CV

Vesna Veličković

Personal data

Surname	Veličković
Name	Vesna
Birth date	26. October 1963.
Nationality	Serbian
Current position	Department of Computer Science Faculty of Sciences and Mathematics University of Niš, Serbia
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Education

1970-1978 Pimary school »Učitelj Tasa«, Niš, Serbia

1978-1982 High school Gymnazium »Bora Stanković«, Niš, Serbia

1982-1986 Faculty of Philosophy, Department of Mathematics, Niš, Serbia

Given talks at the conferences for students »Primatijada« 1983, 1984, 1985;
Participation in the competitions for students of mathematics, ISTAM, 1986;
Awarded a price of the University of Niš

1987-1996 Master studies, Faculty of Mathematics, Belgrade, Serbia

Supervisor Aleksandar Jovanović, Faculty of Math., Belgrade, Serbia

Master thesis »*O primeni Furijeovih transformacija i filtera u generisanju računarskih slika*« (»*About Application of the Fourier Transform and Filters in Generating Computer Images*«)

2012 PhD work, Faculty of Sciences and Mathematics, Niš, Serbia

Supervisors Eberhard Malkowsky, Fatih University, Istanbul, Turkey;
Miroslav Ćirić, Faculty of Sci. and Math., Niš, Serbia

PhD thesis »*Vizualizacija u matematici pomoću objektno-orjentisanog programskog paketa za linijsku grafiku*« (»*Visualization of Mathematics by an Object-oriented Programing Package for Line Graphics*«)

Career

1987-1988	Programmer at the factory RC (Computer Centre) of »Electronic Industry« Niš, Serbia
1988-1996	Teaching assistant at the Faculty of Philosophy, Niš, Serbia
1996-2000	Assistant at the Faculty of Philosophy, Niš, Serbia
2000-2011	Assistant at the Faculty of Sciences and Mathematics, Niš, Serbia
2012-2017	Assistant professor at the Faculty of Sciences and Mathematics, Niš, Serbia
2017-2022	Associate professor at the Faculty of Sciences and Mathematics, Niš, Serbia
2022 - today	Full professor at the Faculty of Sciences and Mathematics, Niš, Serbia

Part time jobs

2020 - 2021	Associate professor at the multidisciplinary program *Master 4.0 – Intelligent data analysis* at the University of Niš, Serbia.
1991	Assistant at the Faculty of Mechanical Engeneering, Niš, Serbia, for the subject *Descriptive Geometry*
2008	Assistant at the Faculty of Information Technologies, FIT, Metropolitain University, Belgrade, for the subjects *Discrete mathematics* and *Statistics*
2007 – 2010	Software engineer at the software company *Accordia*, Niš, Serbia, headquater in New York, USA. Work on the visualization of social networks by hierarchy model and design of query language for searching database for hesh fonds
2012	Designer of information systems at the Faculty of Sciences and Mathematics, Niš, Serbia
1993 - 2002	Teacher at the special class for young talents in mathematics and informatics of the Gymnasium "Svetozar Marković" in Niš, Serbia for the course *Informatics*, and at 1996 also for the course *Databas*e. Preparing the pupils for the competitions in Informatics. From 1993 until 2020 organizer of competitions in Informatics for high school pupils at all levels, and from 2002 until 2022 also for primary school pupils.
2002	Deputy leader of the team of Yugoslavia at international competitions for pupils *International Olympiad in Informatics* in Yong-In, South Korea. The same year member of the orgainzing committee for the international competition *Balkan Olympiad in Informatics* in Belgrade, Serbia.

Courses:

- Programming and Computer Machines
- Introduction of Programming
- Geometrical Modeling
- Computer Graphics
- Introduction to digital signal and image processing
- Parallel Computing
- Didactics of Informatics
- Didactics of Programming
- Business Informatics
- Integrated Programming Packages
- Computers in Chemistry
- Discrete Mathematics
- Differential and Integral Equations
- Descriptive Geometry

Publications

47 scientific papers, 4 books, 1 editor work.

List of books

1. Vesna Veličković, *Методика почетног курса програмирања*, ПМФ, Ниш, **2017**. textbook, in Serbian
2. Ćemal Dolićanin, Eberhard Malkowsky, Vesna Veličković, *Диференцијална геометрија и њена визуелизација*, Академска мисао, Београд, **2021**, ИСБН 978-86-81506-09-7. monograph, in Serbian
3. Vesna Veličković, *Увод у програмирање са методичком збирком задатака*, ПМФ, Ниш, **2022**. textbook, in Serbian
4. Eberhard Malkowsky, Ćemal Dolićanin, Vesna Veličković, *Differential Geometry and Its Visualization*, CRC Press, Taylor&Francics Group, **2023**, ISBN 9781032436661

Editor

1. Special issue of MDPI's *Axioms*, *Mathematics*, *Computer Graphics and Computational Visualizations*, Vesna Veličković, Rushan Ziatdinov, **September 2023 - March 2025**, https://www.mdpi.com/journal/axioms/special_issues/NT9OI5C56E

List of publications

1. Eberhard Malkowsky, Vesna I. Veličković, Enes Kačapor, *Some Bounded Linear and Compact Operators into the Generalised Hahn Space*, Scientific Publications of the State University of Novi Pazar Series A: Applied Mathematics, Informatics and mechanics, No. 1 Volume 16, pp 59-71, (**2024**)
2. Vesna I Veličković, Edin Dolićanin, *Line Graphics for Visualization of Surfaces and Curves on Them*, (**2023**) Filomat 37(4): 1017–27.
3. Vesna I Veličković, Edin Dolićanin. *Visualization of Spheres in the Generalized Hahn Space*, Filomat 37(6): 1701–12 (**2023**)
4. Vesna I. Veličković, Eberhard Malkowsky, Edin Dolićanin, *Modeling Spheres in Some Paranormed Sequence Spaces*, Mathematics 10(6), 917. (**2022**)
5. Vesna I. Velickovic, *Intersections of Surfaces of Revolution*, Facta Universitatis. Series: Mathematics and Infromatics, vol.37(1) (**2022**)
6. Eberhard Malkowsky, Vladimir Rakočević, Vesna Veličković, *Bounded linear and compact operators between the Hahn space and spaces strongly summable and bounded sequences*, Bulletin de l'Academie serbe des sciences et des arts, Classe des Sciences mathématiques et naturelles, Sciences mathématiques, (M50) vol.45 (**2020**) 25-41
7. Eberhard Malkowsky, Faruk Özger, Vesna Veličković, *Some Mixed Paranorm Spaces*, Filomat, 31:4 (**2017**), 1079–1098
8. Eberhard Malkowsky, Faruk Özger, Vesna Veličković, *Matrix Transformations on Mixed Paranorm Spaces*, Filomat, 31:10 (**2017**), 2957–2966
9. Vesna Veličković, *Visualization of Enneper's Surface by Line Graphics*, Filomat, vol.31:2 (**2017**) 387–405
10. Vesna Veličković, *Visualization of Lines of Curvature on Quadratic Surfaces*, Facta Universitatis, series Mathematics and Informatics, vol.Vol. 32 No 1 (**2017**) 11 – 29
11. Veličković Vesna, Malkowsky Eberhard, Özger Faruk ,*Visualization of the spaces W(u, v; l(p)) and their duals*, AIP Conference Proceedings, International Conference on Analysis and Applied Mathematics (ICAAM 2016),) vol.1759, 020020 (**2016**) 1–4
12. Eberhard Malkowsky, Vesna Veličković, Faruk Özger, *Visualization of the Spaces Cp and Their Duals*, Scientific Publications of the State University of Novi Pazar, Ser. A: Appl. Math. Inform. and Mech., (**2016**)

13. Sonja Šumonja, Vesna Veličković, Tatjana Šubarević, *Applying ITC in the teaching of mathematics in high schools*, IMVI Open Mathematical Education Notes, vol.5(1) (**2015**) 31-46
14. Vesna Veličković, Eberhard Malkowsky, *Visualization of Wulff's crystals*, AIP Conference Proceedings, (M30) vol.1676, 020087 (**2015**) 1–4
15. Vesna Veličković, Eberhard Malkowsky, *Visualization of neighbourhoods in some FK spaces*, AIP Conference Proceedings, (M30) vol.1676, 020003 (**2015**) 1–4
16. Eberhard Malkowsky, Faruk Özger, Vesna Veličković, *Some Spaces Related to Cesàro Sequence Spaces and an Application to Crystallography*, MATCH Commun. Math. Comput. Chem., Vol. 70, No. 3 (**2013**), 867-884
17. Eberhard Malkowsky, Vesna Veličković, *The duals of certain matrix domains of factorable triangles and some related visualisations*, Filomat, vol.27:5 (**2013**) 821 – 829
18. E. Malkowsky, V. Veličković, *Some New Sequence Spaces, Their Duals and a Connection with Wulff's Crystal*, MATCH Commun. Math. Comput. Chem**.** 67 (**2012**), p. 589-607
19. E. Malkowsky, V. Veličković, *Topologies of some new sequence spaces, their duals, and the graphical representations of neighborhoods*, Topology and its Applications, Volume 158, Issue 12, 1 August **2011**, p. 1369-1380
20. J. Madić, V. Veličković, I. Madić, *Evaluation of a polynomial by means of mathematical spectra of M. Petrovic*, Filomat 23:3 (**2009**), p. 269–278
21. E. Malkowsky, V. Veličković, *Solutions of some visibility and contour problems in the visualisation of surfaces*, Applied Sciences (APPS), ISSN 1454-5101, Volume 10 (**2008**) , p. 125-14
24. V. Veličković, *On Surfaces of Rotation of a Given Constant Gaussian Curvature and Their Visualisations*, Proceedings of the Conference Contemplorary Geometry and Related Topics, **2006**, p. 523-534
25. V. Veličković, *The basic principles and concepts of a software package for visualisation of Mathematics*, **BSG Proceedings 13**, Geometry Balkan Press **2006**, p. 192-203
26. V. Veličković, *Visualisations of Mathematics Using Line Graphics*, Berlin 2006, Spring School on Visualisation and Discrete Geometry Berlin, Germany 10–13 April, **2006**
27. E. Malkowsky, V. Veličković, *Analytic transformations between surfaces with animations*, Proceedings of the Institute of Mathematics of NAS of Ukraine, (50)(3), **2004**, p. 1496-1501
28. E. Malkowsky, V. Veličković, *Visualisation and Animation in Differential Geometry*, Proceedings of the Workshop Contemporary Geometry and Related Topics, **2004**, p. 301-318
29. V. Veličković, M. Milošević, *Computer Laboratory Practicing at the Faculty of Natural Science and Mathematics in Niš*, Proceedings of the Workshops on Computer Science Education, (**2004**) 71-75
30. E. Malkowsky, V. Veličković, *Visualisation and animation in mathematics*, Proceedings of the Conference YUINFO **2003**, Kopaonik, Yugoslavia, on CD
31. E. Malkowsky, V. Veličković, *A user interface for a software for differential geometry*, Proceedings of the Conference YU Info **2003**, Kopaonik, Yugoslavia, on CD
32. E. Malkowsky, V. Veličković, *Visualisation of isometric maps*, FILOMAT (17), **2003**, p. 107-116
33. E. Malkowsky, V. Veličković, *Visualization of the moduli of analytic functions*, Proceedings of the Conference YUINFO **2002**, Kopaonik, Yugoslavia, CD
34. E. Malkowsky, V. Veličković, *A software for the visualisation of differential geometry*, Visual Mathematics 4(1), **2002**, Electronic publication
35. E. Malkowsky, V. Veličković, *On the Gaussian and mean curvature of certain sequences*, Novi Sad Journal of Mathematics, 31(1) (**2001**), p. 65-74
36. E. Malkowsky, V. Veličković, *Representation of parallel and focal surfaces*, Proceedings of the Conference YUINFO 2001, Kapaonik **2001**, on CD

37. E. Malkowsky, V. Veličković, *Some curves and surfaces of given curvature and their graphical representations*, Proceedings of a Workshop on Computational Intelligence and Information Technologies, Niš, Yugoslavia, 20-21 June, 2001 (**2001**), p. 9-15
38. E. Malkowsky, V. Veličković, *Visualisation of Differential Geometry*, Facta Universitatis, Niš, 3 No 11 (**2001**), p. 127-134
39. E. Malkowsky, V. Veličković, *Graphics in Differential Geometry, an Approach in OOP*, Proceedings of the International DYNET Workshop on Modern Programming Concepts and Their Applications in Engineering, Niš, Yugoslavia, 22-24 November, **2001**, p. 1-20
40. E. Malkowsky, V. Veličković, *Some geometric properties of screw surfaces and exponential cones*, Proceeding of the 10th Congress of Yugoslav Mathematicians, Belgrade, **2001**, p 395-399
41. E. Malkowsky, V. Veličkovć, *Potential surfaces and their graphical representations*, Filomat (Niš) 15 (**2001**), p. 47-54
42. E. Malkowsky, V. Veličković, *An application of functional analysis in computer graphics and crystallography*, Proceedings of the Conference YUINFO **2000**, Kapaonik, Yugoslavia, on CD
43. M.Cvetković, V.Veličković, S.Zlatković, *One teaching method in informatics*, Proceedings of the Conference YU Info **2000**, on CD
44. E. Malkowsky, V. Veličković, *Computer graphics in geometry and differential geometry*, Proceedings of the Conference moNGeometrija **2000**, p. 188-198
45. E. Malkowsky, V. Veličković, *Visualisation of Differential Geometry*, Proceedings of the YUSNM **2000** Conference
46. V. Veličković *A filter to avoid the aliasing problem*, Proceedings of the Conference for PhD students, (CS)2, Szeged, **1998**
47. S.Hristov, M.Stanković, V.Veličković, *"Exact" display of objects with real valued positions and dimensions*, Filomat (Niš) 9:2 (**1995**), p 251-259
48. V. Veličković *Vizualizacija u matematici pomoću objektno-orjentisanog programskog paketa za linijsku grafiku* (*Visualization of Mathematics by an Object-oriented Programing Package for Line Graphics*, **PhD thesis**, Niš, **2012**.
49. V. Veličković, *O Primeni Furijeovih transformacija i filtera u generisanju računarskih slika (About Application of the Fourier Transform and Filters in Generating Computer Images)*, **Master thesis**, Beograd, **1995**.

List of professional publications

1. *Odredjivanje broja iskaznih formula za dati raspored slova i veznika*, Zbornik radova sa Primatijade 1983, 103-107
2. *Jedan sistem aksioma*, Primatijada 1984.
3. *O programskom jeziku PASCAL*, Republički seminar “Nastava matematike i informatike ‘96”, Niš, 1996.
4. *O načinu zapisivanja programa na PASCAL-u*, Seminar “Januarski dani prosvetnih radnika”, Niš, 1998.
5. *Značaj potprograma u razvoju sistematičnog razmišljanja*, Seminar “Januarski dani prosvetnih radnika”, Niš, 1999.
6. *Konusni preseci i kompjuterska grafika - Dandelinove sfer*e, Seminar “Januarski dani prosvetnih radnika”, Niš, 2001.
7. *Predlog uvodjenja Delphija u nastavu informatike*, Marija Cvetković, Vesna Veličković, Seminar “Januarski dani prosvetnih radnika”, Niš, 2002.
8. *Od lančića do zvezda*, Dani otvorenih vrata Odseka za Matematiku, Niš, 2002
9. *Vizualno programiranje u Delphiju*, Marija Cvetković, Vesna Veličković, Seminar “Januarski dani prosvetnih radnika”, Niš, 2003.

10. *A Software for Visualization and Animation in Mathematics*, Seminar o nastavi matematike i računarstva, 2003.
11. *Mogućnost primene računara u biologiji*, Seminar nastave biologije, 2003
12. *Vizualno programiranje u Delphi okruženju*, Seminar nastave matematike i informatike, 2004.
13. *Takmičarski zadaci na okružnom i školskom takmičenju iz informatike za učenike srednjih škola 2004. godine*, Vesna Veličković, Aleksandar Ilić, Seminar nastave matematike i informatike, 2004.
14. *Programiranje kompjuterskih igara*, Vesna Veličković, Aleksandar Ilić, Seminar nastave matematike i informatike, 2007.

Study visits

1. 1989, Mathematical Institute of the Serbian Academy of Science and Arts - seminars for Mathematical Logics, Theoretical Computer Science, Programming Languages, Automatic Proving of Theorems, Generalized Inverses, Neuron Networks
2. 1997, Justus-Liebig University, Giessen, Germany - theoretical proofs of correctness of computer programs.
3. 2001, Institute of Mathematics of the Bulgarian Academy of Science, Sofia, Bulgaria – course "*Wavelet Analysis and Signal Processing*" by the professor H. Render, Duisburg, Germany, under the project "*Center of Excellence for Applications of Mathematics*" of the Stability Pact for the Southeast Europe.
4. 2003, Faculty of Mathematics and Computer Science, University Babes-Bolyai, Cluj-Napoca, Romania – course "*Mathematical Methods in Computer Aided Geometric Design*" by Professor Gonska, Duisburg, Germany, and course *"Non-smooth Methods in Mathematical Economics"* by professors Muresan and Petrusel, Cluj-Napoca, Romania.
5. 2004, Institute of Mathematics, Faculty of Science and Mathematics, Novi Sad, Serbia - seminars for Informatics, Nonlinear Analysis, Generalized Functions. Work on problems that arise in Discrete Simulation and Animations.
6. 2006, Frei Universität, Berlin, Germany - *Spring School of Visualization and Discrete Geometry*. Courses in Discrete Geometry, JavaView and MuPAD.

Projects

2 international, 1 national and 5 software projects.

International projects

1. From 2004 until 2008 researcher at the project *Multimedia Technology for Mathematics and Computer Science Education* of German fondation for academic exchange, DAAD.
2. From 2014 until 2016 researcher at the international project of the Scientific and Technological Research Council of Turkey, TÜBITAK, #114F104 *Linear Topological Spaces, Operators Between Fréchet Spaces with Applications, Visualizations and Animations*

National projects

3. From 2002 until 2005 researcher at the project number 1646 of Ministry of Science and Technology of Republik of Serbia entitled *Geometrija, Obrazovanje i Vizualizacija sa Primenama* (Geometry, Education and Visualization with Applications).

Software projects

1. Interpreter for the programming language LISP for the experimental computer VUK, written at assembler for the MC 6800 processor, 1989 - 1994.
2. Programming package for the classification of knots and links, 1994 - 1996.
3. Visualization of social networks using a hierarchical model, 2007 – 2008
4. Design of a query language for searching a hash-fund database, 2009 – 2010
5. *MV-Graphics*, software package for the visualization of mathematics, from 2000.

Other activities

from 2012	Reviewer for the *Mathematical Reviews*
2022	Initiator and coordinator of the Erasmus+ inter-university cooperation between the University of Niš and İzmir Kâtip Çelebi University from Izmir, Turkey
2020	Initiator and coordinator of the Erasmus+ inter-university cooperation between the University of Niš and Politehnica University from Bucharest, Romania
2003	Member of the Organizing Committee for the conference *Workshop of Modern Functional Analysis, MFA-03,* Niš, Serbia
2001	Member of the Organizing Committee for the conference *Workshop for Visualization and Verbalization of Mathematics, ViVe Math,* Niš, Serbia
1989 - 1994	Secretary of the scientific journal *Filomat*, publication of Faculty of Science and Mathmatics in Niš, Serbia. 2003 Technical secretary of the volume 17 of *Filomat.*
2016 – 2018	Member of the List of Textbook Evaluators of the Ministry of Education, Science and Technological Development of the Republic of Serbia.
2002–2004	Member of the National committee for corricula of the high school course *Computers and Informatics*
2007 – 2018	Active member of the Pedagogical Society of Informatics of Serbia, PDIS, from its founding, as a member of the Section for Higher Education, the Commission for Teaching Informatics in Higher Education, and the Commission for Scientific Work and Professional Development of Teachers and Professors.
2001−2003	Three exbitions of graphics of the Mathematical art as a coauthor of Eberhard Malkowsky in the galeries of Contemporary Art in Niš and Belgrade, Serbia.
1998	Work at the Regional center for talents in Niš, Serbia