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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
- 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

- 2019** National Science Foundation of China Grant: “*Integrable nonlinear PDEs and rogue waves*”, SouthEast University, Nanjing, China, \$ 160,000 (2019-2022) (PI: Jinbing Chen)
- 2019** Russian Science Foundation Grant: “*Rogue waves in hydrodynamics*”, Institute of Applied Physics, Nizhny Novgorod, Russia, \$ 160,000 (2019-2021) (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 (Australia), \$ 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)

- 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

- 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

- 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, Kazakhstan
- 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

- 2019-2023** Szymon Sobieszek, Ph.D. Thesis, Resonant normal forms and analysis of PDEs, in progress.
- 2018-2022** Niky Christov, Ph.D. Thesis, Justification of long-wave approximation in lattices, in progress.
- 2017-2021** Uyen Le, Ph.D. Thesis, Nonlinear periodic waves in dispersive equations, in progress.
- 2016-2020** Adilbek Kairzhan, Ph.D. Thesis, Partial Differential Equations on metric graphs, in progress.
- 2016-2017** Aaron Saalman, 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

- 2019-2021** Nabil Asmer, M.Sc. Thesis, in progress.
- 2019-2021** Aigerim Madiyeva, M.Sc. Thesis, in progress.
- 2018-2020** Robert White, M.Sc. Thesis, Rogue waves in the NLS equation, in progress.
- 2015-2017** Jin Li, M.Sc. Thesis, Stability in integrable systems with commuting linear operators, moved to MSc Statistics, McGill University.
- 2013-2015** Amjad Khan, M.Sc. Thesis, Approximations of nonlinear waves on lattices, moved to Ph.D. program at University of Western Ontario.
- 2011-2012** Mostafa Abdi, M.Sc. Project, Vortices in rotating harmonic potentials, moved to M. Business program at McMaster University.
- 2010-2012** Matthew Betti, M.Sc. Student, Traveling waves in granular crystals, moved to Ph.D. program at University of Western Ontario.

- 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

- 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 computations of discrete 3D vortices
- 2005-2006** Marcella Fioroni, USF of HRSD, Iterative methods for bound states
- 2002-2003** Yourik Hacoupiian, CFI/OIT grant, Software development in photonic optics

Editorial Work

- 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)
- 2018-2021** 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)

- 2014-2021** 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)
- 2011-2021** 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)

- 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)

- 2019–2020** Chair of the Honours/Awards Committee, Department of Mathematics, McMaster University
- 2018–2019** Member of the Honours/Awards and Colloquium Committees, Department of Mathematics, McMaster University
- 2018–2020** Member of the PhD Examination Committee, 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, 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, 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 (last ten years)

- 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”, Wolfgang 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, Tsinghua 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 (last ten years)

- Dec 2019** University des Antilles, Guadeloupe, P. Pouillet
- Nov 2019** University of Texas at Rio Grande, TX, USA, Z. Qiao
- May 2019** University of Valladolid, 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. Lustrì
- Mar 2018** University of Southern Queensland, Toowoomba, 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. Pouillet
- 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 Stellenbosch (South Africa), H. Weigert
- Apr 2014** University of Cape Town (South Africa), I. Barashenkov
- Apr 2014** University of Besancon (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 Poincaré, 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 Besançon, France, M. Maris

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