

XII SERBIAN-BULGARIAN ASTRONOMICAL CONFERENCE PROGRAMME

GREEN. INPERSON

BLUE VIRTUAL

BLACK NO DECISION

Friday, September 25

12:00 – 16:00 Arrival

16:00 – 17:00 Registration (at the reception of the Hotel Moravica)

17:00 – 17:30 Opening ceremony

Chairs: Ognyan Kounchev and Vladimir Srećković

17:30 – 19:00 Round table: COLLABORATION BETWEEN SERBIAN AND
BULGARIAN ASTRONOMERS - PRESENTATION OF THE
EXISTING PROJECTS

20:00 - Welcome cocktail

Saturday, September 26

Chair: Luka Č. Popović

09:25 – 09:50 Dejan Urošević: PROPER MOTION OF Cyg LOOP FILAMENTS

09:50 – 10:15 Renada Konstantinova-Antova: MAGNETIC FIELD AND
ACTIVITY STUDY IN M GIANT STARS

10:15 – 10:30 Isidora Jankov: APPLICATIONS OF MANIFOLD LEARNING
TECHNIQUES TO SPECTRAL PARAMETERS OF QUASARS

10:30 – 11:00 Coffee break

Chair: Katya Georgieva

11:00 – 11:25 Rositsa Miteva: A NEW SPACE WEATHER SERVICE IN
BULGARIA: THE MULTI-ENERGY PROTON EVENT
CATALOG

11:25 – 11:50 Miroslava Vukčević: SOLITONS IN THE IONOSPHERE –
ADVANTAGES AND PERSPECTIVE

11:50 – 12:15 Yoana Nakeva: POLARIZATION OF WHITE-LIGHT SOLAR
CORONA DURING TOTAL SOLAR ECLIPSES

12:15 – 12:30 Saša Topić APPLICATIONS OF PHOTONICS IN
EXOPLANETOLOGY

12:30 – 14:30 Lunch

Chair: Nikola Petrov

- 14:30 – 14:55 Milan S. Dimitrijević: THE MODIFIED SEMIEMPIRICAL METHOD (1980-2020)
- 14:55 – 15:20 Srđan Bukvić: ASTROPHYSICALLY INTERESTING STARK PARAMETERS MEASURED IN LASER-INDUCED PLASMA
- 15:20 – 15:35 Magdalena Christova: STARK BROADENING OF Be II SPECTRAL LINES
- 15:35 – 15:50 Mariyana Bogdanova: STUDY OF THE FRACTAL DIMENSIONS IN THE MOLECULAR CLOUD ROSETTE BY USE OF DENDROGRAM ANALYSES
- 15:50 – 16:05 Zlatko Majlinger, Milan Dimitrijević: STARK BROADENING OF Co II LINES IN STELLAR ATMOSPHERES

16:05 – 16:35 Coffee break

Chair: Dejan Urošević

- 16:35 – 17:00 Aleksandra Bajić VENUS IN THE MYTHOLOGY OF THE SOUTHERN SLAVS
- 17:00 – 17:25 Milan S. Dimitrijević MYTHOLOGICAL ORIGIN OF CONSTELLATIONS AND THEIR DESCRIPTION: ARATUS, PSEUDO-ERATOSTHENES, HYGINUS
- 17:25 – 17:40 Aleksandra Bajić: A PAIR OF MONUMENTAL MEDIEVAL BOSNIAN UMBSTONES (STEĆAKS) FROM DONJA ZGOŠĆA
- 17:40 – 17:55 Petar V. Vuca: SOLAR WALTZ

Sunday, September 27

Chair: Vladimir Srećković (EUROPLANET SESSION)

- 10:30 – 10:40 EUROPLANET INFORMATION
- 10:40 – 11:05 Aleksandra Nina: ACTIVITIES OF SERBIAN SCIENTISTS IN EUROPLANET
- 11:05 – 11:30 Nikola Veselinović: COSMIC RAY FLUX MEASUREMENTS AT BELGRADE COSMIC RAYS STATION DURING SOLAR CYCLE 24
- 11:30 – 11:55 Ognyan Kounchev, Georgi Simeonov: SOME APPLICATIONS OF WAVELET ANALYSIS TO PHENOMENA IN THE IONOSPHERE
- 11:55 – 12:20 Ramesh Chandra: CHARACTERISTICS OF SEPs ASSOCIATED WITH SOLAR FLARES

12:30 Lunch and afternoon excursion

Monday, September 28

Chair: Ognyan Kounchev

09:55 – 10:20 Goran Damljanović: GAIA DR3 AND SOME RESULTS OF SERBIAN-BULGARIAN COOPERATION

10:20 – 10:35 Milan Stojanović: SERBIAN-BULGARIAN OBSERVATIONS OF GAIA ALERTS (GAIA-FUN-TO) DURING 2019

10:35 – 10:50 Miljana Jovanović: COLOR VARIABILITY OF SOME QUASAR IMPORTANT TO THE ICRF -- GAIA CRF LINK

10:50 – 11:20 Coffee break

Chair: Milan S. Dimitrijević

11:20 – 11:45 Viktor Afanasiev: A NEW APPROACH TO MEASURING THE SIZE OF THE DUST SUBLIMATION REGION IN AGNs

11:45 – 12:10 Dragana Ilić, Lyuba Slavcheva-Mihova: THE REVERBERATION MAPPING OF QUASARS IN TOTAL AND POLARIZED LIGHT

12:10 – 12:25 Elena Shablovinskaya STOKES POLARIMETER FOR 1-METER TELESCOPE

12:25 – 12:40 Djordje Savić: BROAD LINE POLARIZATION IN ACTIVE GALACTIC NUCLEI: MODELS AND OBSERVATIONS

12:40 – 12:55 Eugene Malugin: THE FIRST RESULTS OF THE PHOTOMETRIC REVERBERATION PROJECT AT THE 1-M TELESCOPE OF SAO RAS

12:55 – 13:10 Orlin Stanchev: TRACING THE LOCAL MORPHOLOGY OF THE MOLECULAR CLOUD ROSETTE USING MOLECULAR-LINE AND DUST-EMISSION DATA

13:05 – 14:30 Lunch

Chair: Dragana Ilić

14:30 – 14:55 Rade Pavlović: LUCKY IMAGING AT AS VIDOJEVICA: PRESENT STATE AND FUTURE PLANS

14:55 – 15:10 Svetlana Boeva: OSCILLATIONS IN KR Aur AT MINIMUM

15:10 – 15:25 Yordan Darakchiev: DEEP LEARNING FOR CLASSIFICATION OF LONG PERIOD VARIABLE STARS IN THE LOCAL GROUP

15:25 – 15:40 Stanislav Milošević: N-BODY SIMULATIONS OF STELLAR STREAMS, BARS, SHELLS AND RINGS IN SPIRAL GALAXIES

15:40 – 16:00 Coffee break

Chair: **Rumen Bachev**

16:00 – 16:25 Nikola Petrov: SHADOW BANDS AND RELATED
ATMOSPHERIC CONDITIONS REGISTERED DURING
TOTAL SOLAR ECLIPSES

16:25 – 16:40 Yanko Nikolov: SPECTROPOLARIMETRIC OBSERVATIONS
OF THE RECURRENT NOVAE

16:40 -16:55 Lyubov Marinkova: EXTRACTION OF A SECOND POWER-LAW
TAIL OF THE (COLUMN-)DENSITY DISTRIBUTION IN
STAR-FORMING CLOUDS

Chair **Maša Lakićević**

17:00 – 19:00 **Poster presentation**

20:00 Conference dinner

Tuesday, September 29

Chair: **Viktor Afanasiev (Elena Shablovinskaya)**

10:00 – 10:25 Jelena Petrović EVOLUTION OF MASSIVE BINARY SYSTEMS

10:25 – 10:50 Evgeny Mikhailov: NO-Z MODEL FOR MAGNETIC FIELDS OF
ACCRETION DISCS

10:50 – 11:20 Coffee break

Chair: **Andjelka Kovačević**

11:20 – 11:45 Branko Dragovich: ON COSMOLOGY OF NONLOCAL
GRAVITY

11:45– 12:10 Sava Donkov and Todor Velchev: DENSITY PROFILE OF A
SELF-GRAVITATING POLYTROPIC TURBULENT FLUID IN
THE CONTEXT OF MOLECULAR CLOUDS

12:10 – 12:30 Closing the conference

12:30 – 14:00 Lunch

LIST OF POSTERS

P01. Bojan Arbutina ON THE DISTRIBUTION FUNCTION OF PARTICLES AT QUASI-PARALLEL COLLISIONLESS SHOCKS

P02. R. Bachev, A. Strigachev OPTICAL FOLLOW-UP OF TRANSIENT EVENTS FROM BELOGRADCHIK OBSERVATORY IN THE ERA OF THE MULTI-MESSENGER ASTRONOMY

P03. Daniela Boneva MID-CYCLE OBSERVATIONS OF CR Boo AND ESTIMATION OF THE SYSTEM PARAMETERS

P04. Natalie Janc MILUTIN MILANKOVIĆ AND ASSOCIATES IN THE CREATION OF THE “KANON”

P05. Daniela Kirilova INFLATIONARY MODELS, REHEATING AND SCALAR FIELD CONDENSATE BARYOGENESIS

P06. Aleksandra Kolarski STORM ACTIVITY OVER BALKAN REGION DURING MAY 2009

P07. Kostadinka Koleva, Rositsa Miteva PRESENTATION OF THE PROJECT “ERUPTIONS, FLOWS AND WAVES IN SOLAR ATMOSPHERE AND THEIR ROLE IN SPACE WEATHER”

P08. Andjelka Kovačević SUPERMASSIVE BLACK HOLE BINARY CANDIDATE PG 1302-102: OSCILLATIONS AND PERTURBATION IN THE PHOTOMETRIC LIGHT CURVE

P09. Jelena Kovačević Dojčinović THE SPECTRAL PROPERTIES OF THE LARGE SAMPLE OF AGN TYPE 2

P10. Maša Lakičević THE SPECTROSCOPIC CORRELATIONS AND MODEL OF DUSTY HYPERBOLOID WITH A THIN DISK

P11. Sladjana Marčeta Mandić THE INFLUENCE OF THE INTERNAL REDDENING ON ESTIMATION OF BLACK HOLE MASS IN QUASARS

P12. Boyko Mihov DATA MINING: ANALYSIS OF THE HQM AND JOMPQ LIGHT CURVES OF AGNs

P13. Boyko Mihov INTRA-NIGHT MONITORING OF THE BLAZAR 0716+714: RESULTS FROM THE 2011 CAMPAIGN

P14. Rositsa Miteva OCCURRENCE RATE AND CAUSAL RELATIONSHIP OF EXTREME SPACE WEATHER EVENTS

P14. Aleksandra Nina LOWER IONOSPHERE DISTURBANCES: THEIR POSSIBLE RELATIONSHIP WITH EARTHQUAKES, AND INFLUENCE ON SATELLITE SIGNALS

P15. Petya Pavlova STUDY OF THE BRIGHTNESS SPREADING IN SOLAR ERUPTIVE PROMINENCE IMAGES

P16. Luka Č. Popović MICROLENSING OF POLARIZED LIGHT OF THE GRAVITATIONAL LENS J1004+4112

P17. Evgeni Semkov, Nikola Petrov SOME OBSERVATIONS ON EXTRATERRESTRIAL SOLAR VARIABILITY AND INFLUENCE OVER ATMOSPHERIC OZONE CONCENTRATION AND SOLAR UV RADIATION FLUXES

P18. Lyuba Slavcheva-Mihova STAR FORMATION IN THE HOST GALAXIES OF RADIO-QUIET QUASARS

P.19. Lyuba Slavcheva-Mihova BLACK HOLE MASSES AND BROAD LINE REGION GEOMETRY OF QUASARS

P20. Vladimir Srećković DESTRUCTION OF SOME MOLECULAR IONS OF ASTROPHYSICAL INTEREST

P21. Vladimir Srećković DISTURBANCES OF THE LOWER IONOSPHERE INDUCED BY SOLAR FLARES DURING TRANSITION PHASE OF 24 SOLAR CYCLE

P22. Vladimir Srećković COOPERATION BETWEEN THE ASTRONOMICAL OBSERVATORY IN BELGRADE AND INSTITUTE OF PHYSICS BELGRADE IN INVESTIGATION OF COLLISIONAL AND RADIATIVE ATOMIC PROCESSES IN ASTROPHYSICS"

P23. Saša Topić ROLE OF DIFFRACION LIMITED PHOTONIC SPECTROGRAPHS IN EXOPLANETOLOGY: CASE STUDY OF HPCFC COUPLED ECHELLE SPECTROGRAPH – MODAL STABILITY, SPECTRAL SENSITIVITY AND NOISE FLOOR FOR DETECION OF SUPER EARTHS

P24. Tsvetan Tsvetkov QUASI-PERIODIC VELOCITY FLUCTUATIONS IN ERUPTIVE PROMINENCES OBSERVED BY AIA/SDO

P25. Krasimira Yankova THE ACCRETION DISK IN THE GALACTIC NUCLEI