

CURRICULUM VITAE

SHABNAM BEHESHTI

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CITIZENSHIP U.S.A. (on UK Settlement Visa with right-to-work)

RESEARCH AREAS Geometric Analysis, Mathematical Relativity, Nonlinear PDEs, Integrable Systems

ACADEMIC POSITIONS

2017–present *Senior Lecturer in Mathematics, Director of Undergraduate Studies (from Oct)*
Queen Mary University of London, London, England, UK

2015–2017 *Lecturer in Mathematics,*
Queen Mary University of London, London, England, UK

2014–2015 *LMS Grace Chisholm Young Fellow,*
Queen Mary University of London, London, England, UK
Visiting Researcher,
Rutgers, The State University of New Jersey, Piscataway, NJ, USA

2011–2014 *Assistant Professor of Mathematics,*
Rutgers, The State University of New Jersey, Piscataway, NJ, USA

Autumn 2013 *Visiting Member,*
Mathematical Sciences Research Institute (MSRI), Berkeley, CA, USA

2009–2011 *Triennial Assistant Professor of Mathematics,*
Rutgers, The State University of New Jersey, Piscataway, NJ, USA

2008–2009 *Visiting Fellow, Faculty of Mathematics,*
Tata Institute of Fundamental Research, Mumbai, India

EDUCATION

2008 *Ph.D., University of Massachusetts, Amherst, MA, USA*
“Solutions of Dilaton Field Equations with Applications to the Soliton-Black Hole Correspondence in Generalised JT Gravity” (advisor: F. L. Williams)

2002 *M.Sc., Texas Tech University, Lubbock, TX, USA*
“Weierstrass Data and Symmetries of Minimal Surfaces”

2000 *B.Sc. Mathematics, McGill University, Montreal, QC, Canada*

DISTINCTIONS Faculty of Science and Engineering Student Experience & Education Award, QMUL, London, UK
 Senior Fellow of the UK Higher Education Academy
 London Mathematical Society Grace Chisholm Young Fellow
 Distinguished Teaching Award, University of Massachusetts, Amherst, MA, USA
 First Recipient, Amir-Moez Mathematics Prize, Texas Acad. of Science, TX, USA

PUBLICATIONS

In Preparation

- *Lump soliton solutions of the Jimbo-Miwa Equation*, (single author).
- *Relativistic fluids on Bianchi backgrounds*, with M. Venanzi (Sapienza Univ. of Rome).
- *Remarks on combinatorial aspects of the Jimbo-Miwa Equation*, with A. Hamm (Winthrop Univ.).
- *A controlled family of two-soliton solutions to Einstein's equations*, with S. Tahvildar-Zadeh (Rutgers Univ.).

Published

- *Marginally stable circular orbits of stationary axisymmetric spacetimes*, with E. Gasperin, Phys. Rev. D, Vol. 94, No. 2 (2016) [arXiv:1512.08707].
- *Integrability and Vesture for Harmonic Maps into Symmetric Spaces*, with S. Tahvildar-Zadeh, Rev. Math. Phys. Vol 28, No. 3 (2016) [arXiv:1209.1383].
- *Dressing with Control: using integrability to generate desired solutions to Einstein's equations*, with S. Tahvildar-Zadeh. Nonlinear Systems and Complexity, v.10, p.207–231 Springer (2014) [arXiv:1312.5253].
- *Remarks on combinatorial aspects of the KP Equation*, with A. Redlich. Nonlinear and Modern Mathematical Physics: Proc. of the 2nd Int. Workshop. AIP Conf. Proc., v. 1562, pp. 5–17 (2013) [arXiv:1309.1480].
- *Integrability and Vesture for Harmonic Maps into Symmetric Spaces*, with S. Tahvildar-Zadeh, Proceedings of the Thirteenth Marcel Grossman Meeting on General Relativity, K. Rosquist, et. al., ed., World Sci. (2013).
- *On Generalised Monopole Spherical Harmonics and the Wave Equation of a Charged, Massive Kerr Black Hole*, with F. Williams, Mod. Phys. Lett. A, Vol. 25, No. 38 (2010) [arXiv:1009.1129].
- *Integrable Systems and 2D Gravitation: How a Soliton Illuminates a Black Hole*, A Window Into Zeta and Modular Physics, MSRI Publications, Vol. 57, 295–306 (2010).
- *Further Thoughts on Generalised JT Gravity and Soliton Black Hole Correspondences*, Mathematical Physics Research Developments, Ed. M. Levy, pp. 379–417. Nova (2008).
- *Averaging of Nonlinearity Management with Dissipation*, with P. Kevrekidis, K. Law, M. Porter, Phys. Rev. A Vol. 78, No. 025805 (2008) [arXiv:0803.3022].
- *Explicit Soliton-Black Hole Correspondence for Static Configurations*, with F. Williams, J. Phys. A: Mathem. and Theor., v.40 4017–4024 (2007) [arXiv:hep-th/0609076].
- *Double Bubbles in the Three-Torus*, with M. C. Alvarez, J. Cornelli, G. Walsh, J. of Exp. Math., v.12-1 (2003). [arXiv:math/0208120].

COMPETITIVE GRANTS AWARDED

- *Two Cross-Generational Research Projects in Mathematical Sciences (£5100)*
Differential Geometry of Minimal Surfaces: Theory & Numerics
Circular Orbits and Algebraic Geometry: Analysis & Algorithms
 Institutional EPSRC Award, School of Mathematical Sciences, QMUL, London, UK Feb 17
- QMUL e-Learning Production Grant: Maths PGR Training toolkit (30 hrs), QMUL 2016
- *London Mathematical Society Research in Pairs Grant (£1000)*, Jun 16
- *London Mathematical Society Grace Chisholm Young Fellowship (£500)*, Jun 14
- *Award for Research in Geometric Analysis and General Relativity, Part II (\$2050)*

- Academic Initiatives Program (AIP), Department of Mathematics, Rutgers Univ. Piscataway, NJ Jun 14
- *Program on Mathematical General Relativity*, Visiting Member (\$3000), MSRI, Berkeley, CA Sep-Dec 13
- *Award for Research in Geometric Analysis and General Relativity* (\$1850)
Academic Initiatives Program (AIP), Department of Mathematics, Rutgers Univ. Piscataway, NJ Jun 13
- *RU FAIR Advance Travel Award* (\$650), Faculty of Arts and Sciences, Rutgers Univ. Piscataway, NJ Sep 12
- *AWM-National Science Foundation International Travel Grant* (\$2000), Jun 12
- Dissertation Award (\$1000), Dept. of Mathematics, Univ. of Massachusetts, Amherst, MA May 05

PROFESSIONAL AFFILIATIONS

- London Mathematical Society (LMS)
- American Mathematical Society (AMS)
- Association for Women in Mathematics (AWM)
- Women in Science and Engineering (WISE)

INVITED LECTURES

Conferences

- *Viscous Dynamics in Relativistic Fluids*
11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, FL, Jul 16
- *Marginally Stable Circular Orbits in Stationary Axisymmetric Spacetimes*
Special Session on Mathematical General Relativity, AMS Meeting, Stony Brook, NY, Mar 16
- *Harmonic Maps, the Xanthopoulos Conjecture and Analysis of Singularities in General Relativity*
Joint International Meeting of the AMS, EMS and SPM, University of Porto, Porto, Portugal, Jun 15
- *A Second Look at Singularities of Harmonic Maps in General Relativity*
Special Session on Geometric Analysis, AMS Meeting, Greensboro, NC, USA, Nov 14
- *Controlling a Family of Dressed Harmonic Maps in General Relativity*
Conference on PDEs, Geometric Analysis, Calculus of Variations, Harmonic Analysis
University of Sussex, Brighton, United Kingdom Sep 14
- *General Relativity meets Control Theory by way of Integrable Harmonic Maps*
Program on Mathematical General Relativity, Plenary Talk, MSRI, Berkeley, CA Sep 13
- *Solving Nonlinear PDEs using Combinatorial Structures*
IAS-WAM Program on Combinatorics & Graph Theory, Inst. for Advanced Study, Princeton, NJ, May 13
- *An Integrability Toolkit for Combinatorialists*
Special Session on Combinatorics and Classical Integrability, AMS Meeting, Boston, MA, Apr 13
- *On the Combinatorics of Wronskian-Integrable Equations*
2nd International Workshop on Nonlinear and Modern Mathematical Physics, Tampa, FL, Mar 13
- *Integrability & Vesture for Axially Symmetric Harmonic Maps*
Marcel Grossmann Meeting on General Relativity, Stockholm, Sweden, Jul 12
- *Harmonicity, Integrability and the Xanthopoulos Conjecture*
Barrett Lectures in Mathematical Relativity, Univ. of Tennessee, Knoxville, TN, May 11
- *On the Wave Equation of a Charged, Massive Kerr Black Hole*
Special Session on N-Body Problems in General Relativity, AMS Meeting, Pittsburgh, PA, Oct 09
- *How a Soliton Illuminates a Black Hole*
A Window into Zeta and Modular Physics, Summer Workshop, MSRI, Berkeley, CA Jun 08
- *Some Recent Developments in Two-Dimensional Dilaton Gravity*
AMS Fall Eastern Section Meeting, Univ. of Connecticut, Storrs, CT, Oct 06

Colloquia and Plenary Lectures

- *Atlas of Integrability: A Roadmap for Mathematicians*
School of Mathematics, University of Kent, Canterbury, UK, Jan 16
- *Atlas of Integrability: A Roadmap for (Non)Mathematicians*
School of Mathematics Annual Lecture, Queen Mary University of London, UK, Feb 15
- *How Time and Space Unified Mathematics and Physics*
Winthrop University, Rock Hill, SC, USA, Nov 14
- *Integrability and Vortex Dynamics: The best of both worlds*
Department of Physics, Univ. of Massachusetts, Boston, MA, Sep 10
- *From Classical Mechanics to General Relativity: Vignettes of Integrability*
Department of Physics, Univ. of Massachusetts, Boston, MA, May 10
- *Applications of a Soliton-Black Hole Correspondence in Generalised 2D Gravity*
Faculty of Mathematics, Tata Inst. of Fundamental Research, Mumbai, India, Sep 08
- *Black Holes Riding New Waves: Schwarzschild Metrics and sine-Gordon Solitons*
Department of Mathematics, Rose-Hulman Inst. of Technology, Terre Haute, IN Apr 07

Seminars

- *MSCOs: Astrophysics Meets Algebraic Geometry?*
Geometry & Analysis Seminar, Queen Mary University of London, London, United Kingdom, Mar 16
- *Hydrodynamical Solitons, a Combinatorial Perspective*
Combinatorics Study Group, Queen Mary University of London, London, United Kingdom, Apr 15
- *Analysis of Singularities for Harmonic Maps in General Relativity*
Analysis Seminar, University of Sussex, Brighton, United Kingdom, Feb 15
- *Harmonic Maps and the Xanthopoulos Conjecture*
Geometry & Analysis Seminar, Queen Mary University of London, London, United Kingdom, Jan 15
- *Vignettes of Integrability: from Relativity to Fluid Dynamics*
Geometry & Analysis Seminar, Queen Mary University of London, London, United Kingdom, Nov 14
- *Applications of Vesture of Harmonic Maps to General Relativity and Cosmology*
Relativity & Cosmology Seminar, Queen Mary University of London, London, United Kingdom Dec 13
- *How Customizable are Spacetimes?*
Analysis Seminar, University of Edinburgh, Edinburgh, United Kingdom Dec 13
- *A Controlled Dressing Method for a Class of Geometric Field Theories*
Analysis/PDE Seminar, University of California, Berkeley, CA Oct 13
- *An Integrability Theorem for Harmonic Maps of Interest in General Relativity*
Analysis Seminar, Department of Mathematics, Princeton Univ., Princeton, NJ, Dec 12
- *Integrability and Vesture of Harmonic Maps into Symmetric Spaces*
Max Planck Institute for Gravitational Physics, Golm, Germany, Mar 12
- *Doubly Periodic Solutions of the sinh-Poisson Equation and the Dynamics of Vortices*
Mathematical Physics Seminar, Univ. of Massachusetts, Amherst, MA May 10
- *Introduction to Gravitational Solitons*
Mathematical Physics Seminar, Rutgers Univ., Piscataway, NJ Mar 09
- *Understanding Two-Dimensional Gravitation via Integrable Systems*
Mathematical Physics Seminar, Univ. of Texas, Austin, TX, Nov 08
- *Nonlinear PDE Systems Arising in 2D Gravity*
Nonlinear Analysis and PDE Seminar, Rutgers Univ., Piscataway, NJ Aug 08
- *2D Gravity from Two Perspectives: Solitons and Nonlinear Sigma Models*
Geometric Analysis Seminar, Texas Tech Univ., Lubbock, TX, Oct 07
- *Explicit Soliton Solutions to the JT Field Equations*
Geometry & Applied Math Seminar, Texas Tech Univ., Lubbock, TX, May 07

- *Classical Strings and Solitons*
Geometric Relativity & Cosmology Seminar, Univ. of Massachusetts, Amherst, MA, Nov 06
- *A Simple Black Hole Solves a Complicated Eigenvalue Problem*
Geometric Relativity & Cosmology Seminar, Univ. of Massachusetts, Amherst, MA, Oct 06
- *From Solitons to Dilatons: Relating Sine-Gordon Equations to Two-Dimensional Gravity*
Geometry Seminar, Univ. of Connecticut, Storrs, CT, Apr 06

FUNDED RESEARCH TRAVEL

- *Geometric Transport Equations in General Relativity*, Visiting Researcher
ESI-Erwin Schrödinger International Institute for Mathematics and Physics, Vienna, Austria, Feb 17
- *Modern Developments in General Relativity and their Historical Roots*, King's College London, UK Jan 17
- *IAS-PCMI Program on Geometric Analysis*, Visiting Researcher
Institute for Advanced Study-Park City Mathematics Institute, Park City, UT Jul 13
- *IAS Program for Women & Mathematics: Combinatorics and Graph Theory*, IAS, Princeton, NJ May 13
- *Analysis, Complex Geometry & Mathematical Physics*, Columbia Univ., New York, NY May 13
- *IAS Program for Women & Mathematics: 21st Century Geometry*, IAS, Princeton, NJ May 12
- *The Versatility of Integrability*, Columbia Univ., New York, NY May 11
- *104th Statistical Mechanics Conference*, Rutgers Univ., Piscataway, NJ May 11
- *AMS Northeastern Meeting*, New Jersey Inst. of Technology, Newark, NJ May 10
- *103rd Statistical Mechanics Conference*, Rutgers Univ., Piscataway, NJ May 10
- *AMS Northeastern Meeting*, Pennsylvania State Univ., College Park, PA, USA, Oct 09
- *MSRI Workshop, Hot Topics: Black Holes in General Relativity*
Mathematical Sciences Research Institute, Berkeley, CA, Sep 09
- *ICTS Program on Differential Geometric Methods in Algebraic Geometry*
International Centre for Theoretical Sciences, TIFR, Mumbai, India, Apr 09
- *MSRI Workshop: A Window into Zeta and Modular Physics*,
Mathematical Sciences Research Institute, Berkeley, CA, Jun 08
- *SMS-NATO Advanced Study Institute on Hamiltonian Dynamical Systems*
Centre de Recherches Mathématiques, Montreal, Canada, Jun 07
- *Congress on Harmonic Maps, Minimal Surfaces and Geometric Flows*
Univ. de Bretagne Occidentale, Brest, France, Jul 02
- Clay Mathematics Institute, *The Global Theory of Minimal Surfaces*, MSRI, Berkeley, CA, Jun-Jul 01

CONFERENCE & SEMINAR ORGANISATION

- Co-organiser, *Mathematical Relativity Group Meeting* (with J. Valiente Kroon), QMUL, 2015–present
- Co-organiser, *BagLES: Bag-Lunch Education Seminar* (with V. Nicosia), QMUL, 2016–2017
- Academic Lead/Organiser, *Women Count*, a conference for London-area UG/PG women in Mathematics
International Women's Week at QMUL, School of Mathematical Sciences, QMUL, London, UK, Mar 17
- Co-organiser, *Special Session on Combinatorics & Classical Integrability* (jointly with A. Redlich)
AMS Spring Eastern Sectional Meeting, Boston Univ., Apr 13
- *6 Lectures on Legendrian Knots, Hamiltonian Systems & Symplectic Geometry*
Joint Math-DIMACS Undergraduate Research Guest Lecturer, Rutgers Univ. Piscataway, NJ, Jun 12
- Organiser, *Mathematical Physics & General Relativity Seminar*, Univ. of Mass., 07-08
- Organiser, *Geometric Relativity and Cosmology Seminar*, Univ. of Mass., 06-07
- Co-organiser (jointly with T. Oh), *Graduate Student Seminar*, Univ. of Mass., 03-04

JOURNAL REFEREEING

- Chaos, Solitons and Fractals (16–present)
- Journal of Mathematical Analysis and Applications (08–present)
- Physics Letters A, 08–present

DEPARTMENTAL SERVICE**Queen Mary University of London, 2014–present**

- Director of Undergraduate Studies, Sep 17–present
- Athena SWAN Champion/Lead of Athena SWAN Committee, Jan 17–present
- Academic Lead, Student Experience Working Group, 15–present
- Lead, School of Mathematics Postgraduate Training & Mentorship Program, 15–present
- Hiring Committee, Diversity and Inclusion Officer, Human Resources Division, 2017
- Hiring Committee, Lectureship in Computational Mathematics, School of Mathematics, 2016
- Member, Athena Swan Champions Network, QMUL, 16–present
- Member, Athena Swan Committee/Self-Assessment Team, School of Mathematics, 14–present
- Member, Career Development Committee, School of Mathematics, 14–15

Rutgers The State University of New Jersey, 2009–2014

- Mathematics REU (Research Experiences for Undergraduates) Committee, Dept of Mathematics, 12-14
- Advisory Board Member, *Calculus: Early Transcendentals*, W.H. Freeman & Co., 2013

TEACHING**Queen Mary University of London, 2014–present**

- MTH4110 Tutorial *Mathematical Structures*, Autumn 2014, Autumn 2015
- MTH5105 Tutorial *Differential and Integral Analysis*, Spring 2016
- MTH5103 Lecture *Complex Variables*, Spring 2015, Spring 2016
- MTH6132 Lecture/Tutorial *Mathematical Relativity*, Autumn 2015, Autumn 2016
- MTH6138 Third-Year Project *Circular Orbits in Symmetric Spacetimes*, Spring 2017

Rutgers, The State University of New Jersey, 2009–2014

- Course Chair, Math 151 *Calculus I*, Autumn 2011, Autumn 2012, Autumn 2013
- Course Chair, Math 152 *Calculus II*, Spring 2012, Spring 2013, Spring 2014
Duties included direction and coordination of multi-section course (850-1000 students each term), exam writing/marking, curriculum development, graduate TA training: observations, feedback, teaching seminar
- Math 151H Lecture *Honours Calculus I for Sciences and Engineering* (taught 2 times)
- Math 152 Lecture *Calculus II for Sciences and Engineering* (taught 6 times)
- Math 250 Lecture *Linear Algebra* (taught 3 times)
- Math 251 Lecture *Multivariable Calculus* (taught 4 times)
- Math 300 Lecture *Introduction to Mathematical Reasoning* (taught 2 times)
- Math 423 Lecture *Partial Differential Equations* (taught 3 times)
- Math 492 Lecture *Honors Seminar: Mathematical General Relativity* (taught 1 time)

University of Massachusetts, 2002–2008

- Math 131 Lecture *Calculus I for Sciences and Engineering*
- Math 132 Lecture *Calculus II for Sciences and Engineering*
- Math 100 Lecture *Fundamentals of Mathematics*

- Math 131 Recitation *Calculus I for Sciences and Engineering*
- Math 132 Recitation *Calculus II for Sciences and Engineering*
- Math 331 Recitation *Differential Equations*
- Teaching Assistant/Grader, Math 235 *Linear Algebra*, Math 671 *Topology*

Texas Tech University, 2000–2002

- Math 0301A Lecture *Essential Mathematics/Algebra I*
- Math 0302A, B Multimedia *Essential Mathematics/Algebra II*
- Math 2300 Lecture *Introduction to Statistical Methods*
- Math 2345 Recitation *Statistics for Business*

STUDENT TRAINING & SUPERVISION

Graduate Student Research Supervision & Training

- *Relativistic Hydrodynamics: Exact Solutions and Associated Viscous Dynamics*, Marta Venanzi, Erasmus+ Postgraduate Mobility Traineeship, QMUL and Sapienza University of Rome, Oct 15–Mar 16
- Second Assessor for doctoral candidates Jarrod Williams, Diego Ortiz (supervisor J. Valiente Kroon), and Gabriel Cardona Rotger (supervisor P. Figueras), School of Mathematics, QMUL, 2015–present
- Postgraduate Training & Mentorship Seminar, QMUL, 2015-2016
Seminar includes: TA training and feedback, outreach, writing applications, CVs, research statements
Complete details may be found at http://www.maths.qmul.ac.uk/~beheshti/PGR_Training
- *e-Learning Production Grant awarded to migrate resources/develop training toolkit on QMPlus in 2017*
- Graduate Teaching Assistant Training Seminar, Complex Variables, QMUL, 2015
- Graduate Teaching Assistant Training Seminar, Calculus 151-152, Rutgers Univ. 11-14
Included: group meetings for teacher training, individual observations, development of course resources

Vertically-Integrated Research Supervision

- *Differential Geometry of Minimal Surfaces: Theory & Numerics*,
Cross-Generational Research funded by Institutional EPSRC Award (£2550), QMUL, Feb–Jun 17
Directed Reading Participants: Jarrod Williams (PG), Antonino Iannazzo, Vatsal Kanoria, Jesse Hayhow (UG)
- *Circular Orbits and Algebraic Geometry: Analysis & Algorithms*,
Cross-Generational Research funded by Institutional EPSRC Award (£2550), QMUL, Feb–Jun 17
Directed Reading Participants: Edgar Gasperin, Liam Williams (PG), Jesse Hayhow, Viktorija Bozko (UG)

Undergraduate Research Supervision

- *Knot Theory & DNA Topology*, Michael Boemo, Rutgers University
Senior Research Course (Jan-May 12), Research Experiences for Undergraduates-REU, Jun-Jul 12
- *Analytical Dynamics & Materials Science*, Michael Geis, Rutgers University
Sophomore Reading Course (Jan-May 12), REU, Jun-Jul 12
- *Differential Geometry & Relativity Theory*, Lynn Ma, Rutgers Univ., Honors Course, Jan-May 12

PUBLIC ENGAGEMENT

- Judging Panel, *Engagement & Enterprise Awards*, Centre for Public Engagement, QMUL, London, UK, Jan 17
- *Searching for Geodesics in the Sky*, QMUL Maths Society, Dec 16
- Invited Speaker, *Einstein's (Mathematical) Legacy: Past and Present*
HGS Astronomical Society, Hampstead Garden Suburb, London, UK, Feb 16
- Session Chair, *13.8: The Search for the Theory of Everything*, by John Gribbin
Public Talk and Q&A Session, The Royal Institution, London, UK, Nov 15

- Delegate, *Successfully Integrating Women Into STEM*, Inside Government Conference, Royal College of Surgeons, London, UK, Sep 15
- *From Classical Mechanics to General Relativity: a Mathematical Perspective*, QMUL Maths Society, Jan 15
- Invited Speaker, *How My Advisor Became...My Advisor* Story Collider: Stories About Science, The Book Club, Shoreditch, London, UK, Sep 14
- Judging Panel, *AWM-Math for America Essay Contest*, Association for Women in Mathematics, Mar 14
- Panelist/co-Chair, *Success in Graduate School*, Institute for Advanced Study, NJ, May 13
- *Research School for Resiliency -Urban Education*, <http://interpreting.edu20.com>, 09–10
- Guest Panelist, Emmy Noether Women in Mathematics Day, Texas Tech Univ., May 07
- *What do the Munich Olympic Stadium and a Soap Bubble Have in Common?* Texas Academy of Science Annual Meeting, Texas A & M Univ., Laredo, TX, Mar 02

ACADEMIC OUTREACH

- Prize Committee, *School of Mathematics Postgraduate Research Day*, QMUL, London, UK Apr 17
- Judging Panel, *Institute of Physics Gravitational Physics Thesis Prize*, 2016, 2017
- Guest Panelist, *Teaching Excellence in International Contexts*, QMUL Teaching and Learning Conference 2017, QMUL, London, UK, Jan 17
- Participant, *Good Practice in Recruitment and Retention*, London Mathematical Society Good Practice Scheme Workshop, London, UK, Oct 16
- Invited Faculty Speaker, *Geometry & Physics of Minimal Surfaces: a Guided Tour* DIMACS-Mathematics Research Experiences for Undergraduates, Rutgers Univ. Piscataway, NJ, Jun 14
- Faculty Panelist, *Research Opportunities for Undergraduates* Rutgers Undergraduate Math Society, Dec 13
- Invited Faculty Speaker, *Exploring Careers in Mathematics/STEM Fields for Women* First-Year Interest Group Seminar (FIGS), Rutgers Univ. Piscataway, NJ, Oct 13
- *How Space and Time Unified Mathematics and Physics*, Rutgers Society of Physics Students, Sep 13
- Guest Speaker, *Geometric PDE Three Ways: Finding, Funding and Fulfilling Undergraduate Research* Undergraduate Faculty Program, IAS-Park City Mathematics Institute, Park City, UT, Jul 13
- Invited Faculty Speaker, *Combinatorial Structure in Nonlinear PDEs* DIMACS-Mathematics Research Experiences for Undergraduates, Rutgers Univ. Piscataway, NJ, Jun 13
- *A Panorama of Harmonic Maps*, MAA-Rutgers Undergraduate Math Club, Nov 12
- *From Geodesics to Harmonic Maps (to Integrability)*, Rutgers Graduate Analysis/PDE Seminar, NJ, Nov 12
- Invited Faculty Speaker, *Exploring Careers in Mathematics and Sciences for Women* First-Year Interest Group Seminar (FIGS), Rutgers Univ. Piscataway, NJ, Nov 12
- *Panel Discussion on Job Applications for Graduate Students*, Rutgers Mathematics Department, NJ, Nov 12
- *Using a Nonlinear Wave Equation to Study Black Holes*, Univ. of Massachusetts Math Club, MA, Apr 07
- *Geometry, Calculus and Black Holes*, University of Massachusetts Biology Undergraduate Club, MA, Apr 07
- Instructor, Texas Academy of Science Summer Honours Camp, San Marcos, 01
- *A Survey of Open Problems in Minimal Surfaces*, Texas Acad. of Science, Texas State Univ., TX, Mar 01

REFERENCES

- Dr. Juan Valiente-Kroon, Queen Mary University of London, London, UK (Colleague, Collaborator)
- Dr. Shadi Tahvildar-Zadeh, Rutgers University, New Brunswick, NJ (Postdoc Mentor, Collaborator)
- Prof. Christina Sormani, City University of New York, New York, NY (Professional Colleague)
- Prof. Michael Kiessling, Rutgers University, New Brunswick, NJ (Postdoc Mentor)
- Dr. Lisa Carbone, Rutgers University, New Brunswick, NJ (Colleague, Collaborator)
- Prof. Panayotis Kevrekidis, University of Massachusetts, Amherst, MA (Ph.D. Mentor, Collaborator)
- Prof. Floyd L. Williams, University of Massachusetts, Amherst, MA (Ph.D. Supervisor)

TEACHING REFERENCES

- Prof. Thomas Prellberg, Queen Mary University of London, London, UK (Director of Taught Programmes)
- Prof. Robert Wilson, Rutgers University, New Brunswick, NJ (Undergraduate Vice-Chair, 2010–2014)
- Dr. Stephanie Jo Kent, Fulbright Scholar, University of Massachusetts, Amherst, MA (Interpreter, Colleague)