

	Contact Information		
	Name: Waleed Adel Abdelsalam Elsayed Ouf		
	Address: 33 abdelrahman ibn ouf street – Mansoura		
	Phone contacts: 01004025899		
	Email address: wouf@horus.edu.eg		
	Google scholar: https://scholar.google.com/citations?user=2pUFX0kAAAAJ&hl=en		
	Research gate: https://www.researchgate.net/profile/Waleed-Adel		
	Web of science: https://www.webofscience.com/wos/author/record/G-7975-2017		
	ORCID: https://orcid.org/my-orcid?orcid=0000-0002-0557-8536		
	SCOPUS: https://www.scopus.com/authid/detail.uri?authorId=57215090907		
Education/ Academic qualifications (start with your most recent education first)			
Year	School / University	Specialization	Degree
2007	Mansoura	Civil engineering	Bachelor
2014	Tanta	Applied mathematics	Master
2019	Mansoura	Applied mathematics	PhD
Academic Employment History (start with your most recent education first)			
From:	To:	University / Organization	Title of Position
2007	2014	Mansoura	Demonstrator
2014	2019	Mansoura	Teaching assistant
2019	Now	Mansoura	Assistant professor of applied matheamtics
2021	Now	French University in Egypt	Assistant professor of applied matheamtics
Administrative Positions:			
From:	To:	University / Organization	Title of Position
Teaching Experience (Courses, Language, Higher Education Only)			
<u>Undergraduate Courses</u>			
1. Calculus I			
2. Calculus II			
3. Linear Algebra			
4. Math 3 (Special Functions – Complex Analysis).			
5. Math 4 (Differential Equations- Multivariable calculus).			

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

6. Math 5 (Discrete Mathematics).
7. Numerical Analysis.
8. Statistics and Probability.
9. Mechanics 1. (Statics)
10. Mechanics 2. (Dynamics)
11. Mechanics 3. (Rigid Body Dynamics).
12. Descriptive Geometry.

Graduate Courses

1. Advanced Numerical Analysis.
2. Differential and Difference equations.
3. Probability and statistics.
4. Advanced discrete mathematics.

Publications:

Identify type of publication: book, refereed article, book chapter, journal article, non-refereed paper, major report, technical reports, research funds/grants

1. Elsonbaty, Amr, Mohammed Alharbi, A. El-Mesady, and **Waleed Adel**. "Dynamical analysis of a novel discrete fractional lumpy skin disease model." Partial Differential Equations in Applied Mathematics, no. 9 (2024): 100604.
2. El-Mesady, A., Nauman Ahmed, Amr Elsonbaty, and **Waleed Adel**. "Transmission dynamics and control measures of reaction–diffusion pine wilt disease model." The European Physical Journal Plus 138, no. 12 (2023): 1078.
3. **Adel, Waleed**, Y. A. Amer, E. S. M. Youssef, and A. M. S. Mahdy. "Mathematical analysis and simulations for a Caputo-Fabrizio fractional COVID-19 model." Partial Differential Equations in Applied Mathematics (2023): 100558.
4. Kaur, Lakhveer, **Waleed Adel**, Mustafa Inc, Hadi Rezazadeh, and Lanre Akinyemi. "Gaussian solitary wave solutions for nonlinear perturbed Schrödinger equations with applications in nanofibers." International Journal of Modern Physics B (2023): 2450318.
5. **Adel, Waleed**, Hadi Rezazadeh, and Mustafa Inc. "On numerical solutions of Telegraph, viscous, and modified Burgers equations via Bernoulli collocation

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

- method." *Scientia Iranica* (2023).
6. Elsonbaty, Amr, **Waleed Adel**, A. Aldurayhim, and A. El-Mesady. "Mathematical modeling and analysis of a novel monkeypox virus spread integrating imperfect vaccination and nonlinear incidence rates." *Ain Shams Engineering Journal* 15, no. 3 (2024): 102451.
 7. El-Mesady, A., **Waleed Adel**, A. A. Elsadany, and Amr Elsonbaty. "Stability analysis and optimal control strategies of a fractional-order Monkeypox virus infection model." *Physica Scripta* (2023): 98, 095256.
 8. Mohammad Izadi, Ndolane Sene, **Waleed Adel**, A. El-Mesady, "The Layla and Majnun mathematical model of fractional order: Stability analysis and numerical study" *Results in physics*, (2023): 106650, <https://doi.org/10.1016/j.rinp.2023.106650>.
 9. **Waleed Adel**, Elsonbaty, A., Aldurayhim, A., El-Mesady, A. "Investigating the dynamics of a novel fractional-order monkeypox epidemic model with optimal control" *Alexandria Engineering Journal*, 73, (2023): 519-542.
 10. Srivastava, Hari Mohan, **Waleed Adel**, Mohammad Izadi, and Adel A. El-Sayed. "Solving Some Physics Problems Involving Fractional-Order Differential Equations with the Morgan-Voyce Polynomials." *Fractal and Fractional* 7, no. 4 (2023): 301.
 11. Elsonbaty, Amr, A. A. Elsadany, and **Waleed Adel**. "On Reservoir Computing Approach for Digital Image Encryption and Forecasting of Hyperchaotic Finance Model." *Fractal and Fractional* 7, no. 4 (2023): 282.
 12. Djelloul Ziane, Mountassir Hamdi Cherif, **Waleed Adel**. Solving the Lane-Emden and Emden-Fowler equations on Cantor Sets by the Local Fractional Homotopy Analysis Method. *Progress in Fractional Differentiation and Applications*. (2023). (Accepted).
 13. Izadi M, Parsamanesh M, **Waleed Adel**. Numerical and Stability Investigations of the Waste Plastic Management Model in the Ocean System. *Mathematics*. 2022; 10(23):4601. <https://doi.org/10.3390/math10234601>
 14. Rezazadeh, Mohammadreza, Ali Zabihi, A. G. Davodi, Mustafa Inc, **Waleed Adel**, and Melik B. Yesil. "Effects of elasticity and cross-flow Reynolds on visco-

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

- elastic fluids across the ground and a porous elliptic plate." *International Journal of Nonlinear Analysis and Applications* (2022).
15. W. Weera, T. Botmart, C. Chantawat, Z. Sabir, **Waleed Adel** et al., "An intelligence computational approach for the fractional 4d chaotic financial model," *Computers, Materials & Continua*, vol. 74, no.2, pp. 2711–2724, 2023.
 16. El-Mesady, A., Amr Elsonbaty, and **Waleed Adel**. "On nonlinear dynamics of a fractional order monkeypox virus model." *Chaos, Solitons & Fractals* 164 (2022): 112716.
 17. Günerhan, Hatira, Hadi Rezazadeh, **Waleed Adel**, Mohammad Hatami, Kulandairaj Martin Sagayam, Homan Emadifar, Muhammad Imran Asjad, Faraidun K. Hamasalh, and Ahmed A. Hamoud. "Analytical approximate solution of fractional order smoking epidemic model." *Advances in Mechanical Engineering* 14, no. 9 (2022): 16878132221123888.
 18. **Waleed Adel**, "A Numerical Technique for Solving a Class of Fourth-Order Singular Singularly Perturbed and Emden–Fowler Problems Arising in Astrophysics." *International Journal of Applied and Computational Mathematics* 8, no. 5 (2022): 1-18.
 19. Khaled Ali, M. Ismail Abdelrahman, K. Raslan, **Waleed Adel**, "On Analytical and Numerical Study for the Peyrard- Bishop DNA Dynamic Model." *Applied Mathematics & Information Sciences* 16, no. 5 (2022): 1-11.
 20. **Waleed Adel**, Zulqurnain Sabir, Hadi Rezazadeh, and A. Aldurayhim. "Application of a Novel Collocation Approach for Simulating a Class of Nonlinear Third-Order Lane–Emden Model." *Mathematical Problems in Engineering* 2022 (2022).
 21. Izadi, Mohammad, Şuayip Yüzbaşı, and **Waleed Adel**. "Accurate and efficient matrix techniques for solving the fractional Lotka–Volterra population model." *Physica A: Statistical Mechanics and its Applications* (2022): 127558.
 22. Izadi, M., Yüzbaşı, Ş. & **Waleed Adel**, "A new Chelyshkov matrix method to solve linear and nonlinear fractional delay differential equations with error analysis". *Mathematical Sciences*, vol. 2022, <https://doi.org/10.1007/s40096-022-00468-y>

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

23. P. Junswang, Z. Sabir, M. A. Z. Raja, **Waleed Adel**, T. Botmart et al., "Intelligent networks for chaotic fractional-order nonlinear financial model," *Computers, Materials & Continua*, vol. 72, no.3, pp. 5015–5030, 2022.
24. Ahmed, Nauman, Muhammad Aziz-ur Rehman, **Waleed Adel**, Fahd Jarad, Mubasher Ali, Muhammad Rafiq, and Ali Akgül. "Structure Preserving Numerical Analysis of Reaction-Diffusion Models." *Journal of Function Spaces* 2022 (2022).
25. Şenol, Mehmet, Lanre Akinyemi, Henrietta Nkansah, and **Waleed Adel**. "New solutions for four novel generalized nonlinear fractional fifth-order equations." *Journal of Ocean Engineering and Science* (2022).
26. Izadi M, Srivastava HM, **Adel W**. An Effective Approximation Algorithm for Second-Order Singular Functional Differential Equations. *Axioms*. 2022; 11(3):133. <https://doi.org/10.3390/axioms11030133>
27. Srinivasa, Kumbinarasaiah, Hadi Rezazadeh, and **Waleed Adel**. "An effective numerical simulation for solving a class of Fokker–Planck equations using Laguerre wavelet method." *Mathematical Methods in the Applied Sciences*.
28. El-Gamel, Mohamed, Nesreen Mohamed, and **Waleed Adel**. "Numerical Study of a Nonlinear High Order Boundary Value Problems Using Genocchi Collocation Technique." *International Journal of Applied and Computational Mathematics* 8, no. 3 (2022): 1-18.
29. **Waleed Adel**, and Kumbinarasaiah Srinivasa. "A new clique polynomial approach for fractional partial differential equations." *International Journal of Nonlinear Sciences and Numerical Simulation* (2022).
30. Mohamed Izadi, Suyuib Yüzbas, **Waleed Adel**, "Two Novel Bessel Matrix Techniques to Solve the Squeezing Flow Problem between Infinite Parallel Plates". *Computational Mathematics and Mathematical Physics* 61 (2021): 1-20.
31. Zhu, Wen-Hui, Arash Pashrashid, **Waleed Adel**, Hatira Gunerhan, Kottakkaran Sooppy Nisar, C. Ahamed Saleel, Mustafa Inc, and Hadi Rezazadeh. "Dynamical behavior of the Foam Drainage equation." *Results in Physics* (2021): 104844.
32. **Waleed Adel**, and Sinan Deniz. "Approximate solution of the electrostatic nanocantilever model via optimal perturbation iteration method." *Computational*

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

- and *Mathematical Methods* 3, no. 6 (2021): e1189.
33. Gholami, Amin, Ganji, Davood D., Rezazadeh, Hadi, **Waleed Adel** and Bekir, Ahmet. "Application of modified Mickens iteration procedure to a pendulum and the motion of a mass attached to a stretched elastic wire" *International Journal of Nonlinear Sciences and Numerical Simulation*, 2021, pp. 000010151520200256. <https://doi.org/10.1515/ijnsns-2020-0256>
 34. Rehman, Hamood Ur, Musarat Bibi, Muhammad Shoaib Saleem, Hadi Rezazadeh, and **Waleed Adel**. "New optical soliton solutions of the Chen–Lee–Liu equation." *International Journal of Modern Physics B* 35, no. 18 (2021): 2150184.
 35. Syed Zahir Hussain Shah, Assad Ayub, Zulqurnain Sabir, **Waleed Adel**, Nehad Ali Shah, Se-Jin Yook, "Insight into the dynamics of time-dependent cross nanofluid on a melting surface subject to cubic autocatalysis". *Case Studies in Thermal Engineering* (2021): 101227.
 36. Ahmed, Nauman, Amr Elsonbaty, Ali Raza, Muhammad Rafiq, and **Waleed Adel**. "Numerical simulation and stability analysis of a novel reaction–diffusion COVID-19 model." *Nonlinear Dynamics* (2021): 1-18.
 37. Kumbinarasaiah, S., and **Waleed Adel**. "Hermite wavelet method for solving nonlinear Rosenau–Hyman equation." *Partial Differential Equations in Applied Mathematics* (2021): 100062.
 38. Rezazadeh, Hadi, **Waleed Adel**, Amin Fazolahtabar, and R. A. Talarposhti. "Analytical Approach Based on Tamimi-Ansari method for Solving Nonlinear Equations with Applications." *Computational Sciences and Engineering* (2021).
 39. Amr Elsonbaty, Zulqurnain Sabir, Rajagopalan Ramaswamy, **Waleed adel**, "Dynamical analysis of a novel discrete fractional SITRS model for covid-19". *Fractals* 29, no. 8, (2021): 2140035.
 40. El-Gamel, M., **Waleed Adel**, & El-Azab, M.S. "Eigenvalues and eigenfunctions of fourth-order Sturm Liouville problems using Bernoulli series with Chebyshev collocation points". *Mathematical Sciences* (2021). <https://doi.org/10.1007/s40096-021-00412-6>
 41. **Waleed Adel**, Kübra Erdem Biçer, and Mehmet Sezer. "A Novel Numerical

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

- Approach for Simulating the Nonlinear MHD Jeffery–Hamel Flow Problem." *International Journal of Applied and Computational Mathematics* 7, no. 3 (2021): 1-15.
42. Rezazadeh, Hadi, [Waleed Adel](#), Eric Tala-Tebue, Shao-Wen Yao, and Mustafa Inc. "Bright and singular soliton solutions to the Atangana-Baleanu fractional system of equations for the ISALWs." *Journal of King Saud University-Science* (2021): 101420.
43. Rezazadeh, Hadi, [Waleed Adel](#), Mostafa Eslami, Kalim U. Tariq, Seyed Mehdi Mirhosseini-Alizamini, Ahmet Bekir, and Yu-Ming Chu. "On the optical solutions to nonlinear Schrödinger equation with second-order spatiotemporal dispersion." *Open Physics* 19, no. 1 (2021): 111-118.
44. Jena, Rajarama Mohan, Snehashish Chakraverty, Dumitru Baleanu, [Waleed Adel](#), and Hadi Rezazadeh. "A robust technique-based solution of time-fractional seventh-order Sawada–Kotera and Lax’s KdV equations." *Modern Physics Letters B* 35, no. 16 (2021): 2150265.
45. [Waleed Adel](#), and Ahmet Yildirim. "Studying the thermal analysis of rectangular cross section porous fin: A numerical approach." *Computational Methods for Differential Equations* 10, no. 2 (2022): 338-350.
46. Davodi, A. G., H. Rezazadeh, [Waleed Adel](#), A. Bekir, and D. D. Ganji. "Fluctuation and frequency of the oscillators with exponential spring using accurate approximate analytical solutions." *Fluctuation and Noise Letters* 20, no. 04 (2021): 2150036.
47. Hadi Rezazadeh, Alper Korkmaz, Abdelfattah EL Achab, [Waleed Adel](#), Ahmet Bekir, "New Travelling Wave Solution-Based New Riccati Equation for Solving KdV and Modified KdV Equations". *Applied Mathematics and Nonlinear Sciences* (2020): doi:10.2478/AMNS.2020.2.00034.
48. Ahmed, Nauman, Muhammad Rafiq, [Waleed Adel](#), Hadi Rezazadeh, Ilyas Khan, and Kottakkaran Sooppy Nisar. "Structure Preserving Numerical Analysis of HIV and CD4+ T-Cells Reaction Diffusion Model in Two Space Dimensions." *Chaos, Solitons & Fractals* 139 (2020): 110307.

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

49. Srinivasa, Kumbinarasaiah, Hadi Rezazadeh, and **Waleed Adel**. "Numerical Investigation Based on Laguerre Wavelet for Solving the Hunter Saxton Equation." *International Journal of Applied and Computational Mathematics* 6, no. 5 (2020): 1-14.
50. Günerhan, Hatıra, Hemen Dutta, Mustafa Ali Dokuyucu, and **Waleed Adel**. "Analysis of a fractional HIV model with Caputo and constant proportional Caputo operators." *Chaos, Solitons & Fractals* 139 (2020): 110053.
51. Ahmed, Nauman, Amr Elsonbaty, **Waleed Adel**, Dumitru Baleanu, and Muhammad Rafiq. "Stability analysis and numerical simulations of spatiotemporal HIV CD4+ T cell model with drug therapy." *Chaos: An Interdisciplinary Journal of Nonlinear Science* 30, no. 8 (2020): 083122.
52. Tariq, Hira, Hatıra Günerhan, Hadi Rezazadeh, and **Waleed Adel**. "A numerical approach for the nonlinear temporal conformable fractional foam drainage equation." *Asian-European Journal of Mathematics* 14, no. 06 (2021): 2150089.
53. **Adel, Waleed**, and Zulqurnain Sabir. "Solving a new design of nonlinear second-order Lane–Emden pantograph delay differential model via Bernoulli collocation method." *The European Physical Journal Plus* 135, no. 6 (2020): 427.
54. **Adel, Waleed**. "A fast and efficient scheme for solving a class of nonlinear Lienard's equations." *Mathematical Sciences* 14, no. 2 (2020): 167-175.
55. **Adel, Waleed**, Hadi Rezazadeh, Mostafa Eslami, and Mohammad Mirzazadeh. "A numerical treatment of the delayed Ambartsumian equation over large interval." *Journal of Interdisciplinary Mathematics* (2020): 1-15.
56. Iqbal, Zafar, Nauman Ahmed, Dumitru Baleanu, **Waleed Adel**, Muhammad Rafiq, Muhammad Aziz-ur Rehman, and Ali Saleh Alshomrani. "Positivity and boundedness preserving numerical algorithm for the solution of fractional nonlinear epidemic model of HIV/AIDS transmission." *Chaos, Solitons & Fractals* 134 (2020): 109706.
57. Talarposhti, R. A., P. Jalili, H. Rezazadeh, B. Jalili, D. D. Ganji, **Waleed Adel**, and A. Bekir. "Optical soliton solutions to the (2+ 1)-dimensional Kundu–Mukherjee–Naskar equation." *International Journal of Modern Physics B* 34, no. 11

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

(2020): 2050102.

58. Rezazadeh, H, [Waleed Adel](#), Eric Tala-Tebue, A new method for solving three-dimensional problem of condensation film on inclined rotating disk, *International Journal of Engineering Mathematics & Physics*, no.1, (2019).
59. El-Gamel, Mohamed, [Waleed Adel](#), and M. S. El-Azab. "Bernoulli polynomial and the numerical solution of high-order boundary value problems." *Mathematics in Natural Science* 4, no. 01 (2019): 45-59.
60. El-Gamel, Mohamed, [Waleed Adel](#), M. S. El-Azab, Two Very Accurate and Efficient Methods for Solving Time-Dependent Problems, *Applied mathematics*, no. 9, (2019).
61. El-Gamel, Mohamed, [Waleed Adel](#), and M. S. El-Azab. "Collocation method based on Bernoulli polynomial and shifted Chebychev for solving the Bratu equation." *J. Appl. Comput. Math* 7, no. 7 (2018).
62. El-Gamel, Mohamed, and [Waleed Adel](#). "Numerical investigation of the solution of higher-order boundary value problems via Euler matrix method." *SeMA Journal* 75, no. 2 (2018): 349-364.
63. Z. W. Kamal, [W. A. Ouf](#), and M. S. El-Azab. "An effective scheme based on quartic B-spline for the solution of Gardner equation and Harry Dym equation." *Commun. Adv. Comput. Sci. Appl* 2 (2016): 1-13.
64. [W. A. Ouf](#), Z. W. Kamal, and M. S. El-Azab, Numerical Simulation for the Solution of Nonlinear Jaulent-Miodek Coupled Equations Using Quartic B-spline. *Acta Universitatis Apulensis*, no. 46, (2016), 35-52.
65. Z. W. Kamal, [W. A. Ouf](#), and M. S. El-Azab. "A robust uniform B-spline collocation method for solving the generalized PHI-four equation." *Applications and Applied Mathematics* 11, no. 1 (2016): 384-396.
66. Z. W. Kamal, [W. A. Ouf](#), and M. S. El-Azab. "Cubic B-spline collocation algorithm for the numerical solution of Newell Whitehead Segel type equations." *Electronic Journal of Mathematical Analysis and Applications* 2, no. 2 (2014): 81-100.
67. Z. W. Kamal, [W. A. Ouf](#), and M. S. El-Azab. "B-spline soliton solution of the fifth

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

order KdV type equations." In *AIP Conference Proceedings*, vol. 1558, no. 1, pp. 568-572. American Institute of Physics, **2013**.

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

Other Relevant Experience

Peer Reviewer

a peer reviewer for **168 reviews** for some of the following international journals

- 1- Applied Mathematics and Computation (Elsevier: IF. 2.709)
- 2- Numerical Methods for Partial Differential Equation. (Wiley IF. 2.236)
- 3- Partial Differential Equations in Applied Mathematics
- 4- Computational methods for differential equations. (Web of Science)
- 5- Journal of Taibah University for Science. (IF: 1.863)
- 6- New trends in mathematical sciences.
- 7- Mathematical Sciences (Springer IF: 0.965).
- 8- Demonstratio Mathematica (Web of Science).
- 9- International Journal of biomathematics (IF: 1.085).
- 10- Journal of Computational Science (IF: 2.522).
- 11- Computer mathematics in simulation (IF: 2.4)
- 12- AIMS mathematics (IF: 1.427).
- 13- Journal of functional spaces (Hindawi, IF. 1.23).
- 14- Symmetry (MDPI: IF. 2.317).
- 15- Computers, Materials & Continua (IF. 3.772).
- 16- Mathematics (I.F 2.258).
- 17- Foundations (Scopus indexed)
- 18- European journal physical plus (I.F 3.911).
- 19- Chaos: An Interdisciplinary Journal of Nonlinear Science (I.F 2.64)
- 20- Iranian Journal of Science and Technology, Transactions A: Science (I.F. 1.533).

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

❖ **Editorial Board Member**

I'm an editorial board member for the following international journals

- 1- Mathematical Reviews/ Math. Sci. Net. Reviewer Number: 154775.
- 2- Affiliate member of “American Mathematical Society”.
- 3- Affiliate member of “Egyptian Mathematical Society”.
- 4- Academic editor for the journal “Mathematical problems in engineering” with IF: 1.43 (Hindawi Publishing).

<https://www.hindawi.com/journals/mpe/editors/>

- 5- Academic editor for the journal “Journal of Applied Mathematics” (Hindawi Publishing).

<https://www.hindawi.com/journals/jam/editors/>

- 6- Guest editor for a special issue named “New Trends for Differential Equations with Engineering Applications” in the journal “Mathematical Problems in Engineering” (Q4 WOS). (10 Editorial Records).

<https://www.hindawi.com/journals/mpe/si/649291/>

- 7- Guest editor for a special issue named “Mathematical Modeling of Fractional-Order Systems: Advances and Applications in Physical and Biological Sciences” in the journal “Mathematics” MDPI publishing (Q1 WOS).

https://www.mdpi.com/journal/mathematics/special_issues/3IQ34EW164

- 8- Guest editor for a special issue named “Mathematical Models of Fractional Order with Applications in Biological Science” in the journal “Contemporary Mathematics” (Q4 Scopus).

https://ojs.wiserpub.com/index.php/CM/SI/Model_Fract_Bio_Sci

- 9- Guest editor for a special issue named “Engineering: Mathematical Modeling and Sustainable Development” in the journal “SN Applied Sciences” (Q1 Scopus).

<https://link.springer.com/collections/ibjceaebbe>

I do hereby declare that the information furnished above is true to the best of my knowledge.

Name:

Signature: