

CURRICULUM VITAE

Žana Kovijanić Vukićević

Adress: Faculty of Natural Sciences and Mathematics, University of Montenegro,
Cetinjski put b.b, Podgorica
E-mail: zaannak@gmail.com, zank@ucg.ac.me

Education

1994 – 2000 PhD Studies in Mathematics under supervision of prof. Rade Živaljević, University of Belgrade and prof. A. A. Irmatov, Lomonosov Moscow State University. PhD these defended in February 2000.

1990 – 1994 Master Studies in Mathematics under supervision of prof. Rade Živaljević, University of Belgrade. Master thesis defended in April 1994.

1985 –1989 Undergraduate studies, Faculty of Natural Sciences and Mathematics, University of Montenegro, Department for Mathematics and Computer Science

Theses

Combinatorial-probability method in enumerative problems of K-valued logic,

PhD theses in mathematics, prepared under supervision of prof. Rade Živaljević and dr. A. A. Irmatov, defended in February 2000. at the University of Belgrade;

ε - nets and the problems of discrete geometry,

master thesis in mathematics, prepared under supervision of prof. Rade Živaljević and defended in April 1994. at the University of Belgrade.

Academic career

2010 – full professor at the Faculty of Natural Sciences and Mathematics of the University of Montenegro,

2005 – 2010 associate professor at the Faculty of Natural Sciences and Mathematics, University of Montenegro,

2000 – 2005 assistant professor at the Faculty of Natural Sciences and Mathematics, University of Montenegro,

1990 – 2000 teaching assistant at the Faculty of Natural Sciences and Mathematics

Awards

Award for the best student of the Faculty of Natural Sciences and Mathematics in 1987.

Award for the best student of University of Montenegro in 1988/89

Research projects

- Project leader of the bilateral project *Research on Chemical Graph Theory* funded by Ministry of Sciences of China and Ministry of Sciences of Montenegro. Duration 2019-2020
- Project leader of the bilateral project *Modern topological indices in mathematical chemistry and its computer modeling* funded by Ministry of Sciences and Education of Slovenia and Ministry of Sciences of Montenegro. Duration 2010-2011
- Project leader of the bilateral project *Quantification of molecular properties by graph theory* funded by Ministry of Sciences and Education of Slovenia and Ministry of Sciences of Montenegro. Duration 2016-2017.
- Project leader of the bilateral project *Quantification of molecular properties by graph theory* funded by Ministry of Sciences and Education of Slovenia and Ministry of Sciences of Montenegro. Duration 2018-2019.
- Member of more national project teams
- Review Panel Member for the evaluation of COST Open Call OC-2017-1

Research visits and stay

November 2019	Faculty of Mathematics and Physics, University of Ljubljana, Slovenia
June 2019	Department of Mathematics Shanghai Jiao Tong University
October 2018	Faculty of Mathematics and Physics, University of Ljubljana, Slovenia
September 2016	Faculty of Mathematics and Physics, University of Ljubljana, Slovenia
June 2012	Moscow State University „M. V. Lomonosov”, Faculty of Mathematics and Mechanics
August 2011	FAMNIT, University of Primorska, Slovenija
September 2010	FAMNIT, University of Primorska, Slovenija
1996 – 1998	Moscow State University „M. V. Lomonosov”, Faculty of Mathematics and Mechanics
January – Jun 1993	Mathematical Institute, Serbian Academy of Sciences and Arts

Books

1. [Ž. Kovijanić](#) Vukićević, S. Vujošević: Introduction in Mathematical Logic, University of Montenegro, Podgorica, 2009.

Scientific papers

1. [Ž. Kovijanić](#): A proof of B̄ar̄any's Theorem, *Publications de l'Institute Mathematique*, tome 55(69) (1994.), pp. 47-50
2. [A. A. Ирматов](#), [Ž. Kovijanić](#) On the Asimptotic of Logarithm of the Number of Threshold Functions in K-valued Logic, *Discrete Mathematics (Russian)*, (1998) V 10, No. 3, 35-57
3. [Ž. Kovijanić](#) Hyperplane Partitions of K-valued Cubical Net, *Mathematica Montisnigri*, V XII (2000.), 47-52
4. M. Jaćimović, [Ž. Kovijanić](#): Borsukova hipoteza: matematički problem ili zadatak na matematičkoj olimpijadi, *Nastava matematike (Teaching of Mathematics)*, XLVI_V(1-2), 1-22 (2001)
5. [Ž. Kovijanić](#): On the Singularity of Random $(0, 1, \dots, K)$ – matrices; *Mathematica Montisnigri*, Vol XVII, pp. 11-16 (2004)
6. [Ž. Kovijanić](#): An improved lower bound of the number of hyperplane partitions of K-valued cubical net; *Mathematica Montisnigri*, Vol XVII, pp. 17-25 (2004)
7. K. [Došen](#), [Ž. Kovijanić](#), Z. [Petrić](#): A New proof of the Faithfulness of Brauer's Representation of Temperley-Lieb Algebras; *International Journal of Algebra and Computation* 16, pp. 959-968 (2006),
8. [Ž. Kovijanić](#) Vukićević: An Enumerative Problem in Threshold Logic; *Publications de l'Institute Mathematique*, Vol. 82(96), pp. 129–134 (2007),
9. [Ž. Kovijanić](#) Vukićević: König's digraphs in the problem of linear independence of matrices, *Glasnik odjeljenja prirodnih nauka CANU* 19 (2010)
10. [Ž. Kovijanić](#) Vukićević: On the limitation of zero-one law in a problem of Discrete mathematics, *Scripta Scientiarum Naturalium*, Vol.1, (2010)
11. [Ž. Kovijanić](#) Vukićević: Some topological indices for hexagonal chains, *Scripta Scientiarum Naturalium*, Vol.2, (2012)

12. Ž. Kovijanić Vukićević, V. Božović: Bicyclic graphs with minimal values of the detour index, *Filomat*, Vol. 26 (6), pp. 1263-1272 (2012)
13. Ž. Kovijanić Vukićević, D. Stevanović: Bicyclic graphs with extremal values of PI index, *Discrete Applied Mathematics*, Vol.161 (3), pp.395-403 (2013)
14. Ž. Kovijanić Vukićević, G. Popivoda: Chemical trees with extreme values of Zagreb indices and coindices, *Iranian Journal of Math. Chemistry*, Vol. 5, Issue 1, pp. 19-29, (2014)
15. I.Gutman, B. Furtula, Ž. Kovijanić Vukićević, G. Popivoda: On Zagreb Indices and Coindices, *MATCH* Vol. 74 (2015)
16. B. Furtula, I. Gutman, Ž. Kovijanić Vukićević, G. Lekishvili, G. Popivoda. On an old/new degree-based topological index. In: Bulletin, Classe des Sciences Mathématiques et Naturelles, Sciences mathématiques 148 (2015), pp. 19-31
17. V. Božović, Ž. Kovijanić Vukićević, G. Popivoda: Chemical trees with extreme values of a few types of multiplicative Zagreb indices, *MATCH* Vol. 76, pp. 207-220 (2016),
18. V. Božović, Ž. Kovijanić Vukićević :*The cycle index of the automorphism group of Zn*, Publications de l'Institut Mathématique, Nouvelle série, tome 101 (115) (2017), pp 99-108, ISSN: 0350-1302,
19. V. Božović, Ž. Kovijanić Vukićević, G. Popivoda: Extremal Values of Total Multiplicative Sum Zagreb Coindex on Unicyclic and Bicyclic Graphs, *MATCH* Vol. 78, pp. 417-430 (2017),
20. V. Božović, Ž. Kovijanić Vukićević, G. Popivoda, R. Škrekovski, A. Tepoh: *On the Maximal RRR index of Trees with Many Leaves* *MATCH* Vol. 83 Issue 1, pp. 189-203 (2020),
21. S. Vujošević, G. Popivoda, Ž. Kovijanić Vukićević, B. Furtula, R. Škrekovski: Arithmetic-geometric index and its relations with geometric-arithmetic index, *Applied Mathematics and Computations* Vol. 391, (2021),
22. Ž. Kovijanić Vukićević: On the Sombor index of chemical trees, *Mathematica Montisnigri* Vol L, 5-14, (2021)
23. V. Božović, Ž. Kovijanić Vukićević, G. Popivoda, Rong-Ying Pan, Xiao-Dong Zhang: Extreme Wiener indices of trees with given number of vertices of maximum degree, *Discrete Applied Mathematics*, Vol.304, pp. 23-31 (2021)
24. Ž. Kovijanić Vukićević, S. Vujošević, G. Popivoda,: Unicyclic graphs with extremal values of arithmetic–geometric index, *Discrete Applied Mathematics*, Vol.302, pp. 67-75 (2021)
25. Ž. Kovijanić Vukićević, L. Bulatović, On the variable Wiener - Szeged inequality, *Discrete Applied Mathematics*, Vol. 307, pp. 15–18 (2022)

Scientific reports

1. On the number of threshold functions, *Int. Conf. Geometric Combinatorics*, Kotor (1998)
2. On subspaces spanned by randomly selected vectors, *XIV Conf. on Applied Math.*, Palić, (2000),
3. An cubic-problem in Discrete Geometry, *III European Congress of Mathematics*, Barselona (2000)
4. On the Singularity of Random $(0,1,\dots,K)$ -matrices, *IV European Congress of Mathematics*, Stockholm (2004)
5. The asymptotic probability that a random K -valued matrix is invertible, *XI kongres matematičara Srbije i Crne Gore*, Petrovac (2004)
6. Zero-one law in a problem of discrete mathematics, *XII Serbian Mathematical Congress*, Novi Sad (2008)
7. A note on Ramsey numbers, *MASSEE International Congress on Mathematics MICOM 2009*, Ohrid, Makedonija, (2009)
8. Ramsey numbers, Seminar za Matematičku logiku, Matematički institut SANU, Beograd, jun 2009. (po pozivu)
9. Bicyclic graphs with extremal PI-index, *Kongres matematičara i fizičara Crne Gore*, Petrovac 2010,
10. Kombinatorni dokazi nekih binomnih identiteta, *Kongres matematičara i fizičara Crne Gore*, Petrovac 2010,
11. G. Popivoda, Ž. Kovijanić Vukićević, V. Božović: Minimal Values of the Detour Index of Bicyclic Graphs, *II matematička konferencija Republike Srpske*, Trebinje 2012.
12. G. Popivoda, Ž. Kovijanić Vukićević, V. Božović: *III matematički kongres Republike Srpske*, Trebinje 2013.
13. G. Popivoda, Ž. Kovijanić Vukićević, V. Božović Extremal values of certain topological indices over some special classes of graphs, *IV Matematički kongres Republike Srpske*, Trebinje 2014
14. G. Popivoda, Ž. Kovijanić Vukićević: Chemical trees with extremal values of some topological indices, *International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM 2015)*, Istanbul 2015
15. Ž. Kovijanić Vukićević, G. Popivoda, V. Božović: Notes on Graphs Extremal with Respect to Some Distance-Based Topological Indices, *International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM 2015)*, Istanbul 2015
16. Ž. Kovijanić Vukićević: Notes on Graphs Extremal with Respect to Some Zagreb Topological Indices, *1-st Macedonian Workshop on Graph Theory and its Applications*, Ohrid 2016
17. Ž. Kovijanić Vukićević: Graph Theory in Mathematical Modeling of Chemical Phenomena, *XV Međunarodni interdisciplinarni seminar o matematičkim modelima i modeliranju u lasersko-plazmenim procesima LPrM3*, Petrovac 2016
18. Lazar Obradović, Riste Škrekovski, Vladimir Božović, Žana Kovijanić Vukićević, Goran Popivoda: *On the maximal value of RRR index among trees with many leaves*, Contemporary mathematical problems, Conference Dedicated to Professor Milenko Pikula, Trebinje, 12-13 October 2018, Book of abstracts, page 27.
19. Ž. Kovijanić Vukićević: Relation between $(0,1)$ -matrices and bipartite graphs, *MESIGMA*, Tivat 2018.
20. Vladimir Božović and Žana Kovijanić Vukićević, *The cycle index of the automorphism group of Zn*, Montenegrin Symposium on Graphs, Informatics and Algebra - MESIGMA 2019, October 11 - 14, 2019, Budva, Montenegro, Book of abstracts, page 3.
21. Ž. Kovijanić Vukićević and L. Bulatović: *Some enumerations in class of unicyclic graphs* Montenegrin Symposium on Graphs, Informatics and Algebra - MESIGMA 2019, October 11 - 14, 2019, Budva, Montenegro, Book of abstracts, page 5.
22. Ž. Kovijanić Vukićević Varijabilna Segedin-Vinerova nejednakost, Seminar Odjeljenja za matematiku, Matematički institut SANU, Beograd, septembar 2021. (po pozivu)

23. Ž. Kovijanić Vukićević: On the variable Wiener-Szeged inequality, *5-st Macedonian Workshop on Graph Theory and its Applications*, Охрид 2021, Book of abstracts, page 9.