C.V

Marwan Alquran

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1 Personal Information:

Marwan Alquran

Date and Place of birth: 11/ 12 / 1972 Jordan

Gender: Male

Nationality: Jordanian

Mobile: 00962 – 772750436

2 Education:

May, 2003: Ph-D, Central Michigan University (CMU), USA.

August, 1997: M.Sc, University of Jordan.

January, 1994: B.Sc, University of Jordan.

3 Experience:

(10) September, 2017 - Present, Professor of Mathematics and Statistics, Jordan University of Science and Technology, Jordan.

(9) September, 2016 - September, 2017, Associate Professor of Mathematics and Statistics, Jordan University of Science and Technology, Jordan.

(8) September, 2014 - September, 2016, Associate Professor of Mathematics and Statistics, Sultan Qaboos University, Oman (Sabbatical leave from JUST).

(7) September, 2013 - September, 2014, Assistant Dean, College of Science and Arts. Jordan University of Science and Technology, Jordan.

(6) September, 2011 - September, 2014, Associate Professor of Mathematics and Statistics, Jordan University of Science and Technology, Jordan.

(5) December, 2004 - September, 2011, Assistant Professor of Mathematics and Statistics, Jordan University of Science and Technology, Jordan.

(4) October, 2003 - December, 2004, Full Time Lecturer of Mathematics and Statistics, Jordan University of Science and Technology, Jordan.

(3) August, 2000 - May, 2003, Teaching Assistant of Mathematics and Statistics, CMU, USA.

(2) April, 1999 - August, 2000, Full Time Lecturer of Mathematics and Statistics, Jordan University of Science and Technology, Jordan.

(1) August, 1994 - April, 1999, Teacher of Mathematics, Model School, University of Jordan.

4 Courses Taught:

Math 101 (Calculus I).
Math 131 (Principles of Statistics).
Math 233 (Statistics for Computer Science).
Math 235 (Statistics for Engineering).
Math 230 (Probability Theory).
Math 330 (Mathematical Statistics).
Math 331 (Statistical Methods).
Math 140 (Linear Algebra).
Math 203 (Differential Equations).
Math 102A (Calculus II A).
Math 261 (Geometry).

Math 352 (Mathematical Methods II).
Math 475 (Optimization Theory).
Math 305 (Partial Differential Equations).
Math 491 (Special Topics in Applied Mathematics).
Math 492 (Research in Applied Mathematics).
Math 493 (Methods of Teaching Mathematics).
Math 701 (Advanced Methods of Applied Mathematics).
Math 730 (Advanced Statistics- Bio).
Math 795 (Independent Studies).

5 Supervision:

(1) Was a co-advisor of Fatima Quiam, May 2009, Expanding the Grammar of Equivalence Rules (GER) for mathematical search.

(2) Supervised Bilal Khamaysah, May 2010, "Numerical Methods For Solving Singularly Perturbed Two Points Boundary Value Problems".

(3) Supervised Ruba Al-Omary, July 2011, "Soliton solutions to systems of nonlinear partial differential equations using trigonometric-function method".

(4) Supervised Mahmoud Magableh, July 2011, "Approximate solutions to systems of nonlinear partial differential equations using homotopy perturbation method ".

(5) Supervised Hassan Ananbeh, November 2011, "New solutions to nonlinear partial differential equations using rational triangular function method".

(6) Supervised Osama Al-Khazaleh, July 2012, "Modified Algorithm for the Clenshaw−Curtis Method".

(7) Supervised Nazek A. Obeidat, October 2012, "Approximate Solutions to Nonlinear Partial Differential Equations using Differential Transform Method and Adomian Decomposition Method".

(8) Supervised Diya Biary, November 2012, "Analytical mathematical methods for a reliable treatment of Fokker-Planck Equations".

(9) Supervised Banan Al-Shriydeh, November 2012, "New exact solutions to partial differential equations by the first integral method".

(10) Was a co-advisor of Ahmed M. Al-Zoubi, November 2012, "A Combined of Laplace Transform and Adomian Decomposition Method to Solve Partial Differential Equations Arising in Applied Physics ".

(11) Supervised Ahmad Ababneh, December 2012, "Applying Homotopy perturbation method to solve nonlinear differential equations arise in applied physics".

(12) Supervised Sabreen Al-Nimrat, August 2013, "Exact solutions for some nonlinear differential equations by G'/G method".

(13) Supervised Aminah Qawasmeh, May 2014, "Study of solutions to some generalized nonlinear partial differential equations by trig-function method".

(14) Supervised Adnan Jarrah, May 2017, "Constructing solitary wave solutions for nonlinear partial differential equations by means of Jacobi elliptic functions expansion method ".

(15) Supervised Ramzi Shatnawi, January 2018, "Reproducing kernel hilbert space method to solve local and nonlocal BVPs ".

(16) Supervised Mo'taz Alniemat, January 2018, "Analytical solutions of fractional partial differential equations arise in physics".

(17) Supervised Ola Yassin, April 2018, "Necessary conditions for solitary wave solutions to exist for two-mode nonlinear partial differential equations by means of (G'/G)-expansion method ".

6 Awards:

(1) Outstanding Teaching Assistant Award 2002, Central Michigan University.

(2) Faculty Appreciation Award 2003, Central Michigan University.

(3) Google Scholar h−index of 22.

(4) Scopus h−index of 15.

7 Languages:

Arabic: spoken and written.

English: spoken and written.

8 Publications:

(1) **Marwan Alquran**; Nurettin Dogan: Variational Iteration Method For Solving Two-Parameter Singularly Perturbed Two Point Boundary Value Problem. Applications and Applied mathematics, Vol. 5, No. 1, pp. 81 - 95 (2010). (USA)

(2) **Marwan Alquran**; Kamel Al-Khaled: Approximations of Sturm-Liouville Eigenvalues Using Sinc-Galerkin and Differential Transform Methods. Applications and Applied mathematics, Vol. 5, No. 1, pp. 128 - 147 (2010). (USA)

(3) Nurettin Dogan; **Marwan Alquran**; Vedat S. Erturk; Shaher Momani: Variational Iteration Method For Solving Singularly Perturbed Two Point Boundary Value Problem. International Journal of Pure and appl. Math, Vol. 58, No. 1 (2010), pp. 11-19. (Bulgaria)

(4) **Marwan Alquran**; Belal Al-Khamaiseh: Algorithms to Solve Nonlinear Singularly Perturbed Two Point Boundary Value Problems. Applied Mathematical Sciences, Vol. 4, (2010), No. 57, pp. 2809-2827. (Bulgaria)

(5) **Marwan Alquran**; Kamel Al-Khaled: Approximate Solutions to Nonlinear Partial Integro-Differential Equations with Applications in Heat Flow. Jordan Journal of Mathematics and Statistics (JIMS), 3(2), (2010), pp. 92 - 115. (Jordan)

(6) **Marwan Alquran**; Kamel Al-Khaled; Ameen Alwaneh: Simulated Results for Deterministic Model of HIV Dynamics. Stud. Univ. Babes-Bolyai Math. Vol 56 (2011), pp. 165-178. (Romania)

(7) **Marwan Alquran**; Kamel Al-Khaled: Numerical Comparison of Methods for Solving Systems of Conservation Laws of Mixed Type. Inter Journal of Math Anal. Vol. 5, (2011), No. 1, pp. 35-47. (Bulgaria)

(8) **Marwan Alquran**: Solitons and periodic solutions to nonlinear partial differential equations by the Sine-Cosine method. Applied Mathematics and Information Sciences (AMIS). 6 (1)(2012) pp. 85-88. (USA)

(9) **Marwan Alquran**; Belal Al-Khamaiseh: Algorithms to Solve Singularly Perturbed Volterra Integral Equations. Applications and Applied mathematics. Vol. 6(1) (2011) pp. 369-83. (USA)

(10) **Marwan Alquran**; Kamel Al-Khaled: Sinc and Solitary Wave solutions to the Generalized Benjamin-Bona-Mahony-Burgers Equations. Physica Scripta, IOP. Vol 83. (UK)

(11) **Marwan Alquran**; Kamel Al-Khaled: The tanh method and sine-cosine method for a reliable treatment of nonlinear evolutions equations. Physica Scripta, IOP. Vol 84. (UK)

(12) **Marwan Alquran**; Kamel Al-Khaled; Hassan Ananbeh: New Soliton Solutions for Systems of Nonlinear Evolution Equations by the Rational Sine-Cosine Method. ***Studies in Mathematical Sciences. Vol***. 3(1) (2011) pp. 1-9. (Canada)

(13) **Marwan Alquran**; Mahmoud Mohammad: Approximate Solutions to System of Nonlinear Partial Differential Equations Using Homotopy Perturbation Method. ***International Journal of Nonlinear Science***. Vol. 12 (4) (2011) pp. 485-97. (UK)

(14) M.Q. Shatnawi; **Marwan Alquran**; F.M. Quiam: Expanded Grammar for Detecting Equivalence in Math Expressions. ***International Journal of Computer Applications***. Vol 43(15) (2012) pp. 44-51. (USA)

(15) **Marwan Alquran**; Kamel Al-Khaled; Mohammed Ali; A. Ta'any: The combined Laplace transform-differential transform method for solving linear non-homogeneous PDEs. ***Journal of Mathematical and Computational Science*** 2 (3) (2012) pp. 690-701. (USA)

(16) H.M. Jaradat; S. Al-Shara; F. Awawdeh; **Marwan Alquran**: Variable coefficient equations of the Kadomtsev-Petviashvili hierarchy: multiple soliton solutions and singular multiple soliton solutions. ***Physica Scripta***. Vol. 85 (2012). (UK)

(17) **Marwan Alquran**: Bright and dark soliton solutions to the Ostrovsky-Benjamin-Bona-Mahony (OS-BBM) equation. Journal of Mathematical and Computational Science. Vol 2(1) (2012) pp. 15-22. (USA)

(18) **Marwan Alquran**: Applying Differential Transform Method To Nonlinear Partial Differential Equations: A Modified Approach. ***Applications and Applied Mathematics***. Vol. 7(1) (2012). (USA)

(19) **Marwan Alquran**; Roba Al-Omary; Quatibeh Katatbeh: New explicit solutions for homogeneous KdV equations of third order by trigonometric and hyperbolic function methods. ***Applications and Applied Mathematics***. Vol. 7(1) (2012)

(20) **Marwan Alquran**; Kamel Al-khaled: Mathematical methods for a reliable treatment of the $(2+1)$-dimensional Zoomeron equation. ***Mathematical Sciences***. Vol. 6:12. (2012)

(21) **Marwan Alquran**; Kamel Al-khaled: Effective Approximate Methods for Strongly Nonlinear Differential Equations with Oscillations. ***Mathematical Sciences***. Vol. 6:32. (2012).

(22) Mohammed Ali; **Marwan Alquran**; Mahmoud Mohammed: Solitonic solutions for homogeneous KdV systems by Homotopy analysis method. ***Journal of Applied Mathematics***. (2012) (USA).

(23) **Marwan Alquran**; Roba Al-Omary: Soliton solutions to the generalized coupled Hirota Satsuma KdV system by using trigonometric-function method. ***International Journal of Nonlinear Science***. Vol 14 (2) (2012) pp. 150-9. (UK).

(24) **Marwan Alquran**; Mohammed Ali; Kamel Al-Khaled: New solitons solutions for systems of nonlinear evolution equations. ***Nonlinear Studies***. Vol 19 (4) (2012), (USA).

(25) **Marwan Alquran**; Aminah Qawasmeh: Classifications of solutions to some generalized nonlinear evolution equations and systems by the sine-cosine method. Journal of ***Nonlinear Studies***. Vol 20 (2) (2013), (USA).

(26) **Marwan Alquran**; Mahmoud Mohammad; Ahmad Ababneh: Analytical Study of Some Important Generalized Nonlinear Partial Differential Equations. Journal of Mathematics. Vol 2013 (2013), (USA).

(27) **Marwan Alquran**; Qutaibeh Katatbeh; Roba Al-Omary: New Explicit Solutions for Higher Order Equations of KdV Types by Trig-hyper function Methods. ***Contemporary Mathematics*** 1(3) (2013), 151-167.

(28) Qutaibeh Katatbeh; Issam Abu-Irwaq; **Marwan Alquran**; Aminah Qawasmeh: Solitary wave solutions to time-fractional coupled degenerate hamiltonian equations. ***International***

Journal of Pure and Applied Mathematics. 93(3) (2014), 377-387.

(29) Aminah Qawasmeh; **Marwan Alquran**: Soliton and Periodic Solutions for (2+1)-Dimensional Dispersive Long Water-Wave System. Applied Mathematical Sciences 8(50) (2014), 2455-2463.

(30) Aminah Qawasmeh; **Marwan Alquran**: Reliable Study of Non-homogeneous BBM Equation with Time-Dependent Coefficients by the Modified Sine-Cosine Method. ***Applications and Applied Mathematics***. 9 (1) (2014).

(31) **Marwan Alquran**; Aminah Qawasmeh: Soliton solutions of shallow water wave equations by means of G'/G expansion method. ***Journal of Applied Analysis and Computation***. Vol. 4(3) (2014).

(32) Nazek A. Obeidat; Mahmoud S. Rawashdeh, **Marwan Alquran**: An Improved Approximate Solutions to Nonlinear PDEs Using The ADM and DTM. ***Thai Journal of Mathematics***. Vol. 12(3) (2014) 569-589

(33) Aminah Qawasmeh; **Marwan Alquran**: Reliable Study of Some New Fifth-Order Nonlinear Equations by Means of G'/G Expansion Method and Rational Sine-Cosine Method. ***Applied Mathematical Sciences***. Vol. 8(120) (2014) 5985-5994.

(34) **Marwan Alquran**; Qutaibeh Katatbeh; Banan Al-Shrida: Applications of First Integral Method to Some Complex Nonlinear Evolution Systems. ***Appl. Math. Inf. Sci***. Vol. 9(2) (2015) 825-831.

(35) Kamel Al-khaled; **Marwan Alquran**: An Approximate Solution for a Fractional Model of Generalized Harry Dym Equation. ***Mathematical sciences***. Volume 8(4)(2014) pp. 125-130.

(36) Sudip Samanta; **Marwan Alquran**; Joydev Chattopadhyay: Existence and global stability of positive periodic solution of tri-trophic food chain with middle predator migratory in nature. ***Applied Mathematical Modelling***. Volume 39(15)(2015) 4285-4299

(37) **Marwan Alquran**: Analytical solutions of fractional foam drainage equation by residual power series method. ***Mathematical sciences***. Volume 8(4)(2014) pp. 153-160

(38) **Marwan Alquran**; Kamel Al-Khaled; Joydev Chattopadhyay: Analytical solutions of fractional population diffusion model: Residual power series. ***Nonlinear Studies*** 22(1)(2015) 31-39.

(39) H.M. Jaradat; F. Awawdeh; S. Al-Shara; **Marwan Alquran**; S. Momani: Controllable Dynamical Behaviors and the Analysis of Fractal Burgers Hierarchy with the Full Effects of Inhomogeneities of Media. ***Romanian Journal of Physics***. Volume 60(3-4)(2015).

(40) **Marwan Alquran**; S. Al-Shara; Sabreen Al-Nimrat: Kink, singular soliton and periodic solutions to class of nonlinear equations. ***Applications and Applied Mathematics***. Volume 10(1)(2015) 212-222.

(41) **Marwan Alquran**; H.M. Jaradat; S. Al-Shara; F. Awawdeh: A New Simplified Bilin-

ear Method for the N-Soliton Solutions for a Generalized FmKdV Equation with Time-Dependent Variable Coefficients. ***IJNSNS***. Volume 16(6)(2015) 259-269.

(42) **Marwan Alquran**; Kamel Al-Khaled; Tridip Sarda; Joydev Chattopadhyay: Revisited Fishers equation in a new outlook: A fractional derivative approach. ***Physica A: Statistical Mechanics and its Applications*** 438(2015) 81-93.

(43) **Marwan Alquran**: Analytical solution of time-fractional two-component evolutionary system of order 2 by residual power series method. ***Journal of Applied Analysis and Computation*** 5(4)(2015) 589-599.

(44) K Al-Khaled, **Marwan Alquran**, A Al-Saidi, G NGuerekata, J Chattopadhyay: Numerical methods for solving nonlinear fractional integro-differential equations. ***Nonlinear Studies*** (22)(4)(2015) 647-657.

(45) N Pal, S Samanta, S Biswas, **Marwan Alquran**, K Al-Khaled, J Chattopadhyay: Stability and Bifurcation Analysis of a Three-Species Food Chain Model with Delay. ***International Journal of Bifurcation and Chaos*** 25 (09)(2015).

(46) H.M. Jaradat, Safwan Al-Shara, Q.J.A. Khan, **Marwan Alquran**, Kamel Al-Khaled: Analytical Solution of Time-Fractional Drinfeld-Sokolov-Wilson System Using Residual Power Series Method. ***IAENG International Journal of Applied Mathematics*** 46(1)(2016) 64-70.

(47) M Saifuddin, SK Sasmal, S Biswas, S Sarkar, **Marwan Alquran**, J Chattopadhyay: Effect of emergent carrying capacity in an eco-epidemiological system. ***Mathematical Methods in the Applied Sciences*** 39(4)(2016) 806-823.

(48) K. Al-Khaled, **Marwan Alquran**: Convergence and norm estimates of Hermite interpolation at zeros of Chevyshev polynomials. ***SpringerPlus*** 5:1992 (2016).

(49) **Marwan Alquran**, EV Krishnan: Applications of sine-Gordon expansion method for a reliable treatment of some nonlinear wave equations. ***Nonlinear Studies*** 23(4) (2016) 639-649.

(50) H.M. Jaradat, **Marwan Alquran**, M.M.M. Jaradat, Zead Mustafa: Mathematical Analysis and Physical Interpretation on New Multiple Solitonic Solutions of N-Coupled Modified KdV System. ***Journal of Mathematical Analysis*** 7(6) (2016) 118-129.

(51) H.M. Jaradat, Safwan Al-Shara, M.M.M. Jaradat, Zead Mustafa, O. Alsayyed, **Marwan Alquran**, Khedr M. Abohassan, S. Momani: New Solitary Wave and Multiple Soliton Solutions for the Time-Space Coupled Fractional mKdV System with Time-Dependent Coefficients. ***J. Comput. Theor. Nanosci.*** 13 (2016) 9071-9081.

(52) M. Ali, I. Jaradat, **Marwan Alquran**: New computational method for solving fractional Riccati equation. ***J. Math. Computer Sci.*** 17(1) (2017) 106-114.

(53) Muna Al Ghabshi, E. V. Krishnan, Kamel Al-Khaled, **Marwan Alquran**: Exact and Approximate Solutions of a System of Partial Differential Equations. ***International Journal of Nonlinear Science*** 23(1) (2017) 11-21.

(54) H.M. Jaradat, Imad Jaradat, **Marwan Alquran**, M.M.M. Jaradat, Zead Mustafa, Khedr M. Abohassan, Raed Abdelkarim: Approximate solutions to the generalized time-fractional Ito system. ***Italian journal of pure and applied mathematics*** 37 (2017) 699-710.

(55) **Marwan Alquran**, Kamel Al-Khaled, Seenith Sivasundaram, H.M. Jaradat: Mathematical and numerical study of existence of bifurcations of the generalized fractional Burgers-Huxley equation. ***Nonlinear Studies*** 24(1) (2017) 235-244.

(56) Faisal Ababneh; **Marwan Alquran**; Kamel Al-Khaled; Joydev Chattopadhyay: A New and Elegant Approach for Solving $n \times n$-Order Linear Fractional Differential Equations. ***Mediterr. J. Math.*** 14(2) (2017) 1-18.

(57) **Marwan Alquran**; Kamel Al-Khaled; Mohammed Ali; Omar Abu Arqub: Bifurcations of the time-fractional generalized coupled Hirota-Satsuma KdV system. ***Waves Wavelets Fractals Adv. Anal.*** 3 (2017) 31-39.

(58) **Marwan Alquran**; Adnan Jarrah: Jacobi elliptic function solutions for a two-mode KdV equation. ***Journal of King Saud University-Science*** (2017) http://dx.doi.org/10.1016/j.jksus.2017.06.010.

(59) H.M. Jaradat; Muhammed Syam; **Marwan Alquran**: Necessary conditions of coupled mKdV-BLMP system for multiple-soliton solutions to exist. ***Alexandria Engineering Journal*** (2017) http://dx.doi.org/10.1016/j.aej.2017.06.012.

(60) H.M. Jaradat; Muhammed Syam; **Marwan Alquran**: A two-mode coupled Kortewegde Vries: multiple-soliton solutions and other exact solutions. ***Nonlinear Dynamics***. 90(1) (2017) 371-377.

(61) H.M. Jaradat; Feras Shatat, M.M.M. Jaradat; **Marwan Alquran**: New Multiple-Kink Solutions and Singular-Kink-Solutions of $(2 + 1)$-Dimensional Coupled Burgers System with Time Variable Coefficients. ***J. Comput. Theor. Nanosci.*** 14(9) (2017) 4212-4215.

(62) Muhammed Syam; H.M. Jaradat; **Marwan Alquran**: A study on the two-mode coupled modified Korteweg-de Vries using the simplified bilinear and the trigonometric-function methods. ***Nonlinear Dynamics***. 90(2) (2017) 1363-1371.

(63) Muna Al Ghabshi; E.V. Krishnan; **Marwan Alquran**; Kamel Al-Khaled: Jacobi elliptic function solutions of a nonlinear Schrodinger equation in metamaterials. ***Nonlinear Studies*** 24(3) (2017) 469-480.

(64) Mohammad Al-Towaiq; **Marwan Alquran**; Osama Al-Khazaleh (2017) A modified algorithm for the Clenshaw-Curtis method. ***Journal of Information and Optimization Sciences***, 38:3-4, 455-469.

(65) **Marwan Alquran**; H.M. Jaradat; Muhammed Syam: Analytical solution of the time-fractional Phi-4 equation by using modified residual power series method. ***Nonlinear Dynamics***. 90(4) (2017) 2525-2529.

(66) Ali Jaradat; Mohd Salmi Md Noorani; **Marwan Alquran**; Husein M Jaradat: Construction and solitary wave solutions of two-mode higher-order Boussinesq-Burger system. ***Advances in Difference Equations***. 2017:376. https://doi.org/10.1186/s13662-017-1431-8.

(67) **Marwan Alquran**; H.M. Jaradat; Muhammed Syam: A modified approach for a reliable study of new nonlinear equation: two-mode Kortewegde VriesBurgers equation. ***Nonlinear Dynamics***. (2017). https://doi.org/10.1007/s11071-017-3968-1.

(68) **Marwan Alquran**; Imad Jaradat: A novel scheme for solving Caputo time-fractional nonlinear equations: theory and application. ***Nonlinear Dynamics***. (2017). https://doi.org/10.1007/s11071-017-4019-7.

(69) Muhammed Syam; **Marwan Alquran**; H.M. Jaradat: An invariant subspace method for solving a class of fractional diffusion-wave problems. ***Int. J. Open Problems Compt. Math***. 11(1) (2018) 6-15.

(70) Muhammed Syam; H.M. Jaradat; **Marwan Alquran**; Safwan Al-Shara': An accurate method for solving a singular second-order fractional Emden-Fowler problem. ***Advances in Difference Equations***. 2018:30. https://doi.org/10.1186/s13662-018-1469-2.

(71) I. Jaradat; M. Al-Dolat; K. Al-Zoubi; **Marwan Alquran**: Theory and applications of a more general form for fractional power series expansion. ***Chaos, Solitons and Fractals***. 108 (2018) 107-110.

(72) H.M. Jaradat; **Marwan Alquran**; Muhammed Syam: A Reliable Study of New Nonlinear Equation: Two-Mode KuramotoSivashinsky. ***International Journal of Applied and Computational Mathematics***. 4(2) (2018) 64.

(73) Ali Jaradat; Mohd Salmi Md Noorani; **Marwan Alquran**; Husein M Jaradat: Numerical investigations for time-fractional nonlinear model arise in physics. ***Results in Physics***. 8 (2018) 1034-1037.

(74) Mehmet Senol; **Marwan Alquran**; Hamed Kasmaei: On the Comparison of Perturbation-Iteration Algorithm and Residual Power Series Method to Solve Fractional Zakharov-Kuznetsov Equation. ***Results in Physics***. 8 (2018).

(75) Ola Yassin; **Marwan Alquran**: Constructing New Solutions for Some Types of Two-Mode Nonlinear Equations. ***Applied Mathematics and Information Sciences***. 12(2) (2018) 361-367.

(76) Imad Jaradat; **Marwan Alquran**; Mohammed Al-Dolat: Analytic solution of homogeneous time-invariant fractional IVP. ***Advances in Difference Equations***. (2018) 143 https://doi.org/10.1186/s13662-018-1601-3.

(77) Imad Jaradat; **Marwan Alquran**; Kamel Al-Khaled: An analytical study of physical models with inherited temporal and spatial memory. ***Eur. Phys. J. Plus***. 133 (2018) 162 DOI: 10.1140/epjp/i2018-12007-1.

(78) Imad Jaradat; **Marwan Alquran**; Mohammed Ali: A numerical study on weak-dissipative two-mode perturbed Burgers and Ostrovsky models: right-left moving waves. ***Eur. Phys. J. Plus***. 133 (2018) 164 DOI: 10.1140/epjp/i2018-12026-x.

(79) Imad Jaradat; **Marwan Alquran**; Ruwa Abdel-Muhsen: An analytical framework of 2D diffusion, wave-like, telegraph, and Burgers models with twofold Caputo derivatives ordering. ***Nonlinear Dynamics***. (2018) DOI: 10.1007/s11071-018-4297-8.

(80) **Marwan Alquran**; Imad Jaradat; Seenith Sivasundaram: Elegant scheme for solving Caputo-time-fractional integro-differential equations. ***Nonlinear Studies***. 25(2) (2018).

(81) Ali Jaradat; Mohd Salmi Md Noorani; **Marwan Alquran**; H.M. Jaradat: A novel method for solving Caputo-time-fractional dispersive long wave Wu-Zhang system. ***Nonlinear Dynamics and Systems Theory,*** 18(2) (2018) 182-190.

(82) **Marwan Alquran**; Imad Jaradat; Ruwa Abdel-Muhsen: Embedding $(3 + 1)$-dimensional diffusion, telegraph, and Burgers equations into fractal 2D and 3D spaces: An analytical study. ***Journal of King Saud University-Science***. (2018) DOI: 10.1016/j.jksus.2018.05.024.

(83) Imad Jarada; **Marwan Alquran**; Shaher Momanit; Anjan Biswas: Dark and singular optical solutions with dual-mode nonlinear Schrodinger's equation and Kerr-law nonlinearity. ***Optik***, Volume 172, November (2018) 822-825.

(84) Muhammed Syam; **Marwan Alquran**; H.M. Jaradat; Safwan Al-Shara': The modified fractional power series for solving a class of fractional Sturm-Liouville eigenvalue problems. ***Journal of Fractional Calculus and Applications***. 10(1) (2019) 154-166.

(85) Muhammed Syam; H.M. Jaradat; **Marwan Alquran**: A numerical method by reproducing-kernel approximation for the Pantograph equation. ***Electronic Journal of Mathematical Analysis and Applications***. 7(1) (2019) 391-409.

(86) **Marwan Alquran**; Adnan Jarrah, Edmana Krishnan: Solitary wave solutions of the phi-four equation and the breaking soliton system by means of Jacobi elliptic sine-cosine expansion method. ***Nonlinear Dynamics and Systems Theory,*** 18(3) (2018) 233-240.

(87) **Marwan Alquran**; Ola Yassin: Dynamism of two-mode's parameters on the field function for third-order dispersive Fisher: Application for fibre optics. ***Optical and Quantum Electronics,*** 50(9) (2018) 354.

(88) H.M. Jaradat; M. Syam; **Marwan Alquran**; S. Al-Shara;, K.M. Abohassn: A new two-mode coupled Burgers equation: Conditions for multiple kink solution and singular kink solution to exist. ***Ain Shams Engineering Journal,*** (2018).

(89) **Marwan Alquran**; Imad Jaradat;, Dumitru Baleanu; Ruwa Abdel-Muhsen: A new two-mode coupled Burgers equation: An Analytical Study of $(2 + 1)$-Dimensional Physical Models Embedded Entirely in Fractal Space. ***Romanian Journal of Physics,*** 64(1-2)(2019).

(90) Issam Abu Irwaq; **Marwan Alquran**; Imad Jaradat;, Dumitru Baleanu: New dual-

mode Kadomtsev-Petviashvili model with strong-weak surface tension: analysis and application. ***Advances in Difference Equations,*** (2018) 2018:433. https://doi.org/10.1186/s13662-018-1893-3

(91) Ali Jaradat; M.S.M. Noorani; **Marwan Alquran**; H.M. Jaradat: A variety of new solitary-solutions for the two-mode modified Korteweg-de Vries equation. ***Nonlinear Dynamics and Systems Theory,*** 19(1) (2019) 88-96.

(92) Ali Jaradat; M.M.M. Jaradat; M.S.M. Noorani; H.M. Jaradat; **Marwan Alquran**: Construction of $(n+1)$-dimensional dual-mode nonlinear equations: multiple shock wave solutions for (3 + 1)-dimensional dual-mode Gardner-type and KdV-type. ***Advances in Difference Equations,*** (2019) 2019: 19.

(93) **Marwan Alquran**; Imad Jaradat; Dumitru Baleanu: Shapes and dynamics of dual-mode Hirota-Satsuma coupled KdV equations: Exact traveling wave solutions and analysis. ***Chinese Journal of Physics,*** 58 (2019) 49-56.

(94) **Marwan Alquran**; Imad Jaradat: Multiplicative of dual-waves generated upon increasing the phase velocity parameter embedded in dual-mode Schrodinger with nonlinearity Kerr laws. ***Nonlinear Dynamics,*** 96(1) (2019) 115-121.

(95) Mohammed Ali; **Marwan Alquran**; Imad Jaradat: Asymptotic-sequentially solution style for the generalized Caputo time-fractional Newell-Whitehead-Segel system. ***Advances in Difference Equations,*** (2019) 2019: 70.

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(97) **Marwan Alquran**; Imad Jaradat: Delay-asymptotic solutions for the time-fractional delay-type wave equation. ***Physica A: Statistical Mechanics and its Applications,*** 527 (2019) 121275.

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9 Workshops:

(1) Course Completion, M101: A First Course in Mathematica, WolFram Education Group, 2005.

(2) SPSS, Jordan University of Science and Technology. 2014.

(3) MiniTab, Jordan University of Science and Technology. 2017.

10 Conferences:

(1) Eighth International Conference: Symmetry in Nonlinear Mathematical Physics, June 21-27, 2009. Ukraine.

(2) International Conference on Mathematical Analysis, Bangkok, THAILAND, 7-9 December, 2010.

(3) IV international Conference "Mathematical Analysis, Differential equations and their applications", Turkey, Mersin, 4-9 September, 2012.

(4) 9th International Conference: Large-Scale Scientific Computations, June 3-7, 2013. Sozopol, Bulgaria.

(5) The ICFDA18 International Conference on Fractional Differentiation and its Applications, July 16-18, 2018, Amman, Jordan.

(6) International Conference on Applied Analysis and Mathematical Modeling (ICAAMM), Turkey, Istanbul, Gelisim University, March 10-13, 2019.

11 Teaching Philosophy:

My role as a mathematics instructor is to make sure that my students understand mathematics and be able to use it in their career. When i teach, i use in my class different representations of mathematical ideas, so different students can learn in different ways. Also, knowing several methods gives students better chance to solve mathematics problem.

I believe that good experience in teaching as well as good relations with students makes the way of learning mathematics the best way. I like to involve my students in exploring the whole concept of mathematics ideas through discussing, analyzing, relating with other ideas and give real life applications that best fits the concept.

Assignments, handouts, practicing, exams and projects are important tools to measure how much knowledge students will gain in a specific course.

12 Academic Activities:

(1) Regional Editor: Nonlinear Dynamics and Systems Theory.

13 References:

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