

# Nasser Aghazadeh

Professor of Mathematics

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## Education

**PhD** September 23, 2003 – July 31, 2007

Doctor of Philosophy in Applied Mathematics

Iran University of Science and Technology, Tehran, Iran

**Dissertation:** Numerical Solution of Integral Equations of the First and Second Kind by Using Wavelets

**Committee:** Khosrow Maleknejad (Supervisor), Mehdi Dehghan, Abdullah Shidfar, Jalil Rashidinia, Abolghasem Emamzadeh, Rahman Farnoosh

**MSc** September 23, 1998 – November 29, 2000

Master of Science in Applied Mathematics

Iran University of Science and Technology, Tehran, Iran

**Thesis:** Numerical solution for a class of second kind integral equations using Taylor-series expansion method

**Committee:** Khosrow Maleknejad (Supervisor), Mehdi Dehghan, Abolghasem Emamzadeh

**BSc** September 24, 1994 – September 13, 1998

Bachelor of Science in Applied Mathematics

University of Tabriz, Tabriz, Iran

## Current Research Interests

My research focuses on the following topics:

- Wavelet analysis and its applications
- Numerical solution of differential equations,
- Mathematics for real-world applications
- Mathematical image processing, in particular, image segmentation, medical image processing

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## Papers

- [In Press] **Enhanced Image Compression Using Wavelet-Based Encoder-Decoder Architectures**, *Roya Roshan, Nasser Aghazadeh, and Nacer Farajzadeh*, Signal, Image and Video Processing, [doi](https://doi.org/10.1007/s11760-026-05134-7) 10.1007/s11760-026-05134-7
- [In Press] **A Tensor Model for Stakeholders' Attributes Incorporation in Requirements Prioritization**, *Nasser Aghazadeh, Negin Misaghian, Mohsen Rabbani, and Seyed Saeed Hamidi*, Computer Science,
- [In Press] **Enhancement of Digital Mammography Images Using Neutrosophic Divergence Score Based on Intuitionistic Fuzzy Entropy**, *Leila Pourreza Bavill, Nasser Aghazadeh, and Mahdi Hashemzadeh*, Journal of Medical Signals & Sensors, [doi](https://doi.org/10.4103/jmss.jmss_50_25) 10.4103/jmss.jmss\_50\_25
- [Online First] **Treatment of fractional Burgers-Fisher equation using Taylor wavelets**, *Z.H.M. Alkhafaji, A. Khani, and N. Aghazadeh*, Computational Methods for Differential Equations, [doi](https://doi.org/10.22034/CMDE.2025.65899.3059) 10.22034/CMDE.2025.65899.3059
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- [48] **A robust possibilistic semi-supervised fuzzy clustering algorithm with neighborhood-aware feature weighting**, *Arezo Mogadam, Nasser Aghazadeh, Mahdi Hashemzadeh, Amin Golzari Oskouei*, International Journal of Machine Learning and Cybernetics 16 (2025) 8803-8838, [doi](https://doi.org/10.1007/s13042-025-02731-9) 10.1007/s13042-025-02731-9

- [47] **FW-S3KIFCM: Feature Weighted Safe-Semi-Supervised Kernel-Based Intuitionistic Fuzzy C-Means Clustering Method**, Shirin Khezri, Nasser Aghazadeh, Mahdi Hashemzadeh, Amin Golzari Oskouei, *Fuzzy Information and Engineering* 17(2) (2025) 1-35,  
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- [46] **An efficient Chebyshev wavelet collocation technique for the time-fractional Camassa-Holm equation**, Nasser Aghazadeh, *International Journal of Wavelets, Multiresolution and Information Processing* 23(3) (2025) 2550003 (20 pages),  
[doi](https://doi.org/10.1142/S0219691325500031) 10.1142/S0219691325500031
- [45] **A Chebyshev Wavelet Approach to the Generalized Time-Fractional Burgers-Fisher Equation**, Nasser Aghazadeh, *Computational Methods for Differential Equations* 13(4) (2025) 1135-1147,  
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- [44] **A Finite Difference Approach to Solve the Nonlinear Model of Electro-Osmotic Flow in Nano-Channels**, N. Aghazadeh, K. Rabbani, S.H. Taheri Otaghsara, M. Rabbani, *Computational Methods for Differential Equations*, 13(3) (2025) 919-926,  
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## Conference Papers

- [2015] **A Binary Segmentation Algorithm Based on Shearlet Transform and Eigenvectors**, *Ladan Sharafyan Cigaroudy; Nasser Aghazadeh*, 2nd International Conference on Pattern Recognition and Image Analysis (IPRIA), Rasht, Iran, 11 - 12 March 2015,  
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- [2014] **On the generalized Hermitian and Skew-Hermitian Splitting Iterative Method for Image Restoration**, *Mehdi Bastani and Nasser Aghazadeh*, Caucasian Mathematics Conference, CMC I, Tbilisi, Georgia, September 5 and 6, 2014
- [2014] **Solving Volterra Integro-Differential Equations by Using an Expansion Method**, *Nasser Aghazadeh*, Caucasian Mathematics Conference, CMC I, Tbilisi, Georgia, September 5 and 6, 2014
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- [2012] **Galerkin Method for Solving Functional Integral Equations of Mixed Type**, *Nasser Aghazadeh and Medya Siadat*, Proceeding of the 2nd International Conference on Mathematical Applications in Engineering (ICMAE2012), 3-5 July 2012, Kuala Lumpur, Malaysia, 342-345
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## Editorial Board

Nov. 5, 2025 **Associate Editor**  
 - present Mathematical Sciences (Science Citation Index Expanded, Q1)

## Verified Reviews

According to the Web of Science™, I have 197 verified peer reviews at the following journals (The number in the bracket is the number of reviews in the journal):

Machine Vision and Applications [28], Signal, Image and Video Processing [23], Computational Methods for Differential Equations [22], Journal of Computational and Applied Mathematics [16], Mathematical Sciences [17], Biomedical Signal Processing and Control [13], IEEE Access [10], Mathematical Reviews® [9], International Journal of Computer Mathematics [7], Eurasip Journal on Image and Video Processing [4], Engineering Applications of Artificial Intelligence [3], Journal of Applied Mathematics and Computing [3], Progress in Artificial Intelligence [3], Applied Research [2], IEEE Intelligent Transportation System Magazine [2], Journal of Applied and Computational Mechanics [2], Journal of Mathematical Extension [2], Journal of Mathematics [2] Mathematical Modeling and Analysis [2], The Journal of Supercomputing [2], AIMS Mathematics [1], Abstract and Applied Analysis [1], Applied Mathematics and Computation [1], Applied Numerical Mathematics [1], Circuits, Systems, and Signal Processing [1], Complexity [1], Computational and Mathematical Methods [1], Current Medical Imaging [1], Engineering Computations [1], Filomat [1], International Journal of Mathematical Modelling & Computations [1], International Journal of Systems Science [1], Iranian Journal of Mathematical Science and Informatics [1], Iranian Journal of Numerical Analysis and Optimization [1], Journal of Advanced Research in Scientific Computing [1], Journal of Applied Analysis and Computation [1], Journal of Mathemat-

ical Modeling [1], Journal of Taibah University of Science [1], Mathematical Problems in Engineering [1], Mathematics and Computational Sciences [1], Numerical Algorithms [1], Numerical Heat Transfer, Part B: Fundamentals [1], Sahand Communication in Mathematical Analysis [1], Thai Journal of Mathematics [1], Walailak Journal of Science and Technology [1],

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## Teaching Experiences

My years of teaching and lecturing can be divided into three periods. The current period at *Izmir Institute of Technology*, Izmir, Türkiye, the period at *Azarbaijan Shahid Madani University, Tabriz, Iran* (ASMU) and the period before ASMU.

I joined the *Izmir Institute of Technology* in February, 2023. Since February 2023 I have been teaching some courses at *Izmir Institute of Technology*. (The official teaching language is English)

Spring 2026	MATH255	Differential Equations	
	MATH334	Introduction to Wavalet and Applications	
	MATH416	Mathematical Research Project II	
Fall 2025	MATH255	Differential Equations	
	MATH381	Numerical Analysis	
	MATH415	Mathematical Research Project I	
	CSE501	Numerical Methods and Scientific Programming I	Graduate
Spring 2025	MATH255	Differential Equations	
	MATH334	Introduction to Wavalet and Applications	
	MATH416	Mathematical Research Project II	
	CSE502	Numerical Methods and Scientific Programming II	Graduate
Fall 2024	MATH255	Differential Equations	
	MATH415	Mathematical Research Project I	
	CSE501	Numerical Methods and Scientific Programming I	Graduate
Spring 2024	MATH146	Calculus for Engineering and Science II	
	MSE222	Applied Mathematics for MSE	
	MATH416	Mathematical Research Project II	
	CSE502	Numerical Methods and Scientific Programming II	Graduate
Fall 2023	MATH255	Differential Equations	
	MATH539	Numerical Analysis	Graduate
	MATH415	Mathematical Research Project I	
	CSE501	Numerical Methods and Scientific Programming I	Graduate
Spring 2023	MATH382	Numerical Analysis II	
	MATH590	Selected Topics in Applied Mathematics	Graduate
Fall 2022	<b>Visiting Professor</b>		
	Department of Mathematics, Izmir Institute of Technology, Izmir, Türkiye		

Before that, I was a professor at ASMU, and I taught some courses for several years.

Spring 2022	Math-16512414 Math-16512103 Math-19223108	English for Mathematics Fundamentals of Numerical Analysis Wavelets and their Applications	Graduate
Fall 2021	Math-19223107 Math-19213102	Approximation Theory Advanced Numerical Analysis	Graduate Graduate
Spring 2021	Math-19424102 Math-19223108	Numerical Linear Algebra and Data Mining Wavelets and their Applications	Graduate Graduate
Fall 2020	Math-19424007 Math-19223001 Math-16512406	Spectral Methods Advanced Numerical Analysis Numerical Analysis	Graduate Graduate
Spring 2020	Math-16512415 Math-19424102 Math-19223108 Math-16512103	Mathematical Research Project Numerical Linear Algebra and Data Mining Wavelets and their Applications Fundamentals of Numerical Analysis	Graduate Graduate
Fall 2019	Math-19424007 Math-19223107 Math-19213102 Math-16512406	Spectral Methods Approximation Theory Advanced Numerical Analysis Numerical Analysis	Graduate Graduate Graduate
Spring 2019	Math-19424102 Math-19223108 Math-16512415 Math-16512103	Numerical Linear Algebra and Data Mining Wavelets and their Applications Mathematical Research Project Fundamentals of Numerical Analysis	Graduate Graduate
Fall 2018	Math-19424007 Math-19223107 Math-19223001	Spectral Methods Approximation Theory Advanced Numerical Analysis	Graduate Graduate Graduate
Spring 2018	Math-19014104 Math-19014537 Math-19223108	Operator Theory I Special Topics in Operator Theory Wavelets and their Applications	Graduate Graduate Graduate
Fall 2017	<b>Visiting Professor</b> Institut für Mathematik, Technische Universität Berlin, Berlin, Germany		
Spring 2017	<b>Visiting Professor</b> Institut für Mathematik, Technische Universität Berlin, Berlin, Germany		
Fall 2016	Math-19014015 Math-19014104	Numerical Linear Algebra and Data Mining Operator Theory I	Graduate Graduate
Spring 2016	Math-19014104	Operator Theory I	Graduate

Fall 2015	Math-19014516 Math-19014524	Hyperbolic Partial Differential Equations Regular and Singular Integral Equations	Graduate Graduate
Spring 2015	Math-19014106 Math-19213206	Special Topics in Operator Theory Approximation Theory	Graduate Graduate
Fall 2014	Math-19014524 Math-19113412	Regular and Singular Integral Equations Advanced Numerical Analysis	Graduate Graduate
Spring 2014	Math-19014516 Math-19213206	Hyperbolic Partial Differential Equations Approximation Theory	Graduate Graduate
Fall 2013	Math-19014524 Math-19213102	Regular and Singular Integral Equations Advanced Numerical Analysis	Graduate Graduate
Spring 2013	Math-19014516 Math-31328200 Math-19213206	Hyperbolic Partial Differential Equations Mathematical Research Project Approximation Theory	Graduate Graduate
Fall 2012	Math-19213204 Math-31328200 Math-19014524	Numerical Solution of Integral Equations Mathematical Research Project Regular and Singular Integral Equations	Graduate Graduate
Spring 2012	Math-19014516 Math-31328200 Math-19213206	Hyperbolic Partial Differential Equations Mathematical Research Project Approximation Theory	Graduate Graduate
Fall 2011	Math-31921711 Math-19213204 Math-19014524	Numerical Analysis I Numerical Solution of Integral Equations Regular and Singular Integral Equations	Graduate Graduate
Spring 2011	Math-19213102 Math-31328200 IT-13812003 Math-31920510	Advanced Numerical Analysis Mathematical Research Project Differential Equations Differential Equations	Graduate
Fall 2010	Math-31328901 Math-31921711 Math-19213102 Math-31328200 Math-19213206	Mathematics Laboratory I Numerical Analysis I Advanced Numerical Analysis Mathematical Research Project Approximation Theory	Graduate Graduate

Spring 2010	Math-31921711	Numerical Analysis I	Graduate
	Math-31328200	Mathematical Research Project	
	Math-19213203	Numerical Solution of ODEs	
	IT-13812001	Calculus I	
	Chem-33020101	Calculus I	
	Math-31921210	Fundamentals of Computer Science and Programming	
	Math-19014524	Regular and Singular Integral Equations	
Math-31920510	Differential Equations		
Fall 2009	Math-31328901	Mathematics Laboratory I	Graduate
	Math-31224012	Numerical Analysis II	
	Phys -32220050	Differential Equations	
	Chem-33020300	Differential Equations	
	Math-19213206	Approximation Theory	
Spring 2009	Math-31328901	Mathematics Laboratory I	Graduate
	Math-31921711	Numerical Analysis I	
	Math-19213204	Numerical Solution of Integral Equations	
	Math-19213206	Approximation Theory	
Fall 2008	Math-31328901	Mathematics Laboratory I	Graduate
	Math-31921711	Numerical Analysis I	
	Math-19213102	Advanced Numerical Analysis	
	Math-19213204	Numerical Solution of Integral Equations	
	Civil -14522600	Numerical Computation	
Spring 2008	Math-31920510	Differential Equations	Graduate
	Math-31921210	Fundamentals of Computer Science and Programming	
	Math-31328901	Mathematics Laboratory I	
Fall 2007	Civil -14522600	Numerical Computation	Graduate
	Chem-33020300	Differential Equations	
	Mech-18822001	Calculus I	

From 2004 till 2007, exactly before securing a position at ASMU, I had been teaching at the following universities as a part-time lecturer:

2008-2009	<b>Part-time lecturer</b> , <i>Payame Noor University, Tabriz, Iran</i>	Advanced Numerical Analysis	Graduate
2005-2007	<b>Part-time Lecturer</b> , <i>Islamic Azad University, South Tehran Branch, Tehran, Iran</i>	Numerical Computation Calculus I Differential Equations	
2005-2007	<b>Part-time Lecturer</b> , <i>Shahid Rajaei University, Tehran, Iran</i>	Numerical Computation Numerical Analysis Calculus I Mathematics Laboratory	

2004-2006 **Part-time Lecturer**, *University of Applied Science and Technology, Tehran, Iran*  
Numerical Computation  
Calculus I  
Computer Laboratory  
Basics of Computer

2004-2005 **Part-time Lecturer**, *Iran University of Science and Technology, Tehran, Iran*  
Numerical Computation

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## Supervised PhD Students

I have supervised the dissertations of 20 doctoral students since 2009. Of these, 13 have graduated and the rest are working on their dissertations.

PhD candidate **Abdollah Sarafraz**, *Integrating Visibility Graphs in Image Inpainting Methods; A Geometric Approach to Inpainting Degraded Medical Images*  
Co-Supervisor: Prof. Dr. Mahdi Hashemzadeh  
Advisor: Dr. Parisa Noras

PhD candidate **Ruhollah Motamedi**, *Segmentation of Mammographic Images Using Fractional Hessian Matrix and Fractional Order Derivative Based Active Contour Model*  
Co-Supervisor: Prof. Dr. Mahdi Hashemzadeh  
Advisor: Dr. Parisa Noras

PhD candidate **Leila Pourreza**, *Accurate diagnosis of breast tissue masses in mammographic images using fuzzy logic in image quality enhancement, image segmentation and lesions border detection processes*  
Co-Supervisor: Prof. Dr. Mahdi Hashemzadeh

PhD candidate **Roya Roshan**, *An image compression method based on combining of deep learning and classic methods*  
Co-Supervisor: Prof. Dr. Nacer Farajzadeh

PhD candidate **Sevda Moghaddasighamchi**, *The Investigation of Multiresolution Approaches for Chest X-ray Images Based COVID-19 Detection*  
Advisor: Dr. Parisa Noras

PhD candidate **Shirin Khezri**, *Segmentation of Medical Images Using a Fuzzy Clustering Method based on Weighting and Mean Membership Linking Using Wavelet-Contourlet Transform*  
Co-Supervisor: Prof. Dr. Mahdi Hashemzadeh  
Advisors: Dr. Parisa Noras, Dr. Amin Golzari Oskouei

PhD candidate **Arezou Najafi Moghaddam**, *Medical image segmentation using a fuzzy clustering method based on feature weighting and cluster weighting using curvelet transformation*  
Co-Supervisor: Prof. Dr. Mahdi Hashemzadeh  
Advisors: Dr. Parisa Noras, Dr. Amin Golzari Oskouei

February 04, 2024 **Mandana Abbassi**, *Iris Detection Based on Contour Features Extraction by Bendlets*  
Advisor: Dr. Parisa Noras

- July 18, 2023 **Reza Mousavi Moghaddam**, *Extracting the Target Regions of Pulmonary CT-Scan Images Using Regional-Based Active Contours*  
Advisor: Prof. Dr. Hadi Seyedarabi
- March 14, 2023 **Paria Moradi**, *Brain MRI Image Segmentation with Energy Function based on region*  
Co-Supervisor: Prof. Dr. Giovanna Castellano (University of Bari, Italy)  
Advisor: Dr. Parisa Noras
- October 13, 2020 **Mahdi Mirzafam**, *Segmentation of Magnetic Resonance Angiography Images for Extraction of Blood Vessels Based on Shearlets*  
Co-Supervisor: Prof. Dr. M. Poureisa (Tabriz University of Medical Sciences, Tabriz, Iran)  
Advisor: Dr. Parisa Noras
- September 17, 2019 **Parisa Noras**, *Edge Detection of Medical Images Based on Shearlets*
- September 17, 2019 **Ghader Ahmadnezhad**, *Numerical solutions of fractional Camassa-Holm and Fisher equations by using wavelet*  
Co-Supervisor: Prof. Dr. Shahram Rezapour
- September 17, 2019 **Amir Mohammadi**, *Numerical solution of some singular fractional partial differential equations by using wavelet*  
Co-Supervisor: Prof. Dr. Shahram Rezapour
- June 19, 2018 **Elahe Ravash**, *Analysis and treatment of fractional differential and integro-differential equations with multiwavelets method*  
Co-Supervisor: Prof. Dr. Shahram Rezapour
- October 4, 2017 **Medya Siadat**, *Applications of mixed representation systems in image separation*  
Advisor: Prof. Dr. Ozan Öktem (KTH Royal Institute of Technology, SE-100 44, Stockholm, Sweden)
- January 24, 2017 **Yaser Gholizade Atani**, *Edge detection using B-spline wavelets*
- July 5, 2016 **Ladan Sharafyan Cigaroudy**, *Image segmentation with some mathematical methods for extraction of target objects*
- September 22, 2015 **Farideh Akbarifard**, *Application of some numerical methods in image restoration with different boundary conditions*
- April 15, 2015 **Mehdi Bastani**, *Image restoration by solving linear system of equations based on HSS iterative method*  
Co-Supervisor: Prof. Dr. Khojasteh Salkuyeh (University of Guilan, Rasht, Iran)

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## Supervised Master Students

Since 2009, I have supervised the theses of 46 master's students at various universities.

- September 01, 2024 **Amin Hassanzadeh**, *Automated Mitosis Detection in Histopathology Based on Non-Gaussian Modeling of Complex Wavelet Coefficients*
- February 04, 2024 **Faranak Forough Bagheri**, *Automatic Segmentation of Brain Tumors in Magnetic Resonance Imaging by Integrating Anisotropic Filtering, Level Set Methods and Convolutional Neural Networks*
- January 15, 2023 **Elham Mahinjafarzadeh**, *Automatic and fast segmentation of medical images based on level set method using fuzzy clustering and split Bergman method*
- September 9, 2020 **Nader Belalzadeh**, *Multiscale Edge Detection Using First-Order Derivative of Anisotropic Gaussian Kernels*
- October 22, 2019 **Arezou Najafi Moghaddam**, *Binary Spherical Image Segmentation Using Directional Wavelets*
- October 22, 2019 **Zahra Salim Rushti**, *A New Class of Wavelet-Based Metrics for Image Similarity Assessment*
- October 22, 2019 **Ziba Kolahduzi Pour**, *Image Segmentation by a Novel Binary Level Set Variational Model*
- October 9, 2018 **Mohamad Habibi**, *An optimization approach to detecting continuous, thin and smooth edges in noisy images*
- May 12, 2018 **Zeinab Abdollahi**, *Some Mathematical Methods for Medical Image Segmentation*
- September 6, 2016 **Abdollah Sarafraz**, *A Shearlet approach to image edge analysis and detection*
- August 22, 2016 **Ahmad Meihami**, *Comparison of various Edge Detection Techniques used in Image Processing*
- August 22, 2016 **Saleh Sharifi**, *Accurate Subpixel Edge Location based on Partial Area Effect*
- September 6, 2016 **Zahra Rezaei Shamasbi**, *An edge-preserving multilevel method for deblurring, Denoising and segmentation*
- February 28, 2016 **Zahra Safari Bolboli**, *New model for image restoration with different boundary conditions*
- February 28, 2016 **Roqaye Alipour Tazekandi**, *Embedded techniques for choosing the parameter in Tikhonov regularization*
- October 6, 2015 **Paria Moradi**, *Image processing with Shearlet systems*
- September 22, 2015 **Reza Mousavi Moghaddam**, *Image processing with curvelet transforms*

- February 17, 2015, **Afsaneh Ghasemkhani Ghadim**, *Kronecker Product and SVD approximations in image restoration*
- December 15, 2014, **Sajad Ektesabi Bonab**, *Sylvester Tikhonov- regularization methods in image restoration*
- September 21, 2014, **Elaheh Ebrahimi Yazdabadi**, *Kronecker Product Approximations for Image Restoration with Anti Reflective Boundary Condition*
- September 21, 2014, **Reyhaneh Naghipour Nasirabadi**, *Box Spline Wavelet Frames for Image Edge Analysis*
- February 13, 2014, **Fatemeh Azarnia**, *Taylor polynomial solutions of nonlinear Volterra–Fredholm integral equations*  
(Islamic Azad University)
- December 18, 2013, **Roya Roshan**, *A New Direct Method for Solving Nonlinear Volterra-Fredholm-Hammerstein Integral Equations via Optimal Control Problem*  
(Payam-e-Noor University)
- October 6, 2013, **Mohammad Reza Gholypour**, *A random integral quadrature method for numerical analysis of the second kind of Volterra integral equation*
- September 21, 2013, **Leili Safakish**, *Cubic Spline Wavelets with Complementary Boundary Conditions*  
(Islamic Azad University)
- July 9, 2013, **Sakineh Nasrollahi**, *Legendre approximation solution for a class of higher order integro-differential equation*
- June 30, 2013, **Parisa Noras**, *The Legendre wavelet method for solving initial value problems of Bratu-type*
- June 30, 2013, **Maryam Norouzi**, *New algorithms for the numerical solution of nonlinear Fredholm and Volterra integral equations using Haar wavelets*
- February 26, 2013, **Elham Nikjoo**, *Fast wavelet Galerkin methods for solving integral equations of the second kind*
- February 26, 2013, **Reyhaneh Ghiasi**, *Fast Multiresolution Algorithms and Their Related Variational Problems for Image Denoising*
- October 1, 2012, **Mahdi Mirzafam**, *Trigonometric Hermite wavelet approximation for the integral equation of second kind with weakly singular kernel*
- October 1, 2012, **Amir Mohammadi**, *Multi-projection methods for Fredholm integral equations of the second kind*
- September 15, 2012, **Safoura Hashemi**, *Numerical Solutions of Some Linear and Nonlinear Fredholm Integral Equations Using Bernstein Polynomials*  
(Islamic Azad University)

- September 15, 2012 **Fatemeh Mahmoudi**, *Solving Some Volterra Integral Equations with Smooth and Weakly Singular kernel*  
(Islamic Azad University)
- September 15, 2012 **Mitra Zand Mashayekhi**, *Derivatives of Bernstein Polynomials and their Application for solving High Even-Order Differential Equations*  
(Islamic Azad University)
- July 14, 2012 **Nayer Gholestani**, *Hybrid function method for solving Fredholm and Volterra integral and integro-differential equations*  
(Payam-e-Noor University)
- July 14, 2012 **Mansoureh Esmaili Hajitalu**, *Sinc-Galerkin solution for nonlinear two-point boundary value problems with applications to chemical reactor theory*  
(Payam-e-Noor University)
- April 26, 2012 **Amir Ahmad Khajehnasiri**, *A fast numerical solution method for two dimensional Fredholm integral equations of the second kind*  
(Payam-e-Noor University)
- September 18, 2011 **Sedigheh Mohammadi**, *Homotopy perturbation method with some modifications for solving some integral and differential equations and comparison with homotopy analysis method*
- September 17, 2011 **Azadeh Omid**, *Some numerical methods for second kind Fredholm integral equations on the real semiaxis*
- September 17, 2011 **Farhad Ghorbani**, *Numerical solution of integral equations by means of the Sinc collocation method based on the double exponential transformation*
- September 17, 2011 **Ghader Ahmadnezhad**, *Using variational iteration method for solving some kind of integral and differential equation*
- September 28, 2010 **Shirin Khezri**, *Wavelet Numerical Solutions for Weakly Singular Fredholm Integral Equations of the Second Kind*
- July 21, 2010 **Medya Siadat**, *Wavelet applications to the Petrov-Galerkin method for Hammerstein equation*
- July 21, 2010 **Mina Shokraie**, *Approximation of Parabolic Integro-Differential Equations Using Wavelet-Galerkin Technique*
- July 11, 2009 **Elahe Ravash**, *Using Petrov-Galerkin Method for Solving Integral Equation of the Second Kind*

## Memberships

American Mathematical Society  
Iranian Mathematical Society

## Administrative Experiences

- Feb 3, 20 – **Head of Education Department**  
 June 21, 21 Azarbaijan Shahid Madani University, Tabriz, Iran
- Aug 11, 18 – **Head of Department, *Department of Mathematics***  
 April 07, 20 Azarbaijan Shahid Madani University, Tabriz, Iran
- Oct 04, 2014 **Vice-Chancellor of Administrative Staff and Financial Affairs**  
 – May 10, 2016 Azarbaijan Shahid Madani University, Tabriz, Iran
- Jan 2014 – **Founder and Head of the Image Processing Laboratory**  
 Jan 2025 Department of Mathematics, Azarbaijan Shahid Madani University, Tabriz, Iran
- Jan 01, 2014 **Dean of Faculty of Basic Sciences**  
 – Oct 18, 2014 Azarbaijan Shahid Madani University, Tabriz, Iran
- Oct 01, 2011 **Head of Research Department**  
 – Jan 31, 2014 Azarbaijan Shahid Madani University, Tabriz, Iran
- Nov 08, 2010 **Head of Industrial Relations Department**  
 - Sep 30, 2011 Azarbaijan Shahid Madani University, Tabriz, Iran
- Nov 2010 - **Co-Head of Department of Mathematics**  
 Jan 2011 Azarbaijan Shahid Madani University, Tabriz, Iran
- 2007 **Member of National Arbitration Committee**  
 Kharazmi Festival, Tehran, Iran
- 2006 **Member**  
 Department of Mathematics and Informatics Organization for Educational Research and Planning, Ministry of Education, Iran
- 2007 - 2013 **Local Representative, *Iranian Mathematical Society***  
 Azarbaijan Shahid Madani University, Tabriz, Iran

## Professional Experiences

- Aug. 27, 2024 **Professor**  
 - present Department of Mathematics, Izmir Institute of Technology, Izmir, Türkiye
- Nov. 06, 2023 **Member**  
 - present Department of Computational Science and Engineering, Izmir Institute of Technology, Izmir, Türkiye
- Feb. 16, 2023 **Associate Professor**  
 - Aug. 27, 2024 Department of Mathematics, Izmir Institute of Technology, Izmir, Türkiye
- Sep. 18, 2022 **Visiting Professor**  
 - Feb. 15, 2023 Department of Mathematics, Izmir Institute of Technology, Izmir, Türkiye

- Feb 5, 2018 – **Professor**  
Feb. 15, 2023 Azarbaijan Shahid Madani University, Tabriz, Iran
- Dec 09, 2018 **Member of Board of Auditors**  
– Mar 20, Azarbaijan Shahid Madani University, Tabriz, Iran  
2021
- Dec 10, 2016 **Visiting Professor**  
– Dec 10, Technische Universität Berlin, Berlin 10623, Germany  
2017
- Feb 5, 2013 – **Member of Specialized Commission of the Board of Auditors, Mathematics**  
Feb 4, 2018 *and Physics sections*  
Azarbaijan Shahid Madani University, Tabriz, Iran
- Feb 5, 2013 – **Associate Professor**  
Feb 4, 2018 Azarbaijan Shahid Madani University, Tabriz, Iran
- 2012 – 2014 **Member, Research Group of Processing and Communication**  
Azarbaijan Shahid Madani University, Tabriz, Iran
- Aug 2007 - **Assistant Professor**  
Feb 2013 Azarbaijan Shahid Madani University, Tabriz, Iran

## Organization Activities

- July 20-21, **Member of scientific committee, The 6th Seminar on Numerical Analysis and Its**  
2016 *Applications*  
University of Maragheh, Maragheh, Iran
- May 27-29, **Member of scientific committee, 12th seminar on differential equations and dynamical systems**  
2015  
University of Tabriz, Tabriz, Iran
- Aug 26 - 29, **Member of scientific committee, 33rd annual conference of Iranian Mathematics Society**  
2014  
University of Semnan, Semnan, Iran
- Aug 27-30, **Member of scientific committee, 34th annual conference of Iranian Mathematics Society**  
2012  
University of Tabriz, Tabriz, Iran
- July 11-13, **Member of scientific committee, 9th seminar on differential equations and dynamical systems**  
2012  
Azarbaijan Shahid Madani University, Tabriz, Iran
- July 11-13, **Chair of organizing committee, 9th seminar on differential equations and dynamical systems**  
2012  
Azarbaijan Shahid Madani University, Tabriz, Iran

July 18-19, **Chair of organizing committee**, *1st Regional seminar of mathematics students*  
2011 Azarbaijan Shahid Madani University, Tabriz, Iran

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## Languages

Azerbaijani Native

English Reading, Listening and Writing (Advanced), Speaking (High-Intermediate)  
(according to the TOEFL score report 2022)

Turkish B1 taken in General Directorate of Lifelong Learning, Ministry of Education, Türkiye

İzmir, Türkiye: [February 12, 2026](#)

