

## CURRICULUM VITAE

### Marija Mikić

#### 1. Personal data:

- Date of birth: 12.5.1987.
- Place of birth: Smederevska Palanka, Serbia
- E-mail: [marijam@matf.bg.ac.rs](mailto:marijam@matf.bg.ac.rs), [marija.d.mikic@gmail.com](mailto:marija.d.mikic@gmail.com)

#### 2. Education:

- 2011—2018: PhD studies (module Theoretical Mathematics and Applications) – [Faculty of Mathematics, University of Belgrade](#); The doctoral dissertation entitled by "[Asymptotic properties of solutions of Emden-Fowler equations and their generalizations](#)" was defended on February 13, 2018 with a grade of 10/10.
- 2010—2011: Master studies (module Theoretical Mathematics and Applications) – Faculty of Mathematics, University of Belgrade; Master's thesis entitled by "[Asymptotic properties of solutions of differential equations](#)" was defended with a grade of 10/10.
- 2006—2010: Undergraduate studies (module Applied Mathematics) – Faculty of Mathematics, University of Belgrade.

#### 3. Work experience:

- November 2018—today: Faculty of Mathematics, University of Belgrade, Assistant professor at Department of Differential equations
  - 2020 — today: one of the founders of the [Mathematical Academy](#) (the Mathematical Academy is an educational entity that aims to improve the conditions for the advancement of talents in the field of mathematics, physics and computer science, as well as to provide support to other groups in learning mathematics and these sciences)
  - 2020 — today: Professor at Mathematical Academy
  - April 2023 – November 2025: Senior researcher (cryptography (especially Zero Knowledge proof) and Tokenomics expert (Mathematical modelling expert)) in [3327 team](#), [Attic42](#)
  - November 2022 – November 2024: Head of the Department of Differential equation at Faculty of Mathematics, University of Belgrade
  - September 2021 – March 2023: Senior researcher, [MVP Workshop](#)
  - December 2012 — November 2018: Faculty of Mathematics, University of Belgrade Assistant at Department of Differential equations
  - October 2010—December 2012: Faculty of Mathematics, University of Belgrade Teaching associate at Department of Differential equations
  - October 2015—January 2016: [Faculty of Technology and Metallurgy, University of Belgrade](#) Assistant at Department of Mathematical science

#### 4. The courses I held:

- Differential equations A (BS);
- Differential equations B (BS);
- Differential equations (BS);
- Differential and integral equations (BS);
- Analysis 1 for I module (BS);
- Analysis 2 for I module (BS);
- Special course for I module (**Zero-Knowledge Proofs**) (BS);
- Selected chapters of ordinary differential equations (MS);
- Qualitative analysis of ordinary differential equations (DS).

## 5. Other professional activities:

- 2011 — today: Member of the scientific project 174001 entitled by "Dynamics of Hybrid Systems of Complex Structures. Material Mechanics".
- 2016 — today: Coordinator of the scientific project 174001 for the Faculty of Mathematics.
- 2017 — today: Member of Council at Faculty of Mathematics University of Belgrade.
- 2024 – today: Professor and the organizer of ZKO - cryptography course in Belgrade (Mathematical Academy &ETH foundation)
- 2024 – today: Professor at Web3 Academy Masterclass.
- August 2024: Lecturer at [Web3 camp](#), Petnica, Serbia.
- 2013 — 2021: Professor for preparation classes for entrance exam at Faculty of Mathematics.
- 2016 — 2021: Coordinator for preparation classes for entrance exam at Faculty of Mathematics.
- 2023: Professor at [Web3 Academy](#).
- 2023: Professor and the organizer of Zero-Knowledge Proof course in Belgrade (Mathematical Academy &ETH foundation)
- August 2023: Mentor at Web3 camp, Petnica, Serbia.
- Professional Associate of accompanying materials in Mathematics for the 6<sup>th</sup> grade of Elementary School, publisher Novi Logos, 2016.
- One of the authors of the accompanying materials in Mathematics for the 7<sup>th</sup> grade of Elementary School, publisher Novi Logos, 2020.  
Available at: <https://www.yumpu.com/xx/document/fullscreen/62957575/-7->
- Mathematics Lecturer for 4<sup>th</sup> grade of High School in the Project On-line Education on Serbian National TV channel during Covid-19 pandemic, 2020.
- Author of the workbook "Differential equations", in the process of writing.
- Co-author of the workbook "Systems of differential equations", in the process of writing.

## 6. Mentor of Master's thesis:

- [Differential equations in mathematical modelling](#);
- [Stability of solutions of systems of differential equations](#);
- [Differential equations and oscillatory nature of biological processes](#);
- [Different approaches of solving Cauchy problems for ordinary differential equations](#);
- [Bifurcations in one-dimensional and two-dimensional dynamical systems](#);
- [Differential equations and Wolfram Mathematica software package](#);

## 7. Member of the commission for the defense of the master's thesis:

- [Mathematical modeling of romantic relationship](#).

## 8. Scientific papers:

- D. Branković, M. Mikić, Stability of equilibriums and bifurcation analysis of two-dimensional autonomous competitive Lotka-Volterra dynamical system, Kragujev. J. Math. (accepted for publication), 2026.
- Marija Mikić, Mihajlo Srbakoski, Strahinja Praska, Post-Quantum Stealth Address Protocols, Journal of Cyber Security Technology TSEC, (accepted for publication), 2026..
- Marija Mikić, Danijela Branković, Žarko Mijajlović, Dynamic of the  $\Lambda$ CDM model of the universe from the aspect of the dynamical systems theory, Annals – Series on Mathematics and Its Applications (accepted for publication), 2026.

- Marija Mikić, Đorđe Krtinić, [Existence and uniqueness of solutions of some Cauchy problems for the Emden—Fowler equation](#), *Differential Equations*, vol. 57, no. 8, pp. 984—992 (2021).
- Marija Mikić, Raca Tododsijević, Dragan Urošević, [Less is more: General variable neighborhood search for the capacitated modular hub location problem](#), *Computers & Operations Research*, vol. 110, pp. 101—115 (2019), ISSN: 0305-0548.
- Đorđe Krtinić, Marija Mikić, [Refinement of Hermite-Hadamard type inequalities for s-convex functions](#), *Miskolc Mathematical Notes*, vol. 19, no. 2, pp. 997—1005 (2018), Print ISSN: 1787-2405, Online ISSN: 1787-2413.
- Đorđe Krtinić, Marija Mikić, [On the Cauchy problem for a generalized Emden-Fowler type equation](#), *Mathematical Notes*, vol. 105, no. 1, pp. 148—152 (2019), Print ISSN: 0001—4346.
- Đorđe Krtinić, Marija Mikić, [Note on asymptotical behavior of solutions of Emden-Fowler equation and the existence and uniqueness of solution of some Cauchy problem](#), *Miskolc Mathematical Notes*, vol. 18, no. 1, pp. 285--294 (2017), Print ISSN: 1787-2405, Online ISSN: 1787—2413.
- Jelena Golubović, Ana Protić, Mira Zečević, Biljana Otašević, Marija Mikić, [Artificial neural networks modeling in ultra performance liquid chromatography method optimization of mycophenolate mofetil and its degradation products](#), *Journal of Chemometrics*, vol. 28, no. 7, pp. 567–574, (2014), Online ISSN:1099-128X.
- Jelena Golubović, Ana Protić, Mira Zečević, Biljana Otašević, Marija Mikić, Ljiljana Živanović, [Quantitative structure retention relationships of azole antifungal agents in reversed-phase high performance liquid chromatography](#), *Talanta*, vol. 100, pp. 329–337, (2012), ISSN: 0039-9140.
- Marija Mikić, [Note about asymptotic behaviour of positive solutions of superlinear differential equation of Emden-Fowler type at zero](#), *Kragujevac Journal of Mathematics*, vol. 40, no. 1, pp. 105–112 (2016), Print ISSN: 1450-9628, Online ISSN: 2406-3045.

#### 9. Scientific papers in the review process:

- Katica (Stevanović) Hedrih, Marija Mikić, Rolling a heavy ball over a curvilinear path of specific shapes in the real plane
- Marija Mikić, Danijela Branković, [Stability of equilibriums and bifurcation analysis of two-dimensional autonomous competitive Lotka-Volterra dynamical system](#)
- Marija Mikić, Danijela Branković, Stability of equilibriums of n-dimensional autonomous competitive Lotka-Volterra dynamical system
- Marija Mikić, Mihajlo Srbakoski, Miloš Bojinović, Ivan Džambasanović, [Elliptic Curve Pairing Stealth Address Protocols](#)

#### 10. Invited Lecture Presentation:

- [Asymptotic properties of solutions of Emden-Fowler equations and their generalisations](#), Seminar Mechanics of Machines and Mechanisms – Models and Mathematical Methods, Belgrade, April 16, 2019, Mathematical Institute of SASA.

#### 11. Publications:

- Marija Mikić, Marija Stamenković, *Three parametric testing of singularity and position of nonlinear dynamics relative balance of heavy material particle on eccentrically rotating rough circle line*, Scientific review, series: Scientific And Engineering – Special Issue Nonlinear Dynamics S2, pp. 325–332 (2013).
- Marija Mikić, Marija Stamenković, *Testing of singularity and position of nonlinear dynamics relative equilibrium of heavy material particle on eccentrically rotating rough circle line, with constant angular velocity*, Proceedings of the 4<sup>th</sup> International Congress of Serbian Society of Mechanics, pp. 983–988 (2013).

- Katica (Stevanović) Hedrih, Marija Mikić, *Rolling a heavy ball over parabola and its generalisations in the real plane*, Booklet of Abstracts, Symposium Nonlinear Dynamics Scientific, 2019.

## 12. Conferences:

- Marija Mikić, PLONK under the hood, Web3 camp, Petnica, 2024.
- Danijela Branković, Marija Mikić, Analysis of the stability of n-dimensional autonomous competitive Lotka-Volterra dynamical system, XIV Symposium Mathematics and Applications, Belgrade, Serbia, 2024.
- Danijela Branković, Marija Mikić, Stability of two-dimensional and three-dimensional autonomous competitive Lotka-Volterra dynamical system, XV Serbian mathematical congress, Belgrade, Serbia, 2024.
- Marija Mikić, ZKP under the hood, Blockchain Community Day, Online conference, 2024.
- Marija Mikić, Elliptic Curve Pairing Stealth Address Protocols, ETH Bucharest, Romania, 2024.
- Marija Mikić, Elliptic Curve Pairing Stealth Address Protocols, ETH Berlin, Germany, 2024.
- Marija Mikić, RLWE and FHE Stealth Address Protocols, BlockSplit, Croatia, 2024.
- Marija Mikić, Zero Knowledge Proof Workshop, BlockSplit, Croatia, 2024.
- Marija Mikić, Elliptic Curve Pairing Stealth Address Protocols, ZK day, Belgrade, Serbia, 2024.
- Marija Mikić, Ring and Module LWE Stealth Address Protocols, ETH Belgrade, Serbia, 2024.
- Marija Mikić, Stealth addresses, ETH Ljubljana Meetup, Slovenia, 2024.
- Marija Mikić, [Anonymity in MACI](#), ETHCC 6, Paris, France, July 2023.
- Marija Mikić, [Anonymity in MACI](#), ETH Belgrade, Belgrade, Serbia, June 2023.
- Marija Mikić, *Love Dynamics*, After Math, Palić, Serbia, November 2022.
- Marija Mikić, *Personal Data protection using Zero-Knowledge proofs*, Cryptica, Belgrade, November 2022.
- Marija Mikić, *Anonymity of voting*, After Math, Palić, Serbia, November 2022.
- Marija Mikić, Devcon 6, Bogota, Colombia, October 2022.
- Marija Mikić, [Commitments in Zero Knowledge Proofs](#), Blockemon, Belgrade, 2021.
- Đorđe Krtinić, Marija Mikić, *Cauchy problem for the Emden–Fowler equation with initial point on the positive part of y-axis*, XI Symposium Mathematics and Applications, Belgrade, Serbia, December 2021.
- Katica (Stevanović) Hedrih, Marija Mikić, *Rolling a heavy ball over parabola and its generalisations in the real plane*, Nonlinear Dynamics-Scientific work of prof. dr. Katica (Stevanović) Hedrih, Belgrade, Serbia, 2019.
- Đorđe Krtinić, Marija Mikić, *Note of some asymptotic properties of solutions of Emden-Fowler equation*, VIII Symposium Mathematics and Applications, Belgrade, Serbia, 2017.
- Marija Mikić, Julka Knežević–Miljanović, *Some asymptotic properties of second order differential equations*, XIII Serbian Mathematical Congress, Vrnjačka Banja, Serbia, 2014.
- Marija Mikić, Marija Stamenković, *Three parametric testing of singularity and position of nonlinear dynamics relative balance of heavy material particle on eccentrically rotating rough circle line*, 8th European Nonlinear Dynamics Conference, Vienna, Austria, 2014.
- Marija Mikić, Marija Stamenković, *Testing of singularity and position of nonlinear dynamics relative equilibrium of heavy material particle on eccentrically rotating rough circle line, with constant angular velocity*, Fourth Serbian (29<sup>th</sup> Yu) Congress on Theoretical and Applied Mechanics, Vrnjačka Banja, Serbia, 2013.
- Marija Mikić, Marija Stamenković, *Three parametric testing of singularity and position of nonlinear dynamics relative balance of heavy material particle on eccentrically rotating rough circle line, with constant angular velocity*, Symposium Nonlinear Dynamics, Milutin Milanković, Multidisciplinary and Interdisciplinary Applications, Belgrade, Serbia, 2012.

## 13. School:

- Sarajevo Stochastic Analysis Winter School 2019