

XIX SERBIAN ASTRONOMICAL CONFERENCE PROGRAMME

IMPORTANT INFORMATION:

i) 20% of each time slot can be allocated for speaker connection and discussion with audience

Tuesday, October 13

08:30-09:00. Connection of participants

09:00-09:15 **Opening addresses:**

Andjelka Kovačević chair of 19SAC SOC

Zoran Rakić Dean of Faculty of Mathematics

Academician Zoran Knežević, General Secretary of Serbian academy of sciences and arts

Vitor Cardoso Chair of COST CA16104 Gravitational waves, black holes and fundamental physics

Special session- The gravitational-wave Universe: chair Vitor Cardoso

09:15-09:55 J. M. Wang: Close binaries of supermassive black holes in active galactic nuclei

09:55-10:35 S. Komossa: Supermassive binary black holes

10:35-11:00 Morning break

Special Session-The gravitational-wave Universe: chair Luka Č. Popović

11:00-11:40 A. F. Zakharov: Tests of gravity theories with black hole observations

11:40-12:10 A. Askar: Dynamical formation of gravitational wave sources

12:10-12:40 M. Mičić: SMBH growth and gravitational wave radiation

12:40-13:00 M. Smole et al.: Statistics of recoiling SMBHs from cosmological simulations

13:00 – 14:00 Lunch break

Stellar physics and physics of the interstellar medium: chair Olga Atanacković

14:00-14:40 L. Crivellari: Alternative strategies to solve the stellar atmosphere problem

14:40-15:10 J. Kubát: Mass loss rates and NLTE wind models of massive stars

15:10-15:30 J. Lazendić-Galloway: Cosmic ray production sites: supernova remnants interaction with molecular clouds

15:30-15:50 O. Latković, A. Čeki: Computer vision as a tool for studying close binary stars

15:50-16:15 Afternoon break

Astrophysical spectroscopy and instruments: chair Vladimir Srećković

16:15-16:45 Nikola Petrov: Sun and Solar activity opportunities for observations and development

16:45-17:15 O. Vince: News and future plans in the development of the Astronomical Station Vidojevica

17:15-17:35 A. Vudragović et al.: Testing performance of the Milanković telescope

17:35-17:55 S. Cikota: Determination of stellar radii by observing asteroid occultations

Wednesday , October 14

Stellar physics and physics of the interstellar medium: chair Olivera Latković

09:30-09:50 S, Ninković: On nearly circular orbits

09:50-10:10 M. I. Jurković: Type II and anomalous Cepheids

10:10-10:30 M. Stojanović: Examination of elements of galactocentric orbits of the thin disk stars from the Solar neighbourhood by varying potential of the Galaxy

10:30-10:50 S. Knezević, et al.: Using Balmer lines to unveil the presence of cosmic rays in the supernova remnant SNR 0509-67.5

10:50-11:15 Morning Break

Stellar physics and physics of the interstellar medium: chair Andjelka Kovačević

11:15-11:35 V. Zeković, B. Arbutina: Quasi-parallel collisionless shocks: revealing the nature of cosmic particle accelerators

11:35-11:55 A. Čeki, O. Latković, S. Lazarević: Statistics of the largest sample of late-type contact binaries studied so far

11:55-12:15 I. Vince: Some gas-stream velocities in UU CAS close binary star

12:15-13:15 Lunch break

Session supported by NoR CEL: Interdisciplinary studies (astrobiology, astrochemistry, geophysics, atmospheric physics, and space astronomy) and simulations: chair Martin Dominik

13:15-13:45 S. Jheeta: Astrochemistry: synthesis of the basic 'building blocks' of life

13:45-14:15 B. Vukotić: Galactic habitability and stellar motion

14:15-14:45 A. Nina: Monitoring of lower ionosphere: possible earthquake precursors and application in Earth observations by satellite

14:45-15:05 S. Dujko et al.: Electron transport, streamer propagation and lightning in the atmosphere of Titan

15:05-15:25 D. Lukić: Comparison of two models of interstellar travel using laser-pushed lightsail

15:25-15:45 V. Srećković et al.: SEG activities in Europlanet

16:05-16:25 Afternoon Break

Stellar physics and physics of the interstellar medium: chair Bojan Arbutina

16:25-16:55 R. Mennickent: Circumstellar matter and disks in beta Lyrae-type binaries: new case studies

16:55-17:25 S. Stanimirović: New perspectives on the cool interstellar medium: from the Milky Way to nearby galaxies

17:25-17:55 T. Pannuti et al.: Spectroscopic and hydrodynamic analyses of the Northwestern Rim of the Galactic supernova remnant G156.2+5.7

17:55-18:25 D. Leahy : The distribution of explosion energies and ISM densities for supernova remnants in the Galaxy

18:25-18:55 M. Čuk: Dynamics and origin of Martian satellites

18:55-19:25 M. Dimitrijević The influence of Stark broadening on white dwarf spectra

Thursday, October 15

Extragalactic astronomy: chair Jelena Kovačević Dojčinović

09:00-09:30 D. Ilić, A. Kovačević, L. Č. Popović: Quasars research in time-domain era

09:30-10:00 N. Bon, P. Marziani, E. Bon: Searching for extremely accreting quasars

10:00-10:20 N. Rakić, D. Ilić, L. Č. Popović: Fully automated python tool for AGN spectra analysis – FANTASY

10:20-10:40 I. Jankov, D. Ilić, A. Kovačević: Manifold learning in the context of quasar spectral diversity

10:40-11:00 M. Manganaro et al.: The intermittent extreme behaviour of BL Lac 1ES~2344+514

11:00-11:20 M. Bilek: The MATLAS survey of faint outskirts of bright galaxies

11:20-11:50 Morning Break

Extragalactic astronomy: chair Dragana Ilić

11:50-12:30 D. Šijački: Supermassive black holes in all their guises

12:30-13:00 L. Č. Popović, V. L. Afanasiev, E. S. Shablovinskaya: Spectro-polarization of active galactic nuclei: central super-massive black hole and dust sublimation region

13:00-13:30 M. Pović: Green valley galaxies and the role of AGN in galaxy evolution

13:30-13:50 S. Panda et al.: The CaFe project: correlation between Fe II and Ca II in active galaxies

13:50-14:10 M. L. Martínez-Aldama et al.: A ‘new’ radius-luminosity relation: using the near-infrared CaII triplet

14:10-15:10 Lunch break

Special Session-The gravitational-wave Universe: chair Alexander F. Zakharov

15:10-15:40 M. Burić: A model of quantum cosmology: fuzzy de Sitter space

15:40-16:10 V. Radovanović, D. Gočanin: Noncommutative $SO(2,3)$ model of gravity

16:10-16:40 B. Dragović: Cosmology of nonlocal gravity

16:40-17:00 Ž. Mijajlović, D. Branković: Algebraic dependencies and representations of cosmological parameters

17:00-17:30 Afternoon Break

Special Session-The gravitational-wave Universe: chair Žarko Mijajlović

17:30-18:00 J. Nikolić: Partial quasi-morphisms and partial symplectic quasi-states in the ambient of cotangent bundles

18:00-18:30 I. Dimitrijević, : The new model of nonlocal modified gravity

18:30-19:00 M. Vojinović, Cosmological constant problem in discretized quantum gravity

Friday, October 16

Astrometry: chair Ivana Milić Žitnik

09:00-09:30 G. Damjanović, : Towards Gaia DR3 and some results of comparison between Gaia DR2 and ground-based data

09:30-10:00 A. Ivantsov: Adapting image centroiding to astrometric differential reduction

10:00-10:30 Z. Malkin: Comparison and combination of radio source position catalogs

10:30-10:50 M. D. Jovanović, G. Damjanović, F. Taris: Control stars around quasars suitable for the ICRF - GAIA CRF link

10:50-11:10 M. Stojanović et al.: Solar neighbourhood kinematics based on the GAIA data

11:10-11:30 Morning break

Dynamical astronomy, and planetology: chair Srdjan Samurović

11:30-12:10 Z. Knežević: Survey of the positions of secular resonances in the Asteroid Belt.

12:10-12:40 B. Novaković: Water content in compositionally primitive asteroid families: insights from the main belt comets

12:40-13:00 I. Milić-Žitnik: Functional relations between time, resonance strengths, Yarkovsky drift speeds and eccentricities in motions of resonant asteroids

13:00-13:30 N. Todorović: Short term chaos in the Solar System

13:30-14:00 K. Miljković: Structure of Mars: lessons learnt from the InSight mission and impact modelling

14:00-15:00 Lunch break

Cosmology: chair Miroslav Mičić

15:00-15:30 S. Samurović: The centenary of the Jeans equations: dark matter in massive early-type galaxies
15:30-16:00 M. Simonović: Cosmology from current and future spectroscopic galaxy surveys
16:00-16:30 V. Gluščević: Dark matter throughout cosmic history
16:30-17:00 Z. Lukić: Intergalactic medium as a probe of reionization, physics and cosmology

17:00-17:30 Afternoon Break

Cosmology: chair Edi Bon

17:30-18:00 D. Kereš: Galaxy evolution with stellar feedback and cosmic rays
18:00 – 18:20 G. Zaharijas: TeV dark matter search program with the Cherenkov Telescope Array: the strategy and synergies with current gamma-ray experiments
18:20-18:40 M. Jovanović: Dynamical modeling of nearby galaxies
18:40-19:00 D. Kirilova, M. Panayotova: SFC baryogenesis model preference for different inflationary scenarios and types of reheating in the early Universe
19:00-19:20 A. Mitrašinović et al.: Various effects of galaxy flybys: dependence on impact parameter

Saturday, October 17

History, philosophy and teaching of astronomy: chair Goran Damljanović

09:00-09:20 M. S. Dimitrijević: Archaeoastronomy and the corresponding research in Serbia
09:20-09:50 B. Stojičić: Zašto je važno izučavanje astronomije u toku srednjoškolskog obrazovanja?
09:50-10:10 A. Bajić, M. S. Dimitrijević: Hermes possible astronomical aspects
10:10-10:30 S. Milošević et al.: Department of Astronomy at Petnica Science Center: 2018-2020
10:30-10:50 Ž. Mijajlović: Saturn – a Serbian journal on astronomy from the past
10:50-11:10 Ž. Distrelo: Radio watching Draconids from 2005-2015

11:10-11:30 Morning Break

History, philosophy and teaching of astronomy: chair Milan Dimitrijević

11:30-12:00 M. Pović: Development of astronomy and space science in Africa
12:00-12:20 O. Atanacković, B. Arbutina: Astronomy education in Serbia 2017-2020
12:20-12:40 B. Arbutina, O. Atanacković, A. Kovačević: Department of astronomy at the Faculty of Mathematics University of Belgrade in the period 1999-2020
12:40-13:00 B. Arbutina: The first Yugoslav National Committee for astronomy
13:00-13:20 S. Vidojević et al.: Serbia in astronomical contests between 2017 - 2020
13:20-13:40 Z. Tomić et al.: Activities of the Astronomical Society Eureka in the period 2017-2020

14:00-15:00 Lunch break

15:00-16:15 Poster Session- 5min presentation chair Dušan Marčeta and Dušan Onić

Posters:

- P01. A. B. Nedeljković: Rogue planets as means of transport
- P02. A. Čiprijanović et al.: Deep merge: studying distant merging galaxies with deep neural networks
- P03. A. Kolarski, D. Grubor: Monitoring VLF signal perturbations induced by Solar activity during January 2005
- P04. B. Arbutina, M.M. Vučetić, P. Kostić: Observations of selected standard stars in narrow-band filters from the AS Vidojevica
- P05. I. Milić Žitnik: The relationship between the ‘limiting’ Yarkovsky drift speed and asteroid families Yarkovsky V-shapes
- P06. L. Slavcheva-Mihova, B. Mihov: Spectral energy distribution of Mrk 509
- P07. N. Janc et al.: Correspondence between Milutin Milanković and Else Wegener Köppen
- P08. V. Trajkovska: Fragmenti iz istorijata izgradnje Astronomske opservatorije na Velikom Vračaru
- P09. V. A. Srecković, Lj. M. Ignjatović, M. S. Dimitrijević: Rydberg atomic complexes in astrophysical plasmas
- P10. V. A. Srecković, D. M. Šulić: Research of the impact of strong Solar flares on the lower Ionosphere by VLF radio waves and satellite observations
- P11. V. A. Srecković, Lj. M. Ignjatović, M. S. Dimitrijević: Destruction of diatomic molecular ions of astrophysical interest
- P12. Z. Majlinger, M. S. Dimitrijević, V. A. Srecković: Stark broadening of Co II spectral lines for stellar spectra investigations
- P13. Ž. Medić, D. V. Lukić: Additive manufacturing of Solar sail
- P14. Z. Malkin: Comparison of ground-based and GAIA-based photometry for astrometric radio sources
- P15. Z. Tomić: IASC project in Serbia
- P16. V. Mijatović, Z. Cvetković, G. Đurašević: Kompleks astronomske opservatorije u Beogradu i Astronomska stanica Vidojevica

16:15-16.35 Closing Conference

Monday, October 19

General Assembly of Serbian Astronomical Society