Dmitry Efim PELINOVSKY

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Education

1997 Ph.D. in Applied and Computational Mathematics
Monash University (Australia); R. Grimshaw, Yu.S. Kivshar (advisors)
"Asymptotic Methods in Soliton Theory"

1993 M.S. in Applied Physics and Applied Mathematics
Nizhny Novgorod State University (Russia); Yu.A. Stepanyants (advisor)
"Resonant Processes of Soliton Decay in the KP Wave Model"

Employment

2010-now Professor, McMaster University
2023 Visiting Professor, University of Stuttgart (Germany)
2022 Visiting Professor, Karlsruhe Institute of Technology (Germany)
2021 Visiting Professor, University of Besancon (France) - online
2018 Visiting Professor, University of Sydney (Australia)
2014 Chair-of-Excellence Research Professor, University of Grenoble (France)
2013 CNRS Visiting Professor, University of Montpellier (France)
2004-2010 Associate Professor, McMaster University
2007 EPSRC Visiting Research Fellow, Warwick University (UK)
2006 EPSRC Visiting Research Fellow, University of Bristol (UK)
2006-2007 Humboldt Research Fellow, University of Stuttgart (Germany)
2000-2004 Assistant Professor, McMaster University
1998-2000 NATO Science Postdoctoral Fellow, University of Toronto
1997 Research Fellow, University of Cape Town (South Africa)

Awards, Grants and Fellowships

2023 National Science Foundation of China Grant:"*Integrable lattices and rogue waves*", SouthEast University, Nanjing, China, $ 180,000 (2024-2027) (PI: Jinbing Chen)

2023 Post-Research Leave Supplement "*Analysis of nonlinear optics models with intensity-dependent dispersion*", McMaster University, Canada, $ 12,000 (2023-2025).

2022 Research-in-Teams, Erwin Schrödinger Institute, Vienna, Austria, $ 10,000 (with Anna Geyer, Yue Liu, Gulong Gui)

2021 Humbold Research Award, Alexander von Humbold Foundation, Germany, $ 60,000 (2022-2023) (Host: Michael Plum at University of Karlsruhe)

2021 Chair of Excellence, University of Besancon, France, $ 30,000 (2021-2022) (Host: Mariana Haragus)

2020 NSERC Individual Discovery Research Grant: "*Rogue and peaked nonlinear waves in fluids*", McMaster University (Canada), $ 186,000 (2020–2026).

2019 National Science Foundation of China Grant: "*Integrable nonlinear PDEs and rogue waves*", SouthEast University, Nanjing, China, $ 160,000 (2020-2023) (PI: Jinbing Chen)

2019 Russian Science Foundation Grant: "*Rogue waves in hydrodynamics*", Institute of Applied Physics, Nizhny Novgorod, Russia, $ 160,000 (2019-2023) (PI: Alexey Slyunyaev)

2018 Post-Research Leave Supplement "*Rogue waves: analysis and experiments*", McMaster University, Canada, $ 12,000 (2019-2021).

2017 Lorentz Center Workshop Grant: "*Nonlinear Partial Differential Equations on Metric Graphs and Branched Networks*", Lorentz Center, Leiden (Netherlands), $ 10,000 (2018).

2016 Outstanding Reviewer of the Year 2016, Nonlinearity

2016 Visiting Research Fellowship, University of Sydney (Austria), $ 12,000 (2018).

2015 Oberwolfach Workshop Grant: "*Partial Differential Equations on Graphs*", Mathematisches Forschungsinstitut Oberwolfach (Germany), $ 20,000 (2017).

2015 London Mathematical Society Research Fellowship : "*Stability of periodic waves in reduced Ostrovsky equations*", University College London (England), $ 3,000 (2015).

2015 Alexander von Humboldt Foundation Research Follow-Up Fellowship : "*Nonlinear waves on periodic quantum graphs*", University of Stuttgart (Germany), $ 10,000 (2015).

2014 NSERC Individual Discovery Research Grant: "*Nonlinear wave propagation in lattices*", McMaster University (Canada), $ 140,000 (2014–2020).

2014 Chair-of-Excellence Research Fellowship, University of Grenoble (France), $ 30,000 (2014).

2013 CNRS Visiting Fellowship, University of Montpellier (France), $ 15,000 (2013).

2012 Oberwolfach Workshop Grant: "*Lattice Differential Equations*", Mathematisches Forschungsinstitut Oberwolfach (Germany), $ 20,000 (2013).

2012 Russian Federation Ministry of Education and Science Grant "*Discrete and continuous models in hydrodynamics*", Nizhny Novgorod State Technical University (Russia), $20,000 (2012-2013).

2012 London Mathematical Society Research Fellowship : "*Justification of reduced models for counter-propagating waves*", University of Loughborough (England), $ 3,000 (2012).

2012 BIRS Workshop Grant: "*Spectral analysis, stability, and bifurcation in modern nonlinear physical systems*", Banff International Research Station (Canada), $ 20,000 (2012).

2011 Outstanding Reviewer of the Year 2011, Proceeding of Royal Society of London A

2011 NSERC Individual Discovery Research Grant: "*Evolution of localized modes in nonlinear dispersive equations*", McMaster University (Canada), $ 130,000 (2011–2016).

2011 Alexander von Humboldt Foundation Research Follow-Up Fellowship : "*Short-pulse propagation in Maxwell equations: finite time blow-up and regularizations*", University of Stuttgart (Germany), $ 10,000 (2011).

2011 Fields Institute Workshop Grant: "*Wave breaking and global solutions in the short-pulse dispersive equations*", Fields Institute (Canada), $ 12,000 (2011).

2010 MITACS Strategic Fellowship (Elevate): "*Wavelet methods for optimal control problems in pharmaceutical research*", McMaster University (Canada) (PI Wei Zhao), $ 80,000 (2010-2012).

2009 Visiting SSHN Fellowship (Ambassade de France au Canada): "*Front and pulses in nonlinear lattices*", University of Grenoble (France), $ 5,000 (2009).

2008 Outstanding Reviewer of the Year 2008, Proceeding of Royal Society of London A

2006 NSERC Individual Discovery Research Grant: "*Traveling localized waves in discrete lattices*", McMaster University (Canada), $ 135,000 (2006–2010).

2006 Alexander von Humboldt Foundation Research Fellowship : "*Modelling of nonlinear periodic media with continuous and discrete nonlinear evolution equations*", University of Stuttgart (Germany), $ 35,000 (2006-2007).

2006 EPSRC Research Fellowship : "*Localized modes in nonlinear lattices*", University of Bristol and Warwick University (England), $ 20,000 (2006-2007).

2005 Advanced Level Fellowship SSHN (Ambassade de France au Canada): "*Persistence of traveling waves in discrete lattices*", Institute Non Linearire de Nice (France), $ 5,000 (2005).

2004 PREA (Premium Research Excellence Award): "*Stability of Bose–Einstein condensates in optical lattices*", McMaster University (Canada), $ 150,000 (2004-2009).

2003 SHARCnet Graduate Scholarship Grant: "*Fast computations of eigenvalues in spectral stability problems*", McMaster University (Canada) (P.I. M. Chugunova), $ 44,000 (2003-2005).

2003 NSERC Leadership Support Initiative Grant: "*Nonlinear partial differential equations and their applications*", McMaster University (Canada) (P.I. W. Craig), $ 160,000 (2003-2007).

2003 Fields Institute Research-in-Team and Workshop Grant: "*Parametric resonance in periodic systems*", Fields Institute (Canada), $ 4,000 (2003).

2002 EPSRC Visiting Fellowship: "*Long-time dynamics of localized structures in the modified NLS and MTM equations*", Loughborough University (UK), $ 10,000 (2002-2003)

2002 CFI/OIT (New Opportunities Fund) Research Grant: "*Computing infrastructure for mathematical research in fiber and photonic optics*", McMaster University (Canada), $ 159,258 (2002-2005).

2001 NSERC Individual Discovery Research Grant: "*Dispersion management in nonlinear optics*", McMaster University (Canada), $ 105,000 (2001–2016).

Teaching Experience (last ten years)

2024-2025 Mathematical Physics I (Math3C03)
Advanced Differential Equations (Math 3F03)

2023-2024 Engineering Mathematics IV (Math2ZZ3)
PDEs for Engineering (Math 3I03)
Methods of Applied Mathematics II (Math 742)

2022-2023 Mathematical Physics I (Math3C03)
Partial Differential Equations (Math 3FF3)

Partial Differential Operators (Math 727)

2021-2022 Advanced Engineering Mathematics (Math2Z03)
Mathematical Physics I (Math3C03)

2020-2021 Advanced Engineering Mathematics (Math2Z03)

2019-2020 Advanced Engineering Mathematics (Math2Z03)
Partial Differential Equations (Math3FF3)
Methods of Applied Mathematics II (Math742)

2018-2019 Advanced Engineering Mathematics (Math2Z03)
Partial Differential Equations (Math3FF3)
Methods of Applied Mathematics I (Math741)

2017-2018 Partial Differential Equations for Engineering (Math3I03)
Methods of Applied Mathematics I (Math741)

2016-2017 Advanced Calculus I (Math2X03)
Advanced Differential Equations (Math3F03)
Methods of Applied Mathematics II (Math742)

2015-2016 Mathematical Physics I (Math3C03)
Advanced Differential Equations (Math3F03)
Complex Analysis II (Math4X03/6X03)

2014-2015 Discrete Dynamical Systems and Chaos (Math3DC3)
Numerical Explorations (Math3Q03)
Mathematical Physics I (Math3C03)

2012-2013 Methods of Applied Mathematics II (graduate, Math742)
Numerical Explorations (Math3Q03)
Vector Calculus (Math2A03)

2011-2012 Methods of Applied Mathematics II (graduate, Math742)
Numerical Explorations (Math3Q03)

2010-2011 Topics in Mathematical Physics (graduate, Math748)
Discrete Dynamical Systems and Chaos (Math3DC3)

2009-2010 Advanced Differential Equations (graduate, Math743)
Partial Differential Equations (Math3FF3)

2008-2009 Linear Algebra II (Math2R03)
Numerical Linear Algebra (Math2T03)

2007-2008 Methods of Applied Mathematics I (ODEs) (graduate, Math741),
Engineering Mathematics II (Math2M03)
Numerical Methods for Differential Equations (Math4Q03)

Monographs, Textbooks, Coursewares

2025 Monograph "**Stability of nonlinear waves in Hamiltonian systems**" (with A. Geyer), American Mathematical Society, in print.

2015 Courseware "**How to solve problems of Mathematical Physics**", McMaster Textbook for course Math3C03, with lecture notes and exercises, 80pp.

2014 Courseware "**Numerical Methods with MATLAB**", McMaster Textbook for course Math3Q03, with lecture notes and exercises, 200pp.

2011 Monograph "**Localization in Periodic Potentials: from Schrödinger operators to the Gross–Pitaevskii equation**", Cambridge University Press, 398pp.

2008 Textbook "**Numerical Mathematics**" (with M. Grasselli), Jones and Bartlett Publishers, 668pp.

Postdoctoral and research fellows

2024-2025 Dr. Stefen Le Coz, Research Fellow, Traveling waves on periodic metric graph, returned to University of Toulouse, France

2023-2024 Dr. Lynnyngs Kelly Arruda Saraiva de Paiva, Research Fellow, Traveling waves in the modified KdV equation, returned to Universidade Federal de São Carlos, Brazil

2020-2023 Adilbek Kairzhan, Partial Differential Equations on metric graphs, co-supervised at University of Toronto, Canada

2018-2019 Dr. Tao Xu, Research Fellow, Darboux transformations and solitons, returned to University of Petroleum-Beijing, Beijing, China

2018-2019 Dr. Fabio Natali, Research Fellow, Stability of peaked waves, returned to State University of Maringa, Brazil

2018-2019 Dr. Hyungjin Huh, Research Fellow, Chern–Simon–Schrödinger and Dirac equations, returned to University of Seoul, Seoul, South Korea.

2016-2018 Dr. Jinbing Chen, Research Fellow, Rogue periodic waves for the modified KdV and focusing NLS equations, returned to Southeast University, Nanjing, China.

2016-2017 Dr. Hichem Hajaiej, Research Fellow, Analysis of logarithmic nonlinear Schrödinger equation, returned to University of Tunis, Tunis.

2014-2016 Dr. Jaime Foster, Postdoctoral Fellow, Interfaces in slow diffusion equations, moved to Lecturer, University of Portsmouth (England)

2014-2015 Dr. Gaukhar Shaikhova, Research Fellow, Bifurcations and stability of nonlinear waves on quantum graphs, returned to Astana University, Astana, Kazahstan

2012-2014 Dr. Andres Contrera, Postdoctoral Fellow, Orbital stability of solitary waves, moved to Assistant Professor, New Mexico State University (USA)

2010-2012 Dr. Wei Alan Zhao, Postdoctoral Fellow, Wavelet methods in pharmaceutical research, moved to Senior Manager at Manulife Financial

2009-2010 Dr. Juan Belmonte-Beitia, Research Fellow, Gross-Pitaevskii equation with sign-varying nonlinearity, returned to University of Castilla-La Mancha, Spain

2007-2009 Dr. Clement Gallo, Postdoctoral Fellow, Nonlinear waves in Bose–Einstein condensates, moved to Assistant Professor, University of Montpellier, France

2005-2007 Dr. Ranis Ibragimov, Postdoctoral Fellow, Navier–Stokes equations and shallow water solitons, moved to Assistant Professor at New Mexico Institute of Mining and Technology, New Mexico, USA

2002-2004 Dr. Vitaly Vougalter, Postdoctoral Fellow, Spectral theory of linearized NLS problems, moved to Postdoctoral Fellow, University of Toronto

2001-2002 Dr. Henrik Kalisch, Postdoctoral Fellow, Modelling of dispersion-managed solitons, moved to Postdoctoral Fellow, Lund University (Sweden)

PhD students

2024-2025 Cheng He, Visiting PhD student, Algebraic solitons in Massive Thirring Model, visiting from Ningbo University (China)

2024-2025 Shikun Cui, Visiting PhD student, Stability of periodic waves in Massive Thirring Model, visiting from Dalian University of Technology (China)

2024-2025 Zhi-Qiang Li, Visiting PhD student, Multiple poles in IST for Massive Thirring Model, visiting from University of Mining and Technology, Xuzhou (China)

2023-2027 James Hornick, PhD thesis, Nonlinear waves in fluid dynamics, in progress

2019-2023 Szymon Sobieszek, Ph.D. Thesis, Ground states in radial Gross–Pitaevskii equation, moved to industry in Toronto.

2018-2021 Niky Christov, Ph.D. Thesis, Justification of long-wave approximation in two-dimensional lattices, moved to data analysis firm in Toronto

2017-2021 Uyen Le, Ph.D. Thesis, Nonlinear periodic waves in dispersive equations, moved to data analyst, industry in Vietnam

2016-2020 Adilbek Kairzhan, Ph.D. Thesis, Partial Differential Equations on metric graphs, moved to Postdoctoral Fellow, University of Toronto, Canada

2016-2017 Aaron Saalmann, Exchange PhD student, Inverse scattering for MTM and DNLS equations, returned to University of Cologne, Germany.

2014-2018 Alexander Chernyavsky, Ph.D. Thesis, Stability of nonlinear waves in PT-symmetric Hamiltonian lattices, moved to Postdoctoral Fellow, University of Cape Town, South Africa.

2013-2014 Kivilcim Alkan, Exchange Ph.D. student, Dynamics of nonlinear waves in logarithmic KdV equation, moved to Ph.D. program of University of Ankara, Turkey

2012-2016 Yusuke Shimabukuro, Ph.D. student, Analysis of nonlinear Dirac and derivative NLS equations, moved to Postdoctoral Fellow, Institute of Mathematics, Taipei, Taiwan.

2009-2013 Anton Sakovich, Ph.D. Student, Discrete solitons and breathers in anti-continuum limit, moved to Research Associate position in Ottawa.

2004-2009 Dmitry Agueev, Ph.D. Student, Rigorous derivation and analysis of coupled-mode equations, moved to a computer firm (Toronto).

2003-2007 Marina Chugunova, Ph.D. Student, Analysis and computations of eigenvalues in spectral stability problems, moved to Postdoctoral Fellow at University of Toronto.

MSc students

2023-2025 Jiaqi Han, MSc thesis, Soliton solutions of the massive Thirring model, in progress

2021-2023 Ana Mucalica, M.Sc. Thesis, Darboux transformation on dispersive shock wave background, moved to PhD Mathematics, University of British Columbia (Canada)

2021-2023 Al-Tarazi Assaubay, M. Sc. Thesis, Completeness of eigenfunctions for integrable equations, moved to Lecturer, Nazarbaev University (Kazahstan)

2019-2021 Nabil Asmer, M.Sc. Thesis, Bargmann transform and applications to partial differential equations, moved to PhD Mathematics, University of Edmonton (Canada)

2019-2021 Aigerim Madiyeva, M.Sc. Thesis, Peaked periodic waves in Camassa–Holm and Degasperis–Procesi equations, moved to Lecturer, Nazarbaev University (Kazahstan)

2018-2020 Robert White, M.Sc. Thesis, Rogue waves in the sine–Gordon equation, accepted to PhD program at University of Toronto (declined), moved to industrial job (Fredericton, Canada)

2015-2017 Jin Li, M.Sc. Thesis, Stability in integrable systems with commuting linear operators, moved to MSc Statistics, McGill University (Canada).

2013-2015 Amjad Khan, M.Sc. Thesis, Approximations of nonlinear waves on lattices, moved to Ph.D. program at University of Western Ontario (Canada).

2011-2012 Mostafa Abdi, M.Sc. Project, Vortices in rotating harmonic potentials, moved to M. Business program at McMaster University (Canada).

2010-2012 Matthew Betti, M.Sc. Student, Traveling waves in granular crystals, moved to Ph.D. program at University of Western Ontario (Canada).

2010-2012 Dmitry Ponomarev, M.Sc. Student, Justification of the NLS equation for self-written polymers, moved to Ph.D. program at University of Nice (France).

2007-2009 Ahmed Hassan Abdelrazec, M.Sc. Student, Convergence of the Adomian iterative method, moved to Ph.D. program at York University.

2007-2009 Anton Sakovich, M.Sc. Student, Well-posedness of the wave equation in characteristic coordinates, moved to Ph.D. program at McMaster University.

2002-2004 Dmitry Agueev, M.Sc. Student, Modeling of three-dimensional photonic crystals, moved to Ph.D. program at McMaster University.

2001-2003 Clayton Webster, M.Sc. Student, Numerical modelling of waveguide interface, moved to Ph.D. program at Florida State University, USA

Undergraduate students

2024-2025 Shuoyang Wang, Stewart Summer Research, spectral stability of periodic waves

2023-2024 Spencer Locke, BSc Mathematics Thesis, Babenko equations for waves in fluids

2022-2023 Jeanne Lin, Stewart Summer Research, Multi-shocks in modular Burgers equation

2021-2022 Erin Redfearn, BSc Physics Project, Multi-shocks in modular Burgers equation

2019-2020 Kevin Xiao, NSERC USRA, Energy minimization on metric graphs

2019-2020 Swaleh Hussain, NSERC USRA, Discrete Chern-Simon-Schrodinger systems

2018-2019 Leeor Greenblat, BSc ISCI project, Integrable semi-discretization of MTM system

2016-2017 Michael Chong, BSc ISCI project, Properties of chaotic systems.

2016-2017 Sylvie Bronsard, NSERC USRA, Integrable semi-discretizations of the Kaup-Newell spectral problem.

2015-2016 Peter Gysberg, BSc Physics Project, Self-similar solutions for reversing interfaces in slow diffusion equations

2012-2013 Chengzhu Xu, BSc Mathematics Project, Blow-up of velocity of a fluid flow near a contact line

2011-2012 James Dowdall, NSERC USRA, Symmetry-breaking bifurcations in PT-symmetric systems

2010-2011 Matthew Coles, BSc Physics Project, Bifurcations of Bloch waves in cavities

2010-2011 Daniel Badali (UTM), Alex Kulik (Kharkov), and Steven Pollack (McGill), MITACS–Fields Summer Undergraduate program, Bifurcation analysis of steady states in rimming flows with surface tension

2009-2010 James Brown, BSc Physics Project, Numerical approximations of localized modes in periodic potentials

2009-2010 Matthew Coles, NSERC USRA, Excited states in Bose–Einstein condensates

2008-2009 Peter Foltin, NSERC USRA, Propagation failure in nonlinear lattices

2007-2008 Mike Lukas, NSERC USRA, Symbolic comutations of discrete 3D vortices

2005-2006 Marcella Fioroni, USF of HRSD, Iterative methods for bound states

2002-2003 Yourik Hacoupian, CFI/OIT grant, Software development in photonic optics

Editorial Work

2021-2026 Deputy Editor of the journal "Physica D" published by the Elsevier.

2021-2026 Member of the editorial board of the journal "Physical Review E" published by American Physical Society.

2020-2025 Editor-in-Chief of the journal "Studies in Applied Mathematics" published by the John Wiley & Sons.

2019-2020 Guest Editor of the special issue devoted to Walter Craig, Journal of Dynamics and Differential Equations (with D. Bambusi, S. Kuksin, and Y. Yi)

2018-2020 Editor of the journal "Physica D" published by the Elsevier.

2018-2019 Editor of the book "*Symmetries of Nonlinear PDEs on Metric Graphs and Branched Networks*", published by Symmetry (with D. Noja)

2017-2019 Editor of the special issue devoted to Roger H.G. Grimshaw, Studies in Applied Mathematics (with K. Khusnutdinova)

2014-2019 Associated Editor of the journal "Studies in Applied Mathematics" published by the John Wiley & Sons.

2013-2014 Editor of the book "*Spectral Analysis, Stability and Bifurcations in Nonlinear Physical Systems*" published by Wiley-ISTE (with O. Kirillov)

2011-2019 Member of the Editorial Board of the journal "Discontinuity, Nonlinearity, and Complexity" published by L. & H Scientific Publishing Company

2011-2017 Member of the Editorial Board of the journal "Physical Review A" published by the American Institute of Physics

2010-2012 Guest Editor of the special issue of the journal "Discrete and Continuous Dynamical Systems - Series S" (with M. Stanislavova, and A. Stefanov) on "Discrete and continuous nonlinear waves in physics"

2009-2013 Associate Editor of the journal "Communications in Nonlinear Science and Numerical Simulations" published by Elsevier

2009-2010 Guest Editor of the special issue of the journal "Applicable Analysis" (with A. Pankov) on "Mathematics of nonlinear lattices"

2008-2013 Member of the Editorial Board of the journal "Advances in Mathematical Physics" published by Hindawi Publishing Corporation

2008-2012 Member of the Advisory Board for the book series entitled "Lecture Notes on Nonlinear Physical Science" published by Higher Education of China and Springer

2007-2010 Member of the Editorial Board for the journal "Transactions of Nonlinear Science and Complexity" published by World Scientific

2004-2005 Guest Editor of the special issue of the journal "Chaos" (with R. Grimshaw, L. Ostrovsky) on "Solitary waves in non-integrable systems"

Conference Organization (last ten years)

2025 Organizer of a special session on Nonlinear PDEs in the ISAAC Congress (with A. Kairzhan) at Nazarbaev University (Astana, Kazakhstan)

2025 Organizer of the workshop CIEM2025 at the International Centre for Mathematical Meetings (with A. Duran, A. Geyer, and N. Reguera Lopez) at Castro Urdiales, Cantabria, Spain

2022 Organizer of a Research-in-Teams program (with A. Geyer, Y. Liu, G. Gui) at Erwin Schrödinger Institute (Vienna, Austria)

2019 Organizer of a minisymposium "Spectral theory and PDEs on metric graphs" (with G. Berkolaiko) at the International Conference Equadiff 2019 (Leiden, Netherlands)

2019 Organizer of a minisymposium "Existence and stability of peaked waves in nonlinear evolution equations" (with A. Geyer) at the 11th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena (Athens, GA, USA)

2018 Organizer of a workshop "Nonlinear Partial Differential Equations on Metric Graphs and Branched Networks" (with M. Chirilus, D. Matrasulov, D. Noja, and H. Susanto) (Lorentz Center, Leiden, Netherlands)

2018 Organizer of special session "Stability of Nonlinear Waves" (with Y. Shimabukuro) at AIMS Conference on Differential Equations and Dynamical Systems (Taipei, Taiwan).

2017 Theme leader of "Applied Analysis and Dynamical Systems" (with P.L. Buono and M. Ward) at the CAIMS 2017 Meeting (Halifax, Canada)

2017 Organizer of a workshop "Nonlinear Partial Differential Equations on Graphs" (with R. Fukuizumi, J. Marzuola, G. Schneider) (Oberwolfach, Germany)

2016 Organizer of a mini-workshop on "Photonics and Resonances" at LMS Durham Research Symposium "Mathematical and Computational Aspects of Maxwell's Equations" (Durham, England)

2016 Organizer of minisymposium "Lattice dynamics: wave propagation and continuum approximation" (with J.D. Wright) at SIAM conference on Nonlinear Waves and Coherent Structures (Philadelphia, USA).

2016 Member of the Scientific Committee at the CMS Summer conference (Edmonton, Canada).

2015 Organizer of the minisymposium on "Nonlinear waves in dispersive equations" (with N. Visciglia) at the conference Equadiff-2015 (Lyon, France).

2015 Member of Scientific Committee on "Theoretical and Computational Photonics" at the Conference on Lasers and Electro-Optics Europe (CLEO/Europe) and European Quantum Electronics Conference (EQEC) (Munich, Germany).

2015 Theme leader of "Applied Analysis and Dynamical Systems" (with X. Zou and D. Iron) at the AMMCS-CAIMS 2015 Meeting (Kitchener Canada)

2014 Organizer of the special session on "Integrable systems: recent progress" (with S. Anco) at the CMS Winter Meeting (Hamilton, Canada)

2014 Organizer of the minisymposium on "Integrable systems: analysis, geometry, and applications" (with S. Anco) at the SIAM Conference on Nonlinear Waves and Coherent Structures (Cambridge, UK)

2014 Organizer of the minisymposium on "Nonlinear waves in lattices with microstructure" (with G. James) at the 10th AIMS conference on Dynamical Systems, Differential Equations and Applications (Madrid, Spain)

2013 Organizer of the workshop on "Lattice Differential Equations" (with G. James, Z. Rapti, and G. Schneider), (Oberwolfach, Germany)

2013 Organizer of the minisymposium "Nonlinear waves in PT-symmetric potentials" in the Third International Conference on Nonlinear Waves (Beijing, China)

2013 Member of the Scientific Committee on the Eighth IMACS conference on Nonlinear Evolution Equations (Athens, Georgia).

2012 Organizer of the workshop on "Spectral analysis, stability, and bifurcation in modern nonlinear physical systems" (with O. Kirillov, P. Binding, T. Bridges, Y. Fukumoto, I. Hoveijn), (Banff International Research Station, Canada)

2012 Member of the Scientific Committee of The 3rd NY Applied Mathematics Conference, RPI, Troy, NY (USA)

2012 Organizer of the minisymposium "Nonlinear waves in nonlocal media" (with V. Rothos) in SIAM conference on Nonlinear Waves and Coherent Structures (Seattle, USA)

2011 Organizer of the workshop on "Wave breaking and global solutions in the short-pulse dispersive equations" (Fields Institute, Canada).

2011 Organizer of the minisymposium "Nonlinear waves in lattices" (with H.J. Hupkes) in EquaDiff 2011 (Loughborough, England)

2011 Member of the Scientific Committee of The 2nd NY Applied Mathematics Conference, Buffalo, NY (USA)

2011 Organizer of the minisymposium "Long-time dynamics of solitary waves" (with T. Mizumachi) in the Seventh IMACS conference on Nonlinear Evolution Equations (Athens, Georgia)

2011 Member of the Scientific Committee on the Seventh IMACS conference on Nonlinear Evolution Equations (Athens, Georgia).

2010 Organizer of the minisymposium "Continuous and discrete dynamical systems in physics" (with A. Stefanov) in the 8th AIMS conference on Dynamical Systems, Differential Equations and Applications, (Dresden, Germany)

2010 Organizer of the special session "Stability in nonlinear partial differential equations" (with S. Gustafson) in the CMS Summer Meeting (St.John's, NB)

2009 Member of the Scientific Committee on the Sixth IMACS conference on Nonlinear Evolution Equations (Athens, Georgia).

2008 Organizer of the minisymposium "Justification of asymptotic reductions in space-periodic media" (with G. Schneider) in SIAM conference on Nonlinear Waves and Coherent Structures (Rome, Italy).

2008 Organizer of the minisymposium "Mathematical modeling of nonlinear structures in Bose–Einstein condensates" (with V. Konotop) in the Second Conference on "Nonlinear Science and Complexity" (Porto, Portugal).

2008 Member of the Scientific Committee of the Second Conference on "Nonlinear Science and Complexity" (Porto, Portugal).

2007 Organizer of the workshop on "Recent Advances in Functional and Delay Differential Equations" (with H. Brunner and A.R. Humphries) (Halifax, Nova Scotia).

2007 Organizer of the minisymposium "Nonlinear waves in lattices and periodic potentials" (with A. Champneys) in SIAM conference on Applications of Dynamical Systems (Snowbird, Utah).

2007 Member of the Scientific Committee on the Fifth IMACS conference on Nonlinear Evolution Equations (Athens, Georgia).

Committees (last ten years)

2024–2025 Member of IQAP Team for the Undergraduate Program Review, Department of Mathematics, McMaster University

2023–2025 Member of the Tenure & Promotion Committee, Department of Mathematics, McMaster University

2023–2024 Member of the PhD Examination Committee for Adam Morgan, Department of Mathematics, University of Toronto, Canada

2023–2024 Member of the Colloquium Committee, Department of Mathematics, McMaster University

2022–2023 Member of the PhD Examination Committee for Christopher Kennedy, Department of Mathematics, University of Toronto, Canada

2022–2023 Associate Chair (Undergraduate Studies) and Chair of the Undergraduate Curriculum Committee, Department of Mathematics, McMaster University

2022–2023 Member of the AP&PC Committee, Faculty of Science, McMaster University

2021–2022 Member of the PhD Examination Committee for Tin Van Phan, Department of Mathematics, University of Toulouse, France

2021–2022 Member of the Appointment Committee, Department of Mathematics, McMaster University

2020–2021 Member of the Reviewing Team for the Job Applications, Department of Mathematics, University of Vienna (Austria)

2020–2021 Member of the PhD Examination Committee for A. Grecu, Department of Mathematics, University of Buharest, Romania

2020–2021 Member of the Reviewing Team for the Graduate Program at University of Ottawa and Carleton Univeristy

2019–2023 Chair and member of the Honours/Awards Committee, Department of Mathematics, McMaster University

2019–2021 Member of the Graduate Admission Committee, Department of Mathematics, McMaster University

2018–2019 Member of the Colloquium Committee, Department of Mathematics, McMaster University

2018–2020 Member of the PhD Examination Committee for J. Upsal, University of Washington, USA

2017–2018 Member of the Undergraduate and Graduate Committees, Department of Mathematics, McMaster University

2017–2018 Member of the PhD Examination Committee for J. Bramburger, University of Ottawa, Canada

2016–2019 Member of the Reviewing Team, NSERC Review Panel (Applied Mathematics), NSERC, Ottawa

2016–2018 Member of the Award Committee, McMaster University

2016–2017 Member of the PhD Examination Committee for D. Moldabayev, University of Bergen, Norway

2016–2017 Member of Graduate Council, McMaster University

2016–2017 Member of the Quality Assurance Committee, McMaster University

2015–2016 Member of the Reviewing Team, Department of Electrical Engineering, McMaster University

2015–2016 Member of Faculty Appointments Advisory Committee, Faculty of Science, McMaster University

2015–2016 Member of the Computer Committee, Department of Mathematics, McMaster University

2014–2015 Member of the Graduate Curriculum Committee, Department of Mathematics, McMaster University

2012–2013 Member of the Reviewing Team, NSF Review Panel on Applied PDEs, Washington, DC

2012–2013 Member of the Undergraduate Curriculum Committee and Colloquium Chair, Department of Mathematics, McMaster University

2008–2009 Member of the Reviewing Team, Department of Mathematics, University of Manitoba, Canada

2008–2010 Member of the Reviewing Team, NSF Review Panel on Applied PDEs, Washington, DC

2008–2012 Associate Chair (Undergraduate Studies), Chair of the Undergraduate Curriculum Committee, Department of Mathematics, McMaster University

2008–2012 Member of the Undergraduate Curriculum Committee, Faculty of Science, McMaster University

Invited Addresses at Conferences and Workshops

Dec 2024 Workshop "Numerical and analytical approaches to nonlinear dispersive PDEs", Dijon, France

Nov 2024 6th Workshop on Nonlinear Dispersive equations in memoriah of Rafael Iorio, Sao Paulo, Brazil

Aug 2024 Workshop "Dynamical systems approaches towards nonlinear PDEs", Stuttgart, Germany

Aug 2024 Workshop "Mathematical theory of water waves", Lund University, Sweden

Jul 2024 INI Programme "Emerging phenomena in nonlinear dispersive waves" and workshop "Frontiers in Dispersive Hydrodynamics", New Castle, England

Jun 2024 Plenary talk at the SIAM conference on Nonlinear waves and Coherent Structures, Baltimore, MD, USA

May 2024 Special session "30 years of Camassa-Holm equation" at CMS Summer Conference, Saskatoon, SK, Canada

Feb 2024 Workshop "Nonlinear Analysis, Spectral Theory, and PDEs", Karlsruhe, Germany

Dec 2023 XIX Workshop "Instabilities and non-equilibrium structures", Valparaiso, Chile

Nov 2023 Atlantic Conference on Nonlinear PDEs, Lisbon, Portugal

Sep 2023 AMS Eastern Fall Sectional Meeting, SUNY Buffalo, NY, USA

Aug 2023 The fourth conference on dynamics of differential equation in honor of Jack Hale, Fields Institute, Toronto

Jul 2023 Conference "Mathematics Days in Sofia", Sofia, Bulgaria

Jun 2023 Workshop "Solitons, Collapse, and Turbulence: in honor of 75th birthday of E. A. Kuznetsov", Weizmann Institute of Theoretical Physics, Israel

May 2023 SIAM Conference on Applied Dynamical Systems at Portland, Oregon, USA

Feb 2023 Workshop "Models and methods in wave propagation", Universite des Antilles, Guadeloupe

Dec 2022 International workshop on Rogue Waves, University of Vermont, VT, USA

Oct 2022 BIRS Workshop "New trends in Mathematics of Dispersive, Integrable and Nonintegrable Models in Fluids, Waves and Quantum Physics", Banff, Canada

Oct 2022 AMS Fall Eastern Meeting, University of Massachusetts at Amherst, MA, USA, minisymposium on "Nonlinear waves"

Aug 2022 INI program on Dispersive hydrodynamics: mathematics, simulations, and experiments, with applications in nonlinear waves, Cambridge, UK

Aug 2022 International Workshop on Integrable Systems (online), Xidian Uinveristy, China and the University of Texas Rio Grande Valley, USA

Jul 2022 Workshop "Coherent structures: current development and future challenges", Lorentz Center, Leiden, Netherlands

Jun 2022 Workshop "Nonlinear waves in discrete and continuous systems" (online), University of Pittsburg, PE, USA

Jun 2022 Workshop on Nonlinear Waves in honor of D. Franzeskakis (online), Athens, Greece

Feb 2022 Conference on Mathematics of Wave Phenomenon (online), Karlsruhe, Germany (plenary talk)

Dec 2021 Workshop "Hamiltonian dynamics and asymptotic methods" (online), ICERM, Brown University, USA

Nov 2021 Special session "Nonlinear waves" at AMS Fall Eastern Sectional Meeting (online), USA

Oct 2021 Special session "Waves, Singularities, and Turbulence" at AMS Fall Western Sectional Meeting (online), USA

Jul 2021 Minisymposium on "Rogue waves and breathers" at SIAM Annual Meeting (online), USA

Jun 2021 Workshop "New horizons in dispersive hydrodynamics" (online), Isaac Newton Institute, Cambridge, UK

May 2021 Minisymposium on "Stability of breathers" at SIAM Conference on Applications of Dynamical Systems (online), USA
Dec 2020 Workshop QGRAPH-2020 (online), Stockholm, Sweden
Nov 2020 International Webinar "Nonlinear waves and coherent structures" (online), USA
July 2020 Workshop on Waves and Fluids (online), Nanjing, China
Aug 2019 International Conference devoted to Vladimir Zakharov, Jaroslav, Russia
July 2019 Session "Stability of nonlinear waves" International Conference EQUADIFF-19, Leiden, Netherlands
July 2019 Workshop on Nonlinear Dispersive Wave Equations, BIRS-Banff, Banff, Canada
June 2019 Workshop on KAM, Hamiltonian Systems, Normal Forms, and Reducibility, BIRS-Oaxaca, Oaxaca, Mexico
May 2019 Workshop on Modeling of Nonlinear Dispersive Wave Equations, CIEM, Castro Urdiales, Spain
Apr 2019 KUMUNU Conference on PDEs, Dynamical Systems, and Applications, University of Missouri–Columbia (Columbia, MO, USA)
Apr 2019 Session on "Stability of nonlinear waves" at IMACS Conference on Nonlinear Evolution Equations (Athens, GA, USA)
Sep 2018 Special session "Recent advances in NLS equations" at Fall Eastern Sectional Meeting of the AMS (Newark, DE, USA)
July 2018 Minisymposium "Stability of solitary waves" at Conference on Mathematics of Wave Phenomena (Karlsruhe, Germany)
July 2018 Minisymposium "Water waves and other dispersive phenomena" at 12th AIMS Conference on Dynamical Systems, Differential Equations, and Applications (Taipei, Taiwan)
Dec 2017 Minisymposium "Coupled nonlinear PDEs, solitons, and nonlinear dynamics" at SIAM Conference on analysis of PDEs (Baltimore, MD, USA)
Oct 2016 Workshop "Waves, Spectral Theory, and Applications", University of North Carolina at Chapel Hill, NC, USA
Sep 2017 Special session "Nonlinear wave equations, inverse scattering, and applications" at Fall Eastern Sectional Meeting of the AMS (SUNY Buffalo, NY, USA)
Aug 2017 Research programme "Nonlinear water waves" at Isaac Newton Institute (Cambridge, UK)
Aug 2017 Workshop "Inverse scattering and dispersive PDEs in one spatial dimension" at Fields Institute (Toronto, ON)
July 2017 Special session "Nonlinear PDEs and applications" at 2017 CAIMS Conference (Halifax, NS)
June 2017 Workshop "Nonlinear PDEs on graphs" at Oberwolfach, Germany
Mar 2017 Special sessions "Nonlocal wave models with full dispersion" and "Stability of nonlinear waves" at 10th International Conference on Nonlinear Evolution Equations (Athens, GA, USA)
Feb 2017 Workshop "Linear and nonlinear Dirac equations: advances and open problems" at Como, Italy
Dec 2016 Special session "Recent advances in dynamical systems and bifurcation theory" at CMS Winter Meeting (Niagara Falls, ON)

Nov 2016 Workshop "Mathematical and Physical Models of Nonlinear Optics" IMA, Minneapolis, MN, USA

Aug 2016 Workshop "Analysis and Applications of Localized Structures in Nonlinear Media", Lorentz Center, Leiden, Netherlands

Aug 2016 Minisymposium "Solitons, singularities and wavebreaking in hydrodynamics, nonlinear optics and plasmas" SIAM Conference on Nonlinear Waves and Coherent Structures, Philadelphia, USA

Jul 2016 LMS Durham Research Symposium "Mathematical and Computational Aspects of Maxwell's Equations", Durham, England

Jun 2016 Workshop "Coherent Structures in PDEs and Their Applications", BIRS, Oaxaca, Mexico

Jun 2016 Trimester "Nonlinear Waves in Dispersive PDEs", IHES, Paris, France

May 2016 Workshop "Wave dynamics in branched systems and networks", Tashkent, Uzbekistan

Apr 2016 Workshop "Wave Interactions WIN-2016", Linz, Austria

Apr 2016 Workshop "Nonlinear Dynamics of Many Body Systems", Buffalo, USA

Jul 2015 Session "Lattice dynamical systems", International Conference Equadiff-2015, Lyon, France

Jun 2015 Session "Nonlinear Dispersive PDEs" at AMMCS-CAIMS 2015 Summer Meeting, Waterloo, Canada

May 2015 Minisymposium "Wave propagation in highly nonlinear dispersive media" SIAM Conference on Applications of Dynamical Systems, Snowbird, USA

Dec 2014 Session "Nonlinear PDEs of Mathematical Physics", CMS Winter Meeting, Hamilton, Canada

Aug 2014 Minisymposia "Stability of Nonlinear Waves" and "Nonlinear waves in PT-symmetric systems", SIAM Conference on Nonlinear Waves and Coherent Structures, Cambridge, UK.

July 2014 Sessions "Nonlinear waves in materials with microstructure" and "Nonlinear Schrödinger equations", 10th AIMS Conference on Dynamical Systems, Differential Equations, and Applications, Madrid, Spain.

May 2014 Summer school and Workshop on "Stability of Nonlinear Waves", Pisa, Italy.

Mar 2014 Workshop on "Mathematical Methods and Models in Laser Filamentation", CRM, Montreal, Canada

Sep 2013 Workshop on "Modified Dispersive Evolution Equations", Wolfang Pauli Institute, Vienna, Austria

Sep 2013 Workshop on "Lattice Differential Equations", Oberwolfach, Germany

July 2013 Invited speaker at the International Conference on Dynamics, Bifurcations, and Strange Attractors, Nizhny Novgorod State University, Nizhny Novgorod, Russia

June 2013 Session "Nonlinear waves in PT-symmetric potentials" at the 3rd International Conference on Nonlinear Waves, Tsinshua University, Beijing, China

Mar 2013 Session "Stability of nonlinear waves" at the 8th Conference on Nonlinear Evolution Equations and Wave Phenomena, University of Athens, GA, USA

Mar 2013 Invited Speaker at the International Conference on Dynamics of Differential Equations, GeorgiaTech, Atlanta, USA

Dec 2012 Workshop on "Lattices and Nonlocal Dynamical Systems and Applications", IMA, Minneapolis, USA

Nov 2012 Workshop on "Spectral analysis, stability, and bifurcation in modern nonlinear physical systems", BIRS, Banff, Canada

Sept 2012 Session "*Nonlinear PDEs in Physical and Biological Systems*" in the 1082nd AMS (Sectional) Meeting, Rochester, USA

Sept 2012 Workshop *Nonlinear waves in fluids*, Loughborough (UK)

Aug 2012 Conference *Spectral Theory and Differential Equations*, Khrakov (Ukraine)

July 2012 Workshop *Localized excitations in nonlinear complex systems*, Seville (Spain)

June 2012 Sessions "*Non-self-adjoint spectral problems*" and "*Granular crystals*" in the SIAM conference on Nonlinear Waves and Coherent Structures, Seattle, WA (USA)

Mar 2012 Workshop *Vortices and solitons in classical and quantum fluids*, CIRM, Luminy, Marseille (France)

Jan 2012 Sessions "*Stability Analysis for Infinite Dimensional Hamiltonian Systems*" and "*Nonlinear Hyperbolic PDEs*" in Joint Mathematics Meeting, Boston, MA (USA)

Dec 2011 Session "*Nonlinear PDEs and applications*" in the CMS Winter Meeting, Toronto, ON (Canada)

Nov 2011 Sessions "*Nonlinear wave phenomena*" and "*Self-organization phenomena and geometric structures of concentration in PDEs*" in SIAM conference on Analysis of Partial Differential Equations, San Diego, CA (USA)

Aug 2011 Session "*Exponentially small phenomena*" in EQUADIFF-2011, Loughborough (England)

May 2011 Sessions "*Discrete and continuous waves*" and "*Weakly and strongly nonlinear dynamics in lattice differential equations*" in SIAM conference on Applications of Dynamical Systems, Snowbird, UT (USA)

Apr 2011 The 2nd NY Applied Mathematics Conference, Buffalo, NY (USA)

Apr 2011 Session "*Discrete and continuous integrable systems*" in the 7th IMACS Conference "Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory", Athens, GA (USA)

Nov 2010 Session "*Nonlinear evolution equations*" in the AMS Central Sectional Meeting, South Bend, IN (USA)

Aug 2010 Sessions "*Waves in inhomogeneous media*" and "*Highly nonlinear phenomena*" in the SIAM conference on Nonlinear Waves and Coherent Structures, Philadelphia (USA)

July 2010 Workshop *Solitary waves and related topics*, Kyushu University, Fukuoka (Japan)

July 2010 Workshop *Harmonic analysis and partial differential equations*, Kyoto University (Japan)

June 2010 Session "*Stability in nonlinear partial differential equations*" in the CMS Summer Meeting, Fredericton, NB (Canada)

May 2010 Sessions "*Nonlinear evolution equations and applications*" and "*Nonlinear Schrodinger equation*" in the Eighth AIMS Conference on Dynamical Systems, Differential Equations and Applications, Dresden (Germany)

Nov 2009 Workshop "*Lattice dynamical systems*", Brown University, Providence, RI (USA)

Aug 2009 Workshop "*Analysis of nonlinear wave equations and applications in engineering*" Banff, AB (Canada)

July 2009 Workshop "*Localized excitations in nonlinear complex systems*" Seville (Spain)
June 2009 Sessions "*Mathematical Physics*" and "*Reaction-diffusion equations and their applications*" in the CMS Summer Meeting, St. John's, NF (Canada)
Apr 2009 Session "*Effective dynamics and interactions of localized structures in Schrodinger-type equations*" in the 1050th AMS Meeting, Worcester, MA (USA)
Mar 2009 Sessions "*Nonlinear Schrodinger equations and its applications*" and "*Spectral theory for linearizations of discrete and continuous nonlinear waves*" in the 6th IMACS Conference "Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory", Athens, GA (USA)
Feb 2009 Workshop "*Pulses and modulations in nonlinear systems*" Stuttgart (Germany)
Sept 2008 Workshop "*Gross–Pitaevskii equation with a periodic potential*", Wolfgang Pauli Institute, Vienna (Austria)
Aug 2008 Workshop "*Waves in Fluids II*", Paraty, RJ (Brazil)
July 2008 Session "*Mathematical modeling of nonlinear structures in Bose–Einstein condensates*" in the Second Conference on Nonlinear Science and Complexity, Porto (Portugal)
July 2008 Sessions "*Stability and instability of coherent structures in dispersive wave equations*" and "*Justification of asymptotic reductions in space-periodic media*" in the SIAM conference on Nonlinear Waves and Coherent Structures, University of Rome, Rome (Italy)
June 2008 Session "*Variational and Numerical Methods in Geometry, Physics and Chemistry*" in the Second Canada–France Congress, Montreal (Canada)
May 2008 Sessions "*Nonlinear evolution equations and applications*" and "*Long-time behavior of Hamiltonian and dissipative systems*" in the Seventh AIMS Conference on Dynamical Systems, Differential Equations and Applications, Arlington, Texas (USA)
Nov 2007 Workshop "*Recent Advances in functional and delay differential equations*", Halifax, Canada
Oct 2007 Workshop "*Hamiltonian Lattice Dynamical Systems*", Leiden, Netherlands
July 2007 Session "*Strongly-nonlinear phenomena in optical and/or periodic media*" in International Congress on Industrial and Applied Mathematics, Zurich (Switzerland)
July 2007 Sessions "*Photonic crystals*" and "*Stability of solitary waves*" in Conference "*Dynamics Days Europe*", Loughborough (UK)
June 2007 Conference "*Symmetry in Nonlinear Mathematical Physics*", Kiev (Ukraine)
May 2007 Session "*Continuum Descriptions of Discrete Systems*" in SIAM conference on Applications of Dynamical Systems, Snowbird, UT (USA)
Mar. 2007 Workshop "Nonlinear Physics in Periodic Structures and Metamaterials", Dresden (Germany)
Jan. 2007 Conference "Nonlinear lattice dynamics: from localization to statistical behaviour", Cuernavaca (Mexico)
Jan. 2007 Session "*Initial- and Boundary-value problems, solvability and stability for some nonlinear PDEs: Theorem, Computation, and Application*" in Joint Mathematics Meeting, New Orleans (USA)

Invited Seminars and Colloquia

May 2024 University of Washington, Seattle, USA, B. Deconinck

Nov 2023 SUNY Buffalo, NY, USA, S. Dyachenko
Aug 2023 South East University, Nanjing, China, J. Chen
Jun 2023 University of Stuttgart, Germany, G. Schneider
Jun 2023 University of Halle, Germany, T. Dohnal
Apr 2023 Drexel University, PA, USA, G. Medvedev
Oct 2022 South East University, Nanjing, China, J. Chen
Jun 2022 KIT, Karlsruhe, Germany, M. Plum
Apr 2022 UPC, Barcelona, Spain, M. Guardia
Feb 2022 UBC, Vancouver, Canada, J. Wei
Jan 2022 KIT, Karlsruhe, Germany, M. Plum
Dec 2021 Ningbo University, China, C. Qu
Nov 2021 Loughborough University, UK, K. Khusnutdinova
Jul 2021 Southeast University, China, J. Chen
Jun 2021 University of Halle, Germany, T. Dohnal
Jun 2021 Karlsruhe Institute of Technology, Germany, M. Plum
Mar 2021 Claremont Graduate University, USA, M. Chugunova
Dec 2019 University des Antilles, Guadeloupe, P. Poullet
Nov 2019 University of Texas at Rio Grande, TX, USA, Z. Qiao
May 2019 University of Vallidolid, Spain, A. Duran
Apr 2019 University of Ottawa, Canada, F. Lutscher
July 2018 University of Cologne, Germany, M. Kunze
June 2018 NorthWest University, Xi'an, China, G. Gui
May 2018 SouthEast University, Nanjing, China, J. Chen
Apr 2018 McQuarie University, Sydney, Australia, C. Lustri
Mar 2018 University of Southern Queensland, Toowomba, Australia, Yu. Stepanyants
Mar 2018 University of Sydney, Sydney, Australia, N. Joshi
Oct 2017 Texas A & M University, College Station, TX USA, G. Berkolaiko
June 2017 University of Milan, Milan, Italy, T. Penati
June 2017 Jagiellonian University, Krakow, Poland, P. Bizon
May 2017 University des Antilles, Guadeloupe, P. Poullet
Jan 2017 University of Saskatchewan, Saskatoon, SK, A. Shevyakov
Nov 2015 University of Pittsburg, USA, A. Veinstein
Jul 2015 University of Stuttgart, Germany, G. Schneider
Jun 2015 University of Bath, England, K. Matthius
May 2015 University of Reading, England, B. Pelloni
May 2015 University College London, England, T. Johnson
Apr 2015 University of North Carolina at Chapel Hill, USA, J. Marzuola
Mar 2015 Claremont Graduate University, USA, M. Chugunova
Feb 2015 University of Washington, Seattle, USA, B. Deconinck
Jan 2015 Los Alamos National Laboratory, USA, A. Saxena
Jul 2014 University of Granada (Spain), P. Torres
Apr 2014 University of Stelenbosch (South Africa), H. Weigert
Apr 2014 University of Cape Town (South Africa), I. Barashenkov
Apr 2014 University of Besanscon (France), N. Boussand

Mar 2014 University of Geneva (Switzerland), A. Boritchev
Feb 2014 University of Grenoble (France), Th. Gallay
Dec 2013 University of New Mexico (USA), P. Lushnikov
Nov 2013 University of Cergy–Pontoise (France), N. Tsvetkov
Oct 2013 University of Trieste (Italy), S. Cuccagna
Oct 2013 University of Montpellier (France), R. Carles
July 2013 Institute of Applied Physics, Nizhny Novgorod (Russia), A. Slyunyaev
June 2013 Nizhny Novgorod State Technical University (Russia), A. Kurkin
June 2012 University of Nottingham (England), J. Wattis
June 2012 University of Surrey (England), T. Bridges
June 2012 University of Loughborough (England), K. Khusnutdinova
Apr 2012 University of Tennessee at Knoxville (USA), T. Phan
Feb 2012 University of Michigan at Ann Arbor (USA), C. Doering
July 2011 University of Hannover (Germany), M. Earnstream
June 2011 Schrödinger Institute for Mathematical Physics, Vienna (Austria), A. Constantin
July 2010 Kyushu University (Japan), T. Mizumachi
Apr 2010 University of British Columbia (Canada), T.P. Tsai
June 2009 University of Grenoble (France), G. James
June 2009 Institute of Henri Poincare, Paris (France), F. Merle
Mar 2009 Department of Mathematics, McGill University, Montreal, Canada, T. Humphries
Nov 2008 Department of Mathematics, University of Arizona, Tucson, AZ, USA, J. Lega
Oct 2008 Department of Mathematics, McGill University, Montreal, Canada, T. Humphries
Apr 2008 Department of Mathematics, University of Kansas, KA, USA, E. VanVleck
Feb 2008 Department of Mathematics, University of SUNY Buffalo, NY, USA, G. Biondini
Dec 2007 Department of Mathematics, Ecole Polytechnique, Lausanne, Switzerland
Apr 2007 Department of Mathematics, University of Orsay, France, J.C. Saut
Feb 2007 Department of Mathematics, University of Loughborough, UK, K. Khusnutdinova
Feb 2007 Department of Mathematics, University of Leeds, UK, A. Fordi
Feb 2007 Department of Mathematics, University of Surrey, UK, T. Bridges
Feb 2007 Department of Mathematics, University of Warwick, UK, R. MacKay
Jan 2007 Department of Mathematics, University of Besancon, France, M. Maris

List of publications

References

[1] C. Chong, D. E. Pelinovsky, and G. Schneider, On the existence of generalized breathers and transition fronts in time-periodic nonlinear lattices, SIAM J. Appl. Dynam. Systems (2025)

[2] S. Cui and D. E. Pelinovsky, Stability of standing periodic waves in the massive Thirring model, Studies in Applied Mathematics **154** (2025) e12789 (24 pages)

[3] S. Locke and D. E. Pelinovsky, Peaked Stokes waves as solutions of Babenko's equation, Applied Mathematics Letters **161** (2025) 109359 (5 pages)

[4] S. Locke and D. E. Pelinovsky, On smooth and peaked traveling waves in a local model for shallow water waves, J. Fluid Dynamics (2025)

[5] L. Bengel, D. Pelinovsky, and W. Reichel, Pinning in the extended Lugiato-Lefever equation, SIAM J. Math. Anal. **56** (2024) 3679–3702

[6] J. Chen and D.E. Pelinovsky, Bright and dark breathers of the Benjamin-Ono equation on the traveling periodic background, Wave Motion **126** (2024) 103263 (10 pages)

[7] J. Chen and D.E. Pelinovsky, Rogue waves arising on the standing periodic waves in the Ablowitz-Ladik equation, Stud. Appl. Math. **152** (2024) 147–173

[8] T. Dohnal, D.E. Pelinovsky, and G. Schneider, Traveling modulating pulse solutions with small tails for a nonlinear wave equation in periodic media, Nonlinearity **37** (2024) 055005 (36 pages)

[9] A. Geyer, Y. Liu, and D.E. Pelinovsky, On the transverse stability of smooth solitary waves in a two-dimensional Camassa-Holm equation, J. Math. Pures Appl. **188** (2024) 1–25

[10] A. Geyer and D.E. Pelinovsky, Stability of smooth periodic traveling waves in the Degasperis-Procesi equation J. Diff. Eqs. **404** (2024) 354–390

[11] J. Han, C. He, and D. E. Pelinovsky, Algebraic solitons in the massive Thirring model, Physical Review E **110** (2024) 034202 (11 pages)

[12] J. Lin, D. E. Pelinovsky, and B. de Rijk, On the extinction of multiple shocks in scalar viscous conservation laws, SIAM J. Applied Dynamical Systems **23** (2024) 2323–2363

[13] G. S. Medvedev and D. E. Pelinovsky, Turing bifurcation in the Swift-Hohenberg equation on deterministic and random graphs, J. Nonlinear Science **34** (2024) 88 (36 pages)

[14] A. Mucalica and D.E. Pelinovsky, Dark breathers on a snoidal wave background in the defocusing MKDV equation, Lett. Math. Phys. **114** (2024) 100 (28 pages)

[15] D.E. Pelinovsky and M. Plum, Dynamics of black solitons in a regularized nonlinear Schrodinger equation, Proceeding AMS **152** (2024) 1217–1231

[16] D.E. Pelinovsky and M. Plum, Stability of black solitons in optical systems with intensity-dependent dispersion, SIAM J. Math. Anal. **56** (2024) 2521–2568

[17] D.E. Pelinovsky and S. Sobieszek, Ground state of the Gross-Pitaevskii equation with a harmonic potential in the energy critical case, Asymptotic Analysis **139** (2024) 1-29

[18] D.E. Pelinovsky, Traveling waves in fractional models, *Fractional Dispersive Models and Applications: Recent Developments and Future Perspectives*, Editors: P. G. Kevrekidis, J. Cuevas-Maraver, in *Nonlinear Systems and Complexity* **37** (Springer Nature, Switzerland, 2024) 155–186

[19] J. Chen and D.E. Pelinovsky, Periodic waves in the discrete MKDV equation: modulational instability and rogue waves, Physica D **445** (2023) 133652 (16 pages)

[20] M. Hoefer, A. Mucalica, and D. E. Pelinovsky, KdV breathers on cnoidal wave background, J. Physics A: Mathem. Theor. **56** (2023) 185701 (25 pages)

[21] D.E. Pelinovsky and B. de Rijk, Extinction of multiple shocks in the modular Burgers equation, Nonlinear Dynamics **111** (2023) 3679–3687

[22] D.E. Pelinovsky and G. Schneider, KP-II approximation for a scalar FPU system on a 2D square lattice, SIAM J. Appl. Math. **83** (2023) 79–98

[23] D.E. Pelinovsky, J. Wei, and Y. Wu, Positive solutions of the Gross-Pitaevskii equation for energy critical and supercritical nonlinearities, Nonlinearity **36** (2023) 3684–3709

[24] A.V. Slunyaev, D.E. Pelinovsky, and E.N. Pelinovsky, Rogue waves in the sea: observations, physics and mathematics, Phys. Usp. **66** (2023) 148–172 [Version in Russian: Uspekhi in Physical Sciences **193** (2023) 155–181]

[25] A. Kairzhan, D. Noja, and D.E. Pelinovsky, Standing waves on quantum graphs, *J. Phys. A: Math. Theor.* **55** (2022) 243001 (51pp)

[26] A. Contreras, D.E. Pelinovsky, and V. Slastikov, Domain walls in the coupled Gross-Pitaevskii equations with the harmonic potential, *Calc Var* **61** (2022) 164 (28 pages)

[27] A. Geyer, R.H. Martins, F. Natali, and D.E. Pelinovsky, Stability of smooth periodic traveling waves in the Camassa-Holm equation, *Studies in Applied Mathematics* **148** (2022) 27–61

[28] M. Haragus and D.E. Pelinovsky, Linear instability of breathers for the focusing nonlinear Schrodinger equation, *Journal of Nonlinear Science* **32** (2022) 66 (40 pages)

[29] N. Hristov and D.E. Pelinovsky, Justification of the KP-II approximation in dynamics of two-dimensional FPU systems, *Zeitschrift fuer Angewandte Mathematik und Physik (ZAMP)* **73** (2022) 213 (26 pages)

[30] S. Lafortune and D.E. Pelinovsky, Spectral instability of peakons in the b-family of the Camassa-Holm equations, *SIAM Journal of Mathematical Analysis* **54** (2022) 4572–4590

[31] S. Lafortune and D.E. Pelinovsky, Stability of smooth solitary waves in the b-Camassa-Holm equations, *Physica D* **440** (2022) 133477 (10 pages)

[32] U. Le and D.E. Pelinovsky, Periodic waves of the modified KdV equation as minimizers of a new variational problem, *SIAM Journal of Applied Dynamical Systems* **21** (2022) 2518–2534

[33] A.Mucalica and D.E. Pelinovsky, Solitons on the rarefaction wave background via the Darboux transformation, *Proc. R. Soc. A* **478** (2022) 20220474 (17 pages)

[34] F. Natali, U. Le, and D.E. Pelinovsky, Periodic waves in the fractional modified Korteweg-de Vries equation, *Journal of Dynamics and Differential Equations* **34** (2022) 1601–1640

[35] D.E. Pelinovsky and S. Sobieszek, Morse index for the ground state in the energy super-critical Gross-Pitaevskii equation, *Journal of Differential Equations* **341** (2022) 380–401

[36] P. Bizon, F. Ficek, D.E. Pelinovsky, and S. Sobieszek, Ground state in the energy super-critical Gross-Pitaevskii equation with a harmonic potential, *Nonlinear Analysis* **210** (2021) 112358 (36 pages)

[37] D.E. Pelinovsky, Instability of double-periodic solutions in the nonlinear Schrodinger equation, *Frontiers in Physics* **9** (2021) 599146 (10 pages)

[38] D.E. Pelinovsky, Book Review: Nonlinear Dirac equations: Spectral stability of solitary waves, by N. Boussaıd and A. Comech, Mathematical Surveys and Monographs, Vol. 244, American Mathematical Society, Providence, RI, 2019, *Bulletin of the American Mathematical Society* **58** (2021) 289–294

[39] G. Berkolaiko, J.L. Marzuola, and D.E. Pelinovsky, Edge-localized states on quantum graphs in the limit of large mass, *Annales de l'Institut Henri Poincare C, Analyse Non Lineaire* **38** (2021) 1295–1335

[40] J. Chen, D.E. Pelinovsky, and J. Upsal, Modulational instability of periodic standing waves in the derivative NLS equation, *Journal of Nonlinear Science* **31** (2021) 58 (32 pages)

[41] J. Chen and D.E. Pelinovsky, Rogue waves on the background of periodic standing waves in the derivative nonlinear Schrödinger equation, *Physical Review E* **103** (2021) 062206 (25 pages)

[42] R.M. Chen and D.E. Pelinovsky, $W^{1,\infty}$ instability of H^1-stable peakons in the Novikov equation, *Dynamics of PDE* **18** (2021) 173–197

[43] A. Kairzhan and D.E. Pelinovsky, Multi-pulse edge-localized states on quantum graphs, *Analysis and Mathematical Physics* **11** (2021) 171 (26 pages)

[44] A. Kairzhan, R. Marangell, D.E. Pelinovsky, and K. Xiao, Standing waves on a flower graph, *Journal of Differential Equations* **271** (2021) 719–763

[45] U. Le and D.E. Pelinovsky, Green's function for the fractional KdV equation on the periodic domain via Mittag–Leffler's function, *Fractional Calculus and Applied Analysis* **24** (2021) 1507–1534

[46] U. Le, D.E. Pelinovsky, and P. Poullet, Asymptotic stability of viscous shocks in the modular Burgers equation, *Nonlinearity* **34** (2021) 5979–6016

[47] A. Madiyeva and D.E. Pelinovsky, Growth of perturbations to the peaked periodic waves in the Camassa-Holm equation, *SIAM Journal of Mathematical Analysis* **53** (2021) 3016–3039

[48] D.E. Pelinovsky, A.V. Slunyaev, A.V. Kokorina, and E.N. Pelinovsky, Stability and interaction of compactons in the sublinear KdV equation, *Communications in Nonlinear Science and Numerical Simulations* **101** (2021) 105855 (16 pages)

[49] D.E. Pelinovsky, R.M. Ross, and P.G. Kevrekidis, Solitary waves with intensity-dependent dispersion: variational characterization, *J. Phys. A: Math. Theor.* **54** (2021) 445701 (15 pages)

[50] R.M. Ross, P.G. Kevrekidis, and D.E. Pelinovsky, Localization in optical systems with an intensity-dependent dispersion, *Quarterly in Applied Mathematics* **79** (2021) 641–665

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[53] D.E. Pelinovsky and R.E. White, Localized structures on librational and rotational travelling waves in the sine-Gordon equation, *Proceedings A of Royal Society of London* **476**, 20200490 (18 pages) (2020)

[54] H. Huh, S. Hussain, and D.E. Pelinovsky, Chern-Simons-Schrodinger theory on a one-dimensional lattice, *Letters in Mathematical Physics* **110**, 2221–2244 (2020)

[55] F. Natali and D.E. Pelinovsky, Instability of H^1-stable peakons in the Camassa-Holm equation, *Journal of Differential Equations*, **268**, 7342–7363 (2020)

[56] F. Natali, U. Le, and D.E. Pelinovsky, New variational characterization of periodic waves in the fractional Korteweg-de Vries equation, *Nonlinearity* **33**, 1956–1986 (2020)

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