

Curriculum Vitae



Personal Information

Name: Prof. Dr. Galal Mahrous Moatimid

Date of Birth: 1/6/1954

Present Post: Emeritus Professor of Applied Mathematics (Fluid Mechanics)

Permanent Address: Department of Mathematics, Faculty of Education, Ain Shams University

Phones: 00201091310091

Email: gal_moa@hotmail.com

Educational Background

1. Bachelor of Science & Education - Mathematics - Faculty of Education - Ain Shams University - May, 1976 (Grade: Excellent with Honors).
2. Bachelor of Science - Mathematics - Faculty of Science - Ain Shams University - May, 1980 (Grade: Excellent with Honors).
3. Master of Science - Applied Maths - Faculty of Science - Ain Shams University - 2/12/1984.
4. Ph.D. of Science - Mathematics - Faculty of Science - Tanta University - 3/10/1990.

Teaching & Administrative Experience

1. Demonstrator - Mathematics Department - Faculty of Education - Ain Shams University 30/10/1976.
2. Lecturer - Mathematics Department - Faculty of Education - Ain Shams University 31/5/1985.
3. Assistant Professor of Applied Mathematics, Department - Faculty of Education - Ain Shams University 20/10/1990.

4. Associate Professor of Applied Mathematics Department - Faculty of Education - Ain Shams University 25/12/1995.
5. Professor of Applied Mathematics - Mathematics Department - Faculty of Education - Ain Shams University 26/4/2004.
6. Head of the Department of Mathematics - Faculty of Education - Ain Shams University 15/8/2010.
7. Deputy Dean for Students' Affairs and Education - Faculty of Education - Ain Shams University 18/10/2011.
8. Emeritus Professor of Applied Mathematics from 1/7/2014 until now.

Teaching Activities

1. Designing & Teaching Applied Mathematics courses for undergraduate and graduate students at the Faculty of Education, Ain Shams Universities and some Colleges of Science, Education, and Engineering in Egypt.
2. Designing & Teaching Applied Mathematics courses in Saudi Arabia during the period of Secondment and acting as Chair of the Mathematics Department in the College of Teachers (Hael) and College of Science (Northern Borders University in Arar).
3. Supervising M.A. & Ph.D. Theses and dissertations in Applied Mathematics - Faculty of Education - Ain Shams University.
4. Attending some Faculty skill development sessions in Ain Shams University.

Academic Activities

1. Member of the Egyptian Mathematical Association.
2. Member of the Science Academy in New York in 1995.
3. Referee in a number of international journals in (Fluid Mechanics).
4. Referee of the Egyptian Permanent Committee for Promoting Professors/Associate Professors.
5. Member of the standing committee for the promotion of professors / assistant professors in Egypt during the period from 2017/2020.
6. Member of the National Mathematics Commission since 2016 until now
7. Referee Scientific Council in the Kingdom of Saudi Arabia.

Awards

1. Distinctive Research Award from Ain Shams University in 2004.
2. State Incentive Award in the field of Basic Sciences in 2004.

3. Ain Shams University Appreciation Award in the field of Basic Sciences in 2017.

Publications

- (1) A. A. M. A. Mohamed, N. T. El Dabe, and G. M. Moatimid, Electrohydrodynamic stability of a hollow jet under a radial field, Proc. Math. Phys. Soc., **58**, 19 - 38 (1984).
- (2) N T. El Dabe, E. F. El Shehawy, G. M. Moatimid, and A. A. Mohamed, Electrohydrodynamic stability of two cylindrical interfaces under the influence of a tangential periodic electric field, J. Math. Phys., **26**(8), 2072 – 2081 (1985).
- (3) A. R. F. Elhefnawy, and G. M. Moatimid, Electrohydrodynamic instability and the Marangoni effect, Bull. Fac. Sci. Assiut University, **21**(1-C), 43 – 57 (1992).
- (4) G. M. Moatimid, Dynamic instability of an excited horizontal interface supporting surface charge and admitting mass and heat transfer, Int. J. Engng. Sci., **32**(3), 535 – 543 (1994).
- (5) G. M. Moatimid, Dynamic instability of an excited cylindrical interface supporting surface charges and admitting mass and heat transfer, J. Phys. D: Appl. Phys., **27**, 1390 – 1398 (1994).
- (6) G. M. Moatimid, Effects of a periodic electric field, with mass and heat transfer, on the Rayleigh - Taylor instability, Arab. J. Sci. Engng., **19** (4A), 715 – 724 (1994).
- (7) G. M. Moatimid, Magnetohydrodynamic stabilization of a stratified cylindrical flow, Int. J. Theor. Phys., **33**(9), 1949 – 1956 (1994).
- (8) G. M. Moatimid, and Y. O. El-Dib, Effects of an unsteady rotation on the electrohydrodynamic stability of a cylindrical interface, Int. J. Engng. Sci., **32**(7), 1183 - 1194 (1994).
- (9) Y. O. El-Dib, and G. M. Moatimid, On the stability of a rotating electrified liquid jet. Effect of an axial electric field, Physica A, **205** , 511 – 527 (1994).
- (10) A. R. F. Elhefnawy, and G. M. Moatimid, The effect of an axial electric field on the stability of cylindrical flows in the presence of mass and heat transfer and absence of gravity, Physica Scripta, **50**, 258 – 264 (1994).
- (11) G. M. Moatimid, Electrohydrodynamic stability with mass and heat transfer of two fluids with a cylindrical interface, Int. J. Eng. Sci., **32**(1), 119 - 126 (1995).

- (12) G. M. Moatimid, The effect of a time harmonic magnetic field on the stability of cylindrical ferrofluids in the presence of heat and mass transfer, *Can. J. Phys.*, **73**, 595 – 601 (1995).
- (13) G. M. Moatimid, The influence of an oscillatory rotation on the stability of miscible cylindrical magnetic fluids, *Int. J. Engng. Sci.*, **33**(14), 2055 - 2065 (1995).
- (14) G. M. Moatimid, and Y. O. El – Dib, Kelvin – Helmholtz instability of miscible ferrofluids, *Int. J. Theor. Phys.*, **35**(2), 425 – 443 (1996).
- (15) G. M. Moatimid, and Y. O. El–Dib, Effects of an external periodic body force on the interfacial stability of a nematic layer, *Quart. Appl. Math.*, **LVI** (3), 413 – 429 (1998).
- (16) Y. D. Mahmoud, G. M. Moatimid and Y. O. El-Dib, Nonlinear interfacial instability of two electrified miscible fluids, *Mechanics and Mechanical Engineering International Journal*, **4**(2), (2000).
- (17) G. M. Moatimid, Electrohydrodynamic instability of two superposed viscous miscible streaming fluids, *Chaos, Solitons & Fractals*, **12**, 1239 – 1257 (2001).
- (18) A. R. F. Elhefnawy, G. M. Moatimid ,Nonlinear dynamic and stability of two streaming magnetic fluids, *Chaos, Soliton & Fractals*, **12**, 1207 – 1216 (2001).
- (19) G. M. Moatimid, Stability properties of ferromagnetic fluids in the presence of an oblique field and mass and heat transfer, *Physica Scripta*, **65** , 490 – 501 (2002).
- (20) Y. O. El - Dib, and G. M. Moatimid, The instability of a viscoelastic conducting cylindrical interface supporting free – surface currents, *Z. Naturforsch.*, **57a** , 159 – 176 (2002).
- (21) G. M. Moatimid, On the stability of two rigidly rotating magnetic fluid columns in zero gravity in the presence of mass and heat transfer, *J. Colloid & Int. Sci.*, **250** , 108 – 120 (2002).
- (22) N. T. M. El Dabe, G. M. Moatimid, and H. S. M. Ali, Rivlin - Ericksen fluid in tube of varying cross - section with mass and heat transfer, *Z. Naturforsch.* , **57a**, 863 – 873 (2002).
- (23) G. M. Moatimid, Non-linear electrorheological instability of two streaming cylindrical fluids, *J. Phys. A: Math. & Gen.*, **36**, 11343-11365 (2003).
- (24) G. M. Moatimid, Stability conditions of an electrified miscible viscous fluid sheet, *J. Colloid & Int. Sci.*, **259** , 186 – 199 (2003).

- (25) N. T. M. El Dabe, G. M. Moatimid, and H. S. M. Ali, Magnetohydrodynamic flow of non – Newtonian visco-elastic fluid through a porous medium near an accelerated plate, *Can. J. Phys.*, **81**(11) 1249-1269 (2003).
- (26) G. M. Moatimid, Nonlinear waves on the surface of a magnetic fluid jet in porous media, *Physica A*, **328**, 525-544 (2003).
- (27) A. R. F. Elhefnawy, G. M. Moatimid, and A. E. K. Elcoot, Nonlinear streaming of cylindrical structures in finitely conducting fluids under the influence of a radial electric field, *Physica Scripta*, **67**, 513 – 524 (2003).
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- (29) G. M. Moatimid, and Y. O. El – Dib, Nonlinear Kelvin – Helmholtz instability of Oldroydian viscoelastic fluid in porous media, *Physica A*, **333**, 41-64 (2004).
- (30) A. R. F. Elhefnawy, G. M. Moatimid, and A. E. K. Elcoot, Nonlinear electrohydrodynamic instability of a finitely conducting cylinder. Effect of interfacial surface charges, *ZAMP*, **55**, 63-91 (2004).
- (31) Y. O. El-Dib, G. M. Moatimid, Non-linear stability of an electrified plane interface in porous media, *Z. Naturforsch.* **59a**, 162 – 176 (2004).
- (32) A. E. K. Elcoot, G. M. Moatimid, Nonlinear instability of finitely conducting cylindrical flows through porous media, *Physica A*, **343**, 15-35 (2004).
- (33) G. M. Moatimid, Non-linear instability of two dielectric viscoelastic fluids, *Can. J. Phys.* **82**, 1109-1133 (2004).
- (34) G. M. Moatimid, Nonlinear Kelvin – Helmholtz instability of two ferrofluids in porous media, *ZAMP*, **57**, 133-159 (2006).
- (35) G. M. Moatimid, A. F. El-Bassiouny, Nonlinear interfacial Rayleigh – Taylor instability of two layers flow with an ac electric field, *Physica Scripta*, **76**, 105-121 (2007).
- (36) G. M. Moatimid, The instability of nonlinear surface waves in an electrified liquid jet, *Physica Scripta*, **79**, 1-12 (2009).
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- (39) M. F. EL-Sayed, G. M. Moatimid, T. M. N. Metwally, Nonlinear Kelvin-Helmholtz instability of two superposed dielectric finite fluids in porous medium under vertical electric fields, *Chem. Eng. Comm*, **197**, 565-683 (2010).
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- (44) G. M. Moatimid, M. A. Hassan, Viscous potential flow of electrohydrodynamic Kelvin-Helmholtz instability through two porous layers with suction/injection effect, *Int. J. Eng. Sci.*, **54**, 15-26, (2012).
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- (49) G. M. Moatimid and Mohamed A. Hassan, The Instability of an Electrohydrodynamic Viscous Liquid Micro-Cylinder Buried in a Porous Medium: Effect of Thermosolutal Marangoni Convection, *Mathematical Problems in Engineering*, **Volume 2013**, Article ID 416562, 14 pages (2013).
- (50) G. M. Moatimid, M. Obied Allah and Mohamed A. Hassan, Kelvin-Helmholtz instability for flow in porous media under the influence of oblique magnetic fields: A viscous potential flow analysis, *Physics of Plasmas*, **20**(10), (2013).
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- (52) **G. M. Moatimid**, M. F. El-Sayed, M. H. M. Moussa, Rehab M. El-Shiekh, and Mahyoub A. Al—Khwilani, Comparison between two integral methods by obtaining new solutions for the 3D extended quantum Zakhrov-Kuzentsov equation, *International Journal of Mathematical Sciences and Engineering Applications*, **7**(IV), 381-389, (2013).
- (53) **G. M. Moatimid**, R. M. El –Shiekh, A.-G. A. A. and H. Al-Nowehy, New exact solutions for the variable coefficient two-dimensional Burger equation without restrictions on the variable coefficient, *Nonlinear Science Letters A*, **4**(1), 1-7, (2013).
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- (55) G. M. Moatimid and M. Hassan, Three-dimensional viscous potential electrohydrodynamic Kelvin-Helmholtz instability through vertical cylindrical porous inclusions with permeable boundaries, *Journal of Fluids Engineering, Transactions of the ASME*, **136**(2), (2014).

- (56) M. F. El-Sayed, G. M. Moatimid, M. Moussa, R. El-Shiekh and A. El-Satar, Symmetry group analysis and similarity solutions for the (2+1)-dimensional coupled Burger's system, *Mathematical Methods in the Applied Sciences*, **37**(8) 1113-1120 (2014).
- (57) G. M. Moatimid, E. Alali and H. Ali, Nonlinear instability of an Oldroyd elastico-viscous magnetic nanofluid saturated in a porous medium, *Physics of Plasmas*, **21**(9) (2014).
- (58) M. F. El-Sayed, G. M. Moatimid, M. H. M. Moussa, R. M. El-Shiekh, and M. A. Al-Khawlani, New exact solutions for coupled equal width wave equation and (2+1)-dimensional Nizhnik-Novikov-Veselov system using modified Kudryashov method, *International Journal of Advances in Applied Mathematics and Mechanics*, **2**(1), 19-25 (2014).
- (59) M. F. El-Sayed, **G. M. Moatimid**, M. H. M. Moussa, R. M. El-Shiekh, M. A. Al-Khawlani, New exact solutions for the classical Drinfel'd-Sokolov-Wilson equation using the first integral Method, *International Journal of Advanced and Applied Mathematics and Mechanics*, **1**(4), 52 – 60 (2014).
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- (61) N. T. M. El-Dabe, G. M. Moatimid, M. A. Hassan. and D. R. Mostapha, Analytical solution of the peristaltic flow of a Jeffrey nanofluid in a tapered artery with mild stenosis and slip condition, *Journal of Innovation and Applied Studies*, **12**(1), 1-32 (2015).
- (62) M. F. El-Sayed, G. M. Moatimid, F. M. F. Elsabaa, and M. F. E. Amer, Electrohydrodynamic instability of no-Newtonian dielectric liquid sheet issued into streaming dielectric gaseous environment, *Interfacial Phenomena and Heat transfer*, **3**(2), 159-183 (2015).
- (63) E. M. E. Zayed, G. M. Moatimid, Abdul-Ghani Al-Nowehy, The generalized Kudryashov method and its applications for solving nonlinear PDEs in mathematical physic, *Scientific Journal of Mathematical research*, **5**(2), 19-39 (2015).
- (64) M. F. El-Sayed, G. M. Moatimid, M. Moussa, R. El-Shiekh, F. El-Shiekh and A. El-Satar, A study of integrability and symmetry for the $(p + 1)^{th}$ Boltzmann equation via Painlevé analysis and Lie-group method, *Mathematical Methods in the Applied Sciences*, **38**(17) 3670-3677 (2015).

- (65) N. T. El-Dabe, G. M. Moatimid, M. Hassan and D. Mostapha, Electrohydrodynamic peristaltic flow of a viscoelastic Oldroyd fluid with a mild stenosis: Application of an endoscope, *Journal of Applied Mechanics and Technical Physics*, **57**(1), 38-54, (2016).
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- (67) N. T. El-Dabe, G. M. Moatimid, M. Hassan and D. Mostapha, Effect of partial slip on peristaltic flow of a Sisko fluid with mild stenosis through a porous medium, *Applied Mathematics and Information Sciences*, **10**(2) 673-687, (2016).
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- (72) G. M. Moatimid, Y. O. El-Dib and M. H. Zekry, Stability analysis using multiple scales homotopy approach of coupled cylindrical interfaces under the influence of periodic electrostatic fields, *Chinese Journal of Physics*, **56**(5), 2507-2522 (2018).
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- (79) Y. O. El-Dib, and G. M. Moatimid, On the coupling of the homotopy perturbation and Frobenius method for exact solutions of singular nonlinear differential equations, *Nonlinear Science Letters A*, **9**(3), 220-230 (2018).
- (80) G. M. Moatimid, N. T. M. Eldabe, A. Sayed, Stability of a streaming flow through porous media for an electrified Horizontal Sheet, *Journal of Scientific and Engineering Research*, **5**(7): 119-135 (2018).
- (81) N. T. El-dabe, G. M. Moatimid, and A. Sayed, Effects of Magnetic Induction with Heat Generation on the Peristaltic Motion of a Non – Newtonian Walters B Fluid with Heat Transfer through Porous Mediu in a Vertical Symmetric Channel, *Journal of Advanced Research in Dynamical and Control Systems*, **13**, 1132-1151 (2018).
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- (85) H. Agwa, G. M. Moatimid and M. Hamam, Oscillation of second-order nonlinear neutral dynamic equations with “Maxima” on time scales, *Journal of Interdisciplinary Mathematics*, **22**(5) 655-678 (2019).
- (86) M. Ramadan, G. M. Moatimid and M. Taha, One-Step New Iterative Method for Solving Bagley–Torvik Fractional Differential Equation, *Iranian Journal of Science and Technology, Transaction A: Science*, **43**(5), 2493-2500 (2019).
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