Curriculum Vitae

Vesna Marinković

Contact details

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Faculty of Mathematics
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11000 Belgrade
Serbia
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URL: www.matf.bg.ac.rs/~vesnap

Personal Details

Gender: Female
Maiden name: Pavlović
Date of birth: March 24th, 1982
Place of birth: Niš, Serbia
Citizenship: Serbian

Positions

2016–present Assistant professor at the Department for Computer Science, Faculty of Mathematics, University of Belgrade.

2017–2018 Industry Relations Coordinator at the Department for Computer Science, Faculty of Mathematics, University of Belgrade.

2009–2016 Teaching assistant at the Department for Computer Science, Faculty of Mathematics, University of Belgrade.

2006–2009 Teaching assistant trainee at the Department for Computer Science, Faculty of Mathematics, University of Belgrade.
Courses taught:

- Algorithms and Data Structures (lectures and exercises)
- Design and Analysis of Algorithms (lectures and exercises)
- Design and Analysis of Algorithms 2 (lectures and exercises)
- Algorithms and Data Structures (lectures at joint master programme Industry 4.0 with Faculty of Mechanical Engineering of the University of Belgrade)
- Computer Graphics (lectures)
- Artificial Intelligence (lectures)
- Introduction to Relational Databases (Programming language SQL) (exercises)
- Databases Programming (lectures and exercises)

- Databases (lectures and exercises)
- Symbolic Calculation (lectures about Groebner Basis)
- Introduction to Web and Internet Technologies (lectures)
- Introduction to Programming 1 (Programming language C) (exercises)
- Introduction to Programming 2 (Programming language C) (lectures and exercises)
- Teaching Methods in Computer Science (Microsoft Office Tutorial) (exercises)
- Object-oriented programming (Programming language Java) (exercises)
- Introduction to Computer Systems (Programming language C++) (exercises)

Education

06/2015 Defended PhD thesis: "Automated solving of construction problems in geometry", advisor: prof. Predrag Janičić.

04/2007–06/2015 PhD studies at Department of Computer Science, Faculty of Mathematics, University of Belgrade; GPA 10.00 (on the scale from 6.00 to 10.00).

10/2000–07/2006 Undergraduate studies at Department of Computer Science, Faculty of Mathematics, University of Belgrade; graduated with GPA 9.45 (on the scale from 6.00 to 10.00).

09/1996–06/2000 Secondary School "Bora Stanković" in Niš; school finished with top average mark, was awarded the best student of the generation.

09/1988–06/1996 Elementary School "Vožd Karadjordje" in Niš; school finished with top average mark, was awarded the best student of the generation.

09/1990–06/1996 Elementary Music School "Dr. Vojislav Vučković" in Niš.

Scholarships and Awards

2000–2006 The Scholarship of The Serbian Ministry of Science and Technology.

1998–2000 The Scholarship of The Republic Foundation for the Development of Youth in Science and Arts.

2000–2001 The first prize at the State Competition in Mathematics.

1999-2000 The first prize at the State Competition "Tournament of Schools" in Mathematics.

1998 The third prize at the International Competition "Tournament of Towns" in Mathematics, Hamburg, Germany.

1996 The first prize at the State Competition in Mathematics and in Computer Science.

1996 Awarded from the Serbian Mathematical Society as the best mathematician in generation for Niš county.

Journal Articles and Conference Papers

- V. Marinković, T. Šukilović, F. Marić:
  Towards Automated Readable Proofs of Ruler and Compass Constructions,
  EPTCS 398, Proceedings of the 14th International Conference on Automated Deduction in Geometry, pp. 11–20, 2024.

- V. Marinković, M. Banković:
  Automatsko rešavanje konstruktivnih problema u geometriji,
  Knjiga apstrakata konferencije "Veštačka inteligencija", pp. 66–67, 2023.

- V. Marinković, F. Marić:
  Edukativni sistemi za automatsko rešavanje konstruktivnih problema u geometriji,
  Knjiga apstrakata konferencije "Veštačka inteligencija", pp. 68–69, 2023.

- M. Banković, V. Marinković:
  Automatsko rešavanje konstruktivnih problema u geometriji,
  Book of Abstracts of XIII Simpozijum "Matematika i primene", pp. 15, 2023.

- V. Marinković, T. Šukilović, F. Marić:
  Automated triangle constructions in hyperbolic geometry,
  Annals of Mathematics and Artificial Intelligence, vol. 91, pp. 821–849, 2023.

- V. Marinković:
  Prolog in Automated Reasoning in Geometry,
  in book: *Prolog: The Next 50 Years*, *Lecture Notes in Artificial Intelligence*, 2023.

- V. Marinković:
  Verifiable Solving of Geometric Construction Problems in the Framework of Coherent Logic,
  Report from Dagstuhl Seminar 21472: Geometric Logic, Constructivisation, and Automated Theorem Proving, 2021.

- V. Marinković, T. Šukilović, F. Marić:
  Automatsko rešavanje konstruktivnih problema u apsolutnoj i hiperboličkoj geometriji,
  Book of Abstracts of XI Simpozijum "Matematika i primene", 2021.

- V. Marinković, T. Šukilović, F. Marić:
  On automating triangle constructions in absolute and hyperbolic geometry,
  EPTCS 352, Proceedings of the 13th International Conference on Automated Deduction in Geometry, pp. 14–26, 2021.

- V. Marinković,
  Moderna nastava matematike zasnovana na metodama veštačke inteligencije,
  Proceedings of YU INFO 2021, pp. 87–91, 2021.

- M. Selaković, V. Marinković, P. Janičić,
  New Dynamics in Dynamic Geometry: Dragging Constructed Points,
  Journal of Symbolic Computation, vol 97, pp. 3–15, 2020.

- M. Nikolić, V. Marinković, Z. Kovàcs, P. Janičić,
  Portfolio Theorem Proving and Prover Runtime Prediction for Geometry,
  Annals of Mathematics and Artificial Intelligence, vol 85(2-4), pp. 119–146, 2019.

- V. Marinković,
  ArgoTriCS - Automated Triangle Construction Solver,
  Journal of Experimental & Theoretical Artificial Intelligence, vol. 29, no. 2, pp. 247–271, 2017.

- V. Marinković, M. Nikolić, Z. Kovacs, P. Janičić,
  Portfolio Methods in Theorem Proving for Elementary Geometry,
  Proceedings of ADG 2016, pp. 152–161, 2016.

- P. Schreck, P. Mathis, V. Marinković, P. Janičić,
  Wernick's List: A Final Update,
  Forum Geometricorum, Department of Mathematical Sciences, Florida Atlantic University, vol. 16, pp. 69–80, 2016.

- P. Schreck, V. Marinković, P. Janičić,
  Constructibility Classes for Triangle Location Problems,
  Mathematics in Computer Science, Springer, vol 10, no. 1, pp. 27–39, 2016.

- V. Marinković,
  On-line Compendium of Triangle Construction Problems with Automatically Generated Solutions,
  The Teaching of Mathematics, XVIII_1, pp. 29–44, 2015.

- V. Marinković,
  Proof Simplification in the Framework of Coherent Logic,
  Computing and Informatics, vol. 34, no.2, pp.337–366, 2015.

- V. Marinković, P. Janičić, P. Schreck,
  Computer Theorem Proving for Verifiable Solving of Geometric Construction Problems,
  In F. Botana and P. Quaresma, editors, *Automated Deduction in Geometry, ADG 2014*, volume 9201 of *Lecture Notes in Computer Science*, pp. 72–93. Springer, 2015.

- V. Marinković, P. Janičić,
  Towards Understanding Triangle Construction Problems,
  In J. Jeuring et al, editors, *Intelligent Computer Mathematics, CICM 2012*, volume 7362 of *Lecture Notes in Artificial Inteligence*, pp. 126–141, 2012.

- S. Tomažič, **V. Pavlović**, J. Milovanović, J. Sodnik, A. Kos, S. Stancin, V. Milutinović,
  Fast file existence checking in archiving systems,
  Transactions on Storage 7(1): 2, 2011.

- S. Stojanović, **V. Pavlović**, P. Janičić,
  A Coherent Logic Based Geometry Theorem Prover Capable of Producing Formal and Readable Proofs,
  In P. Schreck, J. Narboux, and J. Richter-Gebert, editors, *Automated Deduction in Geometry, ADG 2010*, volume 6877 of *Lecture Notes in Artificial Inteligence*, pp. 200–219. Springer, 2011.

Teaching materials

Books (in Serbian)

- F. Marić, N. Alimpić, N. Vasiljević, M. Vugdelija, D. Vuković, M. Djurišić, V. Marinković, S. Matković, J. Hadži-Purić, M. Čabarkapa,
  Metodička zbirka algoritamskih zadataka sa rešenjima,
  Društvo matematičara Srbije i Fondacija Petlja, Beograd, 2019.
  (Collection of algorithmic problems with solutions (in Serbian))
  ISBN: 978-86-6447-014-8

- F. Marić, V. Marinković,
  Računarstvo i informatika 4, udžbenik za četvrti razred gimnazije,
  Klett, Beograd, 2017.
  (Computer Science and Informatics 4, textbook for fourth grade of high-school (in Serbian))
  ISBN: 978-86-7762-968-7

Electronic notes (in Serbian)

- V. Marinković, F. Marić
  Konstrukcija i analiza algoritama
  `https://poincare.matf.bg.ac.rs/~filip/kiaa/`
- V. Marinković,
  Računarska grafika
  `http://poincare.matf.bg.ac.rs/~vesnap//grafika/rg.pdf`
- V. Marinković,
  Programiranje baza podataka
  `http://poincare.matf.bg.ac.rs/~vesnap/pbp/pbp.pdf`
- M. Živković, V. Marinković,
  Algoritmi i strukture podataka
  `http://poincare.matf.bg.ac.rs/~vesnap//asp/asp.pdf`
- F. Marić, V. Marinković, M. Nikolić, S. Stojanović-Djurdjević
  Algoritmi i strukture podataka
  dostupna iz delova na `http://poincare.matf.bg.ac.rs/~vesnap//asp.html`
- M. Živković, V. Marinković
  Konstrukcija i analiza algoritama
  `http://poincare.matf.bg.ac.rs/~vesnap//kaa/kaa.pdf`
- V. Marinković, F. Marić, S. Stanojević, S. Stojanović-Djurdjević
  Konstrukcija i analiza algoritama, teorija + rešeni zadaci
  `http://poincare.matf.bg.ac.rs/~vesnap//kaa/kiaa.pdf`
- M. Živković, V. Marinković
  Konstrukcija i analiza algoritama 2
  `http://poincare.matf.bg.ac.rs/~vesnap//kaa2/kaa2.pdf`
- V. Marinković
  Grebnerove baze (deo materijala za kurs Simboličko izračunavanje)
  `https://github.com/milanbankovic/symbolic_computing/blob/main/Grebnerove_baze/GroebnerBases.pdf`

Mentoring

- Mentor of 7 master theses:
  - Nikola Dimitrijević: Algorithms for collision detection in real time, 30.9.2019.
  - Anja Ivanišević: Solving stabbing queries, 22.9.2021.
  - Nemanja Jelić: Algorithms for solving widest path problem in graphs, 26.9.2022.
  - Tatjana Radovanović: Mathematical models for automated market makers, 30.9.2022.
  - Dušan Petrović: Rendering geospatial data on devices with Android operating system, 10.5.2023.
  - Milan Kocić: Data structures for efficient solving of the predecessor problem, 28.9.2023.
  - Petar Milikić: Parallel algorithms for solving graph coloring problems, 23.4.2024.

Research interests

- automated reasoning in geometry
- automated and formal theorem proving in coherent logic

Talks

12/2023 V. Marinković, M. Banković:
Automatsko rešavanje konstruktivnih problema u geometriji,
Konferencija "Veštačka inteligencija" 2023, Belgrade, Serbia

12/2023 V. Marinković, F. Marić:
Edukativni sistemi za automatsko rešavanje konstruktivnih problema u geometriji,
Konferencija "Veštačka inteligencija" 2023, Belgrade, Serbia

12/2023 M. Banković, V. Marinković:
Automatsko rešavanje konstruktivnih problema u geometriji,
XIII Simpozijum "Matematika i primene" 2023, Belgrade, Serbia

09/2023 V. Marinković, T. Šukilović, F. Marić:
Towards automated readable proofs of ruler and compass constructions,
ADG 2023, Belgrade, Serbia, 2023.

12/2021 V. Marinković, T. Šukilović, F. Marić:
Automatsko rešavanje konstruktivnih problema u apsolutnoj i hiperboličkoj geometriji,
XI Simpozijum "Matematika i primene" 2021, Belgrade, Serbia

11/2021 V. Marinković:
Verifiable solving of geometric construction problems in the framework of coherent logic,
Seminar "Geometric Logic, Constructivisation, and Automated Theorem Proving" 2021, Dagstuhl, Germany (virtual)

09/2021 V. Marinković, T. Šukilović, F. Marić:
On automating triangle constructions in absolute and hyperbolic geometry,
ADG 2021, Hagenberg, Austria (virtual)

07/2021 V. Marinković, F. Marić,
Towards Next Step Guidance in Triangle Construction Problems,
ThEdu'21, Pittsburgh, United States (virtual)

03/2021 V. Marinković,
Modern teaching of mathematics based of artificial intelligence methods,
YU INFO 2021, Kopaonik, Serbia (virtual)

04/2019 V. Marinković,
Automated solving of construction problems in geometry and its applications,
Mathematics Colloquium, Mathematical Institute of the Serbian Academy of Sciences and Arts, Belgrade, Serbia

02/2011 V. Pavlović,
Solving Geometric Construction Problems,
Fourth Workshop on Formal and Automated Theorem Proving and Applications, Belgrade, Serbia

12/2010 V. Pavlović,
Solving construction problems in geometry,
ARGO seminar, Belgrade, Serbia

11/2010 **V. Pavlović**,
Report on participation of members of ARGO group at ADG conference,
ARGO seminar, Belgrade, Serbia

07/2010 S. Stojanović, **V. Pavlović**, P. Janičić,
Automated Generation of Formal and Readable Proofs in Geometry using Coherent Logic,
ADG 2010, Munich, Germany

03/2009 S. Stojanović, **V. Pavlović**,
Tutorial: coherent logic,
ARGO seminar, Belgrade, Serbia

01/2009 **V. Pavlović**,
XML suite for Isar,
Workshop on Formal and Automated Theorem Proving, Belgrade, Serbia

01/2009 S. Stojanović, **V. Pavlović**, P. Janičić,
Formalization and Automation of Euclidean Geometry,
Workshop on Formal and Automated Theorem Proving, Belgrade, Serbia

06/2008 **V. Pavlović**, S. Stojanović,
Formalization and Automation of Euclidean Geometry,
ARGO seminar, Belgrade, Serbia

04/2008 S. Stojanović, **V. Pavlović**,
Formalization and Automation of Euclidean Geometry,
Spring School Geometry and Visualization, Belgrade, Serbia

12/2007 **V. Pavlović**,
Phase transition in k-GD-SAT problem,
ARGO seminar, Belgrade, Serbia

12/2006 J. Milovanović, **V. Pavlović**, S. Tomažič,
Statistical Analysis on Hash Based Search,
VIPSI-2006 Bled, Slovenia

In several occasions joint work was presented by my co-authors and colleagues:

06/2016 V. Marinković, M. Nikolić, Z. Kovacs, P. Janičić,
Portfolio Methods in Theorem Proving for Elementary Geometry,
Automated Deduction in Geometry - ADG 2016, Strasbourg, France
(presented by Predrag Janičić)

02/2015 P. Schreck, P. Mathis, V. Marinković, P. Janičić,
Straightedge and Compass Constructions: Algebraic and Logical Approaches,
GC 2015 - International Seminar on Geometric Computation, Nanning, China
(presented by Pascal Schreck)

07/2014 V. Marinković, P. Janičić, P. Schreck,
Solving Geometric Construction Problems Supported by Theorem Proving,
10th International Workshop on Automated Deduction in Geometry, Coimbra, Portugal
(presented by Predrag Janičić)

07/2012 V. Marinković, P. Janičić,
Towards Understanding Triangle Construction Problems,
CICM/Mathematical Knowledge Management 2012, Bremen, Germany
(presented by Filip Marić)

04/2012 P. Janičić, V. Marinković,
Automated Synthesis of Geometric Construction Procedures,
SVARM 2012 Workshop, Tallinn, Estonia
(presented by Predrag Janičić)

02/2012 P. Janičić, V. Marinković,
Automated Solving of Triangle Construction Problems,
Workshop on Formal and Automated Theorem Proving 2012, Belgrade, Serbia
(presented by Predrag Janičić)

07/2010 S. Stojanović, **V. Pavlović**, P. Janičić,
Automated Generation of Formal and Readable Proofs in Geometry using Coherent Logic,
Automated Deduction in Geometry - ADG 2010, Munich, Germany
(presented by Sana Stojanović)

Visits, Conferences and Summer Schools

09/2023 ADG 2023, Belgrade, Serbia

11/2021 Seminar "Geometric Logic, Constructivisation, and Automated Theorem Proving" 2021, Dagstuhl, Germany (virtual)

09/2021 ADG 2021, Hagenberg, Austria (virtual)

03/2021 ThEdu'21, Pittsburgh, United States (virtual)

03/2021 YU INFO 2021, Kopaonik, Serbia (virtual)

08/2011 Summer School on Program Synthesis, Schloss Dagstuhl, Germany

08/2010 ICT Innovations 2010, Ohrid, North Macedonia

07/2010 International Conference on Automated Deduction in Geometry, ADG 2010, Munich, Germany

05/2009–08/2009 Visiting researcher at Politechnical University of Valencia, Spain, under the Tempus DEUKS project

08/2008–09/2008 ICCL Summer School 2008 on Computational Logic and Cognitive Science, Technical University Dresden, Germany

04/2006–07/2006 Student exchange program at the Faculty of Electrical Engineering in Ljubljana, Slovenia; working on the joint project of the Faculty of Electrical Engineering in Belgrade and the Faculty of Electrical Engineering in Ljubljana: "Fast File Existence Checking in Archiving System"

11/2005 International Conference IPSI Bled, Slovenia

03/2005–06/2005 Student exchange program at the Faculty of Electrical Engineering in Ljubljana, Slovenia; working on the project: "Ranking the Efficient Points in DEA by Efficiency Function Using PCA"

10/2004 International Conference IPSI Sveti Stefan, Montenegro

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Project involvement

2020–2021 Involved in COST project CA19122 – "European Network for Gender Balance in Informatics (EUGAIN)"

2019–2020 Coordinating the project BOKSUT ("Improving the software quality by introducing testing techniques") of Ministry of Education, Science and Technological Development of Republic of Serbia

2016–2020 Involved in COST project CA15123 – "The European research network on types for programming and verification (EUTypes)"

2010–2019 Involved in research project of Ministry of Science of Republic of Serbia 174021 "Automated Reasoning and Data Mining"

2012–2013 Involved in Serbian-French cooperation project EGIDE/Pavle Savić – "Formalization and automation of geometry"

2009–2013 Involved in COST (EU) project IC0901 – "Rich-Model Toolkit - An Infrastructure for Reliable Computer Systems"

2006–2010 Involved in research project of Ministry of Science of Republic of Serbia 144030 "Automated Reasoning and Advanced Processing of Huge Amounts of Data and Text"

2007–2009 Involved in TEMPUS project: DEUKS (Doctoral School towards European Knowledge Society)

Additional activities

2023 Local chair of conference Automated Deduction in Geometry 2023, Belgrade, Serbia

2022–2023 National consultant for evaluation of educational materials for computer science highschool courses, financed by UNDP

2022–2024 Chair of admissions committee for master studies

2022 Jury member at the programming competition MATF Hackathon 2022.

2021 Member of admissions committee for master studies

2021 Reviewer of a university textbook "Artificial intelligence"

2021 Reviewer of a paper for Croatian journal Politehnika: Časopis za tehnički odgoj i obrazovanje

2018–today Associate of Petlja foundation working on promotion and improvment of algorithmic literacy in Serbia and co-author of some teaching materials

2018–2019 Member of working groups for preparing training programme for teachers who will be teaching informatics courses in higher classes of elementary school and in first and second grade of high-school

2018 Lecturer at Belgrade Institute of Technology in programme for prequalification in IT, financed by UNDP

2008–2013 Member of the organization board of five workshop on formal and automated theorem proving, Belgrade, Serbia

2007–today Secretary of ARGO Seminar (seminar of Automated Reasoning GrOup, based at the Department of Computer Science of the Faculty of Mathematics, Belgrade, Serbia)

2007 Leader of the team of the Faculty of Mathematics at the ACM Regional programming competition for southeastern European students, Bucharest, Romania

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Language Knowledge

Belgrade, May 24, 2024

Serbian	native
English	fluent
German	basic
Spanish	basic