Marija (Dušan) Cuparić

Date of birth: March 27th 1992 Place of birth: Čačak, Serbia

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Research interests

nonparametric statistics, model specification tests, asymptotic efficiency, distribution theory, censored and other missing data issues

Education

- 2010–2014 **Bachelor's Degree**, University of Belgrade Faculty of Mathematics, Statistics, Actuarial and Financial Mathematics. GPA - 9.02/10.00
- 2014–2015 Master's Degree, University of Belgrade Faculty of Mathematics, Statistics, Actuarial and Financial Mathematics. GPA - 10.00/10.00 | Thesis title: Risk analysis in life insurance
- 2015–2021 **Ph.D Degree**, University of Belgrade Faculty of Mathematics, Mathematics.

 GPA 10.00/10.00 | Thesis title: Goodness-of-fit tests based on L^2 and L^{∞} distances and their asymptotic efficiency | Supervisor: Bojana Milošević, PhD

Employment history

- 2014–2016 **Teaching associate**, University of Belgrade Faculty of Mathematics.
- 2016–2022 **Teaching assistant**, University of Belgrade Faculty of Mathematics.
- 2022-present Assistant professor, University of Belgrade Faculty of Mathematics.

Publications

- [M22] M. Cuparić, B. Milošević, and M. Obradović. New L^2 -type exponentiality tests. SORT, 43(1):25-50, 2019. ISSN: 1696–2281, **IF2017: 1.344**
- [M52] M. Cuparić. Approximate Bahadur efficiency of Henze-Meintanis exponentiality tests with comparison. Matematički vesnik, 71(1-2):169-179, 2019. ISSN: 0025-5165
- [M23] M. Cuparić, B. Milošević, Ya. Yu. Nikitin, and M. Obradović. Some consistent exponentiality tests based on Puri-Rubin and Desu characterizations. Applications of Mathematics, 65(3):245-255, 2020. ISSN 0862-7940, IF2020: 0.881
- [M21] M. Cuparić, B. Milošević. New characterization based exponentiality tests for randomly censored data. TEST, 31.2: 461-487, 2022 ISSN: 1133-0686, IF2020: 2.345,
- [M21] M. Cuparić. Asymptotic properties of inverse probability of censored weighted U-empirical process for right-censored data with applications. Statistics, 55(5): 1035-1057, 2021. ISSN: 0233-1888, **IF2021: 2.346**

- [M21a] M. Cuparić, B. Milošević, and M. Obradović. New consistent exponentiality tests based on V-empirical Laplace transforms with comparison of efficiencies. Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matemáticas, 116(1): 1-26, 2022. ISSN: 1578-7303, IF2021: 2.276
- [M22] M. Cuparić, B. Milošević, and M. Obradović. Asymptotic distribution of certain degenerate V-and U-statistics with estimated parameters. Mathematical Communications, 27(1):77-100, 2022. ISSN: 1331-0623, **IF(2020)**: 1.075
- [M21] D. Aleksić, M. Cuparić, B. Milošević. Non-degenerate U-statistics for data missing completely at random with application to testing independence. Stat, 12(1), 2023. **IF2021: 2.451**
- [M22] M. Cuparić, B. Milošević. To impute or to adapt? Model specification tests' perspective. Statistical Papers, 65 (2), 1021-1039, 2024. **IF2023:** 1.3
- [M23] M. Cuparić, B. Milošević. IPCW approach for testing independence. Journal of Nonparametric Statistics, 36 (1), 118-145, 2024. **IF2022: 1.2**
- [M22] M. Cuparić, B. Milošević. Goodness-of-fit testing in the presence of cured data: IPCW approach. Lifetime Data Analysis, 233-252., 2025 IF2023=1.2 DOI: 10.1007/s10985-025-09646-1
- [M22] B. Ebner, M. Cuparić, B. Milošević, Flexible independence testing for hyperspherical data: A kernel approach for vectors of different dimensions, Journal of Statistical Computation and Simulation, 2025 IF2024=1.2 doi: 10.1080/00949655.2025.2566417

University textbooks (in Serbian)

J. Jocković, M. Cuparić, Introduction to Life Insurance Mathematics, Faculty of Mathematics, 2025. ISBN 978-86-7589-200-7

Conferences

Invited talks

- [M32] D. Bucalo Jelić, M. Cuparić, B. Milošević, Independence testing for mixed-type data using distributional transformations, HiTEc & CoDES 2025, July 8-9 2025, Limassol, Cyprus.
- [M32] M. Cuparić, Goodness-of-Fit Testing in Survival Analysis: Imputation vs Adaptation for Censored Data, IDWSDS, October 8, 2024, Virtual Conference.
- [M32] D. Aleksić, M. Cuparić, B. Milošević, Testing independence in the presence of data missing completely at random, HiTEc & CoDES 2024, March 23-24 2024, Limassol, Cyprus.
- [M32] M. Cuparić, B. Ebner, B. Milošević, Testing independence for circular data: Energy-based approach, CFE-CMStatistics 2023, December 16-18 2023, Berlin, Germany.
- [M32] **M. Cuparić**, B. Milošević, New characterization based goodness-of-fit tests for randomly censored data, CFE-CMStatistics 2020, December 19-21 2020, Virtual Conference.

[M31] M. Cuparić, B. Milošević, M. Obradović, New class of supremum-type exponentiality tests based on V-empirical Laplace transforms and Puri-Rubin characterization, 21st European Young Statisticians Meeting, July 29 - August 2 2019, Belgrade, Serbia.

Other talks - presenting author

- [M34] M. Cuparić, B. Milošević. On independence testing: a randomly censored data perspective. Statistical Modeling with Applications, 24-25. September 2024. Belgrade, Serbia
- [M64] M. Cuparić, B. Ebner, B. Milošević, Independence tests for circular data, December 2023, The thirteenth symposium "Mathematics and Applications", Belgrade, Serbia
- [M64] **M. Cuparić**, B. Milošević, Independence tests for randomly censored data (Testovi nezavisnosti za slučajno cenzurisane podatke), December 2022, The twelfth symposium "Mathematics and Applications", Belgrade, Serbia
- [M64] M. Cuparić, Goodness-of-fit tests for randomly censored data, Kongres mladih matematičara u Novom Sadu, 29.9-1.10.2022., Novi Sad, Serbia.
- [M64] **M. Cuparić**, B. Milošević, Testovi saglasnosti sa raspodelom u slučaju nepotpunog uzorka, The eleventh Symposium "Mathematics and Applications" 2021, 3-4.12.2021., University of Belgrade Faculty of Mathematics, Belgrade, Serbia.
- [M34] M. Cuparić, B. Milošević, Univariate goodness-of-fit tests for randomly censored data: tests' adaptation versus data transformation, Applied Statistics, September 20-22 2021, Ribno (virtual), Slovenia.
- [M34] **M. Cuparić**, B. Milošević, M. Obradović, On the asymptotic efficiency of recent characterization based exponentiality tests of L^2 and L^∞ type, New Trends in Mathematical Stochastics, 30.8-3.9.2021., Saint Petersburg, Russia
- [M64] **M. Cuparić**, B. Milošević, Ya. Yu. Nikitin, M. Obradović, Novi testovi eksponencijalnosti ω^2 tipa (New ω^2 type exponentiality tests), The tenth Symposium "Mathematics and Applications" 2019, 6-7.12.2019., University of Belgrade Faculty of Mathematics, Belgrade, Serbia.
- [M34] M. Cuparić, B. Milošević, M. Obradović, L²-type exponentiality tests based on V-empirical Laplace transform and Puri-Rubin characterization, XIV Serbian Mathematical congress, May 16-19. 2018, Kragujevac, Serbia. Other talks - coauthor
- [M34] M. Cuparić, **B. Milošević**, Recent directions in statistical tests for randomly censored data, Bernoulli-ims 11th World Congress in Probability and Statistics, August 12-15 2024, Bochum, Germany
- [M34] M. Cuparić, **B. Milošević**, On the goodness-of-fit tests for censored data with cure fraction, May 16-19. 2024, Kozani, Greece
- [M34] M. Cuparić, B. Milošević, Mixture cure models: a goodness-of-fit perspective, Conference of the Romanian Society of Probability and Statistics, May 10-11 2024, Timisoara, Romania
- [M34] M. Cuparić, B. Ebner, **B. Milošević**, Testing independence for spherical and hyperspherical data: kernel-based approach, HiTEc & CoDES 2024, March 23-24 2024, Limassol, Cyprus.

- [M34] **D. Aleksić**, M. Cuparić, B. Milošević. On the asymptotic properties of non-degenerate U-statistics in the presence of MCAR data. Statistical Modeling with Applications, 29-30. September 2023. Bucharest
- [M34] M. Cuparić, **B. Milošević**, Independence tests for randomly censored data: novel proposal and the review of recent developments, GOFCP September 2-4 2022, Rennes, France
- [M34] M. Cuparić, **B. Milošević**, On the IPCW approach for testing independence, ISNPS June 20-25 2022, Paphos, Cyprus
- [M34] M. Cuparić, **B. Milošević**, Goodness-of-fit tests for censored data: a look at the past, present and future research, StatMod2021 (virtual), December 3-4 2021 Rouen, Rouen, France
- [M34] M. Cuparić, **B. Milošević**, Characterization based approach for construction of goodness-offit tests: randomly censored data case, New Trends in Mathematical Stochastics, 30.8-3.9.2021., Saint Petersburg, Russia
- [M34] M. Cuparić, **B. Milošević**, Recent directions in testing exponentiality: the right censored data case, 8th European Congress of Mathematics (virtual), June 20-26, 2021, Portorož, Slovenia
- [M34] M. Cuparić, **B. Milošević**, M. Obradović, New consistent characterization based goodness-of-fit tests, European Meeting of Statisticians, July 22-26 2019, Palermo, Italy.
- [M34] M. Cuparić, B. Milošević, M. Obradović, New consistent goodness-of-fit tests based on V-empirical Laplace transforms, CFE-CMStatistics 2018, December 14-16 2018, Pisa, Italy.
- [M64] M. Cuparić, **B. Milošević**, M. Obradović, Novi načini za konstrukciju postojanih testova eksponencijalnosti (New ways of constructing consistent exponentiality tests), The ninth Symposium "Mathematics and Applications", 6-7.12.2018., University of Belgrade Faculty of Mathematics, Belgrade, Serbia

Posters

- [M34] M. Cuparić, B. Milošević, Ya.Yu. Nikitin, M. Obradović, Some consistent exponentiality tests based on Puri-Rubin and Desu characterizations, Analytical Methods in Statistics, September 16-19 2019, Liberec, Czech Republic.
- [M34] D. Bucalo Jelić, M. Cuparić, B. Milošević, Independence testing: A new approach for mixed-type multivariate data, GOFCP, August 29-31, 2025, Prague, Czech Republic

Projects

- 2018–2019 Projects funded by Ministry of Education, Science and Technological Development: Geometry, education and visualization with application [174012], Role: researcher
- 2021–2022 Projects funded by Ministry of Education, Science and Technological Development: *Improving teaching in the field of statistical data processing*, Role: researcher
- 2023-2024 Bilateral scientific project between Serbia and Germany: Modeling Complex Data Selection and Specification Role: researcher

2023-present COST ACTION: Text, functional and other high-dimensional data in econometrics: New models, methods, applications- HiTEc[21163] Role: researcher

Summer schools

- 2017 Bocconi Summer School in Advanced Statistics and Probability: STATIS-TICAL AND CAUSAL LEARNING, Como, Italy
- 2014 BEST Event on Education: Symposium on Education in Cluj Napoca, Romania

Awards

2022 Veselin Lučić award for the best scientific achievement in 2021

Peer reviewing activity

2019-2023 Reviewed papers in the following journals: SORT, Research in Statistics, Mathematics and Computers in Simulation, Stochastics, South African Statistical Journal, Journal of Applied Statistics, Mathematics, Statistics and Probability Letters

Supervision and Committee Memberships

- 2020-present Committee member of 15 Master's theses
 - 2024 Supervisor of one defended Master's thesis
 - 2025 Committee member of one PhD theses

Other academic activities

- 2023 The member of the scientific committee of the 23rd European Young Statisticians Meeting, Ljubljana, Slovenia
- 2024 The member of the organizing committee of the 15th SMAK Serbian Mathematical Congress
- 2024 The member of the organizing committee of the Statistical Modeling with Applications 2024

Skills and other facts

Programming skills: R, C++ Foreign languages: English

Researcher databases

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