

CURRICULUM VITAE

Name: **Biljana JOLEVSKA-TUNESKA, PhD. Full Professor**

Working address: Department of Mathematics and Physics
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Date of Birth: 23rd of June 1973
Place of Birth: Bitola, Republic of Macedonia
Nationality: Macedonian
Citizenship: Republic of Macedonia
Sex: Female
Marital Status: Married, three children

Employment History

Place: Ss. Cyril and Methodius University in Skopje
Faculty of Electrical Engineering and Information Technologies,
Department of Mathematics and Physics, Skopje, Republic of Macedonia

Position: Teaching and Research Associate, 1995-1999
Senior teaching and Research Associate, 1999-2004
Assistant Professor, 2004-2010
Associate Professor, 2010-2014
Full Professor, 2014-present

Education

Place: University of Novi Sad,
Faculty of Sciences, Department of Mathematics, Novi Sad, Serbia

Degree: Ph.D. in mathematics, January, 2003

Advisor: Prof. Arpad Takači, Ph.D.

Thesis: “Neutrix products and convolutions of distributions and applications”

Place: Ss. Cyril and Methodius University in Skopje
Faculty of Natural Sciences, Department of Mathematics, Skopje, Republic of Macedonia

Degree: M. Sc. in mathematics, April, 1999,

Advisor: Prof. Dragan Dimitrovski, Ph.D.

Thesis: "Nonlinear matrix differential equations of Riccati type"

Place: Ss. Cyril and Methodius University in Skopje
Faculty of Sciences, Department of Mathematics, Skopje, Republic of Macedonia

Degree: B.Sc. in Theoretical mathematics, October, 1995. GPA: 9.50/10

Advisor: Prof. Dončo Dimovski, Ph.D.

Thesis: "Analysis of close topologies"

List of Publications

1. Sapkarev I,A., **Jolevska B.T.**: Invariant non-homogeneous third order linear differential equations in respect to function substitution, Proceedings of the first congress of mathematics and informatics of Macedonia in Ohrid, 1996, 93-100.
2. **Jolevska B.**, Lazov P., Dimitrovski D.: Polynomial part of square root of λ -matrices, *Prirod.-Mat. Fak. Univ. Kiril Metodij Skopje Godishen Zb.* Vol.37 (1997), 62-71.
3. Tuneski N., **Jolevska B.**, Dimitrovski D.: Method of iterations on matrix differential equation, *Prirod.-Mat. Fak. Univ. Kiril Metodij Skopje Godishen Zb.* Vol.37 (1996), 85-92.
4. **Jolevska B.**: Nonlinear matrix differential equations of Riccati type, master thesis, Skopje 1999
5. **Jolevska-Tuneska B.**, Lazov P.: Nonlinear matrix differential equations of Riccati type, Proceedings of Equadiff'99 , Berlin , 503-507.
6. **Jolevska-Tuneska B.**, Fisher B.: An existence theorem for the non-commutative neutrix product of distributions, International Journal of Applied Mathematics, Vol. 3 No. 1 (2000) 63-70.
7. **Jolevska-Tuneska B.**, Fisher B.: Results on the composition of distributions, International Journal of Applied Mathematics, Vol. 5 No. 4 (2000) 407-418.
8. **Jolevska-Tuneska B.**, Fisher B.: The Composition of the Distributions $\operatorname{sgn} x|x|^{-\lambda}$ and $|x|^{(2r+1)/\lambda}$, Proceedings of the International Conference on Mathematics and its Applications in the New Millennium, 18-19 July, University Putra, Malaysia, 2000, 21-27.
9. **Jolevska-Tuneska B.**, Fisher B.: The cosine integral and the commutative neutrix convolution product, Hacettepe Bulletin of Natural Sciences and Engineering, Series B, Vol. 30 (2001), 1-15.
10. Fisher B., **Jolevska-Tuneska B.**, Ozag E.: Results on the composition of distributions, Integral Transforms and Special Functions, Vol 13 (2002) 109-116.
11. **Jolevska-Tuneska B.**, Fisher B.: The sine integral and the commutative neutrix convolution product, Contributions, Sec.Math.Tech.Sci.MANU, Vol. 1-2 (2000) 55-69.

12. **Jolevska-Tuneska B.**, A. Takači, Fisher B.: On some neutrix convolution products of distributions, *Integral Transforms and Special Functions*, Vol. 14/3 (2003) 243-251.
13. **Jolevska-Tuneska B.**: Neutrix products and convolutions of distributions and applications, PhD thesis, January 2003, Novi Sad, SCG
14. B. Fisher, **B. Jolevska-Tuneska**, A. Takači: On the Composition of Distributions $x^{-s} \ln|x|$ and x^r , *Thai Journal of Mathematics*, (2003) Vol 1: 39-48.
15. Fisher B.; **Jolevska-Tuneska B.**; Takači A.: On the incomplete gamma function and the neutrix convolution, *Mathematica Bohemica*, 4 (2003) 367-377.
16. Fisher B.; **Jolevska-Tuneska B.**; Takači A.: On convolutions and neutrix convolutions involving the incomplete gamma function, *Integral Transforms and Special Functions*, Vol. 15/5 (2004) 404-415.
17. **Jolevska-Tuneska B.**: On convolutions and neutrix convolutions involving slowly varying functions, *Matemacki bilten* 28, 2004, pp 51-58.
18. Fisher B.; **Jolevska-Tuneska B.**; Kilisman A.: On defining the incomplete gamma function, *Integral Transforms and Special Functions*, 14 (2004), 293-299.
19. Fisher B.; **Jolevska-Tuneska B.**: Two results on the composition of distributions, *Thai Journal of Mathematics*, 3 (2005) No1: 17-26.
20. Ozcag E.; Ege I.; Gurcay H. and **Jolevska-Tuneska B.**: Some remarks on the incomplete gamma function; Editors K. Tas et al. *Mathematical Methods in Engineering*, 97-108, Springer books 2007.
21. **Jolevska-Tuneska B.**; Takači A.; Ozcag E.: On differential equations with non-standard coefficients, *Applicable Analysis and Discrete Mathematics*, 1 (2007), 1-8.
22. **Jolevska-Tuneska B.**; Ozcag E.: On the composition of distributions $x^{-s} \ln|x|$ and $|x|^{\mu}$, *International Journal of Mathematics and Mathematical Sciences*, Volume 2007, article ID 60129, 9 pages, doi:10.1155/2007/60129.
23. Ozcag E.; Ege I.; Gurcay H. and **Jolevska-Tuneska B.**: On partial derivatives of the Incomplete Beta Function, *Applied Mathematical Letters*, Volume 21, Issue 7, July 2008, Pages 675-681, doi:10.1016/j.aml.2007.07.020.
24. Ozcag E.; Ege I.; Gurcay H. and **Jolevska-Tuneska B.**: On the non-commutative neutrix product of distributions, *Abstract and Applied Analysis*, Volume 2007, Article ID 81907, 10 pages, doi: 10.1155/2007/81907
25. **Jolevska-Tuneska B.**: Some results on convolutions, *Math.Maced.* Vol. 5 (2007) 37-41.
26. **Jolevska-Tuneska B.**, Takači A.: Results on the commutative neutrix convolution product of distributions, *Hacettepe journal of mathematics and statistics*, Volume 37, Issue 2, (2008), 135-141

27. **Jolevska-Tuneska B:** On the non-commutative neutrix product involving slowly varying functions, *Novi Sad J. Math.*, Vol 38, No. 3, 2008, 105-112.
28. Fisher B. and **Jolevska-Tuneska B.:** On the logarithmic integral, *Hacettepe journal of mathematics and statistics*, Volume 39 (3) 2010, 393-401.
29. **Jolevska-Tuneska B.** and Tuneski N.: On the digamma function, *Geometric Function Theory and Applications 2010, Proc. of International Symposium, Sofia, 27-31 August 2010*, 165-168.
30. **B.Jolevska-Tuneska**, B.Fisher, E.Ozcg: On the dilogarithm integral, *International Journal of Applied Mathematics*, Vol. 24, No. 3 (2011), 361-369.
31. **B.Jolevska-Tuneska**, B. Fisher: Further results on the dilogarithm integral, *Journal of Applied Mathematics*, Volume 2011, Article ID 421601, 10 pages, doi:10.1155/2011/421601
32. B.Fisher, **B.Jolevska-Tuneska**, A.Takaci: Further results on the logarithmic integral, *Sarajevo Journal of mathematics*, Vol.8 (20) (2012), 91-100.
33. **B. Jolevska-Tuneska**, B. Fisher: On the logarithmic integral and convolutions, *Bulletin of Malaysian Mathematical Sciences Society*, Vol 35, No 3, (2012) 671-677.
34. L. Lazarova, **B. Jolevska-Tuneska:** On the generalized Fresnel sine integrals and convolution, *Adv.Math.Sci.*, Volume 1, No. 1, (2012) 65-71.
35. M.Miteva, **B.Jolevska-Tuneska:** Some results on Colombeau product of distributions, *Adv.Math.Sci.*, Volume 1, No. 2, (2012) 121-126.
36. **B.Jolevska-Tuneska**, I. Jolevski: Some results on the digamma function, *Applied Mathematics and Informational sciences*, Natural publishing house, Volume 7, No. 1 (2013), 167-170.
37. **B. Jolevska-Tuneska**, T.Atanasova-Pacemska: Further results on Colombeau product of distributions, *IJMMS*, Volume 2013, Article ID 918905, 5 pages, <http://dx.doi.org/10.1155/2013/918905>
38. B. Fisher, **B. Jolevska-Tuneska:** Results on the Composition and Neutrix Composition of the Delta Function, *Hacettepe journal of mathematics and statistics*, Volume 43 (1) 2014, 43-50.
39. M.Miteva, **B.Jolevska-Tuneska**, T.Atanasova-Pacemska: On products of distributions in Colombeau algebra, *Mathematical Problems in Engineering*, Hindawi publishing cooperation, Volume 2014, Article ID 910510, 4 pages (**SCIE+IF 1.383**)
40. N.Tuneski, M. Petrusovski, **B. Jolevska-Tuneska:** On Starlikeness of Analytic Functions with Bounded Derivative, *Pan American Mathematical Journal*, Volume 24 (2014), Number 1, 93–101.
41. L.Lazarova, **B.Jolevska-Tuneska**, T.Atanasova-Pacemska: On the generalized Fresnel cosine integrals and convolutions, *International journal of functional analysis operator theory and application*, Volume 6, Number 3, 2014, 141-152.

Research Interests

Head of the Project:

- “Neutrix products and convolutions of distributions and their application”, international research project financed by Ministry of Education and Science of Macedonia and TUBITAK, Turkey, 2006-2008.
- “Products of distributions in Colombeau algebras”, national research project financed by FEIT, Ss. Cyril and Methodius University in Skopje, 2011-2012.

Member of the Projects:

- “Wavelet, multi resolution analysis and its applications”, a national research project financed by Ministry of Education and Science of Macedonia, 2001-2004.
- “Geometric function theory and its application”, a national research project financed by Ministry of Education and Science of Macedonia 2001-2004.
- “Univalent functions”, international research project financed by Ministry of Education and Science of Macedonia and TUBITAK, Turkey, 2006-2008.
- “Functional spaces, topological and statistical aspects and their applications in electrical engineering”, national research project financed by University Goce Delcev in Stip, 2013-

Thesis Supervision

Biljana Jolevska-Tuneska is involved at the School of Doctoral Studies at Ss. Cyril and Methodius University in Skopje in the education program of Mathematical Sciences and Application where she has three PhD students:

- Limonka Lazarova, PhD student,
- Marija Miteva, PhD student,
- Teuta Zenku, PhD student,
- Limonka Lazarova, MsC thesis: *Black-Scholes models and their application*, FEIT, Skopje, 2011.

Attended Workshops and Conferences

1. “1st Congress of the Association of Mathematicians and Computer Scientists of Macedonia”, October 3-5, 1996, Ohrid, Macedonia.
talk: *Invariant non-homogeneous third order linear differential equations in respect to function substitution*
2. “6th Macedonian Symposium on Differential Equations”, 1-3 October, 1988, Ohrid, Macedonia.

- talk: *Polynomial part of square root of λ -matrix*
3. "Equadiff 99", August 01-07, 1999, Berlin, Germany.
talk: *Nonlinear matrix differential equations of Riccati type*
 4. "Transform Methods and Special Functions, AUBG'99", 13-20 August, 1999, Blagoevgrad, Bulgaria.
 5. "2nd Congress of the Association of Mathematicians and Computer Scientists of Macedonia", 28 September – 1 October, 2000, Ohrid, Macedonia.
Talk: *On neutrix product $f \circ g$*
 6. "10th Congress of Yugoslav Mathematicians", 21-24 January, 2001, Belgrade, Yugoslavia.
talk: *About cosine integral and its convolution products*
 7. "Internationale Mathematische Arbeitstagung", 13-20 June, 2001, Bonn, Germany.
 8. A Workshop of the EU-Research and Training Network "Geometric Analysis", "Ellipticity and Parabolicity in Analysis and Geometry", 20-24 August, 2001, Potsdam, Germany.
 9. "Workshop on Visualization and Verbalization of Mathematics and Interdisciplinary Aspects", December 14-15, 2001, Nish, Yugoslavia.
 10. "Wavelets and Integral Transform" (with applications to signal analysis), April 10-13.2002 Novi Sad, Yugoslavia.
 11. "Congrès de Mathématiques Appliquées à la mémoire de Jacques-Louis Lions", 1-5 July, 2002, Paris, France.
 12. "7th Macedonian Symposium on Differential Equations", 26-29 September, 2002, Ohrid, Macedonia.
talk: *About neutrix convolution product*
 13. "5th International Symposium on Mathematical Analysis and Applications", 2-6 October, 2002, Niska Banja, Yugoslavia.
talk: *On some neutrix convolution product*
 14. "European Forum for Early Career Researchers", 6-7 May 2005, Otocec, Slovenia.
talk: *On commutative neutrix convolution product of distributions involving slowly varying functions*
 15. "Third Congress of the Mathematicians of Macedonia" Struga, Macedonia, 29.09-02.10.2005.
talk: *A result on the composition of distributions;*
talk: *On a class of nonlinear differential equations.*
 16. "MAGT-International conference on Mathematical Analysis and Graph Theory" Sept.2006, Belgrade, Serbia.
talk: *On differential equations with nonstandard coefficients,*
 17. "ISAAC 2007", 13-18 August, 2007, Ankara, Turkey.
talk: *On the dilogarithm integral and convolutions,*
 18. "12th Serbian Mathematical Congress" Novi Sad, Serbia, August, 2008
talk: *On the non-commutative neutrix product involving slowly varying functions,*
 19. "Mathematical conference 85 years of prof. Blagoj Popov Life" Ohrid, Macedonia, September 2008
talk: *Some results on convolutions,*
 20. "MICOM 2009" September 2009, Ohrid, Macedonia
talk: *On the composition of distributions as $x^{-s} \ln^m x$ and $|x|^\mu$*
 21. "Geometric Function Theory and Applications'2010", Sofia, Bulgaria, August 27 – 31, 2010.
talk: *On the digamma function.*
 22. "Geometric Function Theory and Applications'2011", Cluj-Napoca, Romania, September 3 – 9, 2011.
talk: *Special function and neutrices.*
 23. "Geometric Function Theory and Applications'2012", Ohrid, R. Macedonia, August 27 – 31, 2012.
talk: *Some results on Colombeau product of distributions*

talk: *On the generalized Fresnel sine integrals and convolution*

talk: *Further results on Colombeau product of distributions*

24. RIMS workshop, "Some inequalities concerned with the geometric function theory, Kyoto University, Japan, May 22-24, 2013.

Invited talk: *Application of neutrix calculus to special functions*

25. "13th Serbian mathematical congress" Vrnjacka banja, Serbia, May 22-25, 2014.

Talk: B. Jolevska-Tuneska: On composition of distributions

Talk: B. Jolevska-Tuneska and T. Atanasova-Pacemska: Results on products of distributions.

26. "5th Congress of Mathematicians of Macedonia, Ohrid, Macedonia, September 24 – 27, 2014.

Talk: B. Jolevska-Tuneska: Distributions, neutrix calculus and special functions.

Conferences Organized

- "Geometric Function Theory and Applications'2012", Ohrid, R. Macedonia, August 27 – 31, 2012, international conference organized by Ss. Cyril and Methodius University in Skopje, member of the organizing board.

Courses Taught

Teaching, supervision and conducting exams for the following undergraduate courses – first cycle:

- "Mathematics 1", 1996– present.
- "Mathematics 2", 1996– present.
- "Mathematics" 2004-2010.
- "Numerical methods for engineering" 2006-2007.
- "Statistical analysis"2005-2008
- "Numerical methods" 2008-2009
- "Mathematics 4", 2012– 2013
- "Mathematics methods for engineering 1", 2011– present.
- "Mathematics methods for engineering 2", 2012.
- "Mathematics 3", 2013– present
- "Statistics" 2012
- "Linear transformations" 2011-present

Teaching, supervision and conducting exams for the following graduate courses – second cycle:

- Applied and Abstract Algebra, 2008-2012
- Stochastic Differential Equations, 2008-present
- Numerical Solutions of Stochastic Differential Equations, 2008-2012
- Modeling with differential equations, 2008-2012

- Selected parts of analysis, 2013-present
- Financial and Actuarial Mathematics, 2013-present
- Financial modeling, 2013-present
- Partial differential equations with application in engineering and finance, 2013-present

Teaching, supervision and conducting exams for the following courses at the School of Doctoral Studies at Ss. Cyril and Methodius University in Skopje – third cycle:

- Functional analysis, 2013-present

Books

- “Differential calculus” joint book with Nikola Tuneski, University school book published by Ss. Cyril and Methodius University in Skopje in 2011.
- “Integral calculus” joint book with Nikola Tuneski, University school book published by Ss. Cyril and Methodius University in Skopje in 2011.

Awards of Recognition or Merit

1. Best Rank Award from the Dean of the Faculty of Sciences, University of Skopje, for having graduated with the highest GPA in class.

Honors and scholarships

1. Scholarship from the Ministry of Education and Science of Macedonia for outstanding pupils, 1986-1990
2. Scholarship from the Ministry of Education and Science of Macedonia for outstanding students, 1991-1995.
3. Special Awards and Certificates of Merit for successful participation on regional, national and state competitions in Mathematics, Computer Science and Physics, 1984-1991.
4. Awarded "QBE" - Skopje sponsorship for participation on the conference Equadiff 99, August 01-07, 1999, Berlin, Germany.
5. Grant from Max-Plank Institute fur Mathematics, Bon, Germany for participation on “Internationale Mathematische Arbeitstagung”, 13-20 June, 2001.
6. Grant from DAAD for participation on “Workshop on Visualization and Verbalization of Mathematics and Interdisciplinary Aspects”, December 14-15, 2001, Nish, Yugoslavia.
7. Grant from DAAD for participation on “Wavelets and Integral Transform” (with applications to signal analysis), April 10-13.2002 Novi Sad, Yugoslavia.
8. Tempus Individual mobility grant, financed by European Commission, to the College of North European Studies, Larissa, Greece, from 03/01/2005 to 13/02/2005.
9. Grant from Slovenia Science foundation for participation on “European Forum for Early Career Researchers”, 6-7 May 2005, Otocec, Slovenia.
10. Grant from Max-Plank Institute fur Mathematics, Bon, Germany for participation on “Internationale Mathematische Arbeitstagung”, 21-28 June, 2007.

Memberships

- President of the Union of researchers of Macedonia.
- Member of the Society of Mathematicians of Macedonia.
- Member of the Scientific Council of the Society of Mathematicians of Macedonia.
- Member of the Master Thesis Defend Board of the Faculty of Electrical Engineering and Informational Technologies, Skopje, Macedonia.
- Member of the Teaching and Scientific Council of the Faculty of Electrical Engineering and Informational Technologies, Skopje, Macedonia.

Technical Skills

- Math Lab, Mathematica
- LaTeX, Microsoft Office: Word and Excel

Foreign Languages

- English: Excellent written and verbal communication skills.
- Serbian, Croatian: Excellent written and verbal communication skills.
- French Reading knowledge
- other Slavic languages: Reading knowledge.
(Russian, Bulgarian, Slovenian)
- Macedonian: Native language.