Marija Jelić Milutinović, PhD
Curriculum Vitae

PERSONAL DATA

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EDUCATION

2021	**PhD in Mathematics**
	Department of Topology, Faculty of Mathematics, University of Belgrade
	Thesis: Combinatorial topology and graph complexes
	Advisor: Prof. dr Siniša Vrećica, GPA: 10,00 (out of 10,00)
	Award for thesis: Annual Award of the Mathematical Institute of the Serbian Academy of Sciences and Arts in the field of mathematics and mechanics for PhD Students in 2021.
2013	**MSc in Mathematics**
	Department of Topology, Faculty of Mathematics, University of Belgrade
	Thesis: Equivariant index theory
	Advisor: Prof. dr Siniša Vrećica, GPA: 10,00 (out of 10,00)
2012	**BA in Mathematics**
	Faculty of Mathematics, University of Belgrade
	GPA: 10,00 (out of 10,00)
	Award: „The best student of generation at the University of Belgrade"
	Award: „The best student of generation at the Faculty of Mathematics"
2004-2008	Mathematical Grammar School, Belgrade
	(„Matematička gimnazija"- school with the High National Distinction Status)
	Graduated as **„The best student of generation"**

APPOINTMENTS

2021-present	**Assistant Professor**, Faculty of Mathematics, University of Belgrade
	Courses held: Topology A, Topology B, Convex Analysis, Obvious topology, Mathematics 1
2015-2021	**Teaching Assistant**, Faculty of Mathematics, University of Belgrade
	Courses held: Topology A, Topology B, Algebraic topology, Mathematical Analysis 1A, 1B, 1, and 3; Obvious topology, Master courses in Topology
2016 Fall	**Research Fellow at the Institute for Computational and Experimental Research in Mathematics**, ICERM - Brown University, Providence, United States of America
2012-2015	**Teaching Associate**, Faculty of Mathematics, University of Belgrade
	Courses held: Topology A, Topology B, Algebraic topology, Mathematical Analysis 1A and 1B, Obvious topology
2012-2014	Teaching special mentoring program class of gifted students, Mathematical Grammar School, Belgrade

RESEARCH INTEREST

Topological and Geometric Combinatorics, Algebraic Topology, Applied topology

PUBLICATIONS and ACCEPTED PAPERS

[1] *"Topology of cut complexes of graphs"*
Accepted for publication in SIAM Journal on Discrete Mathematics, available at arXiv:2304.13675.
Authors: M. Bayer, M. Denker, M. Jelić Milutinović, R. Rowlands, S. Sundaram, and L. Xue.

[2] *"Total Cut Complexes of Graphs"*
Accepted for publication in Discrete & Computational Geometry, available at *arXiv: 2209.13503.*
Authors: M. Bayer, M. Denker, M. Jelić Milutinović, R. Rowlands, S. Sundaram, and L. Xue.

[3] *"Perfect Matching Complexes of Honeycomb Graphs"*
Electronic Journal of Combinatorics, 30(2) P2.45 (2023)
Authors: M. Bayer, M. Jelić Milutinović, and J. Vega.

[4] *"General polygonal line tilings and their matching complexes"*
Discrete Mathematics, vol. 346, Issue 7 (2023), 113428
Authors: M. Bayer, M. Jelić Milutinović, and J. Vega.

[5] *"Matching complexes of trees and applications of the matching tree algorithm"*
Annals of Combinatorics 26 (2022), 1041–1075
Authors: M. Jelić Milutinović, H. Jenne, A. McDonough, and J. Vega.

[6] *"Bounding the tripartite-circle crossing number of complete tripartite graphs"*
Journal of Graph Theory (2021), 1–23, https://doi.org/10.1002/jgt.22763.
Authors: C. Camacho, S. Fernández-Merchant, M. Jelić Milutinović, R. Kirsch, L. Kleist, E. Bailey Matson, J. White.

[7] *"Manifold Matching Complexes"*
Mathematika 66(2020), 973–1002
Authors: M. Bayer, B. Goeckner, and M. Jelić Milutinović.

[8] *"Combinatorics of unavoidable complexes"*
European Journal of Combinatorics 83(2020), 103004
Authors: M. Jelić Milutinović, D. Jojić, M. Timotijević, S. T. Vrećica, and R. T. Živaljević.

[9] *"Bounding the tripartite-circle crossing number of complete tripartite graphs"- EUROCOMB 2019 publication*
Acta Mathematica Universitatis Comenianae 88(3)(2019), 515-520.
Authors: C. Camacho, S. Fernández-Merchant, M. Jelić Milutinović, R. Kirsch, L. Kleist, E. Bailey Matson, J. White.

[10] *"Cyclohedron and Kantorovich-Rubinstein polytopes"*
Arnold Mathematical Journal, 4(1)(2018), 87-112
Authors: F.D. Jevtić, M. Jelić, and R. T. Živaljević.

[11] *"On Knaster's problem"*
Marija Jelić, Publications de l'Institut Mathématique, 99(113)(2016), 43-49.

[12] *"Methods of Equivariant Topology in Two Nice Discrete Geometry Problems"*
Marija Jelić, The Graduate Journal of Mathematics, 1(1) (2016), 18–27.

PREPRINTS

[13] *"The Tripartite-Circle Crossing Number of K_2,2,n",* *arXiv:2108.01032.*
Authors: C. Camacho, S. Fernández-Merchant, M. Jelić Milutinović, R. Kirsch, L. Kleist, E. Bailey Matson, J. White.

INTERNATIONAL MATHEMATICAL COMPETITIONS

2011 Second prize - 18th International Mathematics Competition for University Students IMC
2010 Second prize - 17th International Mathematics Competition for University Students IMC
2009 Second prize - 16th International Mathematics Competition for University Students IMC
2008 **Silver medal - 49th International Mathematical Olympiad,** Spain
2008 Silver medal - 25th Balkan Mathematical Olympiad, Republic of Macedonia
2008 **Gold medal – 1st Romanian Master in Mathematics,** Romania
2007 **Bronze medal - 48th International Mathematical Olympiad,** Vietnam
2007 Silver medal – International Arhimede contest, Romania
2007 Bronze medal - 24th Balkan Mathematical Olympiad, Greece
2006 **Bronze medal - 47th International Mathematical Olympiad**, Slovenia
2004 Silver medal - Junior Balkan Mathematical Olympiad, Serbia

* The first female participant from the area of former Yugoslavia who won three medals at International mathematical Olympiads (IMO).

Physics competitions, 2004-2006: 3 first prizes at republic/federal physics competitions in Serbia and Montenegro

PROJECTS and GRANTS

2024-present	Member of project **A-PLUS -Approximate Algebraic Structures of Higher Order: Theory, Quantitative Aspects and Applications**
	Selected by *Program for Excellent Projects of Young Researchers and Scientists in the Early Stage of Career – PROMIS 2023*, financed by the Science Fund of the Republic of Serbia
	Note: This project is the only project in pure mathematics selected by PROMIS 2023
2022-present	Member of project **MEGIC -Integrability and Extremal Problems in Mechanics, Geometry and Combinatorics,** selected by program IDEAS, financed by the Science Fund of the Republic of Serbia
2020-present	*Grant by the Ministry of Education, Science, and Technological Development of the Republic of Serbia*, for the Faculty of Mathematics, no. 451-03-47/2023-01/ 200104 for year 2023.
2020-2021	*Bilateral project between Slovenia and Serbia- Discrete Morse theory and its applications*
	Project coordinators: Aleš Vavpetič (Institute for mathematics, physics and mechanics, University of Ljubljana, Slovenia) and Đorđe Baralić (Mathematical Institute SANU, Serbia)
2014-2019	*Project 174034 - Topology, geometry and global analysis on manifolds and discrete structures,* financed from national funds

ORGANIZING ACTIVITIES

2023   MSRI Special Session: Geometric and Topological Combinatorics
Joint Mathematics Meetings, Boston, USA, 2023. (with M. Bayer and J. Vega)

CONFERENCES, RESEARCH VISITS, TALKS

2022   XII Symposium "Mathematics and Applications", Belgrade, Serbia
Talk: *Cut Complexes of Graphs*

2022   29th British Combinatorial Conference, Lancaster, United Kingdom
Talk: *Cut Complexes*

2022   14th Nordic Combinatorial Conference, Tromso, Norway
Talk: *Perfect Matching Complexes of Honeycomb Graphs*

2022   Copenhagen-Jerusalem Combinatorics Seminar
Talk: *Matching complexes of graphs & Manifolds*

2021   MSRI (Mathematical Sciences Research Institute, Berkeley, USA) Summer Research Program
Supported by the National Science Foundation (USA) under Grant No. DMS-1440140
Research program with M. Bayer and J. Vega.

2021   *Graduate Research Workshop in Combinatorics 2021*

2020   *Women in Quant Finance Event* (online event hosted by G-Research, London, UK)

2020   *Bay Area Discrete Math Day* (online event hosted by the University of California, Davis, USA)

2018   *TRIPODS Summer Bootcamp: Topology and Machine Learning*, ICERM, Providence, RI, USA

2018   *Graduate Research Workshop in Combinatorics,* Iowa, USA

2018   *Einstein Workshop Discrete Geometry and Topology*, FU Berlin, Germany

2017   Introductory Workshop: *Geometric and Topological Combinatorics*, MSRI, Berkeley, USA

2017   Connections for Women Workshop: *Geometric and Topological Combinatorics*, MSRI, Berkeley, USA

2017   *NSFOCS 2017*, Novi Sad Workshop on Foundations of Computer Science, Novi Sad, Serbia
Talk: *Combinatorics of unavoidable complexes*

2017   Mathematics Research Communities Summer Conference "*Beyond Planarity: Crossing Numbers*", Utah, USA

2016   Research Visit, The University of Texas at Dallas, USA

2016 Fall   ICERM - Institute for Computational and Experimental Research in Mathematics, Providence, RI, USA
Semester Program "*Topology in Motion*",
Workshops: *Unusual Configuration Spaces,*
Stochastic Topology and Thermodynamic Limits,
Topology and Geometry in a Discrete Setting
Talk: *On Knaster's Problem*

2016   *The Mathematics of Jiri Matoušek Conference*, Prague, Czech Republic

2016   *Ratonal Homotopy Theory Summer School*, Rabat, Morocco

2015   *Discrete Geometry Workshop*, Moscow, Russia

2015   *3rd Heidelberg Laureate Forum,* Heidelberg, Germany

2015   *BMS Summer school on Convex geometry - discrete and computational,* Berlin, Germany

2015   *Summer school on Computational topology, ACAT 2015*, Slovenia

2015   *Oberwolfach Seminar: Topological Combinatorics of Configuration Spaces,* Germany

2015   *HTCA 2015* - Homology: Theoretical and Computational Aspects, Genoa, Italy

2015   *XXIst Oporto Meeting on Geometry, Topology and Physics* - Applications of Topology, Lisbon, Portugal

2012   *XVII Geometrical Seminar*, Zlatibor, Serbia

2010   *Geometry, Dynamics, Integrable Systems – GDIS*, Fruška Gora, Serbia

2008   *Geometry, Dynamics, Integrable Systems – GDIS*, Belgrade, Serbia

SOME SYNERGISTIC ACTIVITIES

2022   Invited interview for the celebration of 10th anniversary of the European Girls Mathematical Olympiad https://egmo2022.hu/videos/

2022   Presentation at the workshop „Perspectives of the young scientists in Serbia", organized by the Student Seminar of the Mathamatical Institute (Serbian Institute for Sciences and Arts)

2018   Coordinator at 35th Balkan Mathematical Olympiad, Serbia

2017   Coordinator at 6th European Girls' Mathematical Olympiad, Switzerland

2016   Deputy leader for Serbia team at 5th European Girls' Mathematical Olympiad, Romania

2015   Deputy leader for Serbia team at 4th European Girls' Mathematical Olympiad, Belarus

2014   Deputy leader for Serbia team at 3rd European Girls' Mathematical Olympiad, Turkey

2013   Deputy leader for Serbia team at 2nd European Girls' Mathematical Olympiad, Luxembourg

2013   Leader for the team of University of Belgrade at 7th SEEMOUS, Athens, Greece

2012   "May - the Month of Mathematics" event, a volunteer

2012   Deputy leader for Serbia team at Arhimede contest, Romania

2011   Award: „Winner of Club 27 for Science", by Erste bank, for year 2010

2009   Member of Jury for the 26th Balkan Mathematical Olympiad, Serbia