

ACADEMIC C.V.

Dr. Maan A. Rasheed

Place and Date of Birth: Baghdad, 1980

Position: Professor Doctor in Mathematics at Mustansiriyah University, Baghdad-Iraq

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Websites

Official: <https://uomustansiriyah.edu.iq/e-learn/profile.php?id=1185>

Web of Science: <https://www.webofscience.com/wos/author/record/B-3095-2018>

Researchgate: https://www.researchgate.net/profile/Maan_Rasheed

Google Scholar: <https://scholar.google.co.uk/citations?user=Utwx3H0AAAAJ&hl=en>

Scopus profile: <https://www.scopus.com/authid/detail.uri?authorId=57207199239>

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Research interests:

- Partial (ordinary) differential equations: theory and applications
- Numerical solutions of differential equations.

Qualifications and Degrees

1. Fulbright Visiting Scholar (**FVS**), University of Central Oklahoma (UCO), USA, 2017.
2. **Ph.D.** in Applied Mathematics, School of physical and Mathematical Sciences, university of Sussex, England, UK, 2009-2012. Ph.D. Thesis title: “On blow-up solutions of parabolic problems”
3. **M.Sc.** in Applied Mathematics, College of Science, university of Baghdad, 2002-2005 MSc. Thesis title: “On Numerical solutions of second order parabolic partial differential equations”
4. **B.SC.** in Mathematics, university of Baghdad, College of Science, (Ranked (1) amongst (86) graduates) , 1998-2002.

University teaching:

Since 2006, he has taught many subjects for BSc and MSc students at Mustansiriyah University, and Al-Nahrain University such as:

- Numerical Analysis
- Differential Equations
- Graph Theory

- Complex Analysis
- Probability Theory
- Integration Theory

- General Mathematics
- English Language

International Conferences and Workshops

- 1- Participation in First international conference of Mathematics, Sulaimani University, 24-25 September, 2020.
- 2- Participation in First conference of Mathematics, Mustansiriyah University, College of Basic education, Baghdad- Iraq, 5-6 February 2020.
- 3- Participation in 2^d international scientific conference, University of Qadisiyah, Iraq, from 24 -25 April 2019.
- 4- Participation in IACE2019 , Universiti Utara Malaysia, MALAYSIA from 25 – 28 March 2019.
- 5- Participation in 2d international conference of Pure and Applied Mathematics at University of Baghdad/ College of Science, in February 2019.
- 6- Participation in 2^d international conference of Mathematics at Salahaldeen University in Erbil, February 2019.
- 7- Participation in the 2d international conference for Engineering, Technology and Science of Al-Kitab University, December 2018.
- 8- Annual Collegium on College Teaching Practice, University of Central Oklahoma, USA, 15 August-2017.
- 9- Participation in the 16th Scientific conference for Math & Computer Science, Mustansiriyah University/ College of Education in April 2017.
- 10- Participation in the 14th conference, Mustansiriyah University/ college of Basic Education in May 2015.
- 11- Participation in the 5th Euro-Japanese Workshop on Blow-up at CIRM in Marseille France in September 2012.

Workshops held at university of central Oklahoma, USA during Fulbright Visiting Scholar program.

- 1- Information Technology, new employee training, novel technology in teaching
- 2- Transformative Learning- concepts and best practices.
- 3- Using the Library
- 4- Global Affairs and international house
- 5- E-learning and customized education
- 6- Grants development and writing.
- 7- Volunteering and service learning
- 8- Introducing to us higher education system, structure, reforms, accreditation, and

fundraising

- 9- Transformative learning-Active learning strategies in STEM.
- 10- Supercomputing in research and education
- 11- Students supporting services in us colleges
- 12- Transformative teaching ,reforms, strategies in teaching/ research
In Washington
- 13- Re-Entry and Cross-Cultural

Memberships

- 1- Member of exams panel at Mustansiriyah University/ college of Basic Education/Department of Maths from 2013-2015 .
- 2- Member of Scientific panel at Mustansiriyah University/ college of Basic Education/Department of Maths since 2013 to present.
- 3- Head of Universities Ranking panel, Mustansiriyah University/ college of Basic Education, 2019.
- 4- Member of institution and program accreditation panel, Mustansiriyah University/ college of Basic Education, 2019.
- 5- Member of Scientific journals Evaluation panel, Mustansiriyah university 2019 to present.
- 6- Member of Scientific panel and coordinator of the First Conference of Mathematics, held at Mustansiriyah University, College of Basic education, Baghdad- Iraq, 5-6 February 2020.

Editorial Board Membership:

- *Journal of College of Basic Education*
- *Mathematics and Computer Science*

Reviewer in the Journals:

- *Iraqi Journal of Science*
- *Baghdad Science Journal*
- *Applied Mathematics and Computation*
- *Mathematical Methods in the Applied Sciences*
- *Mathlab Journal*
- *Journal of college of Basic Education/ Mustansiriyah university*
- *Journal of Science / Mustansiriyah University*
- *Journal of Qadisiyah for computer Science and Mathematics*
- *Conference proceedings, University of Utara 2019.*

Supervision

- 1 . PhD thesis: 2021-Present, Manar Ismael Kahlil , " *Numerical Blow-up times of coupled parabolic systems* ", UKM, Malaysia.
2. PhD thesis: 2021-Present, Maani A. Saeed , " *On Numerical Solutions of Some Types of Fractional Partial Differential Equations* ", College of Education/ University of Kufa-Iraq
3. Master thesis: 2021-2022, Amal Nouman Khalaf, " *Numerical Blow-up Time of Semilinear Heat Equation with a Gradient Term using finite difference schemes*", College of Education/ University of Tikrit_Iraq.
4. Master thesis: 2019-2020, Sameer Kareem Abeed , " *On Numerical solutions of Semilinear Heat Equations*", College of Education/ University of Tikrit-Iraq.

Ph.D and MS.C. Thesis Defense Committee member (from 2019-to present)

- 6 M.Sc. Students in University of Tikrit, College of education
- 3 MS.C Students in University of Baghdad, College of Science
- 3 Ph.D. students in University of Baghdad, College of science
- 1 Ph.D. student Mustansiriyah university, College of Science.
- 2 Ph.D. students, Mustansiriyah, College of Education
- 1 M.Sc. student in University of Kufa, College of education
- 1 Ph.D. student in University of Kufa, College of education
- 1 Msc student in Baghdad University, College of education
- 2 Ph.D. Students in Baghdad University, College of education
- 1 Ph.D. student in University of Mosul, College of Mathematics and computer science

Awards and Scholarship

- 1- Present of Ministry of Higher Education of Iraq, for getting rank (1) amongst other graduates of College of Science in 2002.
- 2- Scholarship to study PhD in U.K., from 2009-2013 sponsored by Ministry of Higher education in Iraq.
- 3- Selected by USA Embassy for participating in Fulbright Visiting Scholar Program 2017.

Publications

He has published many publications in the field of partial differential equations & Numerical Analysis, such as:

Articles published in Scopus Journals

1. Ali Abdulhasan Kasim; Maan A. Rasheed; Sameer Qasim Hasan, "Stability for some types of multi control integro differential inequalities", journal of interdisciplinary mathematics, 26(4):659-674, (2023)

2. Maan A. Rasheed, Maani A Saeed, Numerical Finite Difference Scheme for a Two-Dimensional Time-Fractional Semilinear Diffusion Equation; *Mathematical Modelling of Engineering Problems*, 10(4):1441-1449, (2023)
3. Maan A. Rasheed and Miroslav Chlebik, Upper and Lower Blow-up Rate Estimates of a Semilinear Heat Equation with a Nonlinear Boundary Condition, *journal of interdisciplinary mathematics*, 2023
4. Existence of Periodic Solutions to a Quasi-linear Parabolic Allen-Cahn Equation with Neumann Boundary Condition, *AIP*
5. Rasheed, M. A., Hameed, R. A., & Khalaf, A. N. (2023). Numerical Blow-up Time of a One-Dimensional Semilinear Parabolic Equation with a Gradient Term. *Iraqi Journal of Science*, 64(1), 354–364. <https://doi.org/10.24996/ij.s.2023.64.1.33>
6. On The Existence of periodic solutions to a p-Laplacian Allen-Cahn equation with Neumann Boundary Condition, *AIP conference proceedings*.
7. Maan A. Rasheed, Rasha H. Ibraheem, (2021) Numerical Approximation of Vorticity Transport Equation Using Implicit-Euler Finite Difference Scheme, *Italian journal of pure and applied Mathematics*.
8. Ibrahim, I. A. ., Hameed, R. A. ., Taha, W. M. ., & Rasheed, M. A. . (2022). New Path of Popularized Homogeneous Balance Method and Travelling Wave Solutions of a Nonlinear Klein-Gordon Equation. *Iraqi Journal of Science*, 63(6), 2656–2666. <https://doi.org/10.24996/ij.s.2022.63.6.31>.
9. Uniform stability of integro-differential inequalities with nonlinear control inputs and delay, *International Journal of Nonlinear Analysis and Applications*. 13(1):421-430, 2022.
10. The existence of periodic solutions to doubly degenerate Allen-Cahn equation with Neumann boundary condition, *International Journal of Nonlinear Analysis and Applications*. 13(1): 397-408.
11. Maan A. Rasheed, Numerical Solutions of Nonlinear Fredholm Integro-Differential Equations using Fifth Order Runge-kutta Method, *journal of physics, conf. series*, 2021.
12. Maan A. Rasheed, S. N. Kadhim, (2021), Numerical Solutions of Two-Dimensional Vorticity Transport Equation Using Crank-Nicolson Method, *Baghdad Science Journal*, 19(2):321-328, 2021.
13. Maan A. Rasheed, Blow-up Properties of a Coupled System of Reaction-Diffusion, Equations, *Iraqi journal of science* , 62(9):3052-3060, 2021.
14. Maan A. Rasheed, On Blow-up Solutions of a Reaction- Diffusion System Coupled in Both Equations and Boundary Conditions, *Baghdad Science journal* .
15. Maan A. Rasheed, Faez N. G. Numerical Blow-up Time and Growth Rate of a Reaction-Diffusion. Equation, *Italian journal of pure and applied Mathematics*, No. 44, 2020.
16. Maan A. Rasheed, and others, On Numerical Blow-up solutions of a semilinear heat equation, *Iraqi journal of science*, 61(8), 2020.
17. Maan A. Rasheed, Deriving the Upper Blow-up rate estimate of a parabolic problem, Special issue, *Iraqi Journal of Science*, 2020, 200-203.
18. Maan A. Rasheed and Miroslav Chlebik, Blow-up Rate Estimates and Blow-up Set for a System of Two Heat Equations with Coupled Nonlinear Neumann Boundary Conditions, *Iraqi journal of Science*, vol 61, No.1 , (2020)

19. Maan A. Rasheed and L. J. Barghooth, Blow-up Set and Upper Rate Estimate for A Semilinear Heat Equation, *Journal of physics: Conf. Series* 1294(2019) 032013.
20. Maan A. Rasheed, Alla Tareq Balasim and Ali F Jameel, Some Results for the Vorticity Transport Equation by using A.D.I Scheme, *AIP Conference Proceedings*, 21/8/2019
21. Maan A. Rasheed, Sean Lavery, and Brittany Bannish, Numerical solutions of a linear age-structured population model, *AIP Conference Proceedings*, 9/4/2019.
22. Maan A. Rasheed , Hassan Abd Salman Al-Dujaly, and Talat Jassim Aldhlki, Blow-Up Rate Estimates for a System of Reaction-Diffusion Equations with Gradient Terms, *International Journal of Mathematics and Mathematical Sciences*, vol. 2019, 1-7, 2019.
23. Ali K. Kadhim, Maan A. Rasheed, Some Characteristics of Sand and Dust Storm Sources in Iraq, 2018 2nd International Conference for Engineering, Technology and Sciences of Al-Kitab (ICETS).
24. Maan A. Rasheed and Mustafa A. Sabri, 2019. Deriving the General Laplace Inversion Formula using Complex Integration Results and its Applications in Solving Partial Differential Equations. *Journal of Engineering and Applied Sciences*, 14: 3455-3462.

Articles Accepted in Scopus journals (In Press)

1. Numerical Study for a Two-dimensional Time-fractional Semilinear Parabolic Equation Using Linearly Implicit Euler Finite Difference Method with Caputo Derivative.
2. Numerical Approximations of a One-Dimensional Time-Fractional Semilinear Parabolic Equation
3. Numerical Finite Difference Approximations of a Coupled Parabolic System with Blow-up

Articles published in Local and International journals

1. Maan A. Rasheed, Some Blow-up Properties of a Semilinear Heat Equation, *Advances in Mathematical sciences*, vol. 2, 31-33, 2019.
2. Maan A. Rasheed , Miroslav Chlebig, "Blow-up Rate and Pointwise Estimates for a Reaction-Diffusion Equation with a Gradient Term" *J. glob. sci. res.* 2 (2018) 74-79.
3. Maan A. Rasheed, Yousif Hussein Mohammed, On The Analytical and Numerical Solutions of Heat Equation, *J. colle. basic edu.* , 24(101), 49-61. (2018).
4. Mustafa A. Sabri , Maan A. Rasheed, "On The Solutions of Wave Equation in Three Dimensions Using D'alembert Formula", *Inter. J. Math. Trends Tech.*, vol 49, No. 5 , (2017)
5. Maan A. Rasheed, On blow-up Solutions of a Semilinear Heat Equation with Reaction, Term, *23th conference -College of Education-Mustansiriyah University*, (2017).
6. Farhan, A. G., and Maan A. Rasheed. "On Two Preys and Two Predators Model with Prey Migration and Predator Switching." *Glob. J. Math.* , 9.1: 957-962, (2016)

7. Maan A. Rasheed, AG Farhan, On Blow-up Time and Rate Of The Numerical Solutions of The Semilinear Heat Equation with Reaction Term, *J. Prog. Res. Math.* 9 (1), 1333-1340, (2016).
8. Maan A. Rasheed, On Blow-up Solutions and Times of a Fourth Order Nonlinear Partial Differential Equation, *J. colle. of Sci., Mustansiriyah University*, Vol. 27(2), :76-80, (2016).
9. Maan A. Rasheed, Blow-up Time for a Semilinear Heat Equation with a Gradient Term, *Journal Math. Theo. Mode.* , vol.6,No.2 (2016)
10. Rasheed M. A. , “Computing the Numerical Blow-up Time of The Semilinear Heat Equation with Exponential Reaction Term”, *16th conference in college of basic education Mustansiriyah university*, pp 309-318, (2015)
11. Maan, A. Rasheed, On Blow-up set of a Semilinear Heat Equation with Neumann Boundary Condition, *J. colle. of Basic edu.*, 87(21), 81-84, (2015)
12. A.G. Farhan , Maan A. Rasheed , On Dynamics of Nonlinear Prey–Predator Model Involving Group Defense, *J. colle. Edu., Mustansiriya University*, (2014).
13. Rasheed, M. A and A. G. Farhan, "Using Crank-Niclson Method to Compute The Numerical Blow-up Time of a Semilinear Parabolic Problem", *IJMA* Vol. 5, No. 9, pp. 95-99, (2014).

Published Books

- 1- Numerical Methods with Matlab Codes, *Lambert Academic Publishing*, Germany, ISBN: 978-3-330-34282-8, 2020.
- 2- Learning Environment Modeling, (LEM), (Translated) Arabic Version, 2020, Institute for Learning Environment Design, University of Central Oklahoma, USA.