

Milkica Savić

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Research Interests

Algebraic Topology, Probabilistic and Stochastic Methods, Combinatorial Topology

Education

University of Novi Sad, Faculty of Natural Sciences, Serbia

PhD in Mathematics

Nov 2025 – Present

University of East Sarajevo, Faculty of Philosophy, Bosnia and Herzegovina

MA in Mathematics

Oct 2024 – Oct 2025

Mentor: Assoc. Prof. Dr Valentina Timotić

Thesis: *Regularly Varying Functions*

GPA: 10.00

University of East Sarajevo, Faculty of Philosophy, Bosnia and Herzegovina

BA in Mathematics and Physics

Oct 2020 – Jul 2024

GPA: 9.75

Honors and Scholarships

- Scholarship for a research visit at the Mathematical Institute of the Serbian Academy of Sciences and Arts, awarded by the Ministry for Scientific and Technological Development and Higher Education of the Republic of Srpska (2026)
- Scholarship for academic excellence at the Master's level, awarded by the Ministry for Scientific and Technological Development and Higher Education of the Republic of Srpska (2025)
- Scholarship for talented students ('Dr Milan Jelić' Foundation) (2022–2024)
- Grant for participation in the *School of Information, Noise and Physics of Life*, organized by ICTP and the Mathematical Institute of the Serbian Academy of Sciences and Arts (2022)

Publications

Regularly Varying Functions, Asymptotic Relations and Generalized Inverse

Milkica Savić

Presented at the 12th International Student Conference, University of East Sarajevo, 2025
(Proceedings in preparation)

Research Experience

Student Research Internship, Mathematical Institute of the Serbian Academy of Sciences and Arts

Random Structures in Algebraic Topology

Mentor: Dr Djordje Baralić

Aug 2025 – Present

- Conducted research on simplicial complexes arising from additive and combinatorial constraints
- Developed and analyzed original proofs of structural results
- Presented results in research seminars
- Participated in regular research meetings and discussions
- Explored probabilistic approaches to discrete topological models

Research Visit, Mathematical Institute of the Serbian Academy of Sciences and Arts, Belgrade

Mentor: Dr Djordje Baralić

Feb 18 – Mar 21, 2026

- Studied simplicial complexes arising from sum-free subsets of finite sets
- Investigated structural and topological properties of sum-free complexes

Work Experience

Teaching Assistant, Department of Mathematics

Spring 2025 – Present

University of East Sarajevo, Faculty of Philosophy

- Mathematical Analysis 1
- Mathematical Analysis 2
- Analytic Geometry
- Linear Algebra 1
- Differential Equations
- Complex Analysis
- Numerical Methods
- History of Mathematics

Department Secretary

Spring 2025 – Present

University of East Sarajevo, Faculty of Philosophy

Additional Skills

- Programming: LaTeX (advanced), C++ (basic)
- Languages: English (fluent), German (advanced), French and Russian (working knowledge)