



Curriculum Vitae
Prof. Dr. Salah Haggag

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1. Personal Information

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2. Education

Title of Awarded Degree	Name of Organization Providing Education	Principal Subject	Dates	
			From	To
Ph.D.	University of Wales, U.K.	Mathematics (General Relativity)	1978	1982
Thesis Title: Axially-symmetric space-times in GR, some analytical and numerical solutions				
M.Sc.	Faculty of Science Al-Azhar University	Mathematics (Differential Equations)	1973	1976
Thesis Title: An investigation of a third-order nonlinear differential equation				
B.Sc.	Faculty of Science Al-Azhar University	Mathematics	1967 1971	1968 1972
B.Sc.	Faculty of Engineering Cairo University	Electrical Engineering (Communications)	1962	1967

3. Professional Experience

Occupation	Name & Address of Employer	Main Activities & Responsibilities	Dates	
			From	To
Professor	Egyptian Russian Univ.	Teaching + E-Learning	2010	present
Professor	British University in Egypt	Teaching	2008	2010
Math Faculty	ABP, Qatar Foundation	Teaching	2007	2008
Math & Sc Dept Chair	ABP, Qatar Foundation	Teaching + Administration	2006	2007
Visiting Professor	Math Dept, Qatar Univ.	Teaching	2005	2006
Professor	Math Dept, Qatar Univ.	Teaching + Several Committees + Sc Journal Board	2000	2005
Professor and Head	Math Dept Al-Azhar Univ at Assiut	Teaching + Administration	Feb 2000	Sep 2000
Ass. Prof. and Head	Math Dept Al-Azhar Univ at Assiut	Teaching + Administration	1993	2000
Part Time Lecturer	Suez-Canal Univ, Banha Univ, and Higher Institute of Technology	Teaching	1991	1993
Assistant Professor	Teachers' College, Ta'if, Saudi Arabia	Teaching + Programming	1982	1986
Lecturer	Math Dept Al-Azhar University	Teaching + Several Committees	1982	1986
Assistant Lecturer	Math Dept Al-Azhar University	Teaching + PhD	1976	1982
Demonstrator	Math Dept Al-Azhar University	Teaching + MSc	1973	1976
Engineer (Tutor)	Dept. of Elec. Eng. Al-Azhar University	Teaching	1967	1973

4. Discipline

General Discipline	Mathematics	Principal Subject	General Relativity
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5. Teaching Experience

Course Title	Course Code	University	Academic Years
All courses of math for engineering	various	Several universities in Egypt, Saudi Arabia, and Qatar	Since 1982
Several courses of math for science and education	various		
Several courses of computing	various		

6. Professional & Technical Skills

Design and development of courses and curricula
 Preparation of ppt presentations for research and teaching
 Publication of courses on the internet
 Programming for teaching and research
 Design and development of a grading system, used by 3 faculties at Al-Azhar University
 Design and development of a database management system for Qatar Univ Journal of Science
 Review of research papers for publication
 Review of research work for promotion

7. Personal Skills

Computer Skills	Self Assessment		
	Excellent	Good	Fair
Word, Excel, PowerPoint, Access	✓		
Mathematica, Latex, Clipper, sql, php, html	✓		
Website development and administration		✓	
E-Learning		✓	
Language Skills	Self Assessment		
	Excellent	Good	Fair
English	✓		
Other Skills			

8. Scientific Activities

a. Publications:

1. "A Nearly-Perfect-Fluid Source for the Kerr Metric"
Nuovo Cimento **62B** pp 273-82 (1981) Co-author: J. Marek
2. "Numerical Fields Using Dynamic Programming"
*10th Intern. Conf. on General Relativity and Gravitation
 Contributed Papers*, Volume I, pp 430-32 (1983) Co-authors: M. J. Davies and J. Marek
3. "Fluid Sources for the Weyl Metric"
*11th Intern. Conf. on General Relativity and Gravitation
 Abstracts of Contributed Papers*, Volume I, p. 248 (1986)
4. "On Some Perfect Fluid Metrics in General Relativity"
J. Fac. of Education, Ain-Shams Univ. **13** pp 183-90 (1988)
5. "Comment on Cylindrically Symmetric Static Perfect Fluids"
Class. Quantum Grav. **6** pp 945-7 (1989)
6. "A Fluid Source for the Kerr Metric"
Nuovo Cimento **105B** pp 365-70 (1990)
7. "Cosmological Models With Dynamic Equations of State"
Arabian J. for Science and Engineering **15** pp 607-10 (1990) Co-author: J. Hajj-Boutros
8. "A Static Axisymmetric Anisotropic Fluid Solution in General Relativity"
Astrophysics and Space Science **173** pp 47-51 (1990)
9. "Correction: New Stiff Matter Solutions Are Really Not Stiff"
Intern. J. of Theor. Physics **30** pp 583-5 (1991) Co-author: J. Hajj-Boutros
10. "Static Spherically Symmetric Stiff Matter in General Relativity"
Class. Quantum Grav. **11** pp L69-72 (1994) Co-author: J. Hajj-Boutros
11. "A New Class of Relativistic Stellar Models"
Astrophysics and Space Science **225** pp 137-149 (1995)

12. "A New Cylindrically Symmetric Spacetime"
*14th Intern. Conf. on General Relativity and Gravitation
Abstracts of Contributed Papers*, p. A.37 (1995) Co-author: F. Desokey
13. "Composite Fluid Sources for Rotating Metrics"
*14th Intern. Conf. on General Relativity and Gravitation
Abstracts of Contributed Papers*, p. A.37 (1995) Co-author: R. A. Ali
14. "Perfect Fluid Sources for the Levi-Civita Metric"
Class. Quantum Grav. **13** pp 3221-8 (1996) Co-author: F. Desokey
15. "Regular Series Solutions for S4 Fluids"
*Second Conference of the Southern African Relativity Society
Participants and Abstracts*, pp 11-12 (1997)
16. "Perfect Fluid Cylinders Using Kramer Formulation"
*15th Intern. Conf. on General Relativity and Gravitation
Plenary Lectures and Abstracts of Contributed Papers*, p. 15 (1997)
17. "Composite Fluid Sources for Rotating Curzon Metrics"
Nuovo Cimento **113B** pp 1131-44 (1998) Co-author: R. A. Ali
18. "Relativistic Incompressible Perfect Fluid Cylinders"
*19th Texas Symposium on Relativistic Astrophysics
Abstracts of Contributed Papers*, p. 50 (1998)
19. "Optimal Design of a Universe: A New Approach for Constructing Cosmological Models"
Bull. Fac. Sci. Al-Azhar Univ. **9** pp 501-8 (1998)
20. "Solutions of Kramer's Equations for Perfect Fluid Cylinders"
General Relativity and Gravitation **31** pp 1169-86 (1999)
21. "Review of Relativistic Cylinders: Problems and Advances"
Intern. Conf. on Mathematics and the 21st Century, Cairo (2000)
22. "Bounds on the Mass Parameter of the Levi-Civita Metric"
Nuovo Cimento **116B** pp 441-445 (2001)
23. "Limits of interior H-D solution and Dadhich solution"
Bull. Fac. Sci. Assiut Univ. C **31** pp 19-23 (2002) Co-authors: N. H. Abdel-All and A. T. Ali
24. "The Condition of Hydrostatic Equilibrium of Stellar Models Using Optimal Control"
Astrophysics and Space Science **283** pp 369-373 (2003) Co-author: John Saffo
25. "On Perfect Fluid Sources for the Curzon Metric"
Nuovo Cimento **118B** pp 777-784 (2003)
26. "Optimal Control Models of the Interior Problem"
*17th Intern. Conference on General Relativity and Gravitation,
Book of Abstracts*, p. 62 (2004)
27. "Computer Algebra Systems in General Relativity"
*Learning Technologies and Mathematics Middle East Conference, Sultan Qaboos University,
Muscat, Oman, Contributed Talk* (2007)
28. "Limits of the δ Metric Using Cartan Scalars"
Assiut Univ J. of Maths and Computer Science **98** pp 1-3 (2009)
Co-authors: N. H. Abdel-All and Ahmed T. Ali
29. "Series Solutions for Relativistic Incompressible Perfect Fluid Cylinders"
Adv. Studies Theor. Phys. **3** pp 473-479 (2009)
30. "Can We Apply Optimal Control to General Relativity?"
Egypt-France Mathematical Conference, Cairo, Contributed Talk (2010)
31. "Relativistic Rotating Stars with Surface Layer"
4th Intern. Conf. on Math and Information Sciences, Zewail City, Giza (2015)
32. "A Cosmological Inflationary Model Using Optimal Control"
International Conference for Mathematics and Applications (ICMA15), Cairo (2015)

33. "Rotating Compact Bodies with a Disk Surface Layer"
Phys. Rev. D **93** 064032 1–7 (2016)
34. "Cosmological Models with Varying Deceleration Parameter Using Optimal Control"
International Conference for Mathematics and Applications (ICMA17), Cairo (2017)
35. "A Cosmological Inflationary Model Using Optimal Control"
Gravitation and Cosmology **23** (2017) 236-239.
Co-authors: F. Desokey and M. Ramadan
36. "A Closed Universe with Maximum Life-Time"
arXiv [gr-qc] 1905.11525 (2019)
Co-authors: S. Abdel-Hafeez and M. Ramadan

b. Supervision:

Degree	Thesis Title	Researcher Name	Start Date	Approval Date
Ph.D. Helwan Univ	Stationary Axially symmetric Fields in Gen. Relativity	Ramadan M Ali	1987	1993
M.Sc. Suez-Canal Univ	Cylindrically Symmetric Spacetimes	Fatma Desouky	1994	1997
Ph.D. Suez-Canal University	Gauge Field Theory Coupled to Gravity	Mansour Yassin	1995	1998
M.Sc. Assiut Univ	Limiting Processes of Spacetimes	Ahmed T AbdelWahab	1998	2001
M.Sc. Suez-Canal Univ	Slowly Rotating Fluid Spheres	Eglal Mosaad	1999	2003
Ph.D. Port-Said Univ	Application of Optimal Control to Cosmological Models	Moutaz Ramadan	2010	2017

c. Conferences :

Conference	Professional Conf Organizer	Keynote Speaker	Presenter	Attendee	Organizer
4th Intern. Conf. on Math and Information Sciences, Zewail City, Giza, 2015	Zewail City + Egyptian Math Soc		✓		
Egypt Mathematica Conference, Cairo, 2010	Wolfram Org			✓	
Egypt-France Math Conference, Cairo, 2010	Egyptian Math Society		✓		
MA/ATM Annual Conference, Keele University, U.K., 2008	Math Assoc + Assoc of Teachers of Math, UK			✓	
Learning Technologies and Mathematics Middle East Conference, Sultan Qaboos Univ, Muscat, Oman, 2007	Univ of Arizona Inst for Math and Edu + Dep of Math and Stat, Sultan Qaboos University		✓		
17th Intern. Conf. on Gen Relativity and Gravitation,	Intern Society on General Relativity		✓		

Dublin, Ireland, 2004	and Gravitation				
Intern Conf on Math and the 21 st Century, Cairo, 2000	Egyptian Math Society		✓		
3rd Intern Scientific Conf, Al-Azhar Univ, Cairo, 1999	Al-Azhar University		✓		
19th Texas Symp on Rel Astroph, Paris, 1998	University of Texas at Dallas		✓		
15th Intern. Conf. on Gen Relativity and Gravitation, Pune, India, 1997	Intern Society on General Relativity and Gravitation		✓		
Second Conf of the S. A. Relativity Society, Pretoria, South Africa, 1997	South African Relativity Society		✓		
Symposium on Sciences and Engineering Education in the 21 st Century, AUC, 1995	American University at Cairo			✓	
14th Intern. Conf. on Gen Relativity and Gravitation, Florence, Italy, 1995	Intern Society on General Relativity and Gravitation		✓		
First Intern Scientific Conf, Al-Azhar Univ, Cairo, 1995	Al-Azhar University		✓		
12th Intern. Conf. on Gen Relativity and Gravitation, Boulder, USA, 1989	Intern Society on General Relativity and Gravitation		✓		
11th Intern. Conf. on Gen Relativity and Gravitation, Stockholm, Sweden, 1986	Intern Society on General Relativity and Gravitation		✓		
10th Intern. Conf. on Gen Relativity and Gravitation, Padova, Italy, 1983	Intern Society on General Relativity and Gravitation		✓		
10th Texas Symp on Rel Astroph, Baltimore, 1980	University of Texas at Dallas		✓		
Workshop on Systems Th & its Applic II, AUC, 1976	American University at Cairo			✓	
Workshop on Systems Th & its Applic I, AUC, 1975	American University at Cairo			✓	
Several local conferences	various		✓	✓	

d. Scientific Visits:

1. Visiting Scholar, Fulbright Grant, USC, Columbia, SC, USA, 2001.
2. Visitor at Mathematics Department, University of Aberdeen, U.K., 1991.
3. Visitor at ICTP, Trieste, Italy, 1984.

9. Trainings & Workshops

1. Programming in FORTRAN, Ain-Shams University, 1973.
2. Systems Analysis, Cairo University, 1974.
3. Systems Theory and its Applications I, AUC, 1975.
4. Systems Theory and its Applications II, AUC, 1976.
5. Several workshops during PhD study at the UK, 1977 – 1982.
6. Uniface Application Development, Cairo Higher Institute, 1998.

7. Several workshops on teaching, curricula, course profile, ..., Qatar University, 2004 – 05.
8. Mathematica Programming, Sultan Qaboos University, Muscat, Oman, 2007.
9. Several workshops on teaching, curricula, course profile, ..., Qatar University, 2004 – 05.
10. Several workshops on teaching, curricula, ..., British University in Egypt, 2008 – 10.
11. Several workshops on quality assurance, ..., ERU, 2010 – 20.

10. Social Activities

1. President of Egyptian Students Society, University of Wales, UK, 1978 – 81.
2. Member of Executive Council, Egyptian Students Union, UK, 1978 – 81.
3. Supervisor of various committees, Students Union, Faculty of Science, Al-Azhar University, 1983 – 1986.
4. Member of Al-Tahrir Society for social services, Heliopolis, since 1982.

11. Membership of Professional Associations

1. Egyptian Syndicate of Engineers.
2. Egyptian Syndicate of Scientists.
3. Egyptian Mathematical Society.
4. International Society on General Relativity and Gravitation.
5. Editorial Board, Qatar University Journal of Science 2003-05.

12. Awards

1. Award of the Egyptian National Mathematics Committee for the best research paper in applied mathematics, 2000.
2. Fulbright Grant, 2001.