

# CURRICULUM VITAE

DEJAN UROŠEVIĆ (born 1970)      8. IX 2017.

## Education History

B.Sc. 1994 Astrophysics, Department of Astronomy, Faculty of Mathematics, University of Belgrade

M.Sc. 1996 Astrophysics, Department of Astronomy, Faculty of Mathematics, University of Belgrade

Supervisor: Prof. Dr. Jelena Milogradov-Turin

Title: "Geometry of radio loops"

Ph.D. 2001 Astrophysics, Department of Astronomy, Faculty of Mathematics, University of Belgrade

Supervisors: Prof. Dr. Nebojsa Duric and Prof. Dr. Jelena Milogradov-Turin

Title: "The  $\Sigma - D$  relation as an indicator of radio loop origin"

## Summary of Academic Interests

Teaching: Undergraduates and Graduate students.

Research: radio astrophysics, particle acceleration, supernova remnants, planetary nebulae, HII regions.

## Employment History

Junior teaching assistant, Department of Astronomy, Faculty of Mathematics, University of Belgrade (1994-1997)

Teaching assistant, Department of Astronomy, Faculty of Mathematics, University of Belgrade (1997-2001)

Assistant professor, Department of Astronomy, Faculty of Mathematics, University of Belgrade (2001 - 2008)

Associate professor, Department of Astronomy, Faculty of Mathematics, University of Belgrade (2008 - 2015)

Professor, Department of Astronomy, Faculty of Mathematics, University of Belgrade (2015 - ...)

## Academic Awards

Prize: "Prof. Zaharije Brkić" for the best undergraduate student for 1993/1994 school year at the Department of Astronomy, Faculty of Mathematics, University of Belgrade. The annual award of Faculty of Mathematics for scientific results in year 2007th.

## Articles in Refereed Journals

1. J. Milogradov-Turin and D. Urošević, 1997: "Geometry of Large Radio Loops at 1420 MHz", Bulletin Astronomique de Belgrade, No. 155, 41-45.
2. D. Urošević and J. Milogradov-Turin, 1998: "Distances to the Origen and Monoceros Loops", Serbian Astronomical Journal, No. 157, 35-38.
3. D. Urošević, 2002: "Empirical  $\Sigma - D$  Relations and Main Galactic Radio Loops", Serbian Astronomical Journal, No. 165, 27-43. (review paper)
4. D. Urošević, 2003: " $\Sigma - D$  Relations and Main Galactic Radio Loops", Astrophysics & Space Science, vol. 283, 75-86.
5. D. Urošević, N. Duric, and T. Pannuti, 2003: "A Modified Theoretical  $\Sigma - D$  Relation for Supernova Remnants: I. The Case of Constant Temperature Within the Supernova Remnant", Serbian Astronomical Journal, No. 166, 61-66.
6. D. Urošević, N. Duric, and T. Pannuti, 2003: "A Modified Theoretical  $\Sigma - D$  Relation for Supernova Remnants: II. The Case of Variable Temperature Within the Supernova Remnant", Serbian Astronomical Journal, No. 166, 67-70.
7. B. Arbutina, D. Urošević, M. Stanković, and Lj. Tešić, 2004: " $L - D$  Dependence for Supernova Remnants and its Connection with the  $\Sigma - D$  Relation", Monthly Notices of the Royal Astronomical Society, vol. 350, 346-350.
8. D. Urošević, T. Pannuti, N. Duric, and A. Theodorou, 2005: "The  $\Sigma - D$  Relation for Supernova Remnants in Nearby Galaxies", Astronomy & Astrophysics, vol. 435, 437-447.
9. B. Vukotić, I. Bojčić, T. G. Pannuti, and D. Urošević, 2005: "A Search for Candidate Radio Supernova Remnants in the Nearby Irregular Starburst Galaxies NGC 4214 AND NGC 4395", Serbian Astronomical Journal, No. 170, 101-110.
10. B. Arbutina and D. Urošević, 2005: " $\Sigma - D$  Relation for Supernova Remnants and its Dependence on the Density of ISM", Monthly Notices of the Royal Astronomical Society, vol. 360, 76-80.
11. D. Urošević and T. Pannuti, 2005: "Thermal Emission at Radio Frequencies from Supernova Remnants and a Modified Theoretical  $\Sigma - D$  Relation", Astroparticle Physics, vol. 23, 577-587.
12. D. Urošević, T. Pannuti and D. Leahy, 2007: "An Analysis of the Broadband (22-3900 MHz) Radio Spectrum of HB3 (G132.7+1.3): the Detection of Thermal Radio Emission from an Evolved Supernova Remnant?", The Astrophysical Journal Letters, vol. 655, L41-L44.
13. B. Vukotić, B. Arbutina and D. Urošević, 2007: "On the Magnetic Field Evolution in Shell-Like Supernova Remnants", Revista Mexicana de Astronomia y Astrofisica, vol. 43, 33-43.
14. D. Urošević, B. Vukotić, B. Arbutina and D. Ilić, 2007: "The  $\Sigma - D$  Relation for Planetary Nebulae: Preliminary Analysis", Serbian Astronomical Journal, No. 174, 73-76.

15. D. Onić, B. Arbutina and D. Urošević, 2008: "Radial Dependence of Extinction in Parent Galaxies of Supernovae", *Revista Mexicana de Astronomia y Astrofisica*, vol. 44, 103-110.
16. V. Borka, J. Milogradov-Turin and D. Urošević, 2008: "Brightness of Galactic Radio Loops at 1420 MHz", *Astronomische Nachrichten*, vol. 329, No. 4, 397-402.
17. J. L. Payne, M. D. Filipović, W. C. Millar, E. J. Crawford, A. Y. De Horta, F. H. Stootman and D. Urošević, 2008: "Optical Spectra of Radio Planetary Nebulae in the Large Magellanic Cloud", *Serbian Astronomical Journal*, No. 177, 53-59.
18. D. Onić and D. Urošević, 2008: "The Analysis of the Possible Thermal Emission at Radio Frequencies from an Evolved Supernova Remnant HB 3 (G132.7+1.3): Revisited", *Serbian Astronomical Journal*, No. 177, 67-71.
19. D. Urošević, B. Vukotić, B. Arbutina, D. Ilić, M. Filipović, I. Bojčić, S. Šegan and S. Vidojević, 2009: "The  $\Sigma - D$  Relation for Planetary Nebulae", *Astronomy & Astrophysics*, vol. 495, 537-546.
20. V. Borka Jovanović and D. Urošević, 2009: "The Monoceros radio loop: Temperature, brightness, spectral index and distance", *Astronomische Nachrichten*, vol. 330, No. 7, 741-748.
21. B. Vukotić, D. Urošević, M.D. Filipović and J.L. Payne, 2009: "The  $\Sigma - D$  Analysis of Recently Detected Radio Planetary Nebulae in the Magellanic Clouds", *Astronomy & Astrophysics*, vol. 503, 855-858.
22. B. Arbutina, D. Ilić, K. Stavrev, D. Urošević, B. Vukotić and D. Onić, 2009: "Optical Observations of M81 Galaxy Group in Narrow Band [SII] and  $H\alpha$  Filters: Holmberg IX", *Serbian Astronomical Journal*, No. 179, 87-94.
23. D. Urošević, B. Vukotić, B. Arbutina and M. Sarevska, 2010: "The orthogonal fitting procedure for determination of the empirical  $\Sigma - D$  relations for supernova remnants: application to starburst galaxy M82", *The Astrophysical Journal*, vol. 719, 950-957.
24. V. Borka Jovanović and D. Urošević, 2011: "Temperature, brightness and spectral index of Cygnus radio loop", *Revista Mexicana de Astronomia y Astrofisica*, vol. 47, 159-171.
25. D. Urošević and V. Borka Jovanović, 2011: "The brightness temperatures of the main Galactic radio-loops at 22 MHz", *The Open Astronomy Journal*, vol. 4, 218-221.
26. B. Arbutina, D. Urošević, M. M. Andjelić, M. Z. Pavlović and B. Vukotić, 2012: "Modified equipartition calculation for supernova remnants", *The Astrophysical Journal*, vol. 746, 79 (8pp).
27. L. M. Bozzetto, M. D. Filipović, E. J. Crawford, F. Haberl, M. Sasaki, D. Urošević, W. Pietsch, J. L. Payne, A. Y. De Horta, M. Stupar, N. Tothill, J. Dickel, Y.-H. Chu and R. Gruendl, 2012: "Multi-frequency study of the Large Magellanic Cloud supernova remnant J0529-6653 near pulsar B0529-66", *Monthly Notices of the Royal Astronomical Society*, vol. 420, 2588-2595.
28. D. Borka, V. Borka Jovanović and D. Urošević, 2012: "Spectra of the HB 21 supernova remnant: Evidence of spectrum flattening at the low frequencies", *Revista Mexicana de Astronomia y Astrofisica*, vol. 48, 53-60.
29. A. Y. De Horta, M. D. Filipović, L. M. Bozzetto, P. Maggi, F. Haberl, E. J. Crawford, M. Sasaki, D. Urošević, W. Pietsch, R. Gruendl, J. Dickel, N. Tothill, Y.-H. Chu, J. L. Payne, and J.D. Collier, 2012: "Multi-frequency study of supernova remnants in the Large Magellanic Cloud. The case of SNR J05307007", *Astronomy and Astrophysics*, vol. 540, A25 (6pp).
30. D. Onić, D. Urošević, B. Arbutina and D. Leahy, 2012: "On the existence of the radio thermally active Galactic supernova remnants", *The Astrophysical Journal*, vol. 756, 61 (11pp).
31. L. M. Bozzetto, M. D. Filipović, D. Urošević and E. J. Crawford, 2012: "Radio-continuum observations of small, radially polarised supernova remnant J05196902 in the Large Magellanic Cloud", *Serbian Astronomical Journal*, No. 185, 25-33.

32. M. Z. Pavlović, D. Urošević, B. Vukotić, B. Arbutina and Ü. D. Göker, 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).
33. A. Y. De Horta, J. D. Collier, M. D. Filipović, E. J. Crawford, D. Urošević, F. H. Stootman and N.F.H. Tothill, 2013: "Radio confirmation of Galactic supernova remnant G308.3-1.4", *Monthly Notices of the Royal Astronomical Society*, vol. 428, 1980-1985.
34. T. Prodanović, T. Bogdanović and D. Urošević, 2013: "Galactic fly-bys: new source of lithium production", *Physical Review D*, vol. 87, 103014 (10pp).
35. L. M. Bozzetto, M. D. Filipović, E.J. Crawford, M. Sasaki, P. Maggi, F. Haberl, D. Urošević, J. L. Payne, A. Y. De Horta, M. Stupar, R. Gruendl and J. Dickel, 2013: "Multifrequency study of SNR J0533-7202, a new supernova remnant in the LMC", *Monthly Notices of the Royal Astronomical Society*, vol. 432, 2177-2181.
36. B. Arbutina, D. Urošević, M. M. Vučetić, M. Z. Pavlović and B. Vukotić, 2013: "Modified equipartition calculation for supernova remnants. Cases  $\alpha = 0.5$  and  $\alpha = 1$ ", *The Astrophysical Journal*, vol. 777, 31 (3pp).
37. M. M. Vučetić, B. Arbutina, D. Urošević, A. Dobardžić, M. Z. Pavlović, T. G. Pannuti, N. Petrov, 2013: "Optical observations of the nearby galaxy IC342 with narrow band [SII] and H $\alpha$  filters. I", *Serbian Astronomical Journal*, No. 187, 11-18.
38. L. M. Bozzetto, P. J. Kavanagh, P. Maggi, M. D. Filipović, M. Stupar, Q. A. Parker, W. A. Reid, M. Sasaki, F. Haberl, D. Urošević, J. Dickel, R. Sturm, R. Williams, M. Ehle, R. Gruendl, Y.-H. Chu, S. Points and E. J. Crawford, 2014: "Multi-frequency study of a new Fe-rich supernova remnant in the Large Magellanic Cloud, MCSNR J0508-6902", *Monthly Notices of the Royal Astronomical Society*, vol. 439, 1110-1124.
39. B. Vukotić, M. Jurković, D. Urošević and B. Arbutina, 2014: "On calibration of some distance scales in astrophysics", *Monthly Notices of the Royal Astronomical Society*, vol. 440, 2026-2035.
40. L. M. Bozzetto, M. D. Filipović, D. Urošević, R. Kothes and E. J. Crawford, 2014: "Radio continuum study of Large Magellanic Cloud supernova remnant J0509-6731", *Monthly Notices of the Royal Astronomical Society*, vol. 440, 3220-3225.
41. E. J. Crawford, M. D. Filipović, R. L. McEntaffer, T. Brantseg, K. Heitritter, Q. Roper, F. Haberl and D. Urošević, 2014: "HF334: an unusual supernova remnant in the Small Magellanic Cloud", *The Astronomical Journal*, vol. 148, 99 (8pp).
42. D. Urošević, 2014: "On the radio spectra of supernova remnants", *Astrophysics & Space Science*, vol. 354, 541-552. (review paper)
43. M. Z. Pavlović, A. Dobardžić, B. Vukotić and D. Urošević, 2014: "Updated radio  $\Sigma - D$  relation for Galactic supernova remnants", *Serbian Astronomical Journal*, No. 189, 25-40.
44. M. M. Vučetić, B. Arbutina and D. Urošević, 2015: "Optical supernova remnants in nearby galaxies and their influence on star formation rates derived from H $\alpha$  emission", *Monthly Notices of the Royal Astronomical Society*, vol. 446, 943-958.
45. M. Lakićević, J. Th. van Loon, M. Meixner, K. Gordon, C. Bot, J. Roman-Duva, B. Babler, A. Bolatto, C. Engelbracht, M. Filipović, S. Hony, R. Indebetouw, K. Misselt, E. Montie, K. Okumura, P. Panuzzo, F. Patat, M. Sauvage, J. Seale, G. Sonneborn, T. Temim, D. Urošević and G. Zamarro, 2015: "The influence of supernova remnants on the interstellar medium in the Large Magellanic Cloud seen at 20-600  $\mu\text{m}$  wavelengths", *The Astrophysical Journal*, vol. 799, 50 (17pp).
46. D. Onić and D. Urošević, 2015: "On the continuum radio-spectrum of Cas A: possible evidence of the non-linear particle acceleration", *The Astrophysical Journal*, vol. 805, 119 (6pp).

47. P. Kostić, B. Vukotić, D. Urošević, B. Arbutina and T. Prodanović, 2016: "Interstellar medium structure and the slope of the radio  $\Sigma - D$  relation of supernova remnants", Monthly Notices of the Royal Astronomical Society, vol. 461, 1421-1430.
48. D. Onić, D. Urošević and D. Leahy, 2017: "A New Look at the Integrated Radio/Microwave Continuum Spectrum of Galactic Supernova Remnant IC 443", The Astronomical Journal, vol. 153, 32 (12pp).
49. H. Leverenz, M. D. Filipović, B. Vukotić, D. Urošević and K. Grieve, 2017: "Radio Planetary Nebulae in the Large Magellanic Cloud", Monthly Notices of the Royal Astronomical Society, vol. 468, 1794-1811.
50. L. M. Bozzetto, M. D. Filipović, B. Vukotić, M. Z. Pavlović, D. Urošević, P. J. Kavanagh, B. Arbutina, P. Maggi, M. Sasaki, F. Haberl, E.J. Crawford, Q. Roper, K. Grieve and S. D. Points, 2017: "Statistical Analysis of Supernova Remnants in the Large Magellanic Cloud", The Astrophysical Journal Supplement Series, vol. 230, 2 (30pp).
51. D. Urošević, M. Z. Pavlović, B. Arbutina, 2017: "On the physical foundation of equipartition in supernova remnants", The Astrophysical Journal Letters, *in preparation*

### Articles Appearing in Edited Volumes

1. J. Milogradov-Turin and D. Urošević, 1996: "The Origen and Monoceros Loops at 1420 MHz", Proceedings of the XI National Conference of Yugoslav Astronomers; October 9-11, 1996, Belgrade; (Eds. M. Vukićević-Karabin and Z. Knežević) Publ. Astron. Obs. Belgrade, No. 54, 47-48.
2. D. Urošević, 1999: "Main Radio Loops and Their Connection With Updated  $\Sigma - D$  Relations", Proceedings of the XII National Conference of Yugoslav Astronomers and International Workshop on the Development of Astronomical Databases; November 19-21, 1999, Belgrade; (Eds. L. Č. Popović and M. Dačić), Publ. Astron. Obs. Belgrade, No. 65, 111-113.
3. D. Urošević, 2002: "Updated  $\Sigma - D$  Relations and Main Radio Loops as SNRs", Ukrainian Journal of Physics, vol. 47 (No. 3), 301-306.
4. S. Stanimirović, L. Chomiuk, C. J. Salter, D. Urošević, R. Bhat and D. R. Lorimer, 2003: "A Possible Interaction Between SNR G42.8+0.6 and a Molecular Cloud", Proceedings of the XIII National Conference of Yugoslav Astronomers; October 17-20, 2002, Belgrade; (Eds. J. Milogradov-Turin and G. Popović), Publ. Astron. Obs. Belgrade, No. 75, 67-70.
5. M. Stanković, Lj. Tešić and D. Urošević, 2003: " $L - D$  Dependence for Supernova Remnants", Proceedings of the XIII National Conference of Yugoslav Astronomers; October 17-20, 2002, Belgrade; (Eds. J. Milogradov-Turin and G. Popović), Publ. Astron. Obs. Belgrade, No. 75, 71-74.
6. D. Urošević, 2004: "Evolucija radio-sjaja ostataka supernovih zvezda: najnoviji prilozi empiriji i teoriji"; Zbornik radova sa Kongresa fizičara Srbije i Crne Gore, Petrovac na moru 3-5. jun 2004; Urednici: N. Konjević, B. Vujičić i P. Miranović; Sekcija 7, 19-26.
7. D. Urošević, 2005: "Theoretical  $\Sigma - D$  Relation for Supernova Remnants", Proc. IV Serbian - Bulgarian Astronomical Conference, Belgrade 21-24 April 2004, eds. M.S. Dimitrijević, V. Golev, L.Č. Popović, M. Tsvetkov, Publ. Astron. Soc. "Rudjer Bošković", No. 5, 113-127.
8. V. Borka, J. Milogradov-Turin and D. Urošević, 2006: "Brightness of Main Galactic Radio Loops at 1420 MHz", Proceedings of the XIV National Conference of Astronomers of Serbia and Montenegro; October 12-15, 2005, Belgrade; (Eds. Z. Knežević, Zorica Cvetković and Milan M. Čirković), Publ. Astron. Obs. Belgrade, No. 80, 61-64.
9. B. Vukotić, B. Arbutina and D. Urošević, 2006: "Models of the magnetic field evolution in supernova remnants", Proceedings of the XIV National Conference of Astronomers of Serbia and

Montenegro; October 12-15, 2005, Belgrade; (Eds. Z. Knežević, Zorica Cvetković and Milan M. Čirković), Publ. Astron. Obs. Belgrade, No. 80, 95-97.

10. B. Arbutina, D. Urošević and B. Vukotić, 2007: "High Supernova Rate and Enhanced Star-Formation Triggered in M81-M82 Encounter", IAU Symposium, vol. 237, 391.

11. D. Urošević, 2007: "Radio Astronomy in Serbia: A Short Review", Proc. of the Vth Bulgarian - Serbian Conference on Astronomy and Space Science, Sofia 9 - 12 May 2006, eds. M.S. Tsvetkov, L.G. Filipov, M.S. Dimitrijević, L.Č. Popović, Supplement to the Bulgarian Journal of Physics, Vol. 34 (2), 82-85.

12. D. Urošević, 2007: "Nobelova nagrada za fiziku za 2006. godinu", Zbornik radova sa XXV republičkog seminara o nastavi fizike, April 12-14, Vrnjačka Banja, pp. 3-10.

13. V. Borka Jovanović and D. Urošević, 2008: "The Monoceros radio loop: temperature and brightness", Proceedings of the 24th SPIG; August 25-29, 2008, Novi Sad; (Eds. G. Malović, L. Č. Popović and M. S. Dimitrijević), Publ. Astron. Obs. Belgrade, No. 84, 459-462.

14. D. Onić, D. Urošević and B. Arbutina, 2009: "The analysis of the possible thermal emission at radio frequencies from supernova remnants G39.2-0.3 (3C396) and G156.2+5.7", Proceedings of the XV National Conference of Astronomers of Serbia; October 2-5, 2008, Belgrade; (Eds. O. Atanacković, Z. Cvetković and D. Ilić), Publ. Astron. Obs. Belgrade, No. 86, 95-100.

15. V. Borka Jovanović and D. Urošević, 2009: "The Cygnus radio loop: temperature and brightness", Proceedings of the XV National Conference of Astronomers of Serbia; October 2-5, 2008, Belgrade; (Eds. O. Atanacković, Z. Cvetković and D. Ilić), Publ. Astron. Obs. Belgrade, No. 86, 101-106.

16. V. Borka Jovanović and D. Urošević, 2010: "Spectral indices of radio loops", 25th Summer School and International Symposium on the Physics of Ionized Gases - SPIG 2010, IOP Publishing, Journal of Physics: Conference Series 257, 012030.

17. B. Arbutina, D. Urošević, M. M. Andjelić and M. Z. Pavlović, 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.

18. M. M. Andjelić, K. Stavrev, B. Arbutina, D. Ilić and D. Urošević, 2011: "Observations of the galaxy NGC 3077 in the narrow-band [S II] and H $\alpha$  filters", Baltic Astronomy, vol. 20, 459-462.

19. D. Urošević, 2012: "O ubrzanju čestica u jakim udarnim talasima", Zbornik radova "Simpozijum matematika i primene", 27. i 28. maj 2011, Matematički fakultet, Beograd, 171-180.

20. T. Prodanović, T. Bogdanović and D. Urošević, 2012: "Lithium production in galactic flybys", Mem. S.A.It. Suppl. Vol. 22, 207-210.

21. B. Vukotić and D. Urošević, 2012: "The  $\Sigma - D$  relation for Galactic planetary nebulae: Application of orthogonal fitting procedure", IAU Symposium, vol. 283, 522-523.

22. D. Urošević, 2012: "In Memoriam to Prof. Jelena Milogradov-Turin", Proceedings of the XVI National Conference of Astronomers of Serbia; October 10-12, 2011, Belgrade; (Eds. S. Jankov, N. Pejović and R. Pavlović), Publ. Astron. Obs. Belgrade, No. 91, 263-266.

23. D. Urošević, M. Z. Pavlović, B. Arbutina and A. Dobardžić, 2015: "The modified equipartition calculation for supernova remnants with the spectral index  $\alpha = 0.5$ ", Proceedings of the International Astronomical Union, Highlights of Astronomy, XXVIIIth IAU General Assembly, August 2012, (Ed. T. Montmerle), vol. 16, 398.

24. L. M. Bozzetto, M. D. Filipović, F. Haberl, M. Sasaki, P. Kavanagh, P. Maggi, D. Urošević and R. Sturm, 2015: "Supernova remnants in the magellanic clouds", Publications of the Korean Astronomical Society, vol. 30, 149-153.

25. D. Urošević, 2017: "Ostaci supernovih: najmoćniji akceleratori u Galaksiji", Ciklus predavanja (Knjiga III): "Od Sunčevog sistema do granica Vasiona", Srpska akademija nauka i umetnosti, Beograd, 41-53.

## Abstracts Appearing in Edited Volumes

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2. L. Chomiuk, S. Stanimirovic, C. Salter, R. Bhat, D. Urošević and D. Lorimer, 2002: "Arecibo grasps a possible interaction between SNR G42.8+0.6 and a Molecular Cloud", Bulletin of the American Astronomical Society (AAS Meeting, 201, 143.02).

3. D. Urošević, 2003: " $\Sigma - D$  Relation as Indicator of Radio Loops Origin", Proceedings of the XIII National Conference of Yugoslav Astronomers; October 17-20, 2002, Belgrade; (Eds. J. Milogradov-Turin and G. Popović), Publ. Astron. Obs. Belgrade, No. 75, p. 141 (Ph.D. thesis).

4. D. Urošević, B. Arbutina and B. Vukotić, 2006: "Thermal Radio Emission of Supernova Remnants: The Spectrum of HB3", XXVIth General Assembly of IAU, IAU Joint Discussion 09 (Supernovae: One Millennium after SN1006); August 14-25, Prague, p. 343.

5. D. Ilić, B. Arbutina, D. Urošević and B. Vukotić, 2007: "Optical Search for Supernova Remnants in M81 and M82", VI Serbian Conference on Spectral Line Shapes in Astrophysics, 11-15 June, Sremski Karlovci, (eds. M. S. Dimitrijević and L. Č. Popović), p. 46.

6. D. Ilić, D. Urošević, B. Arbutina, B. Vukotić and K. Stavrev, 2008: "Observations of M81 Galaxy Group in Narrow Band [SII] and  $H_{\alpha}$  Filters", VI Serbian-Bulgarian Astronomical Conference, 7-11 May, Belgrade, (eds. M. S. Dimitrijević, M. Tsvetkov, L. Č. Popović, V. Golev), p. 57.

7. D. Urošević, 2010: "Particle Acceleration in Strong Shocks: Influence on the Supernova Remnants Evolution in Radio", VII Bulgarian-Serbian Astronomical Conference, 1-4 June, Chepelare, (eds. M. Tsvetkov, M. S. Dimitrijević, L. Č. Popović, V. Golev), p. 13.

8. M. Andjelić, K. Stavrev, B. Arbutina, D. Ilić and D. Urošević, 2010: "Observations of M81 Galaxy Group in Narrow Band [SII] and  $H_{\alpha}$  Filters: II", VII Bulgarian-Serbian Astronomical Conference, 1-4 June, Chepelare, (eds. M. Tsvetkov, M. S. Dimitrijević, L. Č. Popović, V. Golev), p. 31.

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

10. D. Urošević, 2012: "Optical Detection of the Emission Nebulae in Nearby Galaxies", Conference: "Future Science with Metre-Class Telescopes", 18-21 September, Belgrade, Serbia, p. 17.

11. M.M. Andjelić, B. Arbutina, K. Stavrev and D. Urošević, 2012: "Star Formation Rate in Holmberg IX Dwarf Galaxy", Proceedings of the XVI National Conference of Astronomers of Serbia; October 10-12, 2011, Belgrade; (Eds. S. Jankov, N. Pejović and R. Pavlović), Publ. Astron. Obs. Belgrade, No. 91, 241.

12. M. M. Vučetić, B. Arbutina, D. Urošević, A. Dobardžić, M. Z. Pavlović, T. G. Pannuti N. Petrov, 2014: "Optical detection of supernova remnants in the nearby galaxy IC342", IX Bulgarian-Serbian Astronomical Conference: Astroinformatics, July 2-4, Sofia, Bulgaria, [http://www.wfpdb.org/ftp/9\\_BSACA/abstracts/2a-U](http://www.wfpdb.org/ftp/9_BSACA/abstracts/2a-U)

13. D. Urošević, 2014: "On the Different Forms of Continuum Radio Spectra of Supernova Remnants: Theoretical Fundamentals", Book of Abstracts of the XVII National Conference of Astronomers of Serbia; September 23-27, 2014, Belgrade; (Eds. S. Šegan, S. Ninković, A. Kovačević and B. Novaković); p. 23.

14. M.Z. Pavlović, A. Dobardžić, D. Urošević, B. Arbutina, D. Onić and B. Vukotić, 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. S. Šegan, S. Ninković, A. Kovačević and B. Novaković); p. 55.
15. Z. Knežević, D. Urošević and B. Arbutina, 2014: "Serbian Astronomical Journal in Science Citation Index and Journal Citation Report", Book of Abstracts of the XVII National Conference of Astronomers of Serbia; September 23-27, 2014, Belgrade; (Eds. S. Šegan, S. Ninković, A. Kovačević and B. Novaković); p. 77.
16. M. Vučetić, B. Arbutina and D. Urošević, 2014: "Supernova Remnants and Their Influence on  $H\alpha$  Derived Star Formation Rates", Book of Abstracts of the XVII National Conference of Astronomers of Serbia; September 23-27, 2014, Belgrade; (Eds. S. Šegan, S. Ninković, A. Kovačević and B. Novaković); p. 88.
17. D. Urošević, 2015: "The possible evidence of the non-linear particle acceleration in Cas A from Planck data", IAU General Assembly, Meeting 29, 2223732.

## Invited Presentations

1. "Updated  $\Sigma - D$  Relations and Main Radio Loops as SNRs", The XIII International Hutsulian Workshop "Methods of Theoretical & Mathematical Physics" Uzghorod - Kyiv - Ivano-Frankivsk - Rakhiv, Ukraine, September 2000.
2. "The Updated  $\Sigma - D$  Relations for Supernova Remnants", Arecibo Observatory, Puerto Rico, USA, May 2002.
3. T.G. Pannuti, D.A. Swartz, N. Duric, D. Urosevic: "An X-ray, Optical and Radio Search for Supernova Remnants in M81", 200th AAS Meeting, Albuquerque, New Mexico, USA, June 2002.
4. "Theoretical  $\Sigma - D$  Relation for Supernova Remnants", The IVth Serbian - Bulgarian Astronomical Conference, Belgrade, April 21-24, 2004.
5. "Evolucija radio-sjaja ostataka supernovih zvezda: najnoviji prilozi empiriji i teoriji", Kongres fizičara Srbije i Crne Gore, Petrovac na moru, 3-5. jun 2004.
6. "Radio Astronomy in Serbia: a Short Review", The Vth Bulgarian - Serbian Conference of Astronomy and Space Science, Sofia, Bulgaria, May 9-12, 2006.
7. "Nobelova nagrada za fiziku za 2006. godinu", XXV republički seminar o nastavi fizike, Vrnjačka Banja, April 12-14, 2007.
8. "Particle Acceleration in Strong Shocks: Influence on the Supernova Remnants Evolution in Radio", The VIIIth Bulgarian-Serbian Astronomical Conference, Chepelare, Bulgaria, June 1-4, 2010.
9. "On the Particle Acceleration in the Strong Shocks", Second Symposium Mathematics and applications, Belgrade, May 27-28, 2011.
10. "Optical detection of supernova remnants in the nearby galaxy IC342", IX Bulgarian-Serbian Astronomical Conference: Astroinformatics, Sofia, Bulgaria, July 2-4, 2014.
11. "On the Different Forms of Continuum Radio Spectra of Supernova Remnants: Theoretical Fundamentals", XVII National Conference of Astronomers of Serbia, Belgrade, September 23-27, 2014.

## Contributed Presentations

1. "The Origem and Monoceros Loops at 1420 MHz", XI National Conference of Yugoslav Astronomers; October 9-11, 1996, Belgrade.



2. "Main Radio Loops and Their Connection With Updated  $\Sigma - D$  Relations", XII National Conference of Yugoslav Astronomers and International Workshop on the Development of Astronomical Databases; November 19-21, 1999, Belgrade.
3. M. Stanković, Lj. Tešić and D. Urošević: "L - D Dependence for Supernova Remnants", XIII National Conference of Yugoslav Astronomers; October 17-20, 2002, Belgrade.
4. S. Stanimirović, L. Chomiuk, C. J. Salter, D. Urošević, R. Bhat and D. R. Lorimer: "A Possible Interaction Between SNR G42.8+0.6 and a Molecular Cloud", XIII National Conference of Yugoslav Astronomers; October 17-20, 2002, Belgrade.
5. L. Chomiuk, S. Stanimirovic, C. Salter, R. Bhat, D. Urosevic and D. Lorimer: "Arecibo grasps a possible interaction between SNR G42.8+0.6 and a Molecular Cloud", 201th AAS Meeting, January 2003, Seattle, Washington, USA.
6. V. Borka, J. Milogradov-Turin and D. Urošević: "Brightness of Main Galactic Radio Loops at 1420 MHz", XIV National Conference of Astronomers of Serbia and Montenegro; October 12-15, 2005, Belgrade.
7. B. Vukotić, D. Urošević, I. Bojičić and B. Arbutina: "On the Magnetic Field Evolution of Supernova Remnants in Starburst Galaxy M82", XIV National Conference of Astronomers of Serbia and Montenegro; October 12-15, 2005, Belgrade.
8. B. Arbutina, D. Urošević and B. Vukotić: "High Supernova Rate and Enhanced Star-Formation Triggered in M81-M82 Encounter", XXVIth General Assembly of IAU, IAU Symp. 237 (Triggered Star Formation in a Turbulent ISM); August 14-25, 2006, Prague, Czech Republic.
9. D. Urošević, B. Arbutina and B. Vukotić: "Thermal Radio Emission of Supernova Remnants: The Spectrum of HB3", XXVIth General Assembly of IAU, IAU Joint Discussions 09 (Supernovae: One Millennium after SN1006); August 14-25, 2006, Prague, Czech Republic.
10. D. Ilić, B. Arbutina, D. Urošević and B. Vukotić: "Optical Search for Supernova Remnants in M81 and M82", VI Serbian Conference on Spectral Line Shapes in Astrophysics, 11-15 June, 2007, Sremski Karlovci.
11. D. Ilić, D. Urošević, B. Arbutina, B. Vukotić and K. Stavrev: "Observations of M81 Galaxy Group in Narrow Band [SII] and H $\alpha$  Filters", VI Serbian-Bulgarian Astronomical Conference, 7-11 May, 2008, Belgrade.
12. V. Borka Jovanović and D. Urošević: "The Monoceros radio loop: temperature and brightness", Proceedings of the 24th SPIG; August 25-29, 2008, Novi Sad;
13. D. Onić, D. Urošević and B. Arbutina: "An Analysis of the Possible Thermal Emission at Radio Frequencies from Supernova Remnants G39.2-0.3 (3C396) and G156.2+5.7", XV National Conference of Astronomers of Serbia, 2-5 October, 2008, Belgrade.
14. V. Borka Jovanović and D. Urošević: "The Cygnus Radio Loop: Temperature and Brightness", XV National Conference of Astronomers of Serbia", 2-5 October, 2008, Belgrade.
15. M. Andjelić, K. Stavrev, B. Arbutina, D. Ilić and D. Urošević: "Observations of M81 Galaxy Group in Narrow Band [SII] and H $\alpha$  Filters: II", VII Bulgarian-Serbian Astronomical Conference, 1-4 June, 2010, Chepelare, Bulgaria.
16. V. Borka Jovanović and D. Urošević: "Spectral indices of radio loops", 25th Summer School and International Symposium on the Physics of Ionized Gases - SPIG, August, 30 September, 3, 2010, Donji Milanovac, Serbia.
17. M. Andjelić, K. Stavrev, B. Arbutina, D. Ilić and D. Urošević: "Observations of NGC 3077 Galaxy in Narrow Band [SII] and H $\alpha$  Filters", VIII Serbian Conference on Spectral Line Shapes in Astrophysics, 6-10 June, 2011, Divčibare.
18. "Equipartition calculation for supernova remnants", Cosmic Rays and their Interstellar Medium

Environment (CRISM) conference, 26 June - 1 July, 2011, Montpellier, France.

19. B. Vukotić and D. Urošević: "The  $\Sigma - D$  relation for Galactic planetary nebulae: application of orthogonal fitting procedure", Planetary Nebulae: An Eye to the Future (IAUS 283), 25-29 July, 2011, Puerto de la Cruz, Tenerife, Spain.

20. "In Memoriam to Prof. Jelena Milogradov-Turin", XVI National Conference of Astronomers of Serbia", 10-12 October, 2011, Belgrade.

21. M.M. Andjelić, B. Arbutina, K. Stavrev and D. Urošević: "Star Formation Rate in Holmberg IX Dwarf Galaxy", XVI National Conference of Astronomers of Serbia", 10-12 October, 2011, Belgrade.

22. "Observations of Galaxy IC342 in Narrow Band [SII] and  $H_{\alpha}$  Filters", VIII Serbian-Bulgarian Astronomical Conference, 8-12 May, 2012, Leskovac, Serbia.

23. D. Urošević, M.Z. Pavlović, B. Arbutina and A. Dobardžić: "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.

24. "Optical Detection of the Emission Nebulae in Nearby Galaxies", Conference: "Future Science with Metre-Class Telescopes", 18-21 September, 2012, Belgrade, Serbia.

25. M.Z. Pavlović, A. Dobardžić, D. Urošević, B. Arbutina, D. Onić and B. Vukotić: "Updated Radio Surface-Brightness-to-Diameter Relation for Galactic Supernova Remnants", XVII National Conference of Astronomers of Serbia", 23-27 September, 2014, Belgrade.

26. Z. Knežević, D. Urošević and B. Arbutina: "Serbian Astronomical Journal in Science Citation Index and Journal Citation Report", XVII National Conference of Astronomers of Serbia", 23-27 September, 2014, Belgrade.

27. M. Vučetić, B. Arbutina and D. Urošević: "Supernova Remnants and Their Influence on  $H_{\alpha}$  Derived Star Formation Rates", XVII National Conference of Astronomers of Serbia", 23-27 September, 2014, Belgrade.

28. D. Urošević and D. Onić, 2015: "The possible evidence of the non-linear particle acceleration in Cas A from Planck data", XXVIIIth IAU General Assembly, Focus Meeting 5 (The Legacy of Planck), August 3-14, 2015, Honolulu, USA.

## Books and parts of books

1. D. Urošević and J. Milogradov-Turin, 2007: "Teorijske osnove radio-astronomije (Theoretical fundamentals of Radio Astronomy)", publisher: Faculty of Mathematics, Belgrade.

2. D. Urošević, 2007: "Supernova Remnants in Nearby Galaxies", as a part of book "Neutron Stars, Supernovae and Supernova Remnants", Eds. O. H. Guseinov, E. Yazgan and A. Ankay, publisher: Nova Science Publishers, New York, p. 137-154.

## Citations

My papers were cited over 600 times (google scholar). Heterocitation: at least 293 times (basic source "Astrophysical Data System - ADS", Harvard). Total ADS citation = 438.

## Classroom Teaching

EXERCISES:

[Fall 1994] **Radio Astronomy, Structure and Evolution of the Stars, Stellar Astronomy, Stellar Systems.**

[Spring 1995] **Radio Astronomy, Structure and Evolution of the Stars, Stellar Astronomy, Stellar Systems, General Astrophysics, Fundamentals of Astrophysics.**

[Fall 1995, 1996, 1997, 1998, 1999, 2000] **Radio Astronomy, Structure and Evolution of the Stars, Stellar Astronomy.**

[Spring 1996, 1997, 1998, 1999, 2000, 2001] **Radio Astronomy, Structure and Evolution of the Stars, Stellar Astronomy, Fundamentals of Astrophysics.**

LECTURES:

[Fall 2001, Spring 2002] **Radio Astronomy (with exercises)**

[Fall 2002, 2003] **Radio Astronomy, Teaching Methods in Astronomy & History of Astronomy.**

[Spring 2003] **Radio Astronomy, Teaching Methods in Astronomy & History of Astronomy.**

[Spring 2004] **Radio Astronomy, Teaching Methods in Astronomy & History of Astronomy, Fundamentals of Astrophysics.**

[Fall 2004, 2005, 2006, 2007, 2008] **Radio Astronomy, Teaching Methods in Astronomy & History of Astronomy, Fundamentals of Astrophysics.**

[Spring 2005, 2006, 2007, 2008, 2009] **Radio Astronomy, Teaching Methods in Astronomy & History of Astronomy.**

[Fall 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016] **Radio Astronomy, History of Astronomy, Interstellar Medium.**

[Spring 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017] **Radio Astrophysics, Teaching Methods in Astronomy**

LECTURES (Ph.D. studies):

**Magnetohydrodynamics, Selected Chapters of the Theoretical and Observational Radio Astronomy, Evolution of Supernova Remnants, Physics of the Interstellar Medium, The High Energy Processes in Supernova Remnants (2001 - present)**

SUPERVISION:

1. Magistarska teza (M.Sc. thesis): "Sjaj radio-petlji na 1420 MHz (Brightness of radio loops at 1420 MHz)", 2005; student: Vesna Borka.

2. Magistarska teza (M.Sc. thesis): "Značaj tipa supernove za hidrodinamičku i radio-evoluciju njenog ostatka (Importance of supernova type on the hydrodynamic and radio evolution of its remnant)", 2005; student: Bojan Arbutina.

3. Magistarska teza (M.Sc. thesis): "Evolucija magnetnog polja u ostacima supernovih (Evolution of magnetic field in supernova remnants)", 2006; student: Branislav Vukotić.

4. Doktorska disertacija (Ph.D. thesis): "Spektri radio-petlji (Spectra of radio loops)", 2009; student: Vesna Borka Jovanović.

5. Diplomski master rad (master work): "Radio-evolucija ostatka supernove Cas A (Radio evolution of supernova remnant Cas A)", 2010; student: Maša Lakićević.

6. Diplomski master rad (master work): "Radio-evolucija ostatka supernove SN1006 (Radio evolution of supernova remnant SN1006)", 2010; student: Sladjana Nikolić.

7. Diplomski master rad (master work): "Nova  $\Sigma - D$  relacija za Galaktičke ostatke

supernovih (The new  $\Sigma - D$  relation for the Galactic supernova remnants)", 2011; student: Marko Pavlović.

8. **Diplomski master rad (master work):** "Uticaj visokoenergetskih procesa na modulaciju MHD talasa tokom erupcija na Suncu (Influence of high-energy processes on modulation of MHD waves during Solar flares)", 2012; student: Vladimir Zeković.

9. **Doktorska disertacija (Ph.D. thesis):** "Termalno zračenje ostataka supernovih u radio-području (Thermal radiation of supernova remnants in the radio-domain)", 2013; student: Dušan Onić.

10. **Diplomski master rad (master work):** " $\Sigma - D$  analiza za četiri nepravilne galaksije: NGC4449, NGC4214, NGC2366, NGC1569 ( $\Sigma - D$  analysis for four irregular galaxies: NGC4449, NGC4214, NGC2366, NGC1569)", 2014; student: Jelena Čorak.

Additionally, member of commissions for many master, M.Sc. (magistarska thesis), and Ph.D. thesis; and anonymous examiner for many Ph.D. thesis

## Academic, Professional and Scientific Services

1. Vice - Dean of Faculty of Mathematics, University of Belgrade (2004 - 2007) and (2015 - present).
2. Head of Department of Astronomy, Faculty of Mathematics, University of Belgrade (2007 - 2014).
3. Lectures in Petnica Science Center (1994 - present). This center near the Serbian town of Valjevo, is for talented elementary and especially high school pupils. Center runs a continuous astronomy seminar series.
4. Coordinator of Department of Astronomy Seminar Series (2000 - 2016).
5. Editor of the "Serbian Astronomical Journal" (2002 - 2015). Editor-in-chief of the "Serbian Astronomical Journal" (2015 - present).
6. Member of the International Astronomical Union (IAU) – Commissions: 34 - Interstellar Medium and 40 - Radio Astronomy.
7. Member of the European Astronomical Society (EAS).
8. Advisor for astronomy – National Geographic Serbia (2006 - present).
9. Head of the research project "Emission nebulae: structure and evolution" (176005) financed by the Ministry of Education, Science, and Technological Development of the Republic of Serbia (2011 - present).