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Technische Universität Dresden
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EDUCATIONS & POSTDOCTORAL EXPERIENCES

The MEDALics, Research Centre of the University Dante Alighieri in Reggio Calabria, Italy
Postdoctoral Researcher, Applied Mathematics, Feb. 2015- Aug. 2015
Research Subject: Evasion differential games, Numerical Analysis (Iterative methods with memory for finding roots of nonlinear equations)

Technische Universität Dresden, Dresden, Germany
Postdoctoral Researcher, Applied Mathematics, Feb. 2014- Feb. 2015
Research Subject: Pursuit-evasion differential games with mixed constraints, Numerical Analysis (Iterative methods without memory for finding simple roots of nonlinear equations with basins of attractions)

Universiti Putra Malaysia, Serdang, Malaysia
Ph.D., Applied Mathematics, 2008-2011
Dissertation: “Optimal strategies of players in linear differential games”

Tarbiat Moallem (Kharazmi) University, Tehran, Iran
M.Sc., Pure Mathematics, 2004 - 2006
Dissertation: “Arens regularity of the algebra of operators on a Banach space”

Bu-Ali Sina University, Hamedan, Iran
B.Sc., Pure Mathematics, 1998 - 2002

PROFESSIONAL CERTIFICATES

IBM Data Science Professional Certificate
Applied Data Science Capstone - Certificate and IBM Digital Credential
Machine Learning with Python - Certificate and IBM Digital Credential
Data Visualization with Python- Certificate and IBM Digital Credential
Data Analysis with Python- Certificate and IBM Digital Credential

Databases and SQL for Data Science- Certificate and IBM Digital Credential
Python for Applied Data Science- Certificate and IBM Digital Credential
Data Science Methodology- Certificate and IBM Digital Credential
Open Source Tools for Data Science- Certificate and IBM Digital Credential
Data Science Orientation- Certificate and IBM Digital Credential

RESEARCH INTERESTS

Game Theory
Data Science
Differential Games
Numerical Analysis (root findings)
Probabilistic Normed Spaces

RESEARCH EXPERIENCES

Collaboration with the Center for Dynamics as a research member,
Department of Mathematics, Technische Universität Dresden, Germany, Aug. 2013-present
Research Subject: Pursuit-evasion differential games with players with geometric and integral constraints, Numerical Analysis (Iterative methods without memory for finding simple roots of nonlinear equations with basins of attractions)

Research Fellow, The MEDALics, Research Centre of the University Dante Alighieri in Reggio Calabria, Italy, Aug. 2015-present
Research Subject: Pursuit-evasion differential games in convex set, Decision making, Hybrid fuzzy differential equations, Numerical Analysis (Iterative methods for finding multiple roots of nonlinear equations with basins of attractions)

Researcher, Universiti Putra Malaysia, Serdang, Malaysia, Feb. 2016-Feb. 2017
Research Subject: Numerical Analysis (Iterative methods for finding multiple roots of nonlinear equations)

Research Assistant, PhD student, Universiti Putra Malaysia, 2008-2011
Research Subject: Pursuit-evasion differential games with integral constraints and evasion games

HONORS AND AWARDS

Gold Medal, Invention, Research and Innovation Exhibition (PRPI) 2016, UPM

IritMED Research Fellowship, Istituto di Ricerca per l'Innovazione e la Tecnologia nel Mediterraneo, Italy, 2015-2016

Bronze Medal, Exhibition of Innovation, Research and Innovation UPM 2010

Graduate Research Fellowship, Universiti Putra Malaysia, 2009-2010

Special Graduate Research Allowance, Universiti Putra Malaysia, 2008-2009

PUBLICATIONS

- [23] Salimi, M., Behl, R. (2019): Sixteenth-order optimal iterative scheme based on inverse interpolatory rational function for nonlinear equations, *Symmetry*, 11(5), 691.
DOI 10.3390/sym11050691
(<https://www.mdpi.com/2073-8994/11/5/691>)
- [22] Jamaludin, N.A.A., Nik Long, N.M.A., Salimi, M., Sharifi, S. (2019): Review of some iterative methods for solving nonlinear equations with multiple zeros, *Afrika Matematika*, 30 (3-4), 355-369.
DOI 10.1007/s13370-018-00650-3
(<https://link.springer.com/article/10.1007/s13370-018-00650-3>)
- [21] Behl, R., Salimi, M., Ferrara, M., Sharifi, S., Samaher K.A. (2019): Some real life applications of a newly constructed derivative free iterative scheme, *Symmetry*, 11(2), 239.
DOI 10.3390/sym11020239
(<https://www.mdpi.com/2073-8994/11/2/239>)
- [20] Salimi, M., Ferrara, M. (2018): Differential game of optimal pursuit of one evader by many pursuers, *International Journal of Game Theory*.
DOI 10.1007/s00182-018-0638-6
(<https://link.springer.com/article/10.1007/s00182-018-0638-6>)
- [19] Salimi, M., Nik Long, N.M.A., Sharifi, S., Pansera, B.A. (2018): A multi-point iterative method for solving nonlinear equations with optimal order of convergence, *Japan Journal of Industrial and Applied Mathematics*, 35 (2), 497-509.
DOI 10.1007/s13160-017-0294-4
(<https://link.springer.com/article/10.1007/s13160-017-0294-4>)
- [18] Salimi, M. (2018): A research contribution on an evasion problem, *SeMA Journal*, 75 (1), 139-144.
DOI 10.1007/s40324-017-0122-4
(<https://link.springer.com/article/10.1007/s40324-017-0122-4>)
- [17] Ferrara, M., Ibraimov, G., Salimi, M. (2017): Pursuit-evasion game of many players with coordinate-wise integral constraints on a convex set in the plane, *AAPP | Atti della Accademia Peloritana dei Pericolanti Classe di Scienze Fisiche, Matematiche e Naturali*, 95 (2), A6.
DOI 10.1478/AAPP.952A6
(<http://cab.unime.it/journals/index.php/AAPP/article/view/AAPP.952A6>)
- [16] Ferrara, M., Rasouli, S., Khademi, M., Salimi, M. (2017): A robust optimization model for a decision making problem: An application for stock market, *Operations Research Perspectives*, 4, 136-141.
DOI <https://doi.org/10.1016/j.orp.2017.10.001>
(https://ac.els-cdn.com/S2214716017300453/1-s2.0-S2214716017300453-main.pdf?_tid=a8488c58-b4ff-11e7-8fa1-00000aab0f27&acdnat=1508439759_7fb10cdf6a81bb3945f88add84d6e54d)
- [15] Paripour, M., Ferrara, M., Salimi, M. (2017): Approximate solutions by artificial neural network of hybrid fuzzy differential equations, *Advances in Mechanical Engineering*, 9(9), 1-9.
DOI 10.1177/1687814017717429
(journals.sagepub.com/doi/full/10.1177/1687814017717429)

- [14] Ferrara, M., Khademi, M., Salimi, M., Sharifi, S. (2017): A Dynamic Stackelberg Game of Supply Chain for a Corporate Social Responsibility, *Discrete Dynamics in Nature and Society*, vol. 2017, Article ID 8656174, 8 pages.
DOI 10.1155/2017/8656174
(<https://www.hindawi.com/journals/ddns/2017/8656174/>)
- [13] Nik Long, N.M.A., Salimi, M., Sharifi, S., Ferrara, M. (2017): Developing a new family of Newton–Secant method with memory based on a weight function, *SeMA Journal*, 74 (4), 503-512.
DOI 10.1007/s40324-016-0097-6
(<http://link.springer.com/article/10.1007/s40324-016-0097-6>)
- [12] Salimi, M., Lotfi, T., Sharifi, S., Siegmund, S. (2017): Optimal Newton-Secant like methods without memory for solving nonlinear equations with its dynamics, *International Journal of Computer Mathematics*, 94 (9), 1759-1777.
DOI 10.1080/00207160.2016.1227800
(<http://www.tandfonline.com/doi/abs/10.1080/00207160.2016.1227800?journalCode=gcom20>)
- [11] Ferrara, M., Sharifi, S., Salimi, M. (2017): Computing multiple zeros by using a parameter in Newton-Secant method, *SeMA Journal*, 74 (4), 361-369.
DOI: 10.1007/s40324-016-0074-0
(<http://link.springer.com/article/10.1007/s40324-016-0074-0>)
- [10] Matthies, G., Salimi, M., Varona, J.L., Sharifi, S. (2016): An optimal three-point eighth-order iterative method without memory for solving nonlinear equations with its dynamics, *Japan Journal of Industrial and Applied Mathematics*, 33 (3), 751-766.
DOI 10.1007/s13160-016-0229-5
(<http://link.springer.com/article/10.1007/s13160-016-0229-5>)
- [9] Sharifi, S., Ferrara, M., Salimi, M., Siegmund, S. (2016): New modification of Maheshwari method with optimal eighth order of convergence for solving nonlinear equations, *Open Mathematics (formerly Central European Journal of Mathematics)*, 14, 443-451.
DOI 10.1515/math-2016-0041
(<http://www.degruyter.com/view/j/math.2016.14.issue-1/math-2016-0041/math-2016-0041.xml?format=INT>)
- [8] Sharifi, S., Salimi, M., Siegmund, S., Lotfi, T. (2016): A new class of optimal four-point methods with convergence order 16 for solving nonlinear equations, *Mathematics and Computers in Simulation*, 119, 69-90.
DOI:10.1016/j.matcom.2015.08.011
(<http://www.sciencedirect.com/science/article/pii/S0378475415001767>)
- [7] Salimi, M., Ibragimov, G., Siegmund, S., Sharifi, S. (2016): On a Fixed Duration Pursuit Differential Game with Geometric and Integral Constraints, *Dynamic Games and Applications*, 6 (3), 409-425.
DOI: 10.1007/s13235-015-0161-3
(<http://link.springer.com/article/10.1007%2Fs13235-015-0161-3>)
- [6] Sharifi, S., Siegmund, S., Salimi, M. (2016): Solving nonlinear equations by a derivative-free form of king's family with memory, *Calcolo*, 53 (2), 201-215.
DOI 10.1007/s10092-015-0144-1

- (<http://link.springer.com/article/10.1007%2Fs10092-015-0144-1>)
- [5] Lotfi, T., Sharifi, S., Salimi, M., Siegmund, S. (2015): A new class of three point methods with optimal convergence order eight and its dynamics, *Numerical Algorithms*, 68 (2), 261-288.
DOI 10.1007/s11075-014-9843-y
(<http://link.springer.com/article/10.1007%2Fs11075-014-9843-y>)
- [4] Eslaminosratabadi, H., Salimi, M., Ibragimov, G., Amini, M. (2013): An evasion game model for duopoly competition. *Pertanika J. Soc. Sci. & Hum.* 21 (3): 1083 – 1091.
([http://www.pertanika.upm.edu.my/Pertanika%20PAPERS/JSSH%20Vol.%2021%20\(3\)%20Sep.%202013/14%20Page%201083-1092.pdf](http://www.pertanika.upm.edu.my/Pertanika%20PAPERS/JSSH%20Vol.%2021%20(3)%20Sep.%202013/14%20Page%201083-1092.pdf))
- [3] Ibragimov, G., Salimi, M., Amini, M. (2012): Evasion from many pursuers in simple motion differential game with integral constraints. *European Journal of Operational Research*, 218, 505–511.
DOI:10.1016/j.ejor.2011.11.026
(<http://www.sciencedirect.com/science/article/pii/S0377221711010356>)
- [2] Ibragimov, G., Salimi, M. (2009): Pursuit-evasion differential game with many inertial players. *Mathematical Problems in Engineering*, vol. 2009, Article ID 653723, 15 pages.
(<http://www.hindawi.com/journals/mpe/2009/653723/>)
- [1] Pourmoslemi, A., Salimi, M. (2009): Probabilistic n-normed spaces, D-n-compact sets and D-n-bounded sets. *Chaos, Solitons and Fractals*, 42, 2729–2734.
DOI:10.1016/j.chaos.2009.03.179
(<http://www.sciencedirect.com/science/article/pii/S0960077909003385>)

SUBMITTED & PREPRINT PAPERS

- [10] Salahshour, S., Ahmadian, A., Salimi, M., Ferrara, M., Pansera, B.A. (2019): A new stability analysis of fractional-order systems based on nonsingular kernel derivative, Preprint submitted to *Applied Mathematics and Computation*.
- [9] Ahmadian, A., Salahshour, S., Salimi, M., Ferrara, M., Baleanu, D. (2019): An effective approximation method for the solution of fractional differential equations with interval parameters, Preprint submitted to *Mathematical Methods in the Applied Sciences*.
- [8] Salahshour, S., Ahmadian, A., Salimi, M., Ferrara, M., Baleanu, D. (2019): A new and reliable approximation technique for fractional interval differential equations with nonsingular Mittag-Leffler kernel derivative: Application to asymptotic solutions, Preprint submitted to *Chaos*.
- [7] Ferrara, M., Pourmoslemi, A., Pansera, B., Salimi, M. (2019): Probabilistic norms on the homeomorphisms of groups, *Soft Computing*.
- [6] Ferrara, M., Ibragimov, I., Idham, A., Salimi, M. (2018): A simple motion differential game of many pursuers with coordinate-wise integral constraints on a compact convex set, *Bulletin of the Malaysian Mathematical Sciences Society*.

- [5] Ferrara, M., Salimi, M., Nik Long, N.M.A., Sharifi, S. (2018): An efficient multi-point iterative method with third-order convergence to compute the multiple roots of nonlinear equations, *Annali dell' Università di Ferrara*.
- [4] Salimi, M., Nezami, B. (2018): Comparison of some iterative methods for finding simple root of nonlinear equations, *Malaysian Journal of Mathematical Sciences*.
- [3] Sharifi, S., Ferrara, M., Nik Long, N.M.A., Salimi, M. (2015): Modified Potra-Ptak method to determine the multiple zeros of nonlinear equations, preprint.
(<http://arxiv.org/abs/1510.00319>)
- [2] Matthies, G., Salimi, M., Sharifi, S., Varonat J.L. (2015): An optimal class of eighth-order iterative methods based on Kung and Traub's method with its dynamics, preprint.
(<http://arxiv.org/abs/1508.01748>)
- [1] Idham, A., Ibragimov, G., Ferrara, M., Salimi, M., Monsi, M. (2015): Differential game of many pursuers with integral constraints on a convex set in the plane, preprint.
(<http://arxiv.org/abs/1505.00054>)

CONFERENCE PAPERS

- [11] Salimi, M., Ferrara, M. (2019): Differential Game of Pursuit Evasion. International Conference on Elliptic and Parabolic Problems, Organized by the Institute of Mathematics, University of Zurich, Gaeta, Italy, May 20–24, 2019. Abstracts: short communications, P. 238.
- [10] Ferrara, M., Salimi, M. (2018): Linear Discrete Game and Differential Game of Pursuits. ICDEA 2018, 24th International Conference on Difference Equations and Applications, Technische Universität Dresden, Dresden, Germany, May 2018.
- [9] Nik Long, N.M.A., Salimi, M., Sharifi, S., Ferrara, M. (2016): Developing a new family of Newton-Secant method with memory based on a weight function. International Conference and Workshop on Mathematical Analysis, Langkawi, Malaysia, August 2016.
- [8] Salimi, M., (2015): Pursuit problem with countable and evasion problem with finite number of pursuers. Invited Speaker, Conference: Mathematical Analysis; Modelling and Applications, Università degli Studi Mediterranea di Reggio Calabria, Italy, June 2015.
- [7] Salimi, M., (2015): Game Theory – On Pursuit-Evasion Differential Games. Invited Speaker, Workshop: Advances in Game Theory, Reggio Calabria, Italy, May 2015.
- [6] Salimi, M., Ibragimov, G. (2013): Pursuit-evasion differential games with many players and integral constraints. Proceedings of the Seventh International Conference on Game Theory and Management at Graduate School of Management, St. Petersburg University, St. Petersburg, Russia, June 2013, 200-202.
- [5] Salimi, M., Lotfi, T. (2012): Fuzzy Collocation method for solving Fredholm integral equations of the second kind. Proceedings of the World Academy of Science, Engineering and Technology Conference at Venice, Italy, April 2012, 688-693.
- [4] Salimi, M., Ibragimov, G., Fudziah, I., Suleiman, M. (2010): A differential game with state constraint. Proceedings of the Fundamental Science Congress at Kuala Lumpur, Malaysia, May 2010, 104-105.

- [3] Salimi, M., Pourmoslemi, A., Fudziah, I. (2009): Some results in Probabilistic n -Banach Spaces. Prosiding Simposium Kebangsaan Sains Matematik Ke-17, Melaka, Malaysia, Desember 2009, 884-888.
- [2] Salimi, M., Pourmoslemi, A. (2007): On probabilistic n -normed spaces. Proceedings of the 38-th Annual Iranian Mathematics Conference at Zanjan, Iran, September 2007, 246-248.
- [1] Pourmoslemi, A., Salimi, M. (2007): D -bounded sets in generalized probabilistic 2-normed spaces. Proceedings of the 16-th Seminar on Math. Anal. Appl. at Mashhad, Iran, February 2007, 113-115.

ACADEMIC SERVICE ACTIVITIES

Member of Scientific Committee, 21st Seminar of Mathematical Analysis and its Applications, 26-27 November 2014, Hamedan, Iran

Reviewer of journals: IEEE Transactions on Cybernetics, Dynamic Games and Applications, Journal of Computational and Applied Mathematics, Advances in Mechanical Engineering, Mathematics, Mathematical Review, Algorithms, Symmetry and Sustainability, Since 2014

LANGUAGE SKILLS

Farsi (Persian): Native
English: Excellent
Deutsch: Basic
Italian: Basic