

Curriculum Vitae

Professor Dr. Naji Qatanani

Personal Data

Name: Naji Qatanani
Birth: January 6, 1960, Habla, Palestine
Nationality: Palestinian
Marital Status: Married
Children: Fares, Aya, Qays, Mohammad and Rua
Language: Arabic (native), English, and German
Permanent Address: Dept. of Mathematics, An- Najah University, Nablus, Palestine
E-mail: nqatanani@najah.edu
Tel: +970-2-2791246
Mobile: +970-0597625067
Fax: +970-09-2345982

Academic Qualifications

1996 Ph.D in Applied Mathematics, Stuttgart University, Stuttgart, Germany
Supervisor: Prof. Dr. Eng. Wolfgang Wendland
1985 M.Sc Engineering Mathematics, University of Newcastle Upon Tyne, Newcastle, England, U.K.
Supervisor: Dr. N. S. Clarke
1986 B.Sc (Honors) Electrical and Electronic Engineering, Sunderland Polytechnic, Sunderland, England, U.K.

Employment

09/2010 - present	Full Professor of Applied Mathematics, Dept. of Mathematics, An-Najah University, Nablus, Palestine.
08/2010	Promotion to Professor of Applied Mathematics, Al-Quds University.
09/2009– 09/2010	Associate Professor of Applied Mathematics, Dept. of Mathematics, An- Najah University, Nablus, Palestine.
09/2004– 09/2009	Associate Professor of Applied Mathematics, Dept. of Mathematics, Al-Quds University, Jerusalem, Palestine.
08/1996 – 09/2004	Assistant Professor, Dept. of Mathematics, Al-Quds University, Jerusalem, Palestine.
02/1987 – 03/1992	Lecturer, Dept. of Mathematics, College of Science Technology, Jerusalem, Palestine.

Positions Held

- 07/2015-present Dean of Scientific Research, An-Najah National University
- 09/2014-07/2015 An Editorial member of An-Najah Journal of Research-A-Natural Sciences
- 09/ 2013- 09/2014 Member of the Scientific Research Committee, An- Najah National University
- 09/ 2011-09/2014 Member of Promotional Committee, An-Najah University
- 09/2011-09/2012 Member of the University Graduate Academic Council, An-Najah National University
- 09/ 2011-09/2013 Member of the College of Science Council, An-Najah National University
- 09/2007- 09/2008 Member of the College of Science and Technology Council, Al-Quds University.
- 09/2007-09/2009 Member of the University Academic Council, Al-Quds University.
- 09/2004 - 09/2005 Member of the College of Science and Technology Council, Al-Quds University.
- 09/2004 - 09/2005 Member of the University Graduate Studies Council, Al-Quds University.
- 03/1997 - 09/2002 Head of the M.Sc Programme in Mathematics, Dept. of Mathematics, Al-Quds University, Palestine
- 09/1999 - 09/2001 Chairman, Dept. of Mathematics, Al-Quds University, Jerusalem, Palestine.
- 09/1998 - 11/2000 Member of the University Academic Council, Al-Quds University.

A wards

1. Selected as one of the best researchers at Al-Quds University, 2006.
2. DAAD Visiting Professor Scholarship, Institute of Mathematics, Clausthal University, June-August 2012.

3. DAAD Scholarship, Institute of Analysis and Numeric, Magdeburg University, December 2004 – February 2005.
4. Sabbatical leave, Visiting Professor Position, Institute of Analysis and Numeric, Magdeburg University, October 2002 – August 2003.
5. Visiting Professor Scholarship, Institute of Analysis and Numeric, Magdeburg University, July 2000 – September 2000.
6. DAAD Scholarship, Institute of Analysis and Numeric, Magdeburg University, June 1999 – August 1999.
7. DAAD Scholarship (Ph.D), Stuttgart University, April 1992 – July 1996.

Field of Research Interest

Research interest in applied mathematics and numerical analysis with emphasis on:

1. Analysis and numeric for integral equations
2. Boundary element method
3. Mathematical & Numerical methods for heat transfer problems
4. Computational methods for mathematical physics problems
5. Monte Carlo method
6. MHD flow problems

Computer Skills

Programming in MatLab, C and C++

Teaching Experience

Graduate Courses

Partial and Ordinary Equations, Numerical Analysis, Functional Analysis, Applied mathematics, Special Topics and Integral Equations.

Undergraduate Courses

Calculus, Ordinary Differential Equations, Applied Mathematics, Partial Differential Equations, Numerical Analysis, Linear Algebra, Functional Analysis, Complex Analysis, Integral Equations, Engineering Mathematics, Special Functions and Vector Analysis.

Graduate Students

- Supervised over 20 M.Sc students in the field of applied mathematics and related topics
- Examined many graduate students
- Supervised one Ph.D Student: Adnan Daraghmeh, Thesis title: Model Order Reduction of Linear Control Systems: Comparison of Balance Truncation

and Singular Perturbation Approximation with Application to Optimal Control, defended on 18.7.2016

Professional Affiliation

1. Member of the "Palestinian Mathematics Society".
2. Member of "Jordan Engineers Association"
3. Reviewer (referee) for many international journals including "Applied Mathematics and Computation", Elsevier
4. Associate Editor of "the International Journal of Engineering Mathematics: Theory and Applications"
5. An Editorial Member of the "International Journal of Numerical Analysis and Related Topics"
6. An Editorial Member of the "International Journal of Pure and Applied Sciences and Technology "
7. An Editorial Member of International Journal of Applied Sciences (IJAS)-CSC Journals.
8. International Advisory and Editorial Board Member-SWISS JOURNALS.
9. An Editorial Member of International Journal of Mathematical Engineering and Science.
10. An Editorial Member of Global Engineers and Technologists Review.
11. An Editorial Member of The SciTech, Journal of Science & Technology.

Conferences and Workshops

1. The Second Palestinian International Conference on Mathematics, Aug.19-22(1998), An-Najah University, Nablus, Palestine.
2. Partial Differential Equations and Complex Analysis, Nov.17- 19 (1999), Potsdam University, Potsdam, Germany.
3. On Operator Algebras and Index Theory on Manifolds with Singularities, Feb. 14-18 (2000), Potsdam University, Potsdam, Germany.
4. Applied Mathematics: Modern Aspects of Boundary Element Methods, October 12-16(2001), Stuttgart University, Stuttgart, Germany.
5. Multigrid Methods, Aug 17-20 (2003), Leipzig University, Leipzig, Germany.
6. The 3rd Conference of the Federation of Unions of Palestinian Universities: Quality, Excellence, and Accreditation in Higher Education Institution, (2007), Al-Quds University.
7. Effective Teaching Workshop, Oct. 4(2007), Best Eastern Hotel, Ramallah, Palestine.

8. Assessment of Students Performance Workshop, May 7-8 (2008), Al-Quds University in cooperation with Brandeis University.
9. Palestinian Conference on Modern Trends in Mathematics and Physics, July 28-30 (2008), Birzeit University, Palestine.
10. Palestinian Conference on Modern Trends in Mathematics and Physics, July (2010), An-Najah University, Palestine.
11. Invited Seminar: Asymptotic Error Analysis for The Heat Radiation Integral Equation, 27th June 2012, Clausthal University, Germany.
12. Invited Talk: Solving Heat Radiation problem, 23rd Nov. 2013, An Najah university.
13. Invited Speaker: The 4th Palestinian Conference on Modern Trends in Mathematics and Physics, Al- Quds University August 11-13, 2014,
14. Organizer for the CIMPA Summer School 2014- An- Najah University 18-28 August 2014.
15. Computational Methods in Science & Engineering, An-Najah University 14/3/2014

Publications

Year 2003

- [1] **N. Qatanani**, Use of the multigrid methods for heat radiation problem, Journal of Applied Mathematics 2003: 6 (2003) 305 – 317.
- [2] **N. Qatanani** and I. Barghouthi, On magnetohydrodynamic flow through porous media, Far East Journal of Applied Mathematics, Vol. 10(2) (2003), 97 – 124.
- [3] I. Barghouthi, **N. Qatanani** and F. Allan, Monte Carlo simulation of Boltzmann equation in space plasma at high latitudes, Monte Carlo Methods and Appl. Vol.9, No.3, (2003), 201 – 216.
- [4] I. Barghouthi, **N. Qatanani** and M. Abu Issa, Toroidal distributions in the polar wind plasma, Indian J.Phys. 77 B (6), (2003), 621 – 624.
- [5] I. Barghouthi and **N. Qatanani**, Monte Carlo simulation of Maxwell molecule interactions in space plasma, Indian J.Phys. 77 B (2), (2003), 241 – 245.
- [6] I. Barghouthi, E. Elias, M. Abu Samra, **N. Qatanani** and M. Abu Issa, Monte Carlo simulation of O^+ behavior in the auroral ionosphere, Journal of the Physical Society of Japan Vol. 72, No. 11, (2003), 3006 – 3013.

Year 2004

- [7] I. Barghouthi, M. Abu Issa, M. Abu Samra and **N. Qatanani**, $H^+ - O^+$ Coulomb collision frequency in the polar wind plasma, An- Najah University. J. Res. (N. Sc.), Vol.18 (1), (2004), 1 – 12.
- [8] F. Allan, **N. Qatanani**, I. Barghouthi and K. Takatka, Dusty gas model of flow through naturally occurring porous media, Applied Mathematics and Computation 148 (2004), 809 – 821.

[9] **N. Qatanani** and M. Schulz, Preconditioned conjugate gradient method for three-dimensional non-convex enclosure geometries with diffuse and grey surfaces, *Applied Mathematics and Computation* 159 (2004), 797 – 807.

[10] **N. Qatanani** and M. Schulz, The heat radiation problem: Three – dimensional analysis for arbitrary enclosure geometries, *Journal of Applied Mathematics* 2004: 4 (2004), 311 – 330.

Year 2005

[11] **N. Qatanani** and I. Barghouthi, Numerical treatment of the two – dimensional heat radiation integral equation. *Journal of Computational Analysis and Applications*, 7(3) (2005), 319 – 349.

[12] **N. Qatanani**, Gas-particulate flow through porous media, *European Journal of Scientific Research*, Vol. 2, No. 2, (2005), 45 – 59.

[13] **N. Qatanani** and K.Salah, Error analysis for the finite element approximation of conductive-radiative model, *European Journal of Scientific Research*, 11 (2) (2005), 236 – 245.

[14] **N. Qatanani**, An analysis of the conductive-radiative heat transfer on nonconvex enclosures, Preprint Nr. 1, Faculty for Math., University Magdeburg (2005).

Year 2006

[15] **N. Qatanani** and M. Schulz, Analytical and numerical investigation of the Fredholm integral equation for the heat radiation problem, *Applied Mathematics and Computation*, 175 (1) (2006), 149 – 170.

[16] **N. Qatanani**, Analysis of the heat equation with non-local terms in a non-convex diffuse and grey surfaces, *European Journal of Scientific Research*, 15 (2) (2006), 245 – 254.

[17] **N. Qatanani** and I. Alzeer, On the fast matrix computation for the heat radiation integral equation, *International Journal of Mathematics and Computer Science*, 1 (4), (2006), 461 – 472.

Year 2007

[18] **N. Qatanani** and I. Alzeer, A new approach for the computation of the visibility function for heat radiation problem. *International Journal of Mathematics and Computer Science*, 2(1), (2007), 49 – 64.

[19] **N. Qatanani** and I. Alzeer, On the applications of the boundary element method and error analysis for three dimensional heat radiation problem, *International Journal of Engineering Mathematics (IeJEMTA)*, Volume 1, 2007, 16 – 30.

[20] **N. Qatanani** and I. Alzeer, An efficient numerical solution for a coupled heat conduction and enclosure radiation, *International Journal of Engineering Mathematics (IeJEMTA)*, Volume 2, 2007, 1 – 9.

[21] **N. Qatanani**, Qualitative analysis of the radiative energy transfer model, *European Journal of Scientific Research*, Vol. 17 (3) (2007), 379 – 391.

[22] **N. Qatanani**, A. Barham and Q. Heeh, Existence and uniqueness of the coupled conduction – radiation energy transfer on diffuse – gray surfaces, *Surveys in Mathematics and its Applications*, Vol. 2 (2007), 43 – 58.

Year 2008

[23] I. Alzeer and **N. Qatanani**, An efficient algorithm for the computation of response-time bounds for CAN messages, *Journal of Engineering, Computing and Architecture*, Volume 2, Issue 1, 2008 .

[24] I. Alzeer and **N. Qatanani**, Fast solver method for three-dimensional heat radiation problem, *Journal of Engineering Mathematics (IeJEMTA)*, Volume 3, 2008, 57 – 68.

[25] I. Alzeer and **N. Qatanani**, Numerical simulation of the steady state heat conduction equation, *International Journal of Mathematical Modeling, Simulation and Applications*, Volume 2, Issue 1, 2008 .

[26] **N. Qatanani** and I. Alzeer, Computational modeling of coupled thermal radiation equations, *International Journal of Numerical Analysis and Related Topics (IeJNART)*, Volume 2, 2008, 1-12.

[27] **N. Qatanani** and Q. Heeh, On existence and uniqueness theorem concerning time-dependent heat transfer model, *Applications and Applied Mathematics: An International Journal (AAM)*, Vol. 3, No. 2, December 2008.

Year 2010

[28] **N. Qatanani**, Numerical Treatment of Strongly Elliptic Integral Equation , *Journal of Vectorial Relativity JVR* 5(2010) 63-74.

Year 2012

[29] **N. Qatanani** and M. Musmar, The mathematical structure and analysis of MHD flow in porous media, *International Journal of Mathematical Engineering and Science*, Vol.1, No.2, 2012, 390-402.

[30] **N. Qatanani**, A. Barham and M. Musmar, On the analysis of aligned MHD plane flow in porous media in presence of magnetic field, International Journal of Modern Engineering Research(IJMER) Vol.2. No.3, 2012, 1055-1061.

[31] H. Sulieman and **N. Qatanani**, Magnetohydrodynamic Rayleigh problem with Hall effect, International Journal of Modern Engineering Research (IJMER) Vol.2. No.1, 2012, 390-402.

Year 2013

[32] **N. Qatanani** and A. Daraghmeh, Asymptotic error analysis for the heat radiation boundary integral equation, European Journal of Mathematical Sciences, Vol.2, No.1, 2013, 51-61.

[33] I. Kayid and **N. Qatanani**, Higher order Taylor methods for numerical solution of first order system of IVP., International J. of Math. Sci.& Engg. Appls. (IJMSEA), Vol.7, No.6, 2013, 309-318.

Year 2014

[34] N. Rihan and **N. Qatanani**, Computational methods for solving Fredholm integral equation of the second kind, International Journal of Mathematics and Computation, Vol.24, No.3, 2014, 41-50.

[35] A. Sa'ad Aldin and **N. Qatanani**, Analytical and numerical methods for solving magnetohydrodynamic flow problem, International J. of Math. Sci. & Engg. Appls. (IJMSEA), Vol.8, No.2, 2014, 313-329.

Year 2015

[36] A. Sa'ad Aldin and **N. Qatanani**, Analytical and numerical methods for solving unsteady magnetohydrodynamic flow problem, International J. of Math. Sci. & Engg. Appls. (IJMSEA), Vol.9, No.2, 2015, 307-318.

[37] M. Amawi and **N. Qatanani**, Numerical methods for solving fuzzy Fredholm integral equation of the second kind, International Journal of Applied Mathematics, Vol.28, No.3, 2015, 177-195.

Year 2016

[38] A. Sa'ad Aldin and **N. Qatanani**, On Unsteady MHD Flow Through Porous Medium Between Two Parallel Flat Plates, An - Najah Univ. J. Res.(N. Sc.) Vol. 30(1), 2016

[39] M.Amawi and **N.Qatanani**, Analytical Methods for Solving Fuzzy Integral Equation of the Second Kind, Accepted for publication in the European Journal of Scientific Research