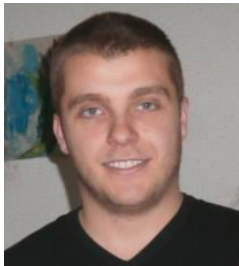


Marko Pavlović



Website: www.math.rs/~marko
Email: marko@matf.bg.ac.rs
Phone: (+381)11-2027-827
Date of birth: July 16, 1987.

CONTACT INFORMATION

Department of Astronomy
Faculty of Mathematics
University of Belgrade
Studentski trg 16
11000 Belgrade, Serbia
office 809, 5th floor

WORKING EXPERIENCE

Research Assistant

Feb 2012 to present

Job description: distributed computing and simulations
Faculty of Mathematics, Department of Astronomy
University of Belgrade

Junior Researcher

Jan 2011 to Feb 2012

Job description: statistical analysis of supernova remnants
Faculty of Mathematics, Department of Astronomy
University of Belgrade

Scientific Project

Jan 2011 to present

“Emission nebulae: structure and evolution” (176005)
Financed by the Ministry of Education, Science, and
Technological Development of the Republic of Serbia
(Basic Research: Earth sciences and Astronomy)
Project PI: dr Dejan Urošević

EDUCATION

Faculty of Mathematics, University of Belgrade, Serbia

Ph.D., Department of astronomy (Astrophysics Major), *Expected:* Winter 2017

- Title: *Modeling the radio evolution of supernova remnants by using hydrodynamic simulations and non-linear particle acceleration*
- Advisor: Urošević Dejan, Ph.D

M.S., Department of astronomy (Astrophysics Major), Sep 2011

- Title: *New Σ -D relation for Galactic supernova remnants*
- Advisor: Urošević Dejan, Ph.D

B.S., Department of astronomy (Astrophysics Major), 9.97/10 with honors, Sep 2010

COMPUTER SKILLS

DOS, UNIX, Windows, Linux
C, C++, OpenMPI, Python, Pascal, JavaScript, PHP, MySQL

MATLAB, Mathematica, Origin, IDL, ParaView, VisIt and others

LANGUAGES English - full professional proficiency
Russian - limited working proficiency

RESEARCH INTERESTS particle acceleration at shocks, evolution of supernova remnants (SNRs), radio astrophysics, cosmic rays, magnetohydrodynamic and particle-in-cell simulations, high performance computing, statistics and Monte Carlo methods, machine learning

REFEREED JOURNAL PUBLICATIONS Pavlović, M. Z., 2017: "Hydrodynamical and radio evolution of young supernova remnant G1.9+0.3 based on the model of diffusive shock acceleration", Monthly Notices of the Royal Astronomical Society, Vol. 468, 1616 (15pp)

Bozzetto, L. M., Filipović, M. D., Urošević, D., Pavlović, M. Z., Arbutina, B., Vukotić, B., Kavanagh, P. J., Maggi, P., Sasaki, M., Haberl, F., 2016: "Statistical analysis of supernova remnants in the Large Magellanic Cloud", Astrophysical Journal Supplement Series, in press

Vučetić, Dobardžić, A., Pavlović, M. Z., Panuti, T. G., Petrov, N., Göker, Ü. D., Ercan, E. N., 2015: "Optical observations of the nearby galaxy IC342 with narrow band [SII] and H α filters. II - The detection of 16 optically - identified supernova remnant candidates", Serbian Astronomical Journal, No. 191, 67 (8pp)

Pavlović, M. Z., Dobardžić, A., Vukotić, B., Urošević, D., 2014: "Updated radio Sigma-D relation for Galactic supernova remnants", Serbian Astronomical Journal, No. 189, 25 (16pp)

Pavlović, M. Z., Urošević, D., Vukotić, B., Arbutina, B. and Göker, Ü. D., 2013: "The radio surface brightness to diameter relation for Galactic supernova remnants: sample selection and robust analysis with various fitting offsets", The Astrophysical Journal Supplement Series, Vol. 204, 4 (16pp)

Arbutina, B., Urošević, D., Vučetić, M. M., Pavlović, M. Z. and Vukotić, B., 2013: "Modified equipartition calculation for supernova remnants. Cases $\alpha=0.5$ and $\alpha=1.0$ ", The Astrophysical Journal, Vol. 777, 31 (3pp)

Zeković, V., Arbutina, B., Dobardžić, A., Pavlović, M. Z., 2013: "Relativistic non-thermal bremsstrahlung radiation", International Journal of Modern Physics A, Vol. 28, No. 29, 1350141 (17pp)

Vučetić, M. M., Arbutina, B., Urošević, D., Dobardžić, A., Pavlović, M. Z., Panuti, T. G., Petrov, N., 2013: "Optical observations of the nearby galaxy IC342 with narrow band [SII] and H α filters", Serbian Astronomical Journal, No. 187, 11 (8pp)

Arbutina, B., Urošević, D., Vučetić, M. M., Pavlović, M. Z. and Vukotić, B., 2012: "Modified equipartition calculation for supernova remnants", The Astrophysical Journal, Vol. 746, 79 (8pp)

ARTICLES APPEARING IN EDITED VOLUMES Arbutina, B., Urošević, D., Vučetić, M. M., Pavlović, M. Z., 2011: "Equipartition calculation for supernova remnants", Proceedings of the Cosmic Rays and their Interstellar Medium Environment CRISM) conference, 26 June - 1 July, 2011, Montpellier, France;

Mem. S.A.It., 82, 822-823

Pavlović, M. Z., Urošević, D., Arbutina, B., 2016: "Radio evolution of supernova remnants including non-linear particle acceleration", Cosmic Ray Origin - beyond the standard models, 18–24. September 2016, San Vito di Cadore, Italy, Nuclear and Particle Physics Proceeding, in press

ABSTRACTS
APPEARING IN
EDITED VOLUMES

Vučetić, M. M., Arbutina, B., Urošević, D., Dobardžić, A. and Pavlović, M. Z., 2012: "Observations of Galaxy IC342 in Narrow Band [SII] and H α Filters", VIII Serbian-Bulgarian Astronomical Conference, 8-12 May, Leskovac, (eds. Dimitrijević, M. S. and Tsvetkov, M.), p. 19.

Pavlović, M. Z., Dobardžić, A., Urošević, D., Arbutina, B., Onić, D., Vukotić, B., 2014: "Updated radio surface-brightness-to-diameter relation for Galactic supernova remnants", Book of Abstracts of the XVII National Conference of Astronomers of Serbia; September 23-27, 2014, Belgrade; (Eds. Šegan, S., Ninković, S., Kovačević, A. and Novaković, B.), p. 55

CONTRIBUTED
PRESENTATIONS

Urošević, D., Pavlović, M. Z., Arbutina, B., Dobardžić, A.: "The Modified Equipartition Calculation for supernova remnants with the spectral index $\alpha = 0.5$ ", XXVIIth General Assembly of IAU, SpS4 (New era for studying interstellar and intergalactic magnetic fields); August 20-31, 2012, Beijing, China

INVITED
PRESENTATIONS

"New $\Sigma-D$ relation for Galactic supernova remnants", Second Symposium Mathematics and applications, Belgrade, May 27-28, 2011, p. 149-155

AWARDS

June 2002, received award "Best primary school student in generation"

July 2002, BRONZE MEDAL, The 6th Junior Balkan Mathematical Olympiad Targu-Mures, Romania (after 1st prize at Republic and Federal competition in Mathematics, Serbia)

Special international prize for competition "Physics talents search" (organized within the framework of the "World year of Physics 2005")

June 2006, received award "Best high school student in generation"

July 2006, HONORABLE MENTION, The 37th International Physics Olympiad, Singapore (after 1st prize at National competition in Physics, Serbia)

December 2009, received Eurobank EFG Scholarship

November 2010, prize "Prof. Zaharije Brkić" for the best graduate student for 2009/2010 school year at the Department of Astronomy, Faculty of Mathematics, University of Belgrade

REFERENCES

dr Dejan Urošević
Full Professor and Vice Dean
Department of Astronomy
Faculty of Mathematics
University of Belgrade

Phone: (+381)11-2027-827
E-mail: dejanu@matf.bg.ac.rs