

**X Serbian-Bulgarian Astronomical Conference (X SBAC):
30. May – 03. June 2016,
Faculty of Civil Engineering, Belgrade, Serbia**

P R O G R A M

30. 05. 2016, Monday

18:00-19:00 Registration

19:00 WELCOME COCKTAIL
**(Restaurant “Kralj Aleksandar/Lola”,
Bulevar kralja Aleksandra 75)**

31. 05. 2016, Tuesday

08:30-09:00 Registration

09:00-09:30 Opening Ceremony

Chairman: Milcho Tsvetkov

09:30-10:00 Viktor L. Afanasiev, L. Č. Popović: Investigation of sub-pc AGN polarization regions and gravitational lenses with optical spectropolarimetric method

10:00-10:30 Ognyan Kounchev: Data analytics for Big Data in Astroinformatics

10:30-11:00 Vesna Borka Jovanović, P. Jovanović, D. Borka, S. Capozziello: R^n Gravity as viable alternative to dark matter: Application to stellar dynamics

11:00-11:30 Coffee Break

-----CONFERENCE PHOTO-----

EXTRAGALACTIC ASTRONOMY

Chairman: Luka Č. Popović

11:30-12:00 Nikolaj Bochkarev, A. Shapovalova, L. Č. Popović et al.: Characteristics of the long-term spectral variability of the AGNs with broad lines in the optical spectral band

12:00-12:30 Jelena Kovačević Dojčinović, L. Č. Popović: Spectral characteristics of the AGNs type 1 in the UV/optical spectral band

12:30-12:45 Rosa Victoria Munoz Dimitrova, R. Bachev: Optical variability of different types of AGNs observed from Rozhen Observatory

12:45-13:00 Đorđe V. Savić, R. W. Goosmann, M. Gaskell, F. Marin, L. Č. Popović: Polarization in AGN broad emission lines – the central source anisotropy and gas kinematics

13:00-13:15 Anđelka Kovačević, L. Č. Popović, A. I. Shapovalova, D. Ilić: Gaussian processes for long-term observed continuum and broad line light curves of E1821+643

13:15-13:30 Nataša Bon, E. Bon, P. Marziani: New method for spectroscopic data analysis in AGN variability studies

13:30-15:00 Lunch Break

EXTRAGALACTIC ASTRONOMY (continuation)

Chairman: Petko Nedialkov

15:00-15:15 Edi Bon, P. Marziani, N. Bon: The Two component model of the BLR optical emission in the NGC 5548

15:15-15:30 Marijana Smailagić, E. Bon: Simplified Model of Line Profile Variability from Eccentric Orbits of Supermassive Binary Black Hole Systems

15:30-15:45 Dragana Ilić, A. I. Shapovalova, L. Č. Popović, V. Chavushyan, A. N. Burenkov, W. Kollatschny, A. Kovačević: Optical spectral variability of quasar E1821+643

SUN

15:45-16:15 Vladimir N. Obridko, I. V. Dmitrieva: Relationship Between Solar Magnetic Fields of Different Spatial Scales and Some Controversial Problems of the Dynamo Theory

16:15-16:45 Momchil Dechev, Ts. Tsvetkov, K. Koleva, P. Duchlev: A Solar Prominence Eruption from Three Spacecraft Points of View

16:45-17:15 Aleksandra Nina: Ionospheric perturbations induced by solar X-ray flares

17:15-17:30 Tsvetan Tsvetkov, N. Petrov: Kinematics of prominence eruptions

17:30-18:00 Coffee Break

ASTRONOMY IN CULTURE AND SOCIETY

Chair: Nadežda Pejović

18:00-18:15 Petko Nedialkov, G. Andrejević: Comets – fiery sword connection: A Krušedol clue

18:15-18:30 Jovan Aleksić: Astronomical society "Rudjer Boskovic"

18:30-18:45 Vladimir Đošović, B. Tajhmeister, K. Pantelić: Astronomical concerns and their solving in connection with the archeo-astronomical locality Lepenski vir

01. 06. 2016, Wednesday

09:00-12:00 Meeting of Euroasian Astronomical Society (EAAS)
Meeting of EAAS Council Board

14:30 SOCIAL PROGRAM
(Meeting point in front of the Faculty of Civil Engineering)

02. 06. 2016, Thursday

ASTROINFORMATICS

Chairman: Ognyan Kounchev

09:00-9:30 Katya Tsvetkova, M. Tsvetkov, N. Kirov, D. Kalaglarsky, H. Edelmann, U. Heber: On some bamberg wide-field plate catalogues recently incorporated into WFPDB

9:30-10:00 Nikolai N. Samus, S. V. Antipin, D. M. Kolesnikova, K. V. Sokolovsky, M. K. Tsvetkov: Scanning Moscow plate collection: program, electronic catalogs, and new variable stars in the field of 104 Her

10:00-10:30 Lasko Laskov: Methods For Document Image De-warping

10:30-10:45 Nikolay Kirov, M. Tsvetkov, K. Tsvetkova: Software Tool for Time Conversion in the WFPDB

10:45-11:00 Vladimir Benišek, V. Protić Benišek: Serbian virtual observatory: Belgrade astrophotographic plate archive of solar observations

11:00-11:30 Coffee Break

ASTROMETRY

Chairman: Jan Vondrák

11:30-12:00 Werner W. Zeilinger: Gaia Science Alerts Follow-Up Observations

12:00-12:30 Goran Damljanović, O. Vince, M. D. Jovanović, Z. Cvetković, R. Pavlović, S. Boeva, G. Latev, M. Stojanović, G. Marković: Serbian-Bulgarian mini-network telescopes and Gaia-FUN-TO

12:30-13:00 S. Boeva, G. Damljanović, B. Petrov, B. Spasov, M. Sekulić, G. Latev: Serbian – Bulgarian mini – network telescopes: First simultaneous observations of variable objects

13:00-13:15 Grigor Nikolov: Precise astrometry in star clusters from century long observations

13:15-15:00 Lunch Break

LABORATORY ASTROPHYSICS, SPACE PLASMAS AND FIELDS

Chairman: Nikolai N. Samus

15:00-15:30 Vladimir A. Srećković, A. A. Mihajlov, Lj. M. Ignjatović, M. S. Dimitrijević: Atom-Rydberg atom processes in the stellar atmospheres: Dwarf atmospheres, quiet Sun and Sunspots

15:30-15:45 Robert Beuc, G. Peach, M. Movre, B. Horvatić: Lithium, sodium and potassium resonance lines pressure broadened by helium atoms

15:45- 16:00 Sava Donkov, I. Stefanov: Density distribution function in a self-gravitating incompressible turbulent fluid

16:00-16:15 Evgeny A. Mikhailov, V. V. Pushkarev: Fluctuating governing parameters in galaxy dynamo

16:15-16:30 Mihailo M. Martinović, A. Zaslavsky, M. Maksimović, S. Šegan: Venus ionosphere electron properties – Cassini quasi-thermal noise measurements

16:30-17:00 Coffee Break

EARTH

Chairman: Žarko Mijajlović

17:00-17:30 Jan Vondrák, C. Ron, Y. Chapanov: New determination of period and quality factor of Chandler wobble, considering geophysical excitations

17:30-17:45 Yavor Chapanov, I. Georgiev: Earth orientation parameters and gravity variations determined from Lageos 1 and Lageos 2 data for the period 1984 – 2011

20:00 CONFERENCE DINNER

**(Restaurant “Kralj Aleksandar/Lola”,
Bulevar kralja Aleksandra 75)**

03. 06. 2016, Friday

STARS

Chair: Diana Kjurkchieva

09:30-10:00 Gantcho Gantchev, P. Nedialkov, V. Ivanov, E. Ovcharov, A. Valcheva and M. Minev: Photometric Variability of Luminous Blue Variables in M33 on short timescales

10:00-10:30 Igor F. Malov: News of pulsar astronomy

10:30-11:00 Evgeniya A. Karitskaya, N. G. Bochkarev, V. P. Goranskij, N. V. Metlova: On long-term CYG X-1=V1357 CYG variability

11:00-11:15 Daniela Boneva: Emission properties of white dwarf's accreting binaries by the polarization methods

11:15-11:30 Georgi Latev, V. Popov, S. Boeva, P. Nikolov, B. Spassov: WZ SGE type cataclysmic variable ASASSN-14CL: Superhumps and flickering in 2014 superoutburst

11:30-12:00 Coffee Break

COSMOLOGY AND ISM

Chairman: Robert Beuc

12:00-12:15 Duško Borka, P. Jovanović, V. Borka Jovanović, S. Capozziello: Constraints on Sanders gravity from precession of orbits of S2-like stars: A case of a bulk distribution of mass

12:15-12:30 Ivan Dimitrijević: Nonsingular Big Bang in nonlocal modified gravity

12:30-12:45 Žarko Mijajlović, N. Pejović: Asymptotic solution for spatially open universe with matter-dominated evolution

12:45-13:00 Orlin Stanchev, T. Veltchev, S. Donkov: Density scaling relation in Orion A: effects of region selection

Chair: Katya Tsvetkova

**13:00-15:00 POSTER PRESENTATION 2-3 minutes per poster
(If you like to present your poster orally, please contact
Katya Tsvetkova)**

15:00 Closing Ceremony

POSTERS

- p.1. Bojan Arbutina: Selected Serbian astronomers in the Web of Science in the period 1977-2014
- p.2. K. N. Arefieff, N. N. Bezuglov, M. S. Dimitrijević, A. N. Klyucharev, A. A. Mihajlov, V. A. Srećković: On the anomalous low spontaneous emission rates for p-series of sodium due to the effect of natural Förster resonance
- p.3. Teodora Atanasova, Diana Kjurkchieva: Light curve solutions of four detached eclipsing *Kepler* binaries
- p.4. Jovan Bajčetić, Aleksandra Nina: Influence of solar X-ray flares on radio signal propagation in the low ionosphere
- p.5. Igor I. Baluk, Ivan M. Sergej: 20 New Variable Stars Detected by CRTS
- p.6. Borislav Stanishev Borisov: A similarity between the Solar system and the Kepler's three-planetary extrasolar systems
- p.7. Yavor Chapanov, Cyril Ron, Jan Vondrak: Solar influence on subdecadal variations of Earth rotation, MSL and climate, derived by harmonics of Hale, Jose, de Vries and Suess cycles
- p.8. Goran Damljanović, Oliver Vince, Rumén Bachev, Werner W. Zeilinger: WEBT project and observations at the 60 cm ASV telescope
- p.9. Milan S. Dimitrijević, Nenad Milovanović, Zoran Simić, Sylvie Sahal-Bréchet: Stark broadening parameters of S II spectral lines for stellar plasma conditions
- p.10. Milan S. Dimitrijević, Zoran Simić, Sylvie Sahal-Bréchet: On the Stark broadening of Si III spectral lines in stellar plasma
- p.11. Milan S. Dimitrijević, Zoran Simić, Andjelka Kovačević, Sylvie Sahal-Bréchet: On the influence of Stark broadening on Xe VIII spectral lines in the white dwarfs
- p.12. Ana Djulaković, Aleksandra Nina, Saša Simić, Vladimir A. Srećković, Luka Č. Popović: Short-term perturbations in high and middle latitude low ionosphere under Europe induced by GRB_s
- p.13. Sunay Ibryamov, Evgeni Semkov, Stoyanka Peneva: Multicolour photometric study of T Tauri variables
- p.14. Sunay Ibryamov, Evgeni Semkov, Stoyanka Peneva: Long-term UBVRI photometry of the PMS star V350 Cephei

- p.15. Natalija Janc, Vojislava Protić Benišek, Vladimir Benišek, Milivoj B. Gavrilov, Luka Č. Popović, Slobodan B. Marković: Academicians Milutin Milanković and Vojislav Mišković – correspondence
- p.16. Darko Jevremović, Veljko Vujčić, Anatolij A. Mihajlov, Vladimir A. Srečković, Ljubinko M. Ignjatović, Milan S. Dimitrijević: MOL-D database for molecular collisional and radiative processes
- p.17. Diana Kjurkchieva, V. Popov, Doroteya Vasileva, N. Petrov: Observations and light curve solutions of the eclipsing binaries USNO-B1.0 1395-0370184 and USNO-B1.0 1395-0370731
- p.18. Zlatko Majlinger, Milan S. Dimitrijević, Zoran Simić: On the Stark broadening of Co II spectral lines
- p.19. Slađana Marčeta Mandić, Luka Č. Popović, Edi Bon, Predrag Jovanović: Spectroscopic investigation of gravitationally lensed quasars
- p.20. Dragomir Marchev, Diana Kjurkchieva, S. Ibryamov, T. Atanasova: Photometric and spectral investigation of the star TU Umi
- p.21. Anatolij A. Mihajlov, Vladimir A. Srečković, Nenad M. Sakan, Milan S. Dimitrijević: Inverse Bremsstrahlung in Dwarf Atmospheres: the Absorption Coefficients and Gaunt Factors
- p.22. Yanko Nikolov et al.: Polarimetric investigations with two channel focal reducer FoReRo2
- p.23. Marko Pavlović, Dejan Urošević, Bojan Arbutina, Aleksandra Dobardžić, Milica Vučetić, Vladimir Zeković, Dušan Onić: Radio evolution of supernova remnants including non-linear particle acceleration
- p.24. Rade Pavlović, Zorica Cvetković, Svetlana Boeva, Goran Damljanović: Determination of orbits of visual binary and linear elements of double stars
- p.25. Nikolay I. Perov, A. A. Erokhin: Where does dust matter exist in the system of Pluto–Charon?
- p.26. Saša Simić, L. Č. Popović, N. Rakić: Detecting subparsec super-massive binary - Long term monitoring perspective
- p.27. Miika Pursiainen, Predrag Jovanović, Luka Č. Popović: Shape of Iron $K\alpha$ line and accretion disk parameters in Type 1 AGN
- p.28. Kristina Racković Babić, Dušan Marčeta, Stevo Šegan: The Mayan calendar – facts and doubts

- p.29. Dušan Raičević, Jovan Bajčetić, Vladimir M. Čadež, Aleksandra Nina: Procedure for detection of characteristic radio signal variations induced by solar X-ray flares
- p.30. Saša Simić, Edi Bon: Contribution to SED of AGNs induced by possible density perturbations in complex geometry of binary systems
- p.31. Vladimir A. Srećković, Anatolij A. Mihajlov, Ljubinko M. Ignjatović, Milan S. Dimitrijević, Darko Jevremović, Veljko Vujčić: HF electric properties of the astrophysical plasmas
- p.32. Vladimir A. Srećković, D. M. Šulić A. A. Mihajlov: Large solar flares and their impact on the ionosphere
- p.33. Desanka M. Šulić, Anatolij A. Mihajlov, V. Srećković: Disturbances in the D- region induced by large solar flares
- p.34. Francois Taris, G. Damjanović, A. Andrei, J. Souchay, O. Becker: Optical monitoring of QSOs in the framework of the Gaia space mission
- p.35. Ekaterina N. Tikhomirova: Astronomical education in the cultural and educational centre named after V. V. Tereshkova
- p.36. Miljana Todorović Drakul, Jovan Bajčetić, Vladimir M. Čadež, Luka Č. Popović, Dragan M. Blagojević, Aleksandra Nina: Real time variations of ionospheric TEC (total electron content) during solar X-ray flares
- p.37. Milcho Tsvetkov, D. Kalaglarsky, K. Tsvetkova, D. Jevremović, V. Protić - Benišek, V. Benišek, M. S. Dimitrijević: Incorporation of the Belgrade observatory Zeiss astrograph plate archive in the WFPDB
- p.38. Doroteya Vasileva, Diana Kjurkchieva: Light curve solutions of the eccentric Kepler binaries KIC 4281895 and KIC 5115178 with tidally induced humps
- p.39. Oliver Vince, S. Samurović: BELISSIMA and AS Vidojevica: Plans for the future
- p.40. Milica M. Vučetić, B. Arbutina, M. Z. Pavlović, A. Ćiprijanović, D. Urošević, N. Petrov, D. Onić, A. Trčka: Observations of NGC185 galaxy – study of supernova remnant in a dwarf elliptical galaxy
- p.41. Milica M. Vučetić, A. Trčka, B. Arbutina, A. Ćiprijanović, M. Z. Pavlović, D. Urošević, N. Petrov: Optical observations of NGC1156 galaxy in narrow band [S II] and H α filters
- p.42. Krasimira D. Yankova: Evolution in the system corona-disk