

Samad Noeiaghdam- Curriculum-Vitae



Samad Noeiaghdam

Positions: Associate Professor of Baikal School of BRICS, Irkutsk National Research Technical University, Irkutsk, Russia.

Senior Researcher of South Ural State University, Chelyabinsk, Russia.

Degree: Ph.D. of Applied Mathematics

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Personal information:

Date and place of birth: 20/9/1983 – Ardabil, Iran.

Nationality: Iranian.

Marital status: Married.

Children: 1.

Education:

- Ph. D. In applied mathematics, 2013- June 2018, Islamic Azad University, Central Tehran branch, Tehran, Iran. (Excellent; 18.10 of 20)
Thesis title: Dynamical control of computations on the numerical algorithms to solve the fuzzy integral equations. (Excellent; 20 of 20)
Supervisor: Dr. Mohammad Ali Fariborzi Araghi.
Advisors: Dr. Saeid Abbasbandy, Dr. Majid Amirfakhrian.
- M. Sc. In applied mathematics, Islamic Azad University, Tabriz branch, Tabriz, Iran. 2011- 2013. (Excellent; 17.70 of 20)
Thesis title: Numerical solution of Fredholm integral equations by using integral mean value theorem. (Excellent; 19.75 of 20)
- B. Sc. In applied mathematics, Islamic Azad University, Sarab branch, Sarab, Iran. 2001- 2005.

Employment:

2019- Present	Associate professor of Irkutsk National Research Technical University, Irkutsk, Russian Federation.
2019- Present	Senior Researcher of South Ural State University, Chelyabinsk, Russian Federation.
2016- 2019	Head of school, Iranian Math House.
2015- Present	Member of educational and research council of Iranian Math House, Ardabil branch.
2005- 2009	Director of education in mathematics and statistics fields, Sabalan University, Ardabil, Iran.
2005- 2009	Director of education in architectural engineering field, Sabalan University, Ardabil, Iran.

Teaching activities:

2019- Present	Irkutsk National Research Technical University, Irkutsk, Russian Federation.
2015-2019	Lecturer, Math House, Ardabil, Iran.
2013-2019	Lecturer, Sabalan university, Ardabil, Iran.
2015-2016	Lecturer, Sama Islamic Azad university, Ardabil, Iran.
2014-2015	Lecturer, Islamic Azad university, Ardabil, Iran.

Research Interests:

- Numerical Analysis
 - Solving Integral Equations
 - Solving ODEs and PDEs
 - Solving Ill-posed Problems
 - Fuzzy Mathematics
 - Stochastic Arithmetic
 - CADNA Library
 - CESTAC Method
 - Homotopy Analysis Method
 - Solving Bio-Mathematical Models
 - Adomian decomposition method
 - Collocation method
 - Galerkin method
 - Variational iteration method
 - Iterative methods
-

Publications:

Journal papers:

2022- Number of papers:

(63) M. Altanji, A. Santhi, V. Govindan, S. S. Santra, **S. Noeiaghdam**, Fixed Point Results Related to b-Intuitionistic Fuzzy Metric Space, Journal of Function Spaces, (*WOS, Q1-Scopus, Q2, IF: 1.807*) (Accepted)

(62) T. Padmavathi, S. Senthamilselvi, S. S. Santra, V. Govindan, M. Altanji, **S. Noeiaghdam**, Rotational Reaction over Infected Covid-19 on Human Respiratory Tract in the Presence of Soret Effect with Hall Current, The Bulletin of Irkutsk State University. Series «Mathematics» (*Scopus, Q3*) (Accepted)

(61) A. Tynda, D. Sidorov, **S. Noeiaghdam**, Numerical Validation of Polynomial Spline Collocation Method for Solving Weakly Regular Volterra Integral Equations of the First Kind, 2021. The Bulletin of Irkutsk State University. Series «Mathematics» (Under review) (*Scopus, Q3*)

(60) **S. Noeiaghdam**, M. A. Fariborzi Araghi, D. Sidorov, Dynamical strategy on homotopy perturbation method for solving second kind integral equations using the CESTAC method, Journal of Computational and Applied Mathematics-Elsevier (Pending minor revisions) (*WOS, Scopus, Q1, IF: 2.621*)

(59) F. Ghomanjani, **S. Noeiaghdam**, S. Micula, Application of transcendental Bernstein polynomials for solving two-dimensional fractional optimal control problems. (Under review)

(58) D. A. Juraev, **S. Noeiaghdam**, Modern Problems of Mathematical Physics and Their Applications, Axioms 2022, 11, 45. <https://doi.org/10.3390/axioms11020045> (*WOS, Scopus, Q1*)

(57) M.S. Khan, S. Mei, Shabnam, U. Fernandez-Gamiz, **S. Noeiaghdam**, S.A. Shah, A. Khan, Numerical Analysis of Unsteady Hybrid Nanofluid Flow Comprising CNTs-Ferrous oxide/Water with Variable Magnetic Field. Nanomaterials 2022, 12, 180. <https://doi.org/10.3390/nano12020180> (*WOS, Scopus, Q1, IF: 5.076*)

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2021- Number of papers: 26

(56) B. Qaraad, O. Moaaz, S.S. Santra, **S. Noeiaghdam**, D. Sidorov, E.M. Elabbasy, Oscillatory Behavior of Third-Order Quasi-Linear Neutral Differential Equations. Axioms 2021, 10, 346. <https://doi.org/10.3390/axioms10040346> (*WOS, Scopus, Q1*)

(55) M. Mehdizadeh-Khalsaraei, A. Shokri, **S. Noeiaghdam**, M. Molayi, Nonstandard Finite Difference Schemes for an SIR Epidemic Model. Mathematics 2021, 9, 3082. <https://doi.org/10.3390/math9233082> (*WOS, Scopus, Q1, IF: 2.258*)

(54) R. Amin, G. Islam, H. Ahmad, **S. Noeiaghdam**, D. Sidorov, M. Altanji, Numerical solution of linear and nonlinear Abel's integral equations via Haar wavelet collocation method, 2021, Symmetry. (Accepted) (*WOS, Scopus, Q1, IF: 2.713*)

- (53) L. Noeiaghdam, **S. Noeiaghdam**, D. N. Sidorov, Dynamical control on the Adomian decomposition method for solving shallow water wave equation. *iPolytech Journal*. 2021;25(5):623-632. <https://doi.org/10.21285/1814-3520-2021-5-623-632>
- (52) H. Balasundaram, S. Sathiamoorthy, S.S. Santra, R. Ali, V. Govindan, A. Dreglea, **S. Noeiaghdam**, Effect of Ventricular Elasticity Due to Congenital Hydrocephalus. *Symmetry* 2021, 13, 2087. <https://doi.org/10.3390/sym13112087> (*WOS, Scopus, Q1, IF: 2.713*)
- (51) S. Santra, H. Alotaibi, **S. Noeiaghdam**, D. Sidorov, On Nonlinear Forced Impulsive Differential Equations under Canonical and Non-Canonical Conditions. *Symmetry* 2021, 13, 2066. <https://doi.org/10.3390/sym13112066> (*WOS, Scopus, Q1, IF: 2.713*)
- (50) T. Padmavathi, S. Senthamil Selvi, S.S. Santra, R. Ali, V. Govindan, **S. Noeiaghdam**, J.J. Nieto, Free and Forced Convective Flow in Pleural Fluid with Effect of Injection between Different Permeable Regions. *Coatings* 2021, 11, 1313. <https://doi.org/10.3390/coatings11111313> (*WOS, Scopus, Q2, IF: 2.881*)
- (49) M. Sarwar, Z. Islam, H. Ahmad, H. Isik, **S. Noeiaghdam**, Near-common fixed point result in cone interval \mathcal{B} -metric spaces over Banach Algebras, *Axioms* 2021, 10, 251. <https://doi.org/10.3390/axioms10040251> (*WOS, Scopus, Q1*)
- (48) V. R. Ibrahimov, G.YU. Mehdieva, X.-G. Yue, M. K.A. Kaabar, **S. Noeiaghdam**, D. A. Juraev, Novel Symmetric Numerical Methods for Solving Symmetric Mathematical Problems, *International Journal of Circuits, Systems and Signal Processing*, Volume 15, 2021. <https://doi.org/10.46300/9106.2021.15.167> (*Scopus, Q4*)
- (47) M. Kamran Alam, K. Bibi, A. Khan, **S. Noeiaghdam**, Dufour and Soret Effect on Viscous Fluid Flow between Squeezing Plates under the Influence of Variable Magnetic Field. *Mathematics* 2021, 9, 2404. <https://doi.org/10.3390/math9192404> (*WOS, Scopus, Q1, IF: 2.258*)
- (46) **S. Noeiaghdam**, S. Micula, A Novel Method for Solving Second Kind Volterra Integral Equations with Discontinuous Kernel. *Mathematics* 2021, 9, 2172. <https://doi.org/10.3390/math9172172> (*WOS, Scopus, Q1, IF: 2.258*)
- (45) S. Bilal, M. Rehman, **S. Noeiaghdam**, H. Ahmad, Ali Akgul, Numerical Analysis of Natural Convection Driven Flow of a Non-Newtonian Power-Law Fluid in a Trapezoidal Enclosure with a U-Shaped Constructal, *Energies* 2021, 14, 5355. <https://doi.org/10.3390/en14175355> (*WOS, Scopus, Q1, IF: 3.004*)
- (44) **S. Noeiaghdam**, D. Sidorov, Integral equations: Theories, Approximations and Applications, *Symmetry* 2021, 13, 1402. <https://doi.org/10.3390/sym13081402> (*WOS, Scopus, Q1, IF: 2.645*)
- (43) F. Ghomanjani, **S. Noeiaghdam**, Application of Said Ball curve for solving fractional differential-algebraic equations, *Mathematics* 2021, 9, 1926. <https://doi.org/10.3390/math9161926> (*WOS, Scopus, Q1, IF: 2.258*)
- (42) E. Zarei, **S. Noeiaghdam**, Advantages of the Discrete Stochastic Arithmetic to Validate the Results of the Taylor Expansion Method to Solve the Generalized Abel's Integral Equation. *Symmetry* 2021, 13, 1370. <https://doi.org/10.3390/sym13081370> (*WOS, Scopus, Q1, IF: 2.645*)

- (41) M. Izadi, S. Yuzbasi, **S. Noeiaghdam**, Approximating solutions of non-linear Troesch's problem via an efficient quasi-linearization Bessel approach, *Mathematics* 2021, 9, 1841. <https://doi.org/10.3390/math9161841> (*WOS, Scopus, Q1, IF: 2.258*)
- (40) D. Lu, M. Suleman, J. Ul Rahman, **S. Noeiaghdam**, G. Murtaza, Numerical Simulation of Fractional Zakharov-Kuznetsov Equation for Description of Temporal Discontinuity Using Projected Differential Transform Method, *Complexity*, Volume 2021, Article ID 9998610, <https://doi.org/10.1155/2021/9998610> (*Scopus, Q1, IF: 2.833*)
- (39) M. Hedayati, R. Ezzati, **S. Noeiaghdam**, New Procedures of a Fractional Order Model of Novel coronavirus (COVID-19) Outbreak via Wavelets Method, *Axioms* 2021, 10, 122. <https://doi.org/10.3390/axioms10020122> (*WOS, Scopus, Q1*)
- (38) **S. Noeiaghdam**, A. Dreglea, H. Isik, M. Suleman, Comparative Study between Discrete Stochastic Arithmetic and Floating-Point Arithmetic to Validate the Results of Fractional Order Model of Malaria Infection, *Mathematics* 2021, 9, 1435. <https://doi.org/10.3390/math9121435> (*WOS, Scopus, Q1, IF: 2.258*)
- (37) **S. Noeiaghdam**, S. Micula, J.J. Nieto, Novel Technique to Control the Accuracy of a Nonlinear Fractional Order Model of COVID-19: Application of the CESTAC Method and the CADNA Library. *Mathematics* 2021, 9, 1321. <https://doi.org/10.3390/math9121321> (*WOS, Scopus, Q1, IF: 2.258*)
- (36) D. A. Juraev, **S. Noeiaghdam**, Regularization of the Ill-posed Cauchy Problem for Matrix Factorizations of the Helmholtz Equation on the Plane, *Axioms*, 10, 82, (2021). <https://doi.org/10.3390/axioms10020082> (*WOS, Scopus, Q1*)
- (35) Y. Talaei, H. Hosseinzadeh, **S. Noeiaghdam**, A Finite Difference-Spectral Method for Solving the European Call Option Black-Scholes Equation, *Mathematical Modelling of Engineering Problems*, 8 (2) (2021), 273-278. <https://doi.org/10.18280/mmep.080215> (*WOS, Scopus, Q2, IF: 2.4*)
- (34) **S. Noeiaghdam**, S. Micula, Dynamical Strategy to Control the Accuracy of the Nonlinear Bio-mathematical Model of Malaria Infection, *Mathematics*, 9 (9), 1031, (2021). <https://doi.org/10.3390/math9091031> (*WOS, Scopus, Q1, IF: 2.258*)
- (33) L. Noeiaghdam, **S. Noeiaghdam**, D. Sidorov, Dynamical Control on the Homotopy Analysis Method for Solving Nonlinear Shallow Water Wave Equation, *J. Phys.: Conf. Ser.* 1847, 012010, (2021). <https://dx.doi.org/10.1088/1742-6596/1847/1/012010> (*Scopus, Q3*)
- (32) **S. Noeiaghdam**, D. Sidorov, A. M. Wazwaz, N. Sidorov, V. Sizikov, The numerical validation of the Adomian decomposition method for solving Volterra integral equation with discontinuous kernel using the CESTAC method, *Mathematics*, 2021, 9(3), 1–15, 260. <https://doi.org/10.3390/math9030260> (*WOS, Scopus, Q1, IF: 2.258*)
- (31) **S. Noeiaghdam**, D. Sidorov, A. Zamyshlyeva, A. Tynda, A. Dreglea, A valid dynamical control on the reverse osmosis system using the CESTAC method, *Mathematics*, 2021, 9(1), 1–17, 48. <https://dx.doi.org/10.3390/math9010048> (*WOS, Scopus, Q1, IF: 2.258*)
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2020- Number of papers: 12

(30) E. Hashemizadeh, M. A. Ebadi, **S. Noeiaghdam**, Matrix method by Genocchi polynomials for solving nonlinear Volterra integral equations with weakly singular kernel, *Symmetry*, 2020, 12(12), 1–19, 2105. <https://dx.doi.org/10.3390/sym12122105> (*WOS, Scopus, Q2, IF: 2.645*)

(29) T. Allahviranloo, Z. Noeiaghdam, **S. Noeiaghdam**, Juan J. Nieto , A Fuzzy Method for Solving Fuzzy Fractional Differential Equations Based on the Generalized Fuzzy Taylor Expansion, *Mathematics*, 2020, 8(12), 1–24, 2166. <https://doi.org/10.3390/math8122166> (*WOS, Scopus, Q1, IF: 2.258*)

(28) E. Khoshrouye Ghiasi, **S. Noeiaghdam**, Truncating the series expansion for unsteady velocity-dependent Eyring-Powell fluid, *Eng. Appl. Sci. Lett.*, 3(4) (2020) 28-34; <https://doi.org/10.30538/psrp-eas12020.0049>

(27) **S. Noeiaghdam**, M. A. Fariborzi Araghi, A novel algorithm to evaluate definite integrals by the Gauss-Legendre integration rule based on the stochastic arithmetic: Application in the model of osmosis system, *Mathematical Modelling of Engineering Problems*, 7 (4) (2020), 577-586. <https://doi.org/10.18280/mmep.070410> (*WOS, Scopus, Q2, IF: 2.4*)

(26) **S. Noeiaghdam**, A. Dreglea, J. H. He, Z. Avazzadeh, M. Suleman, M. A. Fariborzi Araghi, D. Sidorov, N. Sidorov, Error estimation of the homotopy perturbation method to solve second kind Volterra integral equations with piecewise smooth kernels: Application of the CADNA library, *Symmetry*, 2020, 12(10), 1–16, 1730. <https://doi.org/10.3390/sym12101730> (*WOS, Scopus, Q2, IF: 2.645*)

(25) **S. Noeiaghdam**, D. Sidorov, Caputo-Fabrizio Fractional Derivative to Solve the Fractional Model of Energy Supply-Demand System, *Mathematical Modelling of Engineering Problems*, 7(3) (2020) 359-367. <https://doi.org/10.18280/mmep.070305> (*WOS, Scopus, Q2, IF: 2.4*)

(24) **S. Noeiaghdam**, **K. Kamal Ali**, Semi-analytical Method to Solve the Non-linear System of Equations to Model of Evolution for Smoking Habit in Spain, *Int. J. Industrial Mathematics*, 12 (4) (2020) Article ID IJIM-1377. Available online at <http://ijim.srbiau.ac.ir/> (**Zentralblatt MATH**)

(23) N. Mikaeilvand, Z. Noeiaghdam, **S. Noeiaghdam**, Juan J. Nieto, A novel technique to solve the fuzzy system of equations, *Mathematics*, 2020, 8(5), 850. <https://doi.org/10.3390/math8050850> (*WOS, Scopus, Q1, IF: 2.258*)

(22) **S. Noeiaghdam**, M.A. Fariborzi Araghi, S. Abbasbandy, Valid implementation of Sinc-collocation method to solve the fuzzy Fredholm integral equation, *Journal of Computational and Applied Mathematics*, 370 (2020) 112632. <https://doi.org/10.1016/j.cam.2019.112632> (*WOS, Scopus, Q1, IF: 1.883*)

(21) K. K. Ali, H. Dutta, R. Yilmazer, **S. Noeiaghdam**, On the New Wave Behaviors of the Gilson-Pickering Equation, *Frontiers in Physics*, 2020, 8, 54. <https://doi.org/10.3389/fphy.2020.00054> (*WOS, Scopus, Q2, IF:1.895*)

(20) **S. Noeiaghdam**, D. Sidorov, V. Sizikov, N. Sidorov, Control of accuracy on Taylor-collocation method to solve the weakly regular Volterra integral equations of the first kind by using the CESTAC method, *Applied and Computational Mathematics an International Journal*, 19 (1) (2020) 81-105. (*WOS, Scopus, Q1, IF: 3.16*)

(19) **S. Noeiaghdam**, M. A. Fariborzi Araghi, A novel approach to find optimal parameter in the homotopy-regularization method for solving integral equations, *Applied Mathematics and Information Sciences*, 2020, 14(1), 105–113. <https://doi.org/10.18576/amis/140114> (*Scopus, WOS-IF: 1.232*)

2019- Number of papers: 7

(18) **S. Noeiaghdam**, D. Sidorov, I. Muftahov, A.V. Zhukov, Control of Accuracy on Taylor-Collocation Method for Load Leveling Problem, *The Bulletin of Irkutsk State University. Series Mathematics*, 30 (2019) 59-72. <https://doi.org/10.26516/1997-7670.2019.30.59> (*Scopus, Q4*)

(17) **S. Noeiaghdam**, M. A. Fariborzi Araghi, S. Abbasbandy, Finding optimal convergence control parameter in the homotopy analysis method to solve integral equations based on the stochastic arithmetic, *Numerical Algorithms*, 81 (1), 237-267 (2019). <https://doi.org/10.1007/s11075-018-0546-7> (*WOS-IF: 2.417*)

(16) **S. Noeiaghdam**, E. Khoshrouye Ghiasi, An efficient method to solve the mathematical model of HIV infection for CD8+T cells, *International Journal of Mathematical Modelling & Computations*, 9, 4 (Fall)-Serial Number 36, (2019), 267-281.

(15) **S. Noeiaghdam**, Numerical Approximation of Modified Non-linear SIR Model of Computer Viruses, *Contemporary Mathematics*, 1 (1), (2019).

(14) **S. Noeiaghdam**, M. A. Fariborzi Araghi, Valid implementation of the Sinc-collocation method to solve the linear integral equations by CADNA library. *Journal of Mathematical Modeling*, 2019, 7(1), 63–84, 14 .

<https://doi.org/10.22124/jmm.2018.11608.1200> (*Scopus*)

(13) H. Budak, **S. Noeiaghdam**, Some perturbed versions of the generalized Trapezoid type inequalities for twice differentiable functions, *Fractional Differential Calculus*, (2019).

(12) **S. Noeiaghdam**, A novel technique to solve the modified epidemiological model of computer viruses. *SeMA Journal*, 76, 97–108 (2019). <https://doi.org/10.1007/s40324-018-0163-3> (*Scopus*)

2018- Number of papers: 3

(11) M. Suleman, D. Lu, J. H. He, U. Farooq, **S. Noeiaghdam**, F.A. Chandio, Elzaki Projected Differential Transform method for Fractional order System of Linear and Nonlinear Fractional Partial Differential Equation, *Fractals*, 26 (3), 1850041, (2018). <https://doi.org/10.1142/S0218348X1850041X> (*Scopus, WOS-IF: 2.971*)

(10) **S. Noeiaghdam**, M. Suleman, H. Budak, Solving a modified non-linear epidemiological model of computer viruses by homotopy analysis method. *Mathematical Sciences*, 12, 211–222 (2018). <https://doi.org/10.1007/s40096-018-0261-5> (**WOS**)

(9) **S. Noeiaghdam**, M. A. Fariborzi Araghi, Homotopy regularization method to solve the singular Volterra integral equations of the first kind, *Jordan Journal of Mathematics and Statistics (JJMS)*, 11 (1), (2018), 1-12. (**Scopus**)

2017- Number of papers: 3

(8) M. A. Fariborzi Araghi, **S. Noeiaghdam**, Fibonacci-regularization method for solving Cauchy integral equations of the first kind, *Ain Shams Engineering Journal*, 8 (3) (2017) 363–369. (**WOS-IF: 3.091**)

(7) M. A. Fariborzi Araghi, **S. Noeiaghdam**, Finding the optimal step of fuzzy Newton- Cotes integration rules by using CESTAC method, *Journal of Fuzzy Set Valued Analysis*, 2 (2017) 62-85.

(6) M. A. Fariborzi Araghi, **S. Noeiaghdam**, A valid scheme to evaluate fuzzy definite integrals by applying the CADNA library, *International Journal of Fuzzy System Applications*, 6 (4) (2017) 1-20. (**Scopus**)

2016- Number of papers: 3

(5) M. A. Fariborzi Araghi, **S. Noeiaghdam**, Dynamical control of computations using the Gauss-Laguerre integration rule by applying the CADNA library, *Advances and Applications in Mathematical Sciences*, 16 (2016) 1-18. (**WOS**)

(4) M. A. Fariborzi Araghi, **S. Noeiaghdam**, A novel technique based on the homotopy analysis method to solve the first kind Cauchy integral equations arising in the theory of airfoils, *Journal of Interpolation and Approximation in Scientific Computing*, 2016 (1) (2016) 1-13.

(3) **S. Noeiaghdam**, E. Zarei, H. Barzegar Kelishami, Homotopy analysis transform method for solving Abel's integral equations of the first kind, *Ain Shams Engineering Journal*, 7 (1) (2016) 483–495. (**WOS-IF: 3.091**)

2015- Number of papers: 2

(2) **S. Noeiaghdam**, Numerical solution of N-Th order Fredholm integro-differential equations by integral mean value theorem method, *International Journal of Pure and Applied Mathematics*, 2015, 99(3), 277–287 (**Scopus**)

(2-1) M. A. Fariborzi Araghi, **S. Noeiaghdam**, [Homotopy analysis transform method for solving generalized Abel's fuzzy integral equations of the first kind](https://doi.org/10.1109/CFIS.2015.7391645), 4th Iranian Joint Congress on Fuzzy and Intelligent Systems, CFIS 2015, 2016, 7391645. <https://doi.org/10.1109/CFIS.2015.7391645>

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2014- Number of papers: 1

(1) N. Mikaeilvand, **S. Noeiaghdam**, Mean value theorem for integrals and its application on numerically solving of Fredholm integral equation of second kind with Toeplitz plus Hankel Kernel, *Int. J. Industrial Mathematics*, 6 (2014).

Conference proceeding: (19)

(19) **S. Noeiaghdam**, Invited speaker of 3rd International Conference on Recent Development in Engineering & Technology (ICRDET-2022), The CESTAC Method to Validate the Results of Volterra Integral Equations Arising in the Load Leveling Problem, **2022**, India.

(18) **S. Noeiaghdam**, D. Sidorov, Control of accuracy on semi-analytical methods for solving linear and nonlinear Volterra integral equations with discontinuous kernel, Eurasian Conference on Applied Mathematics-2021, Novosibirsk, Akademgorodok, December 16 - 21, **2021**.

(17) **S. Noeiaghdam**, D. Sidorov, Valid Implementation of the Fractional Order Model of Energy Supply-Demand System, *International conference "Mathematical Optimization Theory and Operations Research" (MOTOR 2021)*, **2021**, Irkutsk, Russia.

(16) M.A. Fariborzi Araghi, **S. Noeiaghdam**, Fuzzy CESTAC method and its applications to solve fuzzy integral equations, *The Second International Conference on New Techniques in Intelligence and Fuzzy Systems*, February 5-6, **2021**, Bharath University, India

(15) **S. Noeiaghdam**, D. Sidorov, The numerical validation of the Adomian decomposition method for solving Volterra integral equation with discontinuous kernel using the CESTAC method, The 6-th International Conference on Next Generation Computing 2020, December 17-19, **2020**, Shila Stay Haeundae, Busan, Korea. (ICNGC 2020) .

(14) **S. Noeiaghdam**, D. Sidorov, A. Zamyshlyeva, A. Tynda, A. Dreglea, A valid dynamical strategy on the reverse osmosis system using the CESTAC method, International Conference "Modern methods of mathematical physics and their applications", November 17-18, **2020**, Tashkent, Uzbekistan.

(13) L. Noeiaghdam, D. Sidorov, **S. Noeiaghdam**, Dynamical Control on the Homotopy Analysis Method for Solving Nonlinear Shallow Water Wave Equation, International Conference of Dynamic Systems and Computer Sciences: Theory and Applications (DYSC 2020) , October 19-22, **2020**, Irkutsk State University, Irkutsk, Russia. (ISI index, Q4)

(12) **S. Noeiaghdam**, D. Sidorov, Dynamical strategy on Taylor-collocation method for solving first kind Abel's integral equation using the CESTAC method, VII All-Russian Conference with Foreign Participants "Free Boundary Problems: Theory, Experiment and Applications", Krasnoyarsk, Siberian Federal University, July 1-4, **2020**.

- (11) **S. Noeiaghdam**, M.A. Fariborzi Araghi, Application of the CESTAC method to find the optimal convergence control parameter in the homotopy analysis method for solving fuzzy integral equations, The fourth International Conference on Intelligent Decision Science, Istanbul, Turkey, **2020**. (ISI index, Q3)
- (10) **S. Noeiaghdam**, Application of homotopy analysis transform method to solve the modified non-linear epidemiological model of computer viruses, *The forth international conference on intelligent decision science, Tehran, Iran, 2018*.
- (9) M. A. Fariborzi Araghi, **S. Noeiaghdam**, Valid implementation of the Romberg integration rule to evaluate a definite integral by applying the CADNA library, *The second national conference of advanced engineering with mathematical techniques, Urmia, Iran, 2017*.
- (8) M. A. Fariborzi Araghi, **S. Noeiaghdam**, Finding the optimal step of fuzzy Newton-Cotes integration rules by using CESTAC method, *The second international conference on intelligent decision science, Dubai, United Arab Emirates, 2016*.
- (7) **S. Noeiaghdam**, A novel technique based on the homotopy analysis method to solve the first kind Cauchy integral equations arising in the theory of airfoils, *The first international conference on intelligent decision science, Dubai, United Arab Emirates, 2015*.
- (6) M. A. Fariborzi Araghi, **S. Noeiaghdam**, Homotopy analysis transform method for solving generalized Abel's fuzzy integral equations of the first kind, *The 4-th Iranian Joint Congress on Fuzzy and Intelligent Systems (CFIS), 2014*.
- (5) **S. Noeiaghdam**, M. A. Fariborzi Araghi, Homotopy analysis method for solving Cauchy integral equations of the first kind, *The 45-th annual Iranian mathematics conference, Semnan, Iran, 2014*.
- (4) Y. Mahmoodi, F. Dastmalchi Saei, **S. Noeiaghdam**, Comparison between HPM, ADM and integral mean value theorem for solving Hammerstein integral equations, *The 4-th Iranian conference on numerical analysis and its applications, Khansar, Iran, 2013*.
- (3) Y. Mahmoodi, F. Dastmalchi Saei, **S. Noeiaghdam**, Numerical solution of high dimensional functional Hammerstein integral equations by using mean value theorem method, *The 4-th Iranian conference on numerical analysis and its applications, Khansar, Iran, 2013*.
- (2) Y. Mahmoodi, F. Dastmalchi Saei, **S. Noeiaghdam**, Comparison between VIM and IMVM for solving Fredholm integral equations, *The 44-th Annual Iranian Mathematics Conference, Mashhad, Iran, 2013*.
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Books&Chapters:

1- **Book:** M. A. Fariborzi Araghi, **S. Noeiaghdam**, Validation of Numerical Algorithms: Stochastic Arithmetic, Entekhab Bartar Publisher, Iran, 2021. ISBN: 978-622-6498-09-8.

2- **Book:** **S. Noeiaghdam**, D. Sidorov, Integral Equations: Theories, Approximations, and Applications. 2021, ISBN 978-3-0365-2240-1 (Hbk); ISBN 978-3-0365-2239-5 (PDF)
<https://doi.org/10.3390/books978-3-0365-2239-5>

3- **Book:** D. Juraev, **S. Noeiaghdam**, Modern Problems of Mathematical Physics and Their Applications. 2021, MDPI (Obtained from the special issue in Axioms). ISSN: DOI: (under processing)

4- **Chapter:** S. Noeiaghdam, M. A. Fariborzi Araghi, (2021) Application of the CESTAC Method to Find the Optimal Iteration of the Homotopy Analysis Method for Solving Fuzzy Integral Equations. In: Allahviranloo T., Salahshour S., Arica N. (eds) Progress in Intelligent Decision Science. IDS 2020. Advances in Intelligent Systems and Computing, vol 1301. Springer, Cham. (Scopus) https://doi.org/10.1007/978-3-030-66501-2_49

5- **Chapter:** M.A. Fariborzi Araghi, S. Noeiaghdam (2022) Finding Optimal Results in the Homotopy Analysis Method to Solve Fuzzy Integral Equations. In: Allahviranloo T., Salahshour S. (eds) Advances in Fuzzy Integral and Differential Equations. Studies in Fuzziness and Soft Computing, vol 412. Springer, Cham. (Scopus) https://doi.org/10.1007/978-3-030-73711-5_7

6- **Chapter:** S. Noeiaghdam, D. Sidorov (2021) Valid Implementation of the Fractional Order Model of Energy Supply-Demand System. In: Strekalovsky A., Kochetov Y., Gruzdeva T., Orlov A. (eds) Mathematical Optimization Theory and Operations Research: Recent Trends. MOTOR 2021. Communications in Computer and Information Science, vol 1476. Springer, Cham. (Scopus) https://doi.org/10.1007/978-3-030-86433-0_34

7- **Chapter:** Application of the stochastic arithmetic to solve the mathematical models, In progress to publish by Elsevier.

Research projects:

(1) A method to solve the Fredholm integral equation with Toeplitz, Hankel and Toeplitz plus Hankel kernels, 2011-2012, Islamic Azad University, Ardabil Branch, Ardabil, Iran.

(2) Solving generalized Abel's integral equations of the first and second kinds via Taylor-collocation method, 2016-2017, Islamic Azad University, Hamedan Branch, Hamedan, Iran.

(3) Grant from the Academic Council in the direction of the scientific school of Irkutsk National Research Technical University in cooperation with the Russian Academy of Sciences No. 14-NSH-RAN-2020. 2020-2022, Irkutsk, Russia.

(4) RSF Grant, Advanced Methods for Nonlinear Crisp and Fuzzy Dynamical Models: Theory and Applications, Federal State Budgetary Educational Institution of Higher Education "Irkutsk National Research Technical University", No. 22-29-01619, 2022-2023, Irkutsk, Russia.

(4) Three under review international grants

Rewards:

- 1- Winner of Outstanding Reviewer Awards 2020 by MDPI-Mathematics, IF: 1.747 (Scopus-WOS- Q1)

Referee& Reviewer:

- Reviewer board member of [Symmetry](#) (WOS-Scopus-Q2-IF: 2.645)
- Reviewer board member of [Algorithm](#) (WOS-Scopus)
- Reviewer board member of [International Journal of Advanced Computer Science and Applications](#) (WOS-Scopus)
- Reviewer board member of [Mathematics](#) (WOS-Scopus-Q1-IF: 1.747)
- Reviewer board member of [Microorganisms](#) (WOS-Scopus-Q2-IF: 4.152)
- Reviewer board member of [AI](#)
- Reviewer board member of [Fractal and Fractional](#) (WOS-Scopus)
- Reviewer board member of [Data](#) (WOS-Scopus)
- Reviewer board member of [Machines](#) (WOS-Scopus)
- American Mathematical Society (AMS)
- Springer Plus
- Fuzzy Sets and Systems
- Journal of Interpolation and Approximation in Scientific Computing
- International Journal of Astronautics and Aeronautical Engineering
- Journal of Taibah University for Science
- Neural Computing and Applications
- The Bulletin of Irkutsk State University
- Journal of Intelligent & Fuzzy Systems
- Mathematical Sciences
- Complexity
- IEEE Transactions of Fuzzy Systems
- International Journal of Applied and Computational Mathematics
- International Journal of Industrial Mathematics (ISC)
- Mathematics (Scopus)
- Symmetry-Basel (Scopus)
- Algorithms (Scopus)
- Applications and Applied Mathematics: An International Journal
- Journal of Advances in Mathematics and Computer Science
- Computer Modelling in Engineering and Sciences (Scopus)

- Siberian Journal of Computational Mathematics (Scopus)
- Chaos, Solitons and Fractals
- International Journal of Pathogen Research
- Journal of Generalized Lie Theory and Applications
- Research and Communications in Mathematics and Mathematical Sciences
- Computer modelling in engineering and sciences
- TWMS Journal of Pure and Applied Mathematics (SCIE)
- Numerical Methods for Partial Differential Equations
- International Journal of Biomathematics
- Punjab University Journal of Mathematics
- Journal of Function Spaces
- Asian Research Journal of Mathematics
- Computer Modelling in Engineering and Sciences
- Journal of Computational and Applied Mathematics
- Asian Journal of Research and Reviews in Physics
- Journal of Mathematical Sciences Advances and Applications
- Journal of Multiscale Modelling
- Education Sciences
- Mathematical Sciences
- Journal of Applied Mathematics and Computing
- Electronics
- Reports on Mathematical Physics

Chapter reviews:

1- Modeling the Transmission Dynamics of COVID-19 Epidemic in Caputo type Fractional Derivative.

2- Optimal Homotopy Analysis of a Nonlinear Fractional-order Model for HTLV-1 Infection of CD4+ T-cells for edited book entitled “Fractional Calculus: New Applications in Understanding Nonlinear Phenomena” by Bentham Books Publisher.

Editorial boards:

14- Guest Editor of *Fractal and Fractional*, Special Issue "[Theories and Applications of Fractional Order Bio-mathematics in Medicine and Biology](#)" (Scopus-Q1-IF: 3.313)

13- Guest Editor of *Operational Research in Engineering Sciences: Theory and Applications* (ORESTA), [3rd International Conference on Recent Development in Engineering & Technology, Selected Papers ICRDET 2022](#), Praveen Agarwal, Shilpi Jain, Shams Forruque Ahmed, Samad Noeiaghdam (Scopus-Q1)

12- Guest Editor of *Mathematical Modelling and Numerical Simulation with Applications* (MMNSA), "*Recent Development in Engineering & Technology: Analysis, Modelling and Applications*", [Announcement of an Upcoming Special Issue Based on 3rd International Conference on Recent Development in Engineering & Technology \(ICRDET-2022\)](#), Praveen Agarwal, Shilpi Jain, Samad Noeiaghdam, Davron Aslonqulovich Juraev

11- Guest Editor of *Symmetry*, Special Issue "*Integral Equations: Theories, Approximations and Applications*" (Scopus-Q1-IF: 2.645)

10- Guest Editor of *Symmetry*, Special Issue "*Contemporary Methods and Applications of Integral Equations*" (Scopus-Q1-IF: 2.645)

9- Guest Editor of *Axioms*, Special Issue "*Modern Problems of Mathematical Physics and Their Applications*" (WOS-Scopus-Q1)

8- Guest Editor of *Axioms*, Special Issue "*Differential Equations: Theories, Methods and Modern Applications*" (WOS-Scopus-Q1)

7- Guest Editor of *Global and Stochastic Analysis*, Special Issue "*Modern Problems of Equations of Mathematical Physics and its Applications*" (WOS-Scopus-Q3)

6- Editorial board member of *Mathematical Modelling of Engineering Problems* (Scopus-Q2- IF: 2.4)

5- Topic Editor of *Axioms* (WOS-Scopus-Q1)

4- Editorial board member of *Contemporary Mathematics*

3- Editorial board member of *Challenges*

2- Topic Editor of *Signals*

1- Editorial board member of *Mathematical Modelling and Numerical Simulation with Applications* (MMNSA)