

A&M DATA

The fifth Meeting on Astrophysical Spectroscopy - A&M DATA - Astronomy & Earth Observations

Palić, Serbia, September 12 – 15, 2023

PROGRAMME

FIRST DAY. SEPTEMBER 12, 2023 (Tuesday)	
16:00-18:00	Arrival and Registration
18:00-18:15	Opening ceremony (Vladimir Srećković, Milan Dimitrijević)
18:15-18:30	Milan S. Dimitrijević, A brief history of the A&M DATA meetings
18:30-19:00	Magdalena D. Christova, Milan S. Dimitrijević, Sylvie Sahal-Bréchet, On the Stark broadening parameters of N VI spectral lines (Invited lecture)
19:00-20:00	Welcome Cocktail
SECOND DAY. SEPTEMBER 13, 2023 (Wednesday)	
Chairman - Vladimir Srećković	
10:00-10:30	Nicolina Pop, E. Djuissi, J. Bofelli, J. Zs Mezei, F. Iacob, I. F. Schneider, Dissociative Recombination and ro-vibrational excitation of molecular cations by electrons: new datasets (cross sections and rate coefficients) -impact in astrophysics (Invited lecture)
10:30-11:00	Ilija B. Simonović, Danko V. Bošnjaković, Saša Dujko, Simulations of positive and negative streamers in the AMReX environment (Invited lecture)
11:00-11:15	Nikola Cvetanović, Saša S Ivković, Bratislav M. Obradović, Spectroscopic method for nitrogen impurity estimation in helium atmospheric discharge
11:15-11:30	Coffee Break
Chairman - Nicolina Pop	
11:30-12:00	Vesna Borka Jovanović, Duško Borka, Predrag Jovanović, Study of radio spectral index of radio galaxy DA 240 (Invited lecture)
12:00-12:30	Duško Borka, Vesna Borka Jovanović, Salvatore Capozziello, Predrag Jovanović, Constraining theories of gravity by velocity distribution of elliptical galaxies (Invited lecture)
12:30-12:45	Milan S. Dimitrijević, Magdalena D. Christova, On the Stark broadening parameters of Al IV spectral lines for stellar spectra analysis and synthesis (Invited lecture)
12:45-13:00	Nenad M. Sakan, Z Simić, M Dechev, Vladimir A. Srećković, The close vicinity ions as modifiers of the mean form of cut-off potential, simple approach
13:00-15:00	Lunch Break

A&M DATA

15:00-16:00	Poster session 1 (Chairman - Nikola Cvetanović and Aleksandra Kolarski)
	Jovica Jovović, Gordana Lj. Majstorović, The broadening of carbon spectral lines emitted from a pulsed atmospheric pressure gas discharge source with graphite cathode
	Željka D. Nikitović, Zoran M. Raspopović, Transport properties of H_2^+ ions in H_2 gas
	Jelena Barović, Vladimir A. Srećković, Aleksandra Kolarski, Examination of the ionospheric response to intense solar activity from September 6 to 10, 2017
	Vladimir A. Srećković, Ljubinko M. Ignjatović, Sanja Tošić, Veljko Vujčić, Collisional and radiative processes involving some small molecules: cross sections and rate coefficients
	Veljko Vujčić, Darko Jevremović, Vladimir A. Srećković, ACol – Database for collisional processes
	Nikola V. Ivanović, Nikodin V. Nedić, Ivan R. Videnović, Djordje Spasojević, Nikola Konjević, Stark polarization spectroscopy in the cathode sheath of a Grimm-type glow discharge in neon
16:00 – 18:00	Vladimir A. Srećković, Ljubinko M. Ignjatović, Milan Dimitrijević, Nikolai Bezuglov, Collisional processes involving Rydberg atoms: Rate coefficients
	Work in Sections (Mini-Projects) 1-6
20:00	Conference Dinner
THIRD DAY. SEPTEMBER 14, 2023 (Thursday)	
Chairman – Magdalena Christova	
10:00-10:30	Jelena B. Maljković, Jelena Vukalović, F. Blanco, G. García, Bratislav P. Marinković, Experimental and theoretical differential cross sections for elastic electron scattering from isoﬂurane molecule at 100eV (Invited lecture)
10:30-11:00	Jelena Marjanović, Dragana Marić, Zoran Lj. Petrović, The role of breakdown data in atmospheric studies (Invited lecture)
11:00-11:15	Filip Arnaut, Aleksandra Kolarski, Alternative Evaluation Metrics for Machine Learning Model Selection in Ionospheric VLF Amplitude Data Exclusion
11:15-11:30	Coffee Break
Chairman – Milan Dimitrijević	
Special Session:	
<i>Astronomy and Earth Observations: multi-instrumental approach and theory</i>	
11:30-12:00	Maletić M. Dimitrije, Veselinović B. Nikola, Savić R. Mihailo, Dragić L. Aleksandar, Banjanac M. Radomir, Joković R. Dejan, Knezević David, Travar Miloš, Udovičić I. Vladimir, Study on 2021 November 4 Forbush decrease with Belgrade muon station (Invited lecture)
12:00-12:30	Darije Maričić, Filip Šterc, Anatoly Belov, Dragan Roša, Damir Hržina, Ivan Romštajn, Galactic Cosmic Ray Variation Caused by Different Structural Elements of Isolated Earth-Impacting Coronal Mass Ejection (Invited lecture)
12:30-13:00	Aleksandra Kolarski, Lower ionosphere influenced by high-class Solar flare events as observed through VLF measurements (Invited lecture)
13:00-13:15	Maja Kuzmanoski, Zorica Podražčanin, Ana Ćirišan, Zoran Mijić, Aerosol vertical profiles in Belgrade, Serbia, associated with different surface PM10 concentrations
13:30-18:00	Excursion

A&M DATA

18:00-19:00	Poster session 2 (Chairman - Nikola Veselinović and Zoran Mijić)
	Vladimir A. Srećković, Aleksandra Kolarski , Impact of strong solar flares on the lower ionosphere: radio waves, satellite observations and modeling
	Zoran R. Mijić, Maja Kuzmanoski, Luka Ilić , Data quality assurance and characterization of Belgrade Raman lidar station
	Filip Arnaut, Aleksandra Kolarski , Multilayer Perception Hyperparameter Fine-Tuning for Ionospheric VLF Amplitude Data Exclusion
	Mihailo R. Savić, Nikola B. Veselinović, Aleksandar L. Dragić, Dimitrije M. Maletić, Radomir M. Banjanac, Dejan R. Joković, David Knežević, Miloš Travar, Vladimir I. Udovičić , Classification of Forbush decrease events utilizing machine learning
	Shahrokh Pourbeyranvand , Observation of Earth's magnetic field in search for earthquake precursors
	Aleksandra Kolarski, Vladimir Srećković, Zoran Mijić , VLF propagation parameters modeling related to low intensity solar X-ray flares
	Zlatko Majlinger, Ivan Traparić , New perspectives in the analysis of Stark width regularities and systematic trends
FOURTH DAY. SEPTEMBER 15, 2023 (Friday)	
Chairman – Felix Iacob	
10:00-10:15	Nikola Veselinović, Aleksandra Kolarski, Vladimir A. Srećković, Zoran R. Mijić, Mihailo Savić, Aleksandar Dragić , Multi-instrumental investigation of extreme space weather events in September 2017: Data and modeling
10:15-10:30	Bratislav P. Marinković, Zoran Mijić , COST programme role within the Serbian multilateral collaboration in science and innovation framework
10:30-10:45	Zoran R. Mijić, Bratislav P. Marinković , Interdisciplinary research in the European Cooperation in Science and Technology – advantage or disadvantage?
10:45-11:15	Scientific Committee Meeting
11:15	Closing Ceremony and Best poster Award

Sections (Mini-projects)

- M1 Modeling the Atmosphere: data&models,
- M2 Big data in Astronomy and Earth Observations,
- M3 A&M DATA and HPC,
- M4 A&M DATA and standards,
- M5 Radiative & Collisional Processes: databases,
- M6 Spectra: stellar and laboratory plasmas.