISSIMA project
- IV-1 *Samurović S., Lalović A.* The Jeans modeling of the Milky Way galaxy
- IV-2 *Shakht N.* Estimation of Central Bodies Masses for Selected Globular Clusters
- V-1 *Zeković V.* Korekcija dinamički generisanih koordinata Sunca primenom harmonijske analize

V-2	<i>Marčeta D., Šegan S. Samardžija B.</i>	Launching satellite, orbital transfers and satellite orbit changing
V-3	<i>Šegan S., Samardžija B.</i>	Some aspects of artificial bodies orientation and stabilization
V-4	<i>Milisavljević S., Marčeta D., Šegan S.</i>	Proximity calculation and statistics of orbits elements
V-5	<i>Kovačević A., Tomić S.</i>	Kepler's equation and chaos theory
V-6	<i>Kuzmanoski M., Apostolovska G.</i>	Masses of (4) Vesta and (11) Parthenope simultaneously derived from observations of (17) Thetis
V-7	<i>Maigurova N., Martynov M.</i>	Observations of stars with high-proper motions at The Axial Meridian Circle of the Nikolaev observatory
VI-1	<i>Pecker J.C.</i>	A short remark on terrestrial magnetism and climate
VI-2	<i>Lukić D., Radonjić M., Smolić I.</i>	An estimation of number of exoplanets with the chance of detection of existence of life in the Milky Way
VI-3	<i>Kolarski A., Grubor D., Šulić D.</i>	Study of the x-ray flare induced lower ionosphere changes by simultaneous monitoring of GQD and NAA VLF signals
VI-4	<i>Kuzmanovska- Barandovska O, Stankovski J</i>	Some new astronomical alignments of the megalithic observatory Kokino
VIII-1	<i>Pejović N., Dačić M.</i>	Digitized works of B. Ševarlic in virtual library of Faculty of Mathematics
VIII-2	<i>Muminović M., Mujić N.</i>	Publishing activity of astronomical society Sarajevo
VIII-3	<i>Mijatović V., Uzelac M.</i>	Nasledje prirodnih nauka sa posebnim osvrtom na astronomiju
VIII-4	<i>Trajkovska V., Protitch- Benishek V.</i>	On the "cosmic energy and modern physics" by Dj. M. Stanojević (1858-1921)
VIII-5	<i>Trajkovska V., Ninković S.</i>	Characteristics of some non-classical projects of calendar reform
VIII-6	<i>Цвијановић И.</i>	Опис земље у делима арапских путописаца (9 - 12. век)
IX-1	<i>Tomić Z.</i>	Promotion and popularization of astronomy in Kruševac 2008 - 2011
IX-2	<i>Stanić N., Vučelić D.</i>	Astronomy and art - storytelling
IX-3	<i>Radmilović D., Aleksić J.</i>	Amateur Astronomers Association of Serbia - activities and importance of association and possible cooperation with professional astronomical subjects

IX-4	<i>Nedeljković B. A.</i>	O lingvistickoj nemogućnosti podele na planete i male planete
IX-5	<i>Lujak T.</i>	Among the stars

Legend: IR - Invited Review, IL - Invited Lecture

Thursday, October 13

18:00-19:30 Assembly of the Society of Astronomers of Serbia

Saturday, October 15

Conference excursion