CURRICULUM VITAE

Mustafa R. S. Kulenović

Professor

Department of Mathematics,

University of Rhode Island

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Education:

1974 B. S. in Mathematics, University of Sarajevo, Bosnia and Herzegovina

1977 M. S. in Mathematics, University of Sarajevo, Bosnia and Herzegovina

1981 Ph.D. in Mathematics, University of Sarajevo, Bosnia and Herzegovina

Positions:

University of Rhode Island Professor Step III

July 2018-

University of Rhode Island

Associate Professor July 2002 – June 2006

University of Rhode Island

Visiting Professor

September 1994-June2000

University of Sarajevo

Professor

June 1990 – September 1994

University of Rhode Island

Visiting Lecturer of Mathematics

September 1987 – June 1989

Visiting Assistant Professor of Mathematics

September 1985 – December 1986

University of Rhode Island

Professor

July 2006 - June 2018

University of Rhode Island

Assistant Professor

June 2000 - June 2002

The American University of Cairo

Visiting Associate Professor

September 1989 – June 1990

University of Sarajevo

Bosnia and Herzegovina

Associate Professor of Mathematics

April 1987 – September 1989

University of Sarajevo Bosnia and Herzegovina

Assistant Professor of Mathematics

June 1982-April 1987

Awards and Honors:

2015-2016 Maitland P. Simmons Research Award, University of Rhode Island, 2015

Member of the Academy of Sciences of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina, December 2012

Outstanding Research and Intellectual Property recognition, University of Rhode Island, May 2010.

Distinguished Professor, University of Tuzla, Bosnia and Herzegovina, 2008 - present.

Silver Medal of University of Sarajevo, Bosnia and Herzegovina 1971-1974

Teaching experience:

I have thirty years of teaching experience at the Department of Mathematics, University of Rhode Island, where I have taught all remedial mathematics courses, Linear Algebra, Calculus, Advanced Calculus, Ordinary Differential Equations, History of Mathematics, Partial Differential Equations, Advanced Linear Algebra, Complex Variables, Numerical Analysis, Probability and Statistics, Measure Theory, Difference Equations. In addition I have one year of teaching experience at the Department of Mathematics, American University in Cairo where I taught Calculus, Mathematical Analysis and Real Analysis while serving as the coordinator for Calculus courses. The graduate courses I have taught at the University of Rhode Island are in Ordinary Differential Equations, Partial Differential Equations, Difference Equations, Discrete Dynamical Systems, Measure Theory, and Numerical Analysis. I have also taught Finite Mathematics and Artificial Intelligence at Connecticut College for five semesters.

I also have fourteen years of teaching experience in Bosnia and Herzegovina in subjects that include Numerical Analysis, Probability and Statistics, Ordinary Differential Equations, Simulation, Computer Algebra Systems, etc.

I have managed many computer projects with students in areas of History of mathematics, difference equations and discrete dynamical systems.

Research interests and activities:

I am interested in the theoretical and applied aspects of difference equations, including the global behavior of solutions. I am also interested in differential equations especially in the oscillation and the asymptotic behavior of delay differential equations. I am involved in the dynamical aspects of difference equations, chaotic dynamics and mathematical biology, where I have several research publications. Finally, I have contributed to the theory of asymptotic behavior of partial differential equations. I am also interested in CAS (Computer Algebra Systems) such as *Mathematica*, *Maple*, *Derive*, and *Scientific Notebook* and I extensively used it in both education and research. I have prepared and used computer "lab projects" for all courses I have taught.

My research results are widely cited and I have a total of more 2500 citations in *Scopus* with h-index of 28. I have more than 1450 references in *MathSciNet*. I have more than 5800 citations in *Google Scholar* with h-index of 38 and more than 4900 citations in *Research Gate*. Some of my papers are among the top one percent of the papers by citation in mathematics in *Science Citation Index* since 2000. Furthermore, several of my papers are included in most of the monographs on the oscillation theory and the difference equations that have been published in last 20 years. Finally, some of my papers have been cited in some leading monographs on mathematical biology published in last 20 years.

I have presented several lectures in major conferences on difference and differential equations held in the United States, Canada and Europe. I was twice invited speaker for the World Congress of Mathematicians.

Master Students

- 1. Zehra Nurkanović, University of Sarajevo, 2001.
- 2. Ann Brett, University of Rhode Island, RI, USA, 2008.
- 3. Ongun Hasbora, University of Rhode Island, RI, USA, 2009.
- 4. Enesa Silić, University of Tuzla, 2010.
- 5. Elliott Bertrand, University of Rhode Island, RI, USA, 2015.
- 6. Sarah van Beaver, University of Rhode Island, RI, USA, 2016.
- 7. Alyssa Zisk, University of Rhode Island, RI, USA, 2016.
- 8. Carina DiChello, University of Rhode Island, RI, USA, 2021.

PhD Students

- 1. Ćamila Ljubović, University of Sarajevo, 1992.
- 2. Svjetlan Hadžiomerspahić, University of Sarajevo, 1993(deceased).
- 3. Mehmed Nurkanović, University of Sarajevo, 2002.
- 4. Senada Kalabušić, University of Sarajevo, 2003.
- 5. Carol B. Overdeep, University of Rhode Island, RI, USA, 2003.
- 6. Cathy Ann Clark, University of Rhode Island, RI, USA, 2004.
- 7. Zehra Nurkanović, University of Sarajevo, 2005.
- 8. Dževad Burgić, University of Tuzla, 2008.
- 9. Ann Brett, University of Rhode Island, RI, USA, 2010.
- 10. Jasmin Bektešević, University of Sarajevo, 2015.
- 11. Sabina Jašarević Hrustić, University of Tuzla, 2015.
- 12. Samra Moranjkić, University of Tuzla, 2016 (co-adviser).
- 13. Mark DiPippo, University of Rhode Island, RI, USA, 2016.
- 14. Enesa Silić, University of Sarajevo, 2016.
- 15. Arzu Bilgin, University of Rhode Island, RI, USA, 2016
- 16. Toufik Khyat, University of Rhode Island, RI, USA, 2017.
- 17. Elliott Bertrand, University of Rhode Island, RI, USA, 2018.
- 18. Naida Mujić, University of Sarajevo, 2018.
- 19. Sarah van Beaver, University of Rhode Island, RI, USA, 2019.
- 20. James Marcotte, University of Rhode Island, RI, USA, 2019 (co-adviser).

Post Doc Students and Visitors

- 1. Senada Kalabušić, URI, 2002 and 2008/2009.
- 2. Midhat Mehuljić, University of Sarajevo, 2011.
- 4. Esmir Pilav, University of Sarajevo, 2011.
- 3. Vahidin Hadžiabdić, University of Sarajevo, 2011.
- 4. Arzu Bilgin, URI, 2019.

Current PhD Students

- 1. Connor O'Loughlin
- 2. Susan Trolle

Service

I served as a member of the Faculty Senate from 2000 to 2003 and 2014-2016.

I served as a member of the Graduate Council from 2009 to 2012 and 2016-present.

I served as a member of all Search Committees for Department of Mathematics positions from 2003 to 2013 and 2014-2015, 2016-2018.

I served as the coordinator for William L. Putnam competition in Department of Mathematics in 2009 and 2010.

I regularly serve as a member of Graduate Committee and Technology Committee in Department of Mathematics.

I served as a member of Master or Ph. D. Committee for the following students:

- 1. Stephanie Costa
- 2. Michael Arciero
- 3. Carol Gibbons
- 4. Lynn McGrath
- 5. Carol Gibbons
- 6. Mihaela Predescu
- 7. Esha Chatterjee
- 8. Zlata Ćerimagić

- 9. Eugene Quinn
- 10. Kenneth McPhillips
- 11. Christopher Carbone
- 12. Cuichun Xu
- 13. Sukanya Basu (2009)
- 14. Evgenii Kostrov (2009)
- 15. Zach Kudlak (2009) written part
- 16. Chad Griep (2009) written part
- 17. Shaun Joseph (2010) written part
- 18. Mia Heissan (2011) written part
- 19. Adam Gilbert (2011) written part
- 20. Cynthia Prudence (2011) (URI)
- 21. Manos Drymonis (2011) written part
- 22. Frank Palladino (2011) (URI)
- 23. Esmir Pilav (2011) University of Sarajevo
- 24. Mirela Garić (2011) University of Tuzla
- 25. Chris Lynd (2012) (URI)
- 26. Amer Hodžić (2012) (URI)
- 27. Gabriel Lugo (2013) (URI)
- 28. Evelina Lapierre (2013) (URI)
- 29. Kent Rudasill (2014) (URI)
- 30. Diana Smith (2014) written part (URI)
- 31. Midhat Mehuljić (2015) University of Sarajevo
- 32. Bill Jamieson (2015) (URI)
- 33. Chris Staniszewski (2015) (URI)
- 34. Erin Denette (2016) (URI)
- 35. Vahidin Hadžiabdić (2016) University of Sarajevo
- 36. Sean Reilly (2016) (URI)
- 37. Russell Costa (2016)(URI)
- 38. Stephen Sladen (2016)(URI-Master Thesis)
- 39. Xiaonan Dong (2016)(URI-Master Thesis)
- 40. Stephen Morley (2017)(URI-Master Thesis)
- 41. Zhenghan Zhu (2017)(URI)
- 42. Dave McArdle (2017) (URI)

- 43. Erik Benton (2017) (URI-Master Thesis)
- 44. Zachary Kunicki (2018) (URI-Master Thesis)
- 45. Rassoul Diouff (2019) (URI-Master Thesis)
- 46. Robert Tatoian (2019) (URI-Master Thesis)
- 47. Jean Guillaume(2019) (URI)
- 48. Xin Zhou (2019) (URI)
- 49. Abdullah Alharbi (2019)(URI-Master Thesis)
- 50. Nicholas Bianchi (2020) (URI)
- 51. Isabel Nowinowski (2020) (URI-Master Thesis)
- 52. Jiayuan Zhang (2021) (URI)
- 53. Vanessa Leclerc (2021) (URI)

Vice President of the Society of Mathematicians and Physicists of Bosnia and Herzegovina, 1983-1985

Chair for Applied Mathematics, University of Sarajevo, Bosnia and Herzegovina, 1984-1989

Chairperson of Department of Mathematics University of Sarajevo, Bosnia and Herzegovina, September 1991-September 1994

Coordinator for the curriculum development of mathematics in elementary school and high school in Bosnia and Herzegovina, 1992-94.

Member of the Board of Directors of BIT - Bosnian Association for Information Technologies, 1992-94.

Member of the Editorial Board of *Acta Informatica Medica*, Bosnia and Herzegovina, 1993-1994

Member of the Editorial Board of Sarajevo Journal of Matematics formerly Radovi Matematički, Academy of Sciences of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina

Associate Editor of the Journal of Concrete and Applicable Mathematics, Eudoxus Inc. (2002-2015)

Member of the Editorial Board of *The Scientific World Journal*, *Mathematical Analysis*, Hindawi Publishing Co.(2013-2016)

Member of the Editorial Board of *Journal of Difference Equations*, Hindawi Publishing Co.(2014-2016) Associate Editor of the Advances in Dynamical Systems and Applications, Research India Publications.

Associate Editor of the Communications in Differential and Difference Equations, Research India Publications.

Associate Editor of the *International Journal of Differential Equations*, Hindawi Publishing Co. (2010-2017)

Associate Editor of the Journal of Computational Analysis and Applications, Eudoxus Inc.

Associate Editor of the *Journal of Mathematical and Computational Science*, Science and Knowledge Publishing Corporation Limited.

Associate Editor of the *Discrete Dynamics in Nature and Society*, Hindawi Publishing Co.(2013-)

Associate Editor of the *Mathematics*, MDPI Inc. (2018-)

Member of Programme Committee of International Congress MASSEE 2003 (MAthematical Society of SouthEastern Europe) September 15-21, 2003, Borovets, Bulgaria.

Member of Scientific Committee of Sarajevo Summer School on Mathematical Techniques in Modeling Physiological Systems, 9/10-9/22/2006, Sarajevo, Bosnia and Herzegovina.

Member of Scientific Committee of 2-nd International Euroasian Conference on Mathematical Sciences and Applications IECMSA-2013 (MAthematical Society of SouthEastern Europe) August 26-29, 2013, Sarajevo, Bosnia and Herzegovina.

Member of Scientific Committee of BMS Mathematical Conference 2018, University od Sarajevo, July 12-14, 2018.

Chair of Scientific Committee of ICDEA (International Conference of Difference Equations and Applications) Mathematical Conference 2021, University od Sarajevo, July , 2021.

Referee for more than 40 mathematical journals such as Proceedings of American Mathematical Society, Transactions of American Mathematical Society, Journal of Difference Equations and Applications, Nonlinear Analysis, Theory, Methods and Applications, Journal of Mathematical Analysis and Applications, Applied Mathematics Letters, Computers and Mathematics with Applications, Discrete Dynamics in Na-

ture and Society, Nonlinear Dynamics, International Journal of Difference Equations etc.

Conference organization

Co-organizer of the Special Session of AMS Annual Meeting in San Diego, Monotone Discrete Dynamical Systems with Applications, San Diego CA, January 2008.

Co-organizer of the Special Session of AMS Regional Meeting in Middletown, Real and Complex Dynamics of Rational Difference Equations with Applications, Middletown CT, October 11-12, 2008.

Co-organizer of the Special Session of AMS Annual Meeting in Washington, D. C. Discrete Dynamical Systems with Periodic Parameters, Washington, D. C., January 2009.

Co-organizer of the Special Session of AMS Regional Meeting in Worcester, Real Dynamics of Rational Difference Equations with Applications, Worcester MA, April 25-26, 2009.

Co-organizer of the Special Session of AMS Annual Meeting in New Orleans, LA, Global Dynamics of Discrete Dynamical Systems in the Plane with Applications, New Orleans, LA, January 2011.

Co-organizer of the Special Session of AMS Regional Meeting in Worcester, Dynamics of Rational Systems of Difference Equations with Applications, Worcester MA, April 09-10, 2011.

Co-organizer of the Special Session of AMS Annual Meeting in Boston, MA, Global Dynamics of Rational Difference Equations with Applications, Boston, MA, January 2012.

Co-organizer of the Special Session of AMS Regional Meeting in Boston, Real and Complex Dynamics of Difference Equations with Applications, Boston College MA, April 6–7, 2013.

Co-organizer of the Special Session of AMS Annual Meeting in Baltimore, MD, Global Dynamics and Bifurcations of Difference Equations, Baltimore, MD, January 15-18, 2014.

Co-organizer of the Special Session of AMS Regional Meeting in

Bowdoin, Autonomous and Non-autonomous Discrete Dynamical Systems with Applications, Bowdoin College ME, September 24–25, 2016.

Co-organizer of the Special Session of AMS Annual Meeting in Atlanta, GA, Real Discrete Dynamical Systems with Applications, Atlanta, GA, January 4-7, 2017.

Co-organizer of the Special Session of AMS Regional Meeting in Hunter College, Asymptotic Properties of Discrete Dynamical Systems, Hunter College, NYC, NY, May 6, 2017.

Co-organizer of the Special Session of AMS Regional Meeting in Northeastern University, Global Dynamics of Real Discrete Dynamical Systems, Boston, April 21-22, 2018.

Co-organizer of the Special Session of AMS Annual Meeting in Washington, DC, Recent Trends in Discrete-Time Ecological and Epidemiological Models, Washington, DC, January 6–9, 2021.

Co-organizer of the Special Session of AMS Regional Meeting in Providence, RI, Special Session on Applications and Asymptotic Properties of Discrete Dynamical Systems: A Session in Honor of the Retirement of Orlando Merino, Providence (virtual meeting), March 20-21, 2021.

Chair of Scientific Committee, ICDEA 2021, University of Sarajevo, Sarajevo, Bosnia and Herzegovina, July 26-30, 2021 (virtual meeting).

Papers presented at professional meetings since 2000

- 1. A Coupled System of Rational Difference Equations, Regional Meeting of AMS, Providence, RI, March 2000.
- 2. On the Recursive Sequence $x_{n+1} = (\alpha x_n + \beta x_{n-1})/(A+x_n)$, Special Session on Difference Equations, Annual Meeting of AMS, Washington, DC January 2000.
- 3. On the Trichotomy Character of $x_{n+1} = (\alpha + \beta x_n + \gamma x_{n-1})/(A + x_n)$, Annual Meeting of AMS, New Orleans, LA, January 2001
- 4. Dynamica package for Simulation of Difference Equations, Annual Meeting of AMS, New Orleans, LA, January 2001.

- 5. On the Recursive Sequence $x_{n+1} = (a + bx_n)/(Ax_n + Bx_{n-2})$, Special Session on Difference Equations, Annual Meeting of AMS, San Diego, CA, January 2002.
- 6. Dynamica package for Simulation of Discrete Dynamical Systems and Difference Equations, Conference on Technology, January 2002, Kingston RI.
- 7. Asymptotics of the Rational Difference Equation of Third Order, Special Session on Difference Equations, Annual Meeting of AMS, Baltimore, MD, January 2003.
- 8. On the Dynamics of $x_{n+1} = p_n + x_{n-1}/x_n$, Baltimore, MD, January 2003.
- 9. On A System of Rational Difference Equations, Special Session on Difference Equations, Annual Meeting of AMS, Phoenix, CA, January 2004.
- 10. Stability of the k-th Order Lyness Equation with a Period-k Coefficient, Annual Meeting of AMS, Atlanta, GA, January 2005.
- 11. Competitive Exclusion versus Competitive Coexistence for Systems in the Plane, International Conference on Difference Equations, Munich, July 2005
- 12. A Global Attractivity Result for Maps with Invariant Boxes, Special Session on Dynamic Equations, Annual Meeting of AMS, San Antonio, TX, January 2006.
- 13. Attractivity of the Equilibrium for Pielou Equation with Periodtwo Coefficient, Special Session on Non-autonomous Difference Equations, Annual Meeting of AMS, San Antonio, TX, January 2006.
- 14. Competitive Exclusion versus Competitive Coexistence for Discrete Systems in the Plane, Progress on Difference Equations, European Advanced Studies Conference 2006, Homburg, Germany, 3/06-3/10/2006.
- 15. Global Bifurcations in Monotone Discrete Systems in the Plane, Summer Workshop, 7/01/2006, University of Sarajevo, Bosnia and Herzegovina.

- 16. Generating Research Problems in Difference Equations Senior Class, ICTCM Conference, Boston, February 17, 2007.
- 17. Global Bifurcations for Competitive Systems in the Plane, Annual Meeting of AMS, San Diego, CA, January 7, 2008.
- 18. Non-hyperbolic Dynamics for Competitive Systems in the Plane, Annual Meeting of AMS, San Diego, CA, January 7, 2008.
- 19. Global Attractivity Results for Mappings in Partially Ordered Complete Metric Spaces, Regional Meeting of AMS, Courant Institute, New York City, NY March 15, 2008.
- 20. Global Dynamics of a System of Rational Difference Equations, Regional Meeting of AMS, Wesleyan University, Middletown, CT, October 11, 2008.
- 21. Dynamics of a System of Rational Difference Equations in the Plane, Regional Meeting of AMS, Wesleyan University, Middletown, CT, October 11, 2008.
- 22. Two Species Competitive Model with Allee's Effect, Regional Meeting of AMS, Wesleyan University, Middletown, CT, October 11, 2008.
- 23. Stability of the Gumowski-Mira Equation with Period-Two Coefficient, Annual Meeting of AMS, Washington, D. C., January 7, 2009.
- 24. Nonhyperbolic Dynamics for Competitive Systems in the Plane and Global Period-doubling Bifurcations, Annual Meeting of AMS, Washington, D. C., January 7, 2009.
- 25. Global Bifurcations for Competitive Systems in the Plane, Regional Meeting of AMS, Worcester, MA, April 25, 2009.
- 26. Basins of Attraction for Competitive Discrete Systems in the Plane, Fifth Bosnian Mathematical Conference, Tuzla July 7-8, 2010.
- 27. Invariant Manifolds for Competitive Discrete Systems in the Plane, Annual Meeting of AMS, New Orleans, LA, January 7, 2011.

- 28. Invariant Manifolds for Certain Competitive Discrete Systems in the Plane, Annual Meeting of AMS, New Orleans, LA, January 9, 2011.
- 29. Global Behavior of a Two-dimensional Competitive System of Difference Equations with Stocking, AMS Regional Meeting in Worcester, Worcester MA, April 09, 2011.
- 30. Global Dynamics of a Two-dimensional Competitive System of Difference Equations, Annual Meeting of AMS, Boston, MA, January 4-7, 2012.
- 31. Stability of Linearizable Difference Equations, Annual Meeting of AMS, Boston, MA, January 4-7, 2012.
- 32. Global Behavior of Some Rational Second Order Difference Equations, Regional Meeting in Boston, Boston College, Boston MA, April 6-7, 2013.
- 33. Global Dynamics of Quadratic Second Order Difference Equation in the First Quadrant, Annual Meeting of AMS, Baltimore, MD, January 15-18, 2014.
- 34. Global Asymptotic Stability for Quadratic Fractional Difference Equation, Annual Meeting of AMS, Baltimore, MD, January 15-18, 2014.
- 35. Sharaf al-Tusi (1135-1213): grandfather of differential calculus? Annual Meeting of AMS, Baltimore, MD, January 15-18, 2014.
- 36. Local Dynamics and Global Stability of Certain Second Order Rational Difference Equation with Quadratic Terms, AMS Regional Meeting in Rutgers, Rutgers University, New Brunswick NJ, Novemeber 14-15, 2015.
- 37. Global stability of a quadratic anti-competitive system of rational difference equations in the plane with Allee effects, AMS Regional Meeting in Bowdoin, Bowdoin College, Brunswick Maine, September 24-25, 2016.
- 38. Invariant Curves for Planar Competitive and Cooperative Maps, Annual Meeting of AMS, Atlanta, GA, January 4-7, 2017.

- 39. Global Dynamics of Leslie-Gower Competitive Systems in the Plane, AMS Regional Meeting in NYC, Hunter College, NYC, NY May 6, 2017.
- 40. Global Dynamics of Certain Second Order Rational Difference Equation with Quadratic Terms, AMS Regional Meeting in Boston, Northeastern University, Boston, MA April 22, 2018.
- 41. Recent Developments for Monotone Discrete Dynamical Systems in the Plane, BMS Mathematical Conference 2018, University of Sarajevo, Bosnia and Herzegovina, July 2018.
- 42. Invariant Curves for Planar Competitive and Cooperative Maps, Joint Annual Meeting of AMS, MAA and SIAM, Baltimore, MD, January 16-19, 2019.
- 43. Global Behavior of Certain Nonautonomous Linearizable Three Term Difference Equations, AMS Regional Meeting in Hartford, University of Connecticut, Hartford, CT April 14, 2019.
- 44. Basin of Attraction of Locally Asymptotically Stable Equilibrium of Cooperative Map in the Plane, ICDEA, London, June 24-28, 2019.
- 45. Asymptotic Behavior of a Discrete-Time Density-Dependent SI Epidemic Model With Constant Recruitment, JMM, Washington DC, January 6-9, 2021
- 46. Global Behavior of Certain Nonautonomous Linearizable Three Term Difference Equations, JMM, Washington DC, January 6-9, 2021.
- 47. Dynamica 5 Software for simulation of Discrete Dynamical Systems, Special Session on Applications and Asymptotic Properties of Discrete Dynamical Systems, AMS Regional Meeting, March 2021 (virtual meeting).
- 48. Global Dynamics Results for a Class of Planar Cooperative Maps, ICDEA 2021, University of Sarajevo, Bosnia and Herzegovina, July 26-30, 2021.

Several other joint papers have been presented by some of my collaborators in different national and international conferences.

Invited talks since 1999

Global Behavior of Rational Difference Equation $x_{n+1} = \frac{\alpha + \beta x_n + \gamma x_{n-1}}{A + B x_n + C x_{n-1}}$. April 1999, University of Rhode Island, Bosnia and Herzegovina

Global Behavior of Rational Difference Equations of Second Order, September 2001, University of Sarajevo, Bosnia and Herzegovina

Global Behavior of Systems of Difference Equations, September 2002, University of Sarajevo, Bosnia and Herzegovina

Invariants and Related Lyapunov Functions for Difference Equations, August 2003, University of Sarajevo, Bosnia and Herzegovina

Difference Equations with Periodic Coefficients, August 2003, University of Tuzla, Bosnia and Herzegovina

Competitive and Cooperative Difference Equations, September 2004, University of Sarajevo, Bosnia and Herzegovina

Competitive Exclusion versus Competitive Coexistence for Discrete Dynamical Systems in the Plane, July 2006, University of Tuzla, Bosnia and Herzegovina

A Global Attractivity Result for Maps with Embedded Invariant Boxes, July 2006, University of Sarajevo, Bosnia and Herzegovina

Non-hyperbolic Dynamics of Competitive Systems in the Plane and Global Bifurcations, August 2007, University of Tuzla, Bosnia and Herzegovina

Basic Discrete Models in Population Dynamics: Single Species Case, August 2008, University of Tuzla, Bosnia and Herzegovina

Nonoscillatory Solutions of Neutral Differential Equations with Delay, August 2008, University of Sarajevo, Bosnia and Herzegovina

Basins of Attraction for Competitive Discrete Systems in the Plane, August 2010, University of Sarajevo, Bosnia and Herzegovina

Discrete Competitive Systems in the Plane, July 2011, University of Tuzla, Bosnia and Herzegovina

Global Behavior of a Two-dimensional Competitive System of Difference Equations, October 2011, International University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Basic Discrete Mathematical Models in Population Dynamics, October 2011, International University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Basic Discrete Mathematical Models in Population Dynamics of Single and Two Species, December 2011, Department of Biology, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Global Attractivity Results for Mappings in Partially Ordered Complete Metric Spaces, December 2011, Department of Mathematics, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Global Dynamics of a Second Order Polynomial Quadratic Difference Equation in the First Quadrant, August 2013, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Global Dynamics of Some Rational Systems of Difference Equations with Quadratic Terms, July 2014, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Fixed Point Theorems and Global Attractivity Results for Mappings in Partially Ordered Complete Metric Spaces, August 2014, University of Tuzla, Tuzla, Bosnia and Herzegovina

Discrete Dynamical Systems and Difference Equations with Applications, July 2016, University of Zenica, Zenica, Bosnia and Herzegovina

Basins of Attraction of Period-Two Solutions of Single Species Monotone Models in Population Dynamics, July 2016, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Global Dynamics of Some Cooperative Discrete Dynamical Systems in the Plane, August 2017, University of Sarajevo, Sarajevo, Bosnia and Herzegovina.

Invited courses and workshops since 1999

Finite Volume Method for Partial Differential Equations, August 1997, University of Sarajevo, Bosnia and Herzegovina (Graduate Course)

Difference Equations, August 2004, University of Tuzla, Bosnia and Herzegovina (Graduate Course)

Difference Equations and Discrete Dynamical Systems, December 2008, University of Tuzla, Bosnia and Herzegovina (Graduate Course)

Monotone Discrete Dynamical Systems and Applications, Summer Workshop, 7/06-7/09/2009, University of Tuzla, Bosnia and Herzegovina.

Difference Equations and Discrete Dynamical Systems, September - December 2011, Department of Mathematics, University of Sarajevo, Sarajevo, Bosnia and Herzegovina (Seminar)

Difference Equations and Discrete Dynamical Systems, July - August 2013, Department of Mathematics, University of Sarajevo, Sarajevo, Bosnia and Herzegovina, Summer Workshop.

Grants other than publishing companies

Difference Equations, August 2004, University of Tuzla, Bosnia and Herzegovina (Graduate Course): 2,300 Euros from WUS, Austria and 500 Euros from University of Tuzla, Bosnia and Herzegovina

Participation and Advising in PhD defense, August 2005, University of Sarajevo, Bosnia and Herzegovina: 600 Euros from University of Sarajevo

Difference Equations and Discrete Dynamical Systems, December 2008, University of Tuzla, Bosnia and Herzegovina (Graduate Course): 1,800 Euros from WUS, Austria and 500 Euros from University of Tuzla

Participation and Advising in PhD defense, December 2008, University of Tuzla, Bosnia and Herzegovina: 3,000 Euros from University of Tuzla

Monotone Discrete Dynamical Systems and Applications, Summer Workshop, 7/06-7/09/2009, University of Tuzla, Bosnia and Herzegovina: 500 Euros from University of Tuzla

Discrete Dynamical Systems and Applications, Seminar, September-December 2012, University of Sarajevo, Bosnia and Herzegovina: 500 Euros from University of Sarajevo

2015-2016 Maitland P. Simmons Research Award, \$ 5,000

Participation and Advising in PhD Thesis, May 2018, University of Sarajevo, Bosnia and Herzegovina: 1500 Euros from University of Sarajevo

Grants from publishing companies

- 1. Eudoxus Press approximately \$ 2,000
- 2. Hindawi approximately \$ 20,000
- 3. MDPI approximately 5,000 Swiss F.

Citizenships:

USA and Bosnia and Herzegovina

Publications

Books

- 1. Dynamics of Second Order Rational Difference Equations, with Open Problems and Conjectures, Chapman&Hall/CRC Press, 2001. (with G. Ladas)
- 2. Discrete Dynamical Systems and Difference Equations with Mathematica, Chapman&Hall/CRC Press, 2002. (with O. Merino)

Software

1. Dynamica - computer package, written in Mathematica, intended for use in the study of difference equations and discrete dynamical systems. (with O. Merino) (software supplement of book 2)

Journals

- 1. On a result of Caratheodory, Radovi ANU BiH, Odj. Prir. i Mat. Nauka LXVI, 1980, 91-94, (with J. Alajbegović, H. I. Miller and M. Radić).
- 2. On the Asymptotic Behavior of Second Order Differential Inequalities with Alternating Coefficients, *Math. Nachr.* 98(1980), 317-327, (with M. K. Grammatikopoulos).
- **3.** Oscillation Theorems for Nonlinear Second Order Differential Inequalities, *Fasciculi Mathematici*, 150(1981), 37-50.
- **4.** On the nonexistence of L^2 Solutions of n-th Order Differential Equations, Proc. Edinburgh Math. Soc., 24(1981), 131-136, (with M. K. Grammatikopoulos).
- **5.** Summability Methods in Second Order Nonlinear Oscillations, Glasnik Mat. 17(1982), 39-58.

- **6.** Oscillatory and Nonoscillatory Behavior of Solutions of Certain Nonlinear Differential Equations of *n*-th Order, *Radovi ANU BiH*, *Odj. Pri. i Mat. Nauka* LXIX, 20(1982), 42-54.
- 7. On Certain Second Order Nonlinear Differential Inequalities, Radovi ANU BiH, Odj. Pri. Mat. Nauka LXIX, 20(1982), 101-113.
- 8. Hille-Wintner Type Comparison Theorems for Differential Inequalities, *Math. Nachr.* 108(1982), 7-21.
- **9.** On a Result of Etgen and Lewis, *Czechoslovak Math. J.*, 32 (107)(1982), 373-376.
- 10. Asymptotic Analysis of a Nonlinear Second Order Difference Equation I, *Zbornik Radova PMF Novi Sad*, 12(1982), 73-92, (with M.Budinčević).
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