

CURRICULUM VITAE

Kevrekidis, Panayotis G.

Mailing address

Department of Mathematics and Statistics
Lederle Graduate Research Tower,
University of Massachusetts,
Amherst, MA 01003-4515.
tel: (413)-577-1977 (O)
tel: (413)-835-0000 (H)
fax: (413)-545-1801
e-mail: kevrekid@umass.edu

Positions

09/2015–Present Distinguished Professor, Department of Mathematics and Statistics, University of Massachusetts, Amherst.

08/2010–09/2015 Full Professor, Department of Mathematics and Statistics, University of Massachusetts, Amherst.

07/2005–07/2010: Associate Professor, Department of Mathematics and Statistics, University of Massachusetts, Amherst.

09/2001–06/2005: Assistant Professor, Department of Mathematics and Statistics, University of Massachusetts, Amherst.

09/2000–08/2001: Joint Post-Doctoral Research Fellow at

- Los Alamos National Laboratory (Center for Non-Linear Studies and Theoretical Physics Division; Mentors: A.R. Bishop and A. Saxena) and
- Princeton University (Program in Applied and Computational Mathematics).

Education

1996-2000: Ph.D. in Physics, Rutgers University (GPA: 4.0). Advisors: Dr. J.L. Lebowitz (Mathematics & Physics), P.G. Georgopoulos (Environmental Science).

2000: M.Phil. in Physics, Rutgers University (GPA: 4.0)

1998: M.S. degree in Physics, Rutgers University (GPA: 4.0)

1992-1996: Diploma in Physics, University of Athens, Greece
(Diploma Grade: 9.06/10.0, Excellent; Rank: 1st;
National Entrance Exams, 1992, Grade:610/640,Rank: 2nd)

1992: Graduation From Senior High School (Grade 19.9/20.0, Excellent)

1989: Graduation From Junior High School (Grade 20.0/20.0, Excellent)

Distinctions

National/International Recognitions

August 2025 Simons Fellowship in Mathematics

May 2025 Fulbright Fellowship for February 2026-July 2026
at Seoul National University in South Korea.

May 2025 Sydney Mathematics Research Institute Fellowship
for Stay in January 2026-February 2026 at University of Sydney,
Australia.

January 2025 Selected as Outstanding Referee of the American
Physical Society (APS).

October 2023 Elected to the European Society of Sciences and Arts
(induction ceremony in April 2024).

May 2023 Research.com Mathematics in United States Leader Award
for 2023 (ranked # 90 in the US, and # 159 in the world).

June 2022 Honorary Doctorate, University of Ioannina, Greece (awarded
in June 2023).

May 2020 Greek Diaspora Alumni Fellowship

January 2020 American Mathematical Society Fellow

March 2019 Senior Visiting Fellowship, Leverhulme Trust
for Visiting the University of Oxford.

March 2017 Society for Industrial & Applied Math Fellow

November 2016 Member of the Inaugural Class of Fellows
Greek Diaspora Fellowship Program.

August 2016 (Inaugural) T. Brooke Benjamin Prize in Nonlinear
Waves, Society for Industrial and Applied Mathematics (SIAM).

November 2015 Friedrich Wilhelm Bessel Prize,
Alexander von Humboldt Foundation, Germany

December 2014 American Physical Society Fellow,
Nominated by the Topical Group on Statistical and Nonlinear
Physics.

October 2014 Stanislaw M. Ulam Distinguished Scholar for 2014-
2015, at the Center for NonLinear Studies,
Los Alamos National Laboratory.

November 2013 A.F. Pallas Award of the Academy of Athens
for original scientific work in areas of Mathematical Analysis
(5,000 Euros).

May 2013 Biennial J.D. Crawford Prize
for Research on Dynamical Systems of the
Society for Industrial and Applied Mathematics (SIAM).

May 2009 Biennial Stephanos Pnevmatikos Prize
for Research in Nonlinear Phenomena of the
Foundation for Research and Technology, Hellas
($\approx 10,000\text{\$}$).

July 2008 Selection of paper published in
SIADS 5, 533-566 (2005) for a SIAM
Outstanding Paper Award for 2008.

Spring/Summer 2008 Alexander von Humboldt Fellow
visiting the University of Heidelberg, Germany.

Summer 2002 Clay Mathematics Institute,
Special Project Prize Fellowship.

University of Massachusetts Recognitions

November 2020 Distinguished Faculty Lecturer and Recipient of the
Chancellor's Medal.

April 2017 Samuel F. Conti Faculty Fellowship Award.

July 2014 Outstanding Accomplishments in Research and Creativity Award, University of Massachusetts, Amherst.

May 2013 College of Natural Sciences
Outstanding Teacher Award
University of Massachusetts, Amherst.

April 2009, 2011, 2012 Residential First-Year Experience Award at UMass, Amherst (for impact on first-year undergraduate education at UMass).

Funding

August 2024 National Science Foundation grant
DMS-2408988 ($\approx 100,000$ \$ for 2 years)

August 2022 National Science Foundation grant
DMS-2204702 ($\approx 219,300$ \$ for 3 years)

May 2021 National Science Foundation grant
PHY-2110030 ($\approx 221,000$ \$ for 3 years)

July 2020 c3.ai Digital Transformation Institute Research Grant
co-PIs: Z. Rapti, R. Kontou, I.G. Kevrekidis ($\approx 240,000$ for 1 year)

August 2018 National Science Foundation grant
DMS-1809074 ($\approx 88,000$ \$ for 3 years)

August 2017 US Air Force (AFOSR) grant
co-PIs: T. Sapsis, I.G. Kevrekidis, J.K. Yang (180,000 for 2 years)

October 2016 Northrop Grumman Basic Research Group
Collaboration Research Grant ($\approx 25,000$ in 2016)

August 2016 National Science Foundation grant
PHY-1602994 ($\approx 160,000$ \$ for 3 years)

March 2016 Qatar National Research Fund grant,
NPRP93291067 ($\approx 900,000$ \$ for 3 years)
co-PI with Z. Anastassi, D. Frantzeskakis, N. Karachalios, I. Stratis, S.
Tzortzakis.

July 2015 Army Research Office grant,
W911NF-15-1-0604 ($\approx 158,000$ \$ for 1 year)
co-PI with J. Yang.

May 2015 Qatar National Research Fund grant,
NPRP87641160 ($\approx 810,000$ \$ for 3 years)
co-PI with Z. Anastassi, D. Frantzeskakis, N. Karachalios, I. Stratis.

August 2013 National Science Foundation grant,
DMS-1312856 ($\approx 115,000$ \$ for 2 years)
co-PI with Ricardo Carretero-González.

April 2013 IRSES Grant from European Union (ERC)
Co-PI with Theodora Ioannidou (Thessaloniki) and Jutta Kunz (Old-
enburg)
(212,100 Euros for 4 years).

July 2012 US Air Force (AFOSR) grant
Research Project FA 9550-12-1-0332 (1,380,499 for 3 years)
co-PI with I.G. Kevrekidis and C. Daraio.

July 2011 Binational Science Foundation (BSF) grant
Research Project 2010239 (114,000 for 3 years)
co-PI with Boris Malomed and Randall Hulet

July 2010 Alexander S. Onasis Public Benefit Foundation
Scholar Project Funding Scheme Grant ($\approx 40,000$ Euro for 2 years)
co-PI with George Theocharis

July 2010 National Science Foundation grant,
CMMI-1000337 ($\approx 150,000$ \$ for 3 years)

July 2008 National Science Foundation grant,
DMS-0806762 ($\approx 300,000$ \$ for 3 years)
co-PI with Ricardo Carretero-González.

Summer/Fall 2007 University of Massachusetts Grant
Dean's Biomedical Initiative ($\approx 15,000$ \$)
co-PI with Nathaniel Whitaker

June 2006 National Science Foundation SCREMS grant,
DMS/0619492, ($\approx 84,000$ \$ for Computing Equipment)
co-PI with H. Johnston, P. Gunnels, M. Katsoulakis and B. Turkington

November 2003 National Science Foundation,
CAREER grant ($\approx 400,000$ for 5 years).

May 2003 Eppley Foundation for Research,
Fellowship ($12,000$ for 1 year).

July 2002 National Science Foundation grant,
DMS/0204585 ($\approx 126,000$ for 3 years).

January 2002 Faculty Research Grant,
University of Massachusetts, Amherst ($10,000$).

Invited (Longer Term) Visits

July 2022 Invited Professor
University of Oxford, UK.

September 2019-July 2020 Invited Professor
University of Oxford, UK.

June-July 2018 Invited Professor
University of Rouen, France.

June-July 2017 Alexander von Humboldt Bessel Fellow
visiting the Universities of Heidelberg and Hamburg, Germany.

July-September 2016 Alexander von Humboldt Bessel Fellow
visiting the Universities of Heidelberg and Hamburg, Germany.

May-June 2016 Invited Professor
University of Rouen, France.

February-June 2013 Invited Visitor
Institute for Mathematics and its Applications
University of Minnesota
Program on Infinite Dimensional and Stochastic
Dynamical Systems and Their Applications.

Spring/Summer 2012 Alexander von Humboldt Fellow
visiting the Universities of Heidelberg and Hamburg, Germany.

Summer 2010 Extension of the Alexander von Humboldt
research fellowship to visit the Universities of Heidelberg & Hamburg
for July-August 2010.

Summer 2009 Extension of the Alexander von Humboldt
research fellowship to visit the University of Heidelberg
for July-August 2009.

Winter 2007 Visiting Researcher,
Mathematical Sciences Research Institute (MSRI), Berkeley, CA.

Summer 2005 Summer Visiting Researcher,
C.N.L.S, Los Alamos National Laboratory.

Summer 2005 Summer Visiting Researcher,
Park City Mathematics Institute.

June 2005 National Science Foundation grant,
DMS/0505663, ($\approx 92,000\$$ for 2 years)
co-PI with Ricardo Carretero-González.

Summer 2004 Summer Visiting Researcher,
C.N.L.S, Los Alamos National Laboratory.

Summer 2002 Summer Visiting Researcher,
C.N.L.S, Los Alamos National Laboratory.

Graduate Distinctions/Funding

April 2001 Dean's Research Award,
Rutgers University.

February 2001 Dissertation Prize,
Rutgers University, Dept. of Physics and Astronomy.

Summer 2000: Summer Visiting Researcher,
C.N.L.S, Los Alamos National Laboratory.

July 2000 I.A.M.P Travel Grant.

May 2000 Rudolf-Ernst-Schloessmann Fellowship
of the Max Planck Society.

March 2000 Fellowship of the Sloan Foundation
for Theoretical Neurobiology.
(Declined, accepted a Princeton-Los Alamos Post-Doctoral Position
instead).

Summer 1999: Summer Visiting Researcher,
C.N.L.S, Los Alamos National Laboratory.

May 1999: DI.MA.C.S Travel Grant.

Fall 1998-Spring 2000: Rutgers Tuition Scholarship.

Fall 1998-Summer 2000: A.S. Onasis Public Benefit Foundation Schol-
arship for Research in Analytical And Computational Physics.

Summer 1998: Summer Visiting Researcher,
C.N.L.S, Los Alamos National Laboratory.

Summer 1998: GFD Summer Fellowship,
Woods Hole Oceanographic Institution.

Spring 1998-Summer 2000: Graduate Research Assistant,
Computational Chemodynamics Laboratory,
Environmental & Occupational Health Sciences Institute,
Rutgers University & U.M.D.N.J.

Fall 1997: Outstanding Teaching Assistant Award (1996-1997),
Physics Department, Rutgers University.

Fall 1996-Fall 1997 Graduate Teaching Assistant,
Physics Department, Rutgers University.

Fall 1996 Fulbright Fellowship for study in the U.S.
(Declined, Accepted a Teaching Assistanship at Rutgers instead).

1992-1995: IKY (National Fellowship Foundation) Scholarships
(awarded annually to the top 3 students in the class;
1992,1993 : 2nd ; 1994,1995: 1st).

1992: Senior High School Scholarship
(awarded to the best student in the 2nd and 3rd years).

1987-1992: City of Athens Student Excellence Medal
(awarded annually to the top 3 students of each school).

1987-1992: Progress Prize.

1988,89,91,92: Excellence Prize (as top student of class).

Professional Affiliations

- Member (and Fellow): Society for Industrial & Applied Mathematics.
- Member (and Fellow): American Physical Society.
- Member (and Fellow): American Mathematical Society.
- Member: International Association of Mathematical Physics

**Publications [h-index: 69 (Web of Science); 85 (Google Scholar);
> 31450 Citations according to Google Scholar]**

1. N.J. Balmforth, R.V. Craster and P.G. Kevrekidis, Being Stable and Discrete, *Physica* **135D**, 212-232 (2000).
2. P.G. Kevrekidis, M. Lazaridis, Y. Drossinos and P.G. Georgopoulos, A Unified Kinetic Approach to Binary Nucleation, *J. Chem. Phys.* **111**, 8010-8012 (1999).

3. S.J. Zhou, P.G. Kevrekidis and A.R. Bishop, Shear Circular Dislocation Loops Investigated With Elasticity Theory and Atomistic Simulations; *Journal of Computer-Aided Materials Design* **7**, 25-42 (2000).
4. P.G. Kevrekidis, K.Ø. Rasmussen and A.R. Bishop, Two Dimensional Breathers: Construction, Stability and Bifurcations, *Phys. Rev. E* **61**, 2006-2009 (2000).
5. P.G. Kevrekidis and C.K.R.T. Jones, Bifurcation of Internal Solitary Wave Modes from the Essential Spectrum, *Phys. Rev. E* **61**, 3114-3121 (2000).
6. P.G. Kevrekidis, K.Ø. Rasmussen and A.R. Bishop, Localized Excitations and their Thresholds, *Phys. Rev. E* **61**, 4652-4655 (2000).
7. K.Ø. Rasmussen, T. Cretegny, P.G. Kevrekidis and N.G. Jensen, Statistical mechanics of a discrete nonlinear system, *Phys. Rev. Lett.* **84**, 3740-3743 (2000).
8. P.G. Kevrekidis, C.K.R.T. Jones and T. Kapitula, Exponentially Small Splitting of Heteroclinic Orbits: From the Rapidly Forced Pendulum to Discrete Solitons, *Phys. Lett. A* **269**, 120-129 (2000).
9. P.G. Kevrekidis and M.I. Weinstein, Dynamics of Lattice Kinks, *Physica* **142D**, 113-152 (2000).
10. P.G. Kevrekidis, A.R. Bishop and K.Ø. Rasmussen, Parametric Quantum Resonances for Bose-Einstein Condensates, *Journal of Low Temperature Physics* **120**, 205-212 (2000).
11. Y. Drossinos, P.G. Kevrekidis, M. Lazaridis and P.G. Georgopoulos, Translational Invariance in the Theory of Nucleation, in *Nucleation and Atmospheric Aerosols 2000*, 217-220, AIP Publications (2000).
12. T. Kapitula, P.G. Kevrekidis and C.K.R.T. Jones, Soliton Internal Mode Bifurcations: Pure Power Law ? *Phys. Rev. E* **63**, 036602, 5 pages (2001).
13. P.G. Kevrekidis, A.R. Bishop and K.Ø. Rasmussen, Twisted Localized Modes, *Phys. Rev. E* **63**, 036603, 6 pages (2001).

14. T. Kapitula, P.G. Kevrekidis and B. Malomed, Stability of Multiple Pulses in Discrete Systems, *Phys. Rev. E* **63**, 036604, 8 pages (2001).
15. P.G. Kevrekidis, K.Ø. Rasmussen and A.R. Bishop, Comparison of one-dimensional and two-dimensional breathers, *Mathematics and Computers in Simulation* **55**, 449-462 (2001).
16. Y. Drossinos, P.G. Kevrekidis and P.G. Georgopoulos, Translational Invariance in Nucleation Theories: Theoretical Formulation, *Phys. Rev. E* **63** 036123, 13 pages (2001).
17. P.G. Kevrekidis, I.G. Kevrekidis and A.R. Bishop, Propagation Failure, Universal Scalings and Goldstone Modes, *Phys. Lett. A* **279**, 361-369 (2001).
18. T. Kapitula and P. Kevrekidis, Stability of Waves in Discrete Systems, *Nonlinearity* **14**, 533-566 (2001).
19. H.E. Nistazakis, D.J. Frantzeskakis and B.A. Malomed and P.G. Kevrekidis, Head-on Collision of Ring Dark Solitons, *Phys. Lett. A* **285**, 157-164 (2001).
20. P.G. Kevrekidis, Integrability Revisited: a Necessary Condition, *Phys. Lett. A* **285**, 383-389 (2001).
21. B.A. Malomed and P.G. Kevrekidis, Discrete Vortex Solitons, *Phys. Rev. E* **64**, 026601, 6 pages (2001).
22. P.G. Kevrekidis, Multipulses in Discrete Hamiltonian Nonlinear Systems, *Phys. Rev. E* **64**, 026610, 5 pages (2001).
23. P.G. Kevrekidis, A. Saxena and A.R. Bishop, Interaction between sine-Gordon breathers, *Phys. Rev. E* **64**, 026611, 5 pages (2001).
24. P.G. Kevrekidis, K.Ø. Rasmussen and A.R. Bishop, The Discrete Nonlinear Schrödinger Equation: A Survey of Recent Results, *The Intn. J. of Mod. Phys. B* **15**, 2833-2900 (2001).
25. N.R. Quintero and P.G. Kevrekidis, Non Equivalence of Phonon modes in the sine Gordon Equation, *Phys. Rev. E* **64**, 056608, 4 pages (2001).

26. P.G. Kevrekidis and I.G. Kevrekidis, Heterogeneous vs Discrete Mapping Problem, *Phys. Rev. E* **64**, 056624, 8 pages (2001).
27. P.G. Kevrekidis, B.A. Malomed and A.R. Bishop, Bound States of Two-Dimensional Solitons in Hamiltonian Lattices, *J. Phys. A* **34**, 9615-9629 (2001).
28. P.G. Kevrekidis, Yu.B. Gaididei, A.R. Bishop and A. Saxena, Effects of Competing Short-Range and Long-Range Dispersive Interactions on Discrete Breathers, *Phys. Rev. E* **64**, 066606, 8 pages (2001).
29. P.G. Kevrekidis, H.E. Nistazakis, D.J. Frantzeskakis, B.A. Malomed and A.R. Bishop, Ring Solitons on Vortices, *Phys. Rev. E* **64**, 066611, 9 pages (2001).
30. P.G. Kevrekidis, B. Malomed, A.R. Bishop and D.J. Frantzeskakis, Localized Vortices with a Semi-Integer Charge in Nonlinear Dynamical Lattices, *Phys. Rev. E* **65**, 016605, 7 pages (2002).
31. P.G. Kevrekidis, A.R. Bishop and K.Ø. Rasmussen, Hysteresis and Metastability in the Quenched Turbulent Dynamics of the Complex Ginzburg-Landau Equation, *Phys. Rev. E* **65**, 016122, 5 pages (2002).
32. P.G. Kevrekidis, I.G. Kevrekidis and B.A. Malomed, Stability of Solitary waves in Finite Ablowitz-Ladik Lattices, *J. Phys. A* **35**, 267-283 (2002).
33. B.A. Malomed, D.J. Frantzeskakis, H.E. Nistazakis, A.N. Yannacopoulos and P.G. Kevrekidis, Pulled Fronts in the Cahn-Hilliard Equation, *Phys. Lett. A* **295**, 267-272 (2002).
34. P.G. Kevrekidis, I.G. Kevrekidis, A.R. Bishop and E.S. Titi, A Continuum Approach to Discreteness, *Phys. Rev. E* **65**, 046613, 13 pages (2002).
35. B.A. Malomed, P.G. Kevrekidis, D.J. Frantzeskakis, H.E. Nistazakis and A.N. Yannacopoulos, One- and Two-Dimensional Solitons in Second-Harmonic-Generating Lattices, *Phys. Rev. E* **65**, 056606, 12 pages (2002) (see also: Technical Digest. Conference Edition (IEEE Cat. No.02CH37337). *Opt. Soc. America. Part vol.1*, 2002, pp.287, vol.1. Washington, DC, USA).

36. P.G. Kevrekidis and V.V. Konotop, Bright Compact Breathers, *Phys. Rev. E* **65**, 066614, 9 pages (2002).
37. H.E. Nistazakis, P.G. Kevrekidis, B.A. Malomed, D.J. Frantzeskakis and A.R. Bishop, Targeted Transfer of Solitons in Continua and Lattices, *Phys. Rev. E* **66**, 015601(R), 4 pages (2002).
38. P.G. Kevrekidis, V.V. Konotop and S. Takeno, Dark Compactlets, *Phys. Lett. A* **299**, 166-172 (2002).
39. K.C. Labropoulos, D.E. Niesz, S.C. Danforth and P.G. Kevrekidis, Dynamic Rheology of Agar Gels: Theory and Experiments. Part I. Development of a rheological model, *Carbohydrate Polymers* **50**, 393-406 (2002).
40. K.C. Labropoulos, D.E. Niesz, S.C. Danforth and P.G. Kevrekidis, Dynamic Rheology of Agar Gels: Theory and Experiments. Part II. Gelation behavior of agar sols and fitting of a theoretical model, *Carbohydrate Polymers* **50**, 407-415 (2002).
41. P.G. Kevrekidis, B.A. Malomed, H.E. Nistazakis, D.J. Frantzeskakis, A. Saxena and A.R. Bishop, Scattering of a solitary pulse on a local defect or breather, *Phys. Scripta* **66**, 193-200 (2002).
42. N.R. Quintero and P.G. Kevrekidis, The Parametrically Modified sine-Gordon Equation: Spectral Properties, Collisions, Resonances and their Connection to Integrability, *Physica D* **170**, 31-49 (2002).
43. P.G. Kevrekidis, B.A. Malomed and Yu.B. Gaididei, Solitons in Triangular and Honeycomb Dynamical Lattices with the Cubic Nonlinearity, *Phys. Rev. E* **66**, 016609, 10 pages (2002).
44. A. Smerzi, A. Trombettoni, P.G. Kevrekidis and A.R. Bishop, Dynamical Superfluid-Insulator Transition in a Chain of Weakly Coupled Bose-Einstein Condensates, *Phys. Rev. Lett.* **89**, 170402, 4 pages (2002).
45. G.L. Alfimov, P.G. Kevrekidis, V.V. Konotop and M. Salerno, Wannier functions analysis of the nonlinear Schrödinger equation with a periodic potential, *Phys. Rev. E* **66**, 046608, 5 pages (2002).

46. P.G. Kevrekidis, B. Malomed, A.R. Bishop and D.J. Frantzeskakis, Reply to Comment on “Localized Vortices with a Semi-Integer Charge in Nonlinear Dynamical Lattices”, *Phys. Rev. E* **66**, 048602, 2 pages (2002).
47. P.G. Kevrekidis, B.A. Malomed and A.R. Bishop, A Discrete Nonlinear Model with Substrate Potential, *Phys. Rev. E* **66**, 046621, 5 pages (2002).
48. P.G. Kevrekidis and B.A. Malomed, Solitons in Coupled Toda Lattices, *Phys. Lett. A* **303**, 328-336 (2002).
49. P.G. Kevrekidis, V.V. Konotop, A.R. Bishop and S. Takeno, Discrete Compactons: Some Exact Results, *J. Phys. A* **35**, L641-L652 (2002).
50. I.E. Papaharalambous, H.E. Nistazakis, P.G. Kevrekidis, A.N. Yannacopoulos, D.J. Frantzeskakis and B.A. Malomed, Two Dimensional Solitons and their Interactions on a Continuous-Wave Background, *Phys. Scripta* **66**, 367-375 (2002).
51. P.G. Kevrekidis and M.I. Weinstein, Breathers on a Background: Periodic and Quasiperiodic Solutions of Extended Discrete Nonlinear Wave Systems, *Mathematics and Computers in Simulation* **62**, 65-78 (2003).
52. P.G. Kevrekidis and V.V. Konotop, Compactons in Discrete Nonlinear Klein-Gordon Models, *Mathematics and Computers in Simulation* **62**, 79-89 (2003).
53. Yu.S. Kivshar, P.G. Kevrekidis and S. Takeno, Nonlinear Localized Modes in Waveguide Bends, *Phys. Lett. A* **307**, 287-291 (2003).
54. C.I. Siettos, I.G. Kevrekidis and P.G. Kevrekidis, Focusing Revisited: a Renormalization/Bifurcation Approach, *Nonlinearity* **16**, 497-506 (2003).
55. I. Drossinos and P.G. Kevrekidis, Classical Nucleation Theory Revisited, *Phys. Rev. E* **67**, 026127, 12 pages (2003).
56. P.G. Kevrekidis, B.A. Malomed, D.J. Frantzeskakis and A.R. Bishop, Domain Walls in Two-Component Dynamical Lattices, *Phys. Rev. E* **67**, 036614, 9 pages (2003).

57. P.G. Kevrekidis, Yu.S. Kivshar and A.S. Kovalev, Instabilities and Bifurcations of Nonlinear Impurity Modes, *Phys. Rev. E* **67**, 046604, 8 pages (2003) .
58. P.G. Kevrekidis, F.L. Williams, A.R. Bishop, I.G. Kevrekidis and B.A. Malomed, Coupling Fields and Underlying Space Curvature: an Augmented Lagrangian Approach, *Phys. Rev. E* **67**, 047602, 4 pages (2003).
59. G. Theocharis, D.J. Frantzeskakis, P.G. Kevrekidis, B.A. Malomed and Yu.S. Kivshar, Ring dark solitons and vortex necklaces in Bose-Einstein condensates, *Phys. Rev. Lett.* **90**, 120403, 4 pages (2003).
60. P.G. Kevrekidis, B.A. Malomed and Z. Musslimani, Discrete gap solitons in a diffraction-managed waveguide array, *Eur. Phys. J. D* **23**, 421-436 (2003).
61. J. Hudock, P.G. Kevrekidis, B.A. Malomed and D.N. Christodoulides, Discrete Vector Solitons in Two-Dimensional Nonlinear Waveguide Arrays: Solutions, Stability and Dynamics, *Phys. Rev. E* **67**, 056618, 16 pages (2003).
62. A.R. Bishop, G. Kalosakas, K.Ø. Rasmussen and P.G. Kevrekidis, Localization in physical systems described by discrete nonlinear Schrödinger type equations, *Chaos* **13**, 588-595 (2003).
63. P.G. Kevrekidis, G. Theocharis, D.J. Frantzeskakis, and Boris A. Malomed, Feshbach Resonance Management for Bose-Einstein Condensates, *Phys. Rev. Lett.* **90**, 230401 (2003).
64. P.G. Kevrekidis, D.J. Frantzeskakis, B.A. Malomed, A.R. Bishop and I.G. Kevrekidis, Dark-in-Bright Solitons in Bose-Einstein Condensates with Attractive Interactions, *New J. Phys.* **5**, 64, 17 pages (2003).
65. F.L. Williams and P.G. Kevrekidis, On 2 + 1 Dimensional Friedmann-Robertson-Walker Universes: an Ermakov-Pinney equation approach, *Class. Quant. Gravity* **20**, L177-L184 (2003).
66. G. Theocharis, Z. Rapti, P.G. Kevrekidis, D.J. Frantzeskakis and V.V. Konotop, On the modulational stability of Gross-Pitaevskii type equations in 1+1 dimensions, *Phys. Rev. A* **67**, 063610, 8 pages (2003).

67. P.G. Kevrekidis and N. Whitaker, On the Effect of Backleak in Nephron Dynamics, *Phys. Rev. E* **67**, 061911, 4 pages (2003).
68. P.G. Kevrekidis, On a Class of Discretizations of Hamiltonian Nonlinear Partial Differential Equations, *Physica D* **183**, 68-86 (2003).
69. P.G. Kevrekidis, B.A. Malomed, A. Saxena, A.R. Bishop, and D.J. Frantzeskakis, Higher-order lattice diffraction: solitons in the discrete NLS equation with next-nearest-neighbor interactions, *Physica D* **183**, 87-101 (2003).
70. J. Li, P.G. Kevrekidis, C.W. Gear and I.G. Kevrekidis, Deciding the Nature of the Coarse Equation through Microscopic Simulations: the Baby-Bathwater Scheme, *Multiscale Modeling and Simulation: A SIAM Interdisciplinary Journal* **1**, 391-407 (2003).
71. P.G. Kevrekidis, R. Carretero-González, G. Theocharis, D.J. Frantzeskakis, and B.A. Malomed, Vortices in a Bose-Einstein condensate confined by an optical lattice, *J. Phys. B.: At. Mol. Phys.* **36**, 3467-3476 (2003).
72. P.G. Kevrekidis and N.R. Quintero, Using the Finite Domain Remnant of the Continuous Spectrum to Examine Integrability: Effect of Boundary Conditions, *Phys. Rev. E* **68**, 036612, 7 pages (2003).
73. P.G. Kevrekidis, R. Carretero-González, G. Theocharis, D.J. Frantzeskakis, and B.A. Malomed, Stability of dark solitons in a Bose-Einstein condensate trapped in an optical lattice, *Phys. Rev. A* **68**, 035602, 4 pages (2003).
74. P.G. Kevrekidis, D.J. Frantzeskakis, G. Theocharis and I.G. Kevrekidis, Guidance of matter waves through Y-junctions, *Phys. Lett. A* **317**, 513-522 (2003).
75. I. Papacharalampous, P.G. Kevrekidis, B.A. Malomed and D.J. Frantzeskakis, Soliton Collisions in the Discrete Nonlinear Schrödinger Equation, *Phys. Rev. E* **68**, 046604, 9 pages (2003).
76. P.G. Kevrekidis, S. Kumar and I.G. Kevrekidis, An Exploding Glass ?, *Phys. Lett. A* **318**, 364-372 (2003).

77. P.G. Kevrekidis, Avinash Khare and A. Saxena, Breather lattice and its stabilization for the modified Korteweg-de Vries equation, *Phys. Rev. E* **68**, 047701 (2003).
78. S.V. Dmitriev, P.G. Kevrekidis, B.A. Malomed and D.J. Frantzeskakis, Two-soliton collisions in a near-integrable lattice system, *Phys. Rev. E* **68**, 056603 (2003).
79. V.V. Konotop and P.G. Kevrekidis, Nonlinear corrections to the Bohr-Sommerfeld quantization rule, *Phys. Rev. Lett.* **91**, 230402 (2003).
80. D.E. Pelinovsky, P.G. Kevrekidis and D.J. Frantzeskakis, Averaging For Solitons With Nonlinearity Management, *Phys. Rev. Lett.* **91**, 240201 (2003).
81. I.G. Kevrekidis, C. W. Gear, J.M. Hyman, P.G. Kevrekidis, O. Runborg and C. Theodoropoulos, Equation-free coarse-grained multiscale computation: enabling microscopic simulators to perform system-level analysis, *Communications in Mathematical Sciences* **1**, 715-762 (2003).
82. P. G. Kevrekidis, H. E. Nistazakis, D. J. Frantzeskakis, B. A. Malomed, Families of matter-waves for two-component Bose-Einstein condensates, *Eur. Phys. J. D: At. Mol. Opt. Phys.*, **28** 181-185 (2004).
83. Z. Rapti, P.G. Kevrekidis, A. Smerzi and A.R. Bishop, A Variational Approach to the Modulational Instability, *Phys. Rev. E* **69**, 017601 (2004).
84. Z. Rapti, G. Theocharis, P.G. Kevrekidis, D.J. Frantzeskakis and B.A. Malomed, Modulational Instability in Bose-Einstein Condensates under Feshbach Resonance Management, *Physica Scripta*, **T107**, 27-31 (2004).
85. Z. Rapti, P.G. Kevrekidis, A. Smerzi and A.R. Bishop, Modulational and Parametric Instabilities of the Discrete Nonlinear Schrödinger Equation, *J. Phys. B.: At. Mol. Phys.* **37**, S257-S264 (2004).
86. I.E. Papacharalampous, P.G. Kevrekidis, H.E. Nistazakis, D.J. Frantzeskakis and B.A. Malomed, Elliptic dark solitons, *Physica Scripta* **69**, 7-14 (2004).

87. P.G. Kevrekidis and D.J. Frantzeskakis, Pattern Forming Dynamical Instabilities of Bose-Einstein Condensates: A Short Review, *Modern Physics Letters B* **18**, 173-202 (2004).
88. J. Cuevas and P.G. Kevrekidis, Breather Statics and Dynamics in Klein–Gordon Chains with a Bend, *Phys. Rev. E* **69**, 056609, 13 pages (2004)
89. D.J. Frantzeskakis, N.P. Proukakis and P.G. Kevrekidis, Dark soliton dynamics in a trapped gas of impenetrable bosons, *Phys. Rev. A*, **70**, 015601 (2004).
90. T.Kapitula, P.G. Kevrekidis and B. Sandstede, Counting eigenvalues via the Krein signature in infinite-dimensional Hamiltonian systems, *Physica D* **195**, 263-282 (2004).
91. T. Kapitula and P.G. Kevrekidis, Linear Stability of Perturbed Hamiltonian Systems: Theory and a Case Example, *J. Phys. A* **30**, 7509-7526 (2004).
92. P.G. Kevrekidis, I.G. Kevrekidis, B.A. Malomed, H.E. Nistazakis and D.J. Frantzeskakis, Dragging Bistable Fronts, *Phys. Scripta* **69**, 451-455 (2004).
93. M.A. Porter, P.G. Kevrekidis and B.A. Malomed, Resonant and Non-Resonant Modulated Amplitude Waves for Binary Bose-Einstein Condensates in Optical Lattices, *Physica D* **196**, 106-123 (2004).
94. P.G. Kevrekidis, G. Theocharis, D.J. Frantzeskakis, A. Trombettoni, Avoiding Infrared Catastrophes in Trapped Bose-Einstein Condensates, *Phys. Rev. A* **70**, 023602, 5 pages (2004).
95. P.G. Kevrekidis, B.A. Malomed, D.J. Frantzeskakis and R. Carretero-González, Three-Dimensional Solitary Waves and Vortices in a Discrete Nonlinear Schrödinger Lattice, *Phys. Rev. Lett.* **93**, 080403 (2004).
96. Z. Rapti, A. Trombettoni, P.G. Kevrekidis, D.J. Frantzeskakis, B.A. Malomed and A.R. Bishop, Modulational Instabilities and Domain Walls in Coupled Discrete Nonlinear Schrödinger Equations, *Phys. Lett. A*, **330**, 95-106 (2004).

97. P. G. Kevrekidis, V. V. Konotop, B. A. Malomed and A.R. Bishop, Nonlinearity from Geometric Interactions: A Case Example, *Physical Review E* **70**, 047602 (2004).
98. P.G. Kevrekidis, A. Khare and A. Saxena, Solitary Wave Interactions In Dispersive Equations Using Manton's Approach, *Phys. Rev. E* **70**, 057603 (2004).
99. Z. Rapti, P.G. Kevrekidis, D.J. Frantzeskakis, and B.A. Malomed, On the Modulational Instability of the Nonlinear Schrödinger Equation with Dissipation, *Physica Scripta* **T113**, 74-77 (2004).
100. D.E. Pelinovsky, P.G. Kevrekidis, D.J. Frantzeskakis and V. Zharnitsky, Hamiltonian Averaging for Solitons with Nonlinearity Management Revisited, *Physical Review E* **70**, 047604 (2004).
101. P.G. Kevrekidis, Boris A. Malomed, Z. Chen and D.J. Frantzeskakis, Stable Higher Charge Vortices in the Discrete Nonlinear Schrödinger Equation, *Phys. Rev. E* **70**, 057612 (2004).
102. Boris A. Malomed, H.E. Nistazakis, D.J. Frantzeskakis, and P.G. Kevrekidis, Domain-wall crosses and propellers in binary Bose-Einstein condensates, *Phys. Rev. A* **70**, 043616 (2004).
103. B. Deconinck, P.G. Kevrekidis, H.E. Nistazakis and D.J. Frantzeskakis, Linearly Coupled Bose-Einstein Condensates: From Rabi Oscillations and Quasi-Periodic Solutions to Oscillating Domain Walls and Spiral Waves, *Phys. Rev. A* **70**, 063605 (2004).
104. P.G. Kevrekidis, Avinash Khare, A. Saxena and G. Herring, On Some Classes of mKdV Periodic Solutions, *J. Phys. A* **37**, 10959-10965 (2004).
105. P.G. Kevrekidis, S.V. Dmitriev, S. Takeno, A.R. Bishop and E.C. Aifantis, A Rich Example of Geometrically Induced Nonlinearity: From Rotobreathers and Kinks to Moving Localized Modes and Resonant Energy Transfer, *Physical Review E* **70**, 066627 (2004).
106. G. Theocharis, D.J. Frantzeskakis, P.G. Kevrekidis, R. Carretero-González, and B.A. Malomed, Dark-soliton dynamics in a Bose-Einstein condensate trapped in an optical lattice, *Phys. Rev. E* **71**, 017602 (2005).

107. S. Takeno, S.V. Dmitriev, P.G. Kevrekidis and A.R. Bishop, Nonlinear Lattices Generated from Harmonic Lattices with Geometric Constraints, *Phys. Rev. B* **71**, 014304 (2005).
108. T.Kapitula, P.G. Kevrekidis and B. Sandstede, Addendum to: Counting eigenvalues via the Krein signature in infinite-dimensional Hamiltonian systems, *Physica D* **201**, 199-201 (2005).
109. Yu.B. Gaididei, P.L. Christiansen, P.G. Kevrekidis, H.Büttner and A.R. Bishop, Localization of nonlinear excitations in curved waveguides, *New J. Phys.* **7**, 52.1-52.18 (2005).
110. G. Theocharis, P.G. Kevrekidis, D.J. Frantzeskakis, and A.R. Bishop, Generation of dark solitons in oscillating Bose-Einstein condensates, *Phys. Lett. A* **337**, 441-448 (2005).
111. P.G. Kevrekidis, D.J. Frantzeskakis, R. Carretero-González, B.A. Malomed, G. Herring and A.R. Bishop, Statics, Dynamics and Manipulations of Bright Matter-wave Solitons in Optical Lattices, *Phys. Rev. A* **71**, 023614, 8 pages (2005).
112. P.G. Kevrekidis, R. Carretero-González, D.J. Frantzeskakis and I.G. Kevrekidis, Vortices in Bose-Einstein Condensates: Some Recent Developments, *Modern Physics Letters B* **18**, 1481-1505 (2005).
113. J. Yang, I. Makasyuk, H. Martin, P.G. Kevrekidis, B.A. Malomed, D.J. Frantzeskakis and Z. Chen, Necklace-like solitons in optically induced photonic lattices, *Phys. Rev. Lett.* **94**, 113902, 4 pages (2005).
114. M. Porter, R. Carretero-González, P.G. Kevrekidis and B.A. Malomed, Nonlinear Lattice Dynamics of Bose-Einstein Condensates, *Chaos* **15**, 015115, 9 pages (2005).
115. P.G. Kevrekidis, V.V. Konotop, A.S. Rodriguez and D.J. Frantzeskakis, Dynamic Generation of Matter Solitons from Linear States via Time Dependent Scattering Lengths, *J. Phys. B.* **38**, 1173-1188 (2005).
116. A. Stefanov and P.G. Kevrekidis, Asymptotic behavior of small solutions for the discrete nonlinear Schrödinger and Klein-Gordon equations, *Nonlinearity* **18**, 1841-1857 (2005).

117. R. Carretero-González, P.G. Kevrekidis, I.G. Kevrekidis, D. Maroudas, and D.J. Frantzeskakis, A Parrinello-Rahman Approach to Vortex Lattices, *Physics Lett. A* **341**, 128-134 (2005).
118. R. Carretero-González, P.G. Kevrekidis, B.A. Malomed and D.J. Frantzeskakis, Three-Dimensional Nonlinear Lattices: From Oblique Vortices and Octupoles to Discrete Diamonds and Vortex Cubes, *Phys. Rev. Lett.* **94**, 203901, 4 pages (2005).
119. Q. E. Hoq, P. G. Kevrekidis, D. J. Frantzeskakis, B. A. Malomed, Ring-shaped solitons in a “dartboard” photonic lattice, *Phys. Lett. A* **341**, 145-155 (2005).
120. P.G. Kevrekidis, Z. Chen, B.A. Malomed, D.J. Frantzeskakis and M.I. Weinstein, Spontaneous Symmetry Breaking in Photonic Lattices: Theory and Experiment, *Phys. Lett. A* **340**, 275-280 (2005).
121. J. Möller, O. Runborg, P.G. Kevrekidis, K. Lust and I.G. Kevrekidis, Effective Equations for Discrete Systems: A Time Stepper Based Approach, *International Journal of Bifurcations and Chaos* **15**, 975-996 (2005).
122. P.G. Kevrekidis, B.A. Malomed, D.J. Frantzeskakis, A.R. Bishop, H.E. Nistazakis and R. Carretero-González, Domain Walls of Single-Component Bose-Einstein Condensates in External Potentials, *Mathematics and Computers in Simulation* **69**, 334-345 (2005).
123. B.A. Malomed, H.E. Nistazakis, P.G. Kevrekidis and D.J. Frantzeskakis, Domain-wall crosses and propellers in binary Bose-Einstein condensates, *Mathematics and Computers in Simulation* **69**, 400-412 (2005).
124. A. Comech, J. Cuevas and P.G. Kevrekidis, Discrete Peakons, *Physica D* **207**, 137-160 (2005).
125. G. Theocharis, D.J. Frantzeskakis, P.G. Kevrekidis, R. Carretero-González, and B.A. Malomed, Dark soliton dynamics in spatially inhomogeneous media: Application to Bose-Einstein condensates, *Mathematics and Computers in Simulation*, **69**, 537-552 (2004).

126. M. Agrotis, P.G. Kevrekidis and B.A. Malomed, Transmission of Non-linear Localized Modes through Waveguide Bends, *Mathematics and Computers in Simulation* **69**, 223-234 (2005).
127. M.A. Agrotis, S. Lafortune and P.G. Kevrekidis, On a Discrete Version of the Korteweg-de Vries Equation, *Discr. Cont. Dyn. Sys. B., Suppl.* 22-29 (2005).
128. P.G. Kevrekidis and Y. Zolotaryuk, Differential Difference Equations and their Depinning Transitions, "Progress in Soliton Research", edited by Nova Publications, in press (2004).
129. N. Tzirakis and P.G. Kevrekidis, On the Collapse Arresting Effects of Discreteness, *Mathematics and Computers in Simulation*, **69**, 553-566 (2004).
130. P.G. Kevrekidis, N. Whitaker and D.J. Good, Towards A Reduced Model For Angiogenesis: A Hybrid Approach, *Math. Comp. Model.* **41**, 987-996 (2005).
131. J. Cuevas, B.A. Malomed and P.G. Kevrekidis, Motion of discrete solitons assisted by nonlinearity management, *Phys. Rev. E* **72**, 066614 (2005).
132. P.G. Kevrekidis and D.J. Frantzeskakis, Stabilizing the Discrete Vortex of Topological Charge $S = 2$, *Phys. Rev. E* **72**, 016606 (2005).
133. D.E. Pelinovsky, D.J. Frantzeskakis and P.G. Kevrekidis, Oscillations of dark solitons in trapped Bose-Einstein condensates, *Phys. Rev. E.* **72**, 016615 (2005).
134. T. Kapitula and P.G. Kevrekidis, Bose-Einstein condensates in the presence of a magnetic trap and an optical lattice: two-mode approximation, *Nonlinearity* **18**, 2491-2512 (2005).
135. Z. Rapti, M.I. Weinstein and P.G. Kevrekidis, Transient Radiative Behavior of Hamiltonian Systems in Finite Domains, *Phys. Lett. A.* **345**, 1-9 (2005).
136. G. Herring, P. G. Kevrekidis, R. Carretero-González, B. A. Malomed, D. J. Frantzeskakis, and A. R. Bishop, Dynamics of trapped bright

- solitons in the presence of localized inhomogeneities, *Phys. Lett. A* **345**, 144-153 (2005).
137. G. Theocharis, P. Schmelcher, M.K. Oberthaler, P.G. Kevrekidis and D.J. Frantzeskakis, Dynamics of Dark Matter-Wave Solitons: A Lagrangian Approach, *Phys. Rev. A* **72**, 023611, 6 pages (2005).
 138. S.V. Dmitriev, P.G. Kevrekidis, and N. Yoshikawa, Discrete Klein-Gordon models with static kinks free of the Peierls-Nabarro potential, *J. Phys. A.* **38**, 7617-7627 (2005).
 139. P.G. Kevrekidis, Discrete and Continuous Nonlinear Schrödinger Systems, Book Review, *Bulletin of the AMS*, S0273-0979(05)01074-8, 6 pages (2005).
 140. V.V. Konotop, P.G. Kevrekidis and M. Salerno, Landau-Zener Tunneling of Bose-Einstein Condensates in an Optical Lattice, *Phys. Rev. A* **72**, 023611, 5 pages (2005).
 141. R. Carretero-González, P.G. Kevrekidis, D.J. Frantzeskakis and B.A. Malomed, Optical Manipulation of Matter-Waves, *Proc. SPIE Int. Soc. Opt. Eng.*, **5930**, 59300L July 2005.
 142. T. Kapitula and P.G. Kevrekidis, Bose-Einstein condensates in the presence of a magnetic trap and optical lattice, *Chaos* **15**, 037114, 13 pages (2005).
 143. M.A. Porter and P.G. Kevrekidis, Bose-Einstein Condensates in Superlattices, *SIAM Journal on Applied Dynamical Systems.* **4**, 783-807 (2005).
 144. G. Theocharis, P. Schmelcher, P.G. Kevrekidis, D.J. Frantzeskakis, Matter-wave solitons of collisionally inhomogeneous condensates, *Phys. Rev. A* **72**, 033614, 9 pages (2005).
 145. P.G. Kevrekidis, H. Susanto, R. Carretero-González, B.A. Malomed and D.J. Frantzeskakis, Vector solitons with an embedded domain wall, *Phys. Rev. E* **72**, 066604, 11 pages (2005).
 146. P.G. Kevrekidis, D.J. Frantzeskakis, R. Carretero-González, B.A. Malomed and A.R. Bishop, Discrete Solitons and Vortices on Anisotropic Lattices, *Phys. Rev. E* **72**, 046613, 9 pages (2005).

147. D.E. Pelinovsky, P.G. Kevrekidis and D.J. Frantzeskakis, Stability of discrete solitons in Nonlinear Schrödinger Lattices, *Physica D* **212**, 1-19 (2005).
148. D.E. Pelinovsky, P.G. Kevrekidis and D.J. Frantzeskakis, Persistence and stability of discrete vortices in nonlinear Schrödinger lattices, *Physica D* **212**, 20-53 (2005).
149. P.G. Kevrekidis, A. Stefanov, D.E. Pelinovsky, Nonlinearity Management in Higher Dimensions, *J. Phys. A.* **39**, 479-488 (2006).
150. C. Lou, L. Tang, J. Xu, Z. Chen and P.G. Kevrekidis, Symmetric and anti-symmetric solitons and Bloch states in two dimensional photonic lattices, *Opt. Lett.* **31**, 492-494 (2006).
151. X. Wang, Z. Chen and P.G. Kevrekidis, Observation of discrete solitons and soliton rotation in optically-induced periodic ring lattices, *Phys. Rev. Lett.* **96**, 083904, 4 pages (2006).
152. Mason A. Porter, P. G. Kevrekidis, R. Carretero-González and D. J. Frantzeskakis, Dynamics and Manipulation of Matter-Wave Solitons in Optical Superlattices, *Phys. Lett. A* **352**, 210-215 (2006).
153. P.G. Kevrekidis and D.E. Pelinovsky, Discrete vector on-site vortices, *Proceedings of the Royal Society of London A* **462**, 2671-2694 (2006).
154. T. Christodoulakis, Th. Grammenos, Ch. Helias, P.G. Kevrekidis and A. Spanou, Decoupling of the general scalar field model and the solution space for Bianchi type I and V cosmologies coupled to perfect fluid sources, *J. Math. Phys.* **47**, 042505, 11 pages (2006).
155. S.V. Dmitriev, P.G. Kevrekidis, A.A. Sukhorukov, N. Yoshikawa and S. Takeno, Discrete Nonlinear Schrödinger Equations Free of the Peierls-Nabarro Potential, *Phys. Lett. A* **356**, 324-332 (2006).
156. P. Buonsante, P. Kevrekidis, V. Penna and A. Vezzani, Ground-state properties of attractive bosons in mesoscopic 1D periodic lattices, *J. Phys. B. At. Mol. Opt. Phys.* **39**, S77-S87 (2006).
157. M. Aguero, D.J. Frantzeskakis and P.G. Kevrekidis, Asymptotic reductions of two coupled nonlinear Schrödinger equations: Application to Bose-Einstein condensates, *J. Phys. A* **39**, 7705-7718 (2006).

158. A. Trombettoni, P.G. Kevrekidis, H.E. Nistazakis and D.J. Frantzeskakis, Modulational Instability and its Suppression for Ultracold Bosons Under Magnetic and Optical Lattice Trapping, *J. Phys. B. At. Mol. Opt. Phys.* **39**, S231-S243 (2006).
159. S.V. Dmitriev, P.G. Kevrekidis, and N. Yoshikawa, Nearest neighbor discretizations of Klein-Gordon models cannot preserve both energy and linear momentum, *J. Phys. A* **39**, 7217-7226 (2006).
160. L. Chen, I.G. Kevrekidis and P.G. Kevrekidis, Equation-free dynamic renormalization in a glassy compaction model, *Phys. Rev. E* **74**, 016702, 5 pages (2006).
161. R.L. Horne, P.G. Kevrekidis and N. Whitaker, Solitary Waves in Discrete Media with Four Wave Mixing, *Phys. Rev. E.* **73**, 066601, 10 pages (2006).
162. P.G. Kevrekidis, N. Whitaker and D.J. Good and G. Herring, A Minimal Model for Tumor Angiogenesis, *Phys. Rev. E* **73**, 061926, 7 pages (2006).
163. M. Centurion, M.A. Porter, P.G. Kevrekidis and D. Psaltis, Nonlinear Management in Optics: Experiment, Theory and Simulation, *Phys. Rev. Lett.* **97**, 033903, 4 pages (2006).
164. E.P. Fitrakis, P.G. Kevrekidis, B.A. Malomed and D.J. Frantzeskakis, Discrete Vector Solitons in One-Dimensional Lattices in Photorefractive Media, *Phys. Rev. E.* **74**, 026605, 7 pages (2006).
165. J. Cuevas, P.G. Kevrekidis, D.J. Frantzeskakis and A.R. Bishop, Existence of bound states of a polaron with a breather in soft potentials, *Phys. Rev. B* **74**, 064304, 12 pages (2006).
166. D.L. Machacek, E.A. Foreman, Q.E. Hoq, P.G. Kevrekidis, A. Saxena, D.J. Frantzeskakis and A.R. Bishop, Statics and Dynamics of an Inhomogeneously-Nonlinear Lattice, *Phys. Rev. E* **74**, 036602, 10 pages (2006).
167. T.R.O. Melvin, A.R. Champneys, P.G. Kevrekidis and J. Cuevas, Radiationless Travelling Waves in Saturable Nonlinear Schrödinger Lattices, *Phys. Rev. Lett.* **97**, 124101, 4 pages (2006)

168. S. V. Dmitriev, P. G. Kevrekidis, N. Yoshikawa, D. J. Frantzeskakis, Exact static solutions for discrete ϕ^4 models free of the Peierls-Nabarro potential, *Phys. Rev. E* **74**, 046609, 15 pages (2006).
169. E.P. Fitrakis, H.E. Nistazakis, B.A. Malomed, D.J. Frantzeskakis and P.G. Kevrekidis, Spatiotemporal solitons in birefringent media near the zero-dispersion point, *J. Opt. Soc. Am. B* **23**, 1911-1919 (2006).
170. G. Theocharis, P.G. Kevrekidis, D.J. Frantzeskakis and P. Schmelcher, Symmetry Breaking in Symmetric and Asymmetric Double-Well Potentials, *Phys. Rev. E* **74**, 056608, 8 pages (2006).
171. T. Kapitula, P.G. Kevrekidis and Z. Chen, Three is a crowd: Solitary waves in photorefractive media with three potential wells, *SIAM J. Applied Dyn. Sys.* **5**, 598-633 (2006).
172. H.E. Nistazakis, M.A. Porter, P.G. Kevrekidis, D.J. Frantzeskakis, A. Nicolin and J.K. Chin, Half-Period Excitations in Continuum Periodic Systems, *Phys. Rev. A* **74**, 063617, 9 pages (2006).
173. H. Susanto, Q.E. Hoq and P.G. Kevrekidis, Stability of Discrete Solitons in the Presence of Parametric Driving, *Phys. Rev. E* **74**, 067601, 4 pages (2006).
174. P.G. Kevrekidis, J. Gagnon, D.J. Frantzeskakis and B.A. Malomed, X,Y,Z-Waves: Extended Structures in Nonlinear Lattices, *Phys. Rev. E* **75**, 016607, 6 pages (2007).
175. G. Theocharis, P. Schmelcher, P.G. Kevrekidis and D.J. Frantzeskakis, Trapping and transmission of matter-wave solitons in a collisionally inhomogeneous environment, *Phys. Rev. A* **74**, 053614, 5 pages (2006).
176. Martin Centurion, Mason A. Porter, Ye Pu, P. G. Kevrekidis, D. J. Frantzeskakis, Demetri Psaltis, Modulational instability in a layered Kerr medium: Theory and Experiment, *Phys. Rev. Lett.* **97**, 234101, 4 pages (2006).
177. P.G. Kevrekidis, H. Susanto and Z. Chen, High-Order-Mode Soliton Structures in Two-Dimensional Lattices with Defocusing Nonlinearity, *Phys. Rev. E* **74**, 066606, 9 pages (2006).

178. P. Buonsante, P. Kevrekidis, V. Penna and A. Vezzani, Ground-state Properties of Small-Size Nonlinear Dynamical Lattices, *Phys. Rev. E* **75**, 016212, 8 pages (2007).
179. P.G. Kevrekidis, R. Carretero-González, D.J. Frantzeskakis, B.A. Malomed and F.K. Diakonov, Skyrmion-like Excitations in Dynamical Lattices, *Phys. Rev. E* **75**, 026603, 6 pages (2007).
180. G. Herring, P.G. Kevrekidis, F. Williams, T. Christodoulakis and D.J. Frantzeskakis, From Feshbach-Resonance Managed Bose-Einstein Condensates to Anisotropic Universes: Applications of the Ermakov-Pinney equation with Time-Dependent Nonlinearity, *Phys. Lett. A* **367**, 140-148 (2007).
181. H.A. Harrington, M. Maier, L. Naidoo, N. Whitaker and P.G. Kevrekidis, A hybrid model for tumor-induced angiogenesis in the cornea in the presence of inhibitors, *Math. Comp. Model.* **46**, 513-524 (2007).
182. D.J. Frantzeskakis, P.G. Kevrekidis and N.P. Proukakis, Crossover dark soliton dynamics in ultracold one-dimensional Bose gases, *Phys. Lett. A* **364**, 129-134 (2007).
183. S.V. Dmitriev, P.G. Kevrekidis, N. Yoshikawa and D.J. Frantzeskakis, Exact stationary solutions for the translationally invariance discrete nonlinear Schrödinger equations, *J. Phys. A* **40**, 1727-1746 (2007).
184. P.G. Kevrekidis, Avinash Khare, A. Saxena, I. Bena and A.R. Bishop, Asymptotic Calculation of Discrete Nonlinear Wave Interactions, *Math. Comp. Simul.* **74**, 405-413 (2007).
185. P.G. Kevrekidis and Y. Drossinos, Nonlinearity from Linearity: the Ermakov-Pinney Equation Revisited, *Math. Comp. Simul.* **74**, 196-202 (2007).
186. J. Feng and P.G. Kevrekidis, Homogenization for Some Periodic and Random Nonlinear Schrödinger Models, *Math. Comp. Simul.* **74**, 414-428 (2007).
187. R. Carretero-González, P.G. Kevrekidis, D.J. Frantzeskakis, B.A. Malomed, S. Nandi and A.R. Bishop, Soliton trains and vortex streets as

- a form of Cerenkov radiation in trapped Bose-Einstein condensates, *Math. Comp. Simul.* **74**, 361-369 (2007).
188. P.G. Kevrekidis, S. Dmitriev and A.A. Sukhorukov, On a Class of Spatial Discretizations of Equations of the Nonlinear Schrödinger Type, *Math. Comp. Simul.* **74**, 343-351 (2007).
 189. A. Ludu and P.G. Kevrekidis, Nonlinear Dispersion Relations: A Unified Perspective, *Math. Comp. Simul.* **74**, 229-236 (2007).
 190. M.A. Porter, P.G. Kevrekidis, B.A. Malomed and D.J. Frantzeskakis, Modulated Amplitude Waves in Collisionally Inhomogeneous Bose-Einstein Condensates, *Physica D* **229**, 104-115 (2007).
 191. H. Susanto, P.G. Kevrekidis, B.A. Malomed, R. Carretero-González, D.J. Frantzeskakis, Discrete surface solitons in two dimensions *Phys. Rev. E* **75**, 056605, 8 pages (2007).
 192. V. Rothos and P.G. Kevrekidis, Stability of waves in multi-component DNLS systems, *J. Phys. A*, **40**, 4553-4566 (2007).
 193. H. Susanto, P.G. Kevrekidis, R. Carretero-González, B.A. Malomed, D.J. Frantzeskakis and A.R. Bishop, Cerenkov-like radiation in a binary Schrödinger flow past an obstacle, *Phys. Rev. A* **75**, 055601, 4 pages (2007).
 194. M. Centurion, M.A. Porter, Ye Pu, P.G. Kevrekidis, D.J. Frantzeskakis and D. Psaltis, Modulational instability in nonlinearity-managed optical media, *Phys. Rev. A* **75**, 75, 063804, 12 pages (2007).
 195. Sergey V. Dmitriev, Panayotis G. Kevrekidis, Avinash Khare, Avadh Saxena, Exact static solutions to a translationally invariant discrete ϕ^4 model, *J. Phys. A: Math. Theor.* **40**, 6267-6286 (2007).
 196. E.P. Fitrakis, P. G. Kevrekidis, H. Susanto, D.J. Frantzeskakis, Dark Solitons in Discrete Lattices: Saturable versus Cubic Nonlinearities, *Phys. Rev. E.* **75**, 066608, 12 pages (2007).
 197. I. Roy, S.V. Dmitriev, P.G. Kevrekidis and A. Saxena, Comparative Study of Different Discretizations of the ϕ^4 model, *Phys. Rev. E* **76**, 026601, 14 pages (2007).

198. T. Kapitula, P.G. Kevrekidis and R. Carretero-González, Rotating matter waves in Bose-Einstein condensates, *Physica D* **233**, 112-137 (2007).
199. P. Niarchou, G. Theocharis, P.G. Kevrekidis, P. Schmelcher, D.J. Frantzeskakis, Soliton oscillations in collisionally inhomogeneous attractive Bose-Einstein condensates, *Phys. Rev. A* **76**, 023615, 6 pages (2007).
200. Z. Rapti, P.G. Kevrekidis, V.V. Konotop, C.K.R.T. Jones, Solitary Waves Under the Competition of Linear and Nonlinear Periodic Potentials, *Journal of Physics A: Mathematical and Theoretical* **40**, 14151-14163 (2007).
201. M. Lukas, D. Pelinovsky and P.G. Kevrekidis, Lyapunov-Schmidt reduction algorithm for three-dimensional discrete vortices, *Physica D* **237**, 339-350 (2008).
202. D.E. Pelinovsky and P.G. Kevrekidis, Dark Solitons in External Potentials, *Zeitschrift für angewandte Mathematik und Physik* **59**, 559-599 (2008).
203. E.W. Kirr, P.G. Kevrekidis, E. Shlizerman, M.I. Weinstein, Symmetry breaking bifurcation in Nonlinear Schrodinger/Gross-Pitaevskii Equations, *SIAM Journal of Mathematical Analysis* **40**, 566-604 (2008).
204. K.J.H. Law, P.G. Kevrekidis, D.J. Frantzeskakis and A.R. Bishop, Emergence of unstable modes in an expanding domain for energy-conserving wave equations, *Phys. Lett. A* **372**, 658-664 (2008).
205. L. Tang, C. Lou, X. Wang, D. Song, X. Chen, J. Xu, Z. Chen, H. Susanto, K. Law and P.G. Kevrekidis, Observation of dipole-like gap solitons in waveguide lattices induced with a self-defocusing nonlinearity, *Optics Letters* **32**, 3011-3013 (2007).
206. K.M. Mertes, J.W. Merrill, R. Carretero-González, D.J. Frantzeskakis, P.G. Kevrekidis, D.S. Hall, Non-Equilibrium Dynamics and Superfluid Ring Excitations in Binary Bose-Einstein Condensates, *Physical Review Letters* **99**, 190402, 4 pages (2007).

207. Jesús Cuevas, Boris A. Malomed, and P. G. Kevrekidis, Two-dimensional discrete solitons in rotating lattices, *Phys. Rev. E* **76**, 046608, 12 pages (2007).
208. G. Theocharis, P.G. Kevrekidis, M.K. Oberthaler and D.J. Frantzeskakis, Dark matter-wave solitons in the dimensionality crossover, *Phys. Rev. A* **76**, 045601, 4 pages (2007).
209. H.E. Nistazakis, D.J. Frantzeskakis, P.G. Kevrekidis, B.A. Malomed and R. Carretero-González, Polarized States and Domain Walls in Spinor Bose-Einstein Condensates, *Phys. Rev. A* **76**, 063603, 8 pages (2007).
210. H. Susanto, P.G. Kevrekidis, R. Carretero-González, B.A. Malomed and D.J. Frantzeskakis, Mobility of Discrete Solitons in Quadratically Nonlinear Media, *Phys. Rev. Lett.* **99**, 214103, 4 pages (2007).
211. T.R.O. Melvin, A.R. Champneys, P.G. Kevrekidis and J. Cuevas, Travelling solitary waves in the discrete Schrödinger Equation with Saturable Nonlinearity: Existence, Stability and Dynamics, *Physica D* **237**, 551-567 (2008).
212. H. Susanto, P.G. Kevrekidis, B.A. Malomed and F.Kh. Abdullaev, Effects of Time-Periodic Linear Coupling on Two-Component Bose-Einstein Condensates in Two Dimensions, *Phys. Lett. A* **372**, 1631-1638 (2008).
213. G. Herring, P.G. Kevrekidis, B.A. Malomed, R. Carretero-González, D.J. Frantzeskakis, Symmetry Breaking in Linearly Coupled Dynamical Lattices, *Phys. Rev. E* **76**, 066606, 9 pages (2007).
214. H.E. Nistazakis, D.J. Frantzeskakis, P.G. Kevrekidis, B.A. Malomed, R. Carretero-González, Bright-Dark Soliton Complexes in Spinor Bose-Einstein Condensates, *Phys. Rev. A* **77**, 033612, 13 pages (2008).
215. P.G. Kevrekidis, J.A. Espinola-Rocha, Y. Drossinos and A. Stefanov, Dynamical Barrier for the Nucleation of Solitary Waves in Discrete Lattices, *Phys. Lett. A* **372**, 2247-2253 (2008).

216. M.A. Porter, C. Daraio, E.B. Herbold, I. Szelengowicz and P.G. Kevrekidis, Highly Nonlinear Solitary Waves in Periodic Dimer Granular Chains, *Phys. Rev. E*, **77**, 015601(R) (2008).
217. F.Kh. Abdullaev, Yu.V. Bludov, S.V. Dmitriev, P.G. Kevrekidis and V.V. Konotop, Generalized Neighbor-Interaction Models Induced by Nonlinear Lattices, *Phys. Rev. E* **77**, 016604, 13 pages (2008).
218. H. Susanto, R.L. Horne, N. Whitaker and P.G. Kevrekidis, Plane Waves and Localized Modes in Quadratic Waveguide Arrays, *Phys. Rev. A*, **77**, 033805, 16 pages (2008).
219. A.I. Nicolin, R. Carretero-González, and P.G. Kevrekidis, Faraday Waves in Bose-Einstein Condensates, *Phys. Rev. A* **76**, 063609, 10 pages (2007).
220. R. Carretero-González, N. Whitaker, P.G. Kevrekidis and D.J. Frantzeskakis, Formation of vortices, vortex necklaces and vortex rings in sliced condensates, *Phys. Rev. A* **77**, 023605, 8 pages (2008).
221. G. Herring, L.D. Carr, R. Carretero-González, P.G. Kevrekidis and D.J. Frantzeskakis, Radially Symmetric Nonlinear States of Harmonically Trapped Bose-Einstein Condensates, *Phys. Rev. A* **77**, 023625, 11 pages (2008).
222. R. Carretero-González, B.P. Anderson, P.G. Kevrekidis, D.J. Frantzeskakis and C.N. Weiler, Dynamics of Vortex Formation in Merging Bose-Einstein Condensate Fragments, *Phys. Rev. A* **77**, 033625, 11 pages (2008).
223. K.J.H. Law, L. Qiao, P. G. Kevrekidis, I. G. Kevrekidis, Stability of Quantized Vortices in a Bose-Einstein condensate confined in an Optical Lattice, *Phys. Rev. A*, **77**, 053612, 12 pages (2008).
224. R. Carretero-González, D.J. Frantzeskakis, and P.G. Kevrekidis, Nonlinear Waves in Bose-Einstein Condensates: Physical Relevance and Mathematical Techniques, *Nonlinearity* **21**, R139-R202 (2008).
225. A.S. Rodrigues, P.G. Kevrekidis, M.A. Porter, D.J. Frantzeskakis, P. Schmelcher and A.R. Bishop, Matter-wave solitons for a periodic piecewise-constant nonlinearity, *Phys. Rev. A* **78**, 013611, 10 pages (2008).

226. T. Kapitula, P.G. Kevrekidis and D.J. Frantzeskakis, Disk-shaped Bose-Einstein condensates in the presence of an harmonic trap and an optical lattice, *Chaos* **18**, 023101, 10 pages (2008).
227. F. Palmero, R. Carretero-González, J. Cuevas, P.G. Kevrekidis and W. Królikowski, Solitons in one-dimensional nonlinear Schrödinger lattices with a local inhomogeneity, *Physical Review E* **77**, 036614, 11 pages (2008).
228. S.V. Dmitriev, A. Khare, P.G. Kevrekidis, A. Saxena and L. Hadzievski, High-speed kinks in a generalized discrete ϕ^4 model, *Physical Review E* **77**, 056603, 9 pages (2008).
229. D. Song, C. Lou, L. Tang, X. Wang, W. Li, X. Chen, K.J.H. Law, H. Susanto, P.G. Kevrekidis, J. Xu and Z. Chen, Self-trapping of optical vortices in waveguide lattices with a self-defocusing nonlinearity, *Optics Express*, **16**, 10110-10116 (2008).
230. D.E. Pelinovsky and P.G. Kevrekidis, Stability of discrete dark solitons in nonlinear Schrödinger lattices, *Journal of Physics A: Mathematical and Theoretical* **41**, 185206, 10 pages (2008).
231. H.E. Nistazakis, Z. Rapti, D.J. Frantzeskakis, P.G. Kevrekidis, P. Sodano and A. Trombettoni, Rabi switch of condensate wave functions in a multicomponent Bose gas, *Physical Review A* **78**, 023635, 16 pages (2008).
232. S. Beheshti, K.J.H. Law, P.G. Kevrekidis and M.A. Porter, Averaging of nonlinearity management with dissipation, *Physical Review A* **78**, 025805, 4 pages (2008).
233. K.J.H. Law, H. Susanto and P.G. Kevrekidis, Solitons and vortices in honeycomb defocusing photonic lattices, *Physical Review A* **78**, 033802, 13 pages (2008).
234. Z. Shi, K.J.H. Law, P.G. Kevrekidis and B.A. Malomed, Trapping of two-component matter-wave solitons by mismatched optical lattices, *Phys. Lett. A* **372**, 4021-4027 (2008).

235. A. Weller, J.P. Ronzheimer, C. Gross, D.J. Frantzeskakis, G. Theocharis, P.G. Kevrekidis, J. Esteve and M.K. Oberthaler, Experimental observation of oscillating and interacting matter wave dark solitons, *Phys. Rev. Lett.* **101**, 130401 (2008).
236. Q.E. Hoq, R. Carretero-González, P.G. Kevrekidis, B.A. Malomed, D.J. Frantzeskakis, Yu.V. Bludov and V.V. Konotop, Surface solitons in three dimensions, *Physical Review E* **78**, 036605, 10 pages (2008).
237. C. Chong, R. Carretero-González, B.A. Malomed and P.G. Kevrekidis, Multistable solitons in higher-dimensional cubic-quintic nonlinear lattices, *Physica D* **238**, 126-136 (2009).
238. K.J.H. Law, P.G. Kevrekidis, B.P. Anderson, R. Carretero-González, and D.J. Frantzeskakis, Structure and stability of two-dimensional Bose-Einstein condensate confined in an optical lattice, *Journal of Physics B: Atomic, Molecular and Optical Physics* **41**, 195303, 12 pages (2008).
239. S.V. Dmitriev, P.G. Kevrekidis and Yu.S. Kivshar, Radiationless energy exchange in three-soliton collisions, *Physical Review E*, **78**, 046604, 10 pages (2008).
240. C. Wang, P.G. Kevrekidis, N. Whitaker, D.J. Frantzeskakis, S. Middelekamp and P. Schmelcher, Collisionally inhomogeneous Bose-Einstein condensates in double-well potentials, *Physica D* **238**, 1362-1371 (2009).
241. G. Karali, P.G. Kevrekidis and N.K. Efremidis, Nonlinear from linear states in two-component Bose-Einstein condensates, *Journal of Physics A: Mathematical and Theoretical* **42**, 045206, 11 pages (2009).
242. V.M. Rothos, H.E. Nistazakis, P.G. Kevrekidis and D.J. Frantzeskakis, Stability of localized structures in generalized DNLS equations near the anti-continuum limit, *Journal of Physics A: Mathematical and Theoretical* **42**, 025207, 13 pages (2009).
243. J.Cuevas, G. James, P.G. Kevrekidis, and K.J.H. Law, Vortex solutions of the discrete Gross-Pitaevskii equation starting from the anti-continuum limit, *Physica D* **238**, 1422-1431 (2009).

244. S. Middelkamp, P.G. Kevrekidis, D.J. Frantzeskakis and P. Schmelcher, Matter-wave solitons in the presence of collisional inhomogeneities: perturbation theory and the impact of derivative terms, *Physics Letters A* **373**, 262-268 (2009).
245. C. Wang, P.G. Kevrekidis, N. Whitaker, T.J. Alexander, D.J. Frantzeskakis, and P. Schmelcher, Spinor Bose-Einstein condensates in double well potentials, *Journal of Physics A: Mathematical and Theoretical* **42**, 035201, 19 pages (2009).
246. G. Karali and P.G. Kevrekidis, Bubble Interactions for the Mullins-Sekerka Problem: Some Case Examples, *Mathematics and Computers in Simulation* **80**, 707-720 (2009).
247. D.E. Pelinovsky and P.G. Kevrekidis, Periodic oscillations of dark solitons in parabolic potentials, *Contemporary Mathematics* **473**, 159-179 (2008).
248. Jesús Adrian Espinola-Rocha and P.G. Kevrekidis, Threshold for Soliton Creation in the Ablowitz-Ladik Lattice, *Mathematics and Computers in Simulation* **80**, 693-706 (2009).
249. H. Susanto, K. Law, P.G. Kevrekidis, L. Tang, C. Lou, X. Wang and Z. Chen, Dipole and quadrupole solitons in optically-induced two-dimensional defocusing photonic lattices, *Physica D* **237**, 3123-3134 (2008).
250. J. Cuevas, P.G. Kevrekidis, D.J. Frantzeskakis and B.A. Malomed, Discrete solitons in nonlinear Schrödinger lattices with a power-law nonlinearity, *Physica D* **238**, 67-76 (2009).
251. Q.E. Hoq, J. Gagnon, P.G. Kevrekidis, B.A. Malomed, D.J. Frantzeskakis and R. Carretero-González, Extended Nonlinear Waves in Multidimensional Dynamical Lattices, *Mathematics and Computers in Simulation* **80**, 721-731 (2009).
252. J Cuevas, G James, P G Kevrekidis, B A Malomed and B Sánchez-Rey, Approximation of solitons in the discrete NLS equation, *Journal of Nonlinear Mathematical Physics* **15**, 114-126 (2008).

253. A. Trombettoni, H.E. Nistazakis, Z. Rapti, D.J. Frantzeskakis, and P.G. Kevrekidis, Soliton Dynamics in Linearly Coupled Discrete Nonlinear Schrödinger Equations, *Mathematics and Computers in Simulation* **80**, 814-824 (2009).
254. C. Wang, P.G. Kevrekidis, N. Whitaker and B.A. Malomed, Two-Component Nonlinear Schrödinger Models with a Double-Well Potential, *Physica D* **237**, 2922-2932 (2008).
255. T. Ioannidou and P.G. Kevrekidis, Discrete skyrmions in 2+1 and 3+1 dimensions, *Physics Letters A* **372**, 6735-6741 (2008).
256. K.J.H. Law, P.G. Kevrekidis, V. Koukouloyannis, I. Kourakis, D.J. Frantzeskakis and A.R. Bishop, Discrete solitons and vortices in hexagonal and honeycomb lattices: existence, stability and dynamics, *Physical Review E* **78**, 066610, 12 pages (2008).
257. M.A. Porter, C. Daraio, I. Szelengowicz, E.B. Herbold, P.G. Kevrekidis, Highly nonlinear solitary waves in heterogeneous periodic granular media, *Physica D* **238**, 666-676 (2009).
258. K.J.H. Law, P.G. Kevrekidis, T.J. Alexander, W. Krolikowski and Yu.S. Kivshar, Stable higher-charge discrete vortices in hexagonal optical lattices, *Physical Review A* **79**, 025801, 4 pages (2009).
259. R. Carretero-González, D. Khatri, M.A. Porter, P.G. Kevrekidis, and C. Daraio, Dissipative solitary waves in periodic granular media, *Physical Review Letters* **102**, 024102 (2009).
260. R.M. Caplan, Q.E. Hoq, R. Carretero-González and P.G. Kevrekidis, Azimuthal modulational instability of vortices in the nonlinear Schrödinger equation, *Optics Communications* **282**, 1399-1405 (2009).
261. N.L. Tsitsas, N. Rompotis, I. Kourakis, D.J. Frantzeskakis and P.G. Kevrekidis, Ultra-short solitons in left-handed metamaterials, *Physical Review E* **79**, 037601, 4 pages (2009).
262. A.S. Rodrigues, P.G. Kevrekidis, R. Carretero-González, D.J. Frantzeskakis, P. Schmelcher, T.J. Alexander and Yu.S. Kivshar, Spinor Bose-Einstein condensate flow past an obstacle, *Physical Review A* **79**, 043603, 8 pages (2009).

263. Yu.G. Gladush, A.M. Kamchatnov, Z. Shi, P.G. Kevrekidis, D.J. Frantzeskakis and B.A. Malomed, Wave patterns generated by a supersonic moving body in a binary Bose-Einstein condensate, *Physical Review A* **79**, 033623, 10 pages (2009).
264. Q.-Y. Chen, P.G. Kevrekidis and B. Malomed, Nonlinear Schrödinger equations under random nonlinearity management, *Physics Letters A* **373**, 1361-1367 (2009).
265. B. Terhalle, T. Richter, K.J.H. Law, D. Göries, P. Rose, T.J. Alexander, P.G. Kevrekidis, A.S. Desyatnikov, W. Krolikowski, F. Kaiser, C. Denz and Yu.S. Kivshar, Observation of double-charge discrete vortex solitons in hexagonal photonic lattices, *Physical Review A* **79**, 043821 (2009).
266. K.J.H. Law, A. Saxena, P.G. Kevrekidis and A.R. Bishop, Localized structures in Kagomé lattices, *Physical Review A* **79**, 053818 (2009).
267. J. Cuevas, B.A. Malomed, P.G. Kevrekidis, and D.J. Frantzeskakis, Solitons in quasi-one-dimensional Bose-Einstein condensates with competing dipolar and local interactions, *Physical Review A* **79**, 053608 (2009).
268. D. Cubero, J. Cuevas and P.G. Kevrekidis, Nucleation of breathers via stochastic resonance in nonlinear lattices, *Physical Review Letters* **102**, 205505 (2009).
269. J. Cuevas, L.Q. English, P.G. Kevrekidis and M. Anderson, Discrete breathers in a forced-damped array of coupled pendula: modeling, computation and experiment, *Physical Review Letters* **102**, 224101 (2009).
270. V. Perez-Garcia, N.G. Berloff, P.G. Kevrekidis, V.V. Konotop, and B.A. Malomed, Nonlinear phenomena in degenerate quantum gases (Introduction to Special Volume of *Physica D*, associated with the homonymous workshop) *Physica D* **238**, 1289-1298 (2009).
271. T. Ioannidou and P.G. Kevrekidis, Discrete baby and three-dimensional Skyrmions, *Theoretical and Mathematical Physics* **160**, 946-952 (2009).
272. M.C. Davis, R. Carretero-González, Z. Shi, K.J.H. Law, P.G. Kevrekidis and B.P. Anderson, Manipulation of vortices by localized impurities

- in Bose-Einstein condensates, *Physical Review A* **80**, 023604, 9 pages (2009).
273. R. Navarro, R. Carretero-González and P.G. Kevrekidis, Phase separation and dynamics of two-component Bose-Einstein condensates, *Physical Review A* **80**, 023613, 14 pages (2009).
274. V. Koukouloyannis and P.G. Kevrekidis, On the stability of multi-breathers in Klein-Gordon chains, *Nonlinearity* **22**, 2269-2285 (2009).
275. P.G. Kevrekidis, Non-nearest-neighbor interactions in nonlinear dynamical lattices, *Physics Letters A* **373**, 3688-3693 (2009).
276. C. Wang, G. Theocharis, P.G. Kevrekidis, N. Whitaker, K.J.H. Law, D.J. Frantzeskakis and B.A. Malomed, A two-dimensional paradigm for symmetry-breaking: the nonlinear Schrödinger equation with a four-well potential, *Physical Review E* **80**, 046611, 9 pages (2009).
277. P.G. Kevrekidis, D.E. Pelinovsky and A. Stefanov, Asymptotic stability of small solitons in the discrete nonlinear Schrödinger equation in one dimension, *SIAM Journal of Mathematical Analysis* **41**, 2010-2030 (2009).
278. C. Wang, G. Theocharis, P.G. Kevrekidis, N. Whitaker, D.J. Frantzeskakis and B.A. Malomed, Nonlinear Schrödinger equations with a four-well potential in two dimensions: bifurcations and stability analysis, pp. 173–180 in “Nonlinear Science and Complexity”, J.A. Tenreiro Machado, A.C.J. Luo, R.S. Barbosa, M.F. Silva and L.B. Figueiredo (eds), Springer-Verlag (Dordrecht, 2011).
279. J. Cuevas, Q.E. Hoq, H. Susanto and P.G. Kevrekidis, Interlaced solitons and vortices in coupled DNLS lattices, *Physica D* **238**, 2216-2226 (2009).
280. T. Kapitula, K.J.H. Law, and P.G. Kevrekidis, Interaction of excited states in two-species Bose-Einstein condensates: a case study, *SIAM Journal of Applied Dynamical Systems* **9**, 34-61 (2010).
281. G. Theocharis, M. Kavousanakis, P.G. Kevrekidis, C. Daraio, M.A. Porter and I.G. Kevrekidis, Localized breathing modes in granular crystals with defects, *Physical Review E* **80**, 066601, 11 pages (2009).

282. K.J.H. Law, D. Song, P.G. Kevrekidis, J. Xu and Z. Chen, Geometric stabilization of extended $S = 2$ vortices in two-dimensional photonic lattices: theoretical analysis, numerical computation and experimental results, *Physical Review A* **80**, 063817, 9 pages (2009).
283. N.L. Tsitsas, T.P. Horikis, Y. Shen, P.G. Kevrekidis, N. Whitaker and D.J. Frantzeskakis, Short pulse equations for frequency band gaps in nonlinear metamaterials, *Physics Letters A* **374**, 1384-1388 (2010).
284. P.G. Kevrekidis and D.E. Pelinovsky, Distribution of eigenfrequencies for oscillations of the ground state in the Thomas-Fermi limit, *Physical Review A* **81**, 023627, 5 pages (2010).
285. L.Q. English, F. Palmero, A.J. Sievers, P.G. Kevrekidis and D.H. Barkan, Traveling and stationary intrinsic localized modes and their spatial control in electrical lattices, *Phys. Rev. E* **81**, 046605, 8 pages (2010).
286. S.P. Cockburn, H.E. Nistazakis, T.P. Horikis, P.G. Kevrekidis, N.P. Proukakis and D.J. Frantzeskakis, Matter-wave dark solitons: stochastic vs. analytical results, *Physical Review Letters* **104**, 174101, 4 pages (2010).
287. D. Song, C. Lou, K.J.H. Law, L. Tang, Z. Ye, P.G. Kevrekidis, J. Xu and Z. Chen, Self-trapping of optical vortices at the surface of an induced semi-infinite photonic lattice, *Optics Express* **18**, 5873-5878 (2010).
288. Q.Y. Chen, P.G. Kevrekidis and B.A. Malomed, Formation of fundamental solitons in the two-dimensional nonlinear Schrödinger equation with the lattice potential, *European Journal of Physics D* **58**, 141-146 (2010).
289. H. Susanto, P.G. Kevrekidis, F.Kh. Abdullaev and B.A. Malomed, Symmetry breaking, coupling management and localized modes in dual-core discrete nonlinear Schrödinger lattices, *Journal on Computational and Applied Mathematics*, in press (2010).
290. Y. Shen, F. Williams, P.G. Kevrekidis, A. Saxena and D.J. Frantzeskakis, On some single-hump solutions of the short-pulse equation and their periodic generalizations, *Physics Letters A* **374**, 2964-2967 (2010).

291. V. Koukouloyannis, P.G. Kevrekidis, K.J.H. Law, I. Kourakis and D.J. Frantzeskakis, Existence and Stability of multisite breathers in honeycomb and hexagonal lattices, *Journal of Physics A: Mathematical and Theoretical* **43**, 235101 (2010).
292. S. Middelkamp, G. Theocharis, P.G. Kevrekidis, D.J. Frantzeskakis, P. Schmelcher, Dark solitons in cigar-shaped Bose-Einstein condensates in double-well potentials, *Physical Review A* **81**, 053618, 15 pages (2010).
293. G. Theocharis, A. Weller, J.P. Ronzheimer, C. Gross, M.K. Oberthaler, P.G. Kevrekidis and D.J. Frantzeskakis, Multiple atomic dark solitons in cigar-shaped Bose-Einstein condensates, *Physical Review A* **81**, 063604, 15 pages (2010).
294. H.-Z. Wang, B. Liu, Y.-J. He, B.A. Malomed, X. Wang, P.G. Kevrekidis, T. Wang, F.-C. Leng, Z.-R. Qiu, Continuous generation of soliton patterns in two-dimensional dissipative media by razor, dagger, and needle potentials, *Optics Letters* **35**, 1974-1976 (2010).
295. M. Coles, P.G. Kevrekidis and D.E. Pelinovsky, Excited states in the Thomas-Fermi limit, *Nonlinearity* **23**, 1753-1770 (2010).
296. N. Boechler, G. Theocharis, S. Job, P.G. Kevrekidis, M.A. Porter and C. Daraio, Discrete breathers in one-dimensional diatomic granular crystals, *Physical Review Letters* **104**, 244302, 4 pages (2010).
297. S. Middelkamp, P.G. Kevrekidis, R. Carretero-González, D.J. Frantzeskakis and P. Schmelcher, Bifurcation, Stability and Dynamics of Multiple Matter-Wave Vortex States, *Physical Review A* **82**, 013646, 15 pages (2010).
298. C. Wang, P.G. Kevrekidis, T.P. Horikis, D.J. Frantzeskakis, Collisional-inhomogeneity-induced generation of matter-wave dark solitons, *Physics Letters A* **374**, 3863-3868 (2010).
299. S. Middelkamp, P.G. Kevrekidis, D.J. Frantzeskakis, R. Carretero-González, P. Schmelcher, Anomalous modes and matter-wave vortices in the presence of collisional inhomogeneities and finite temperature, *Journal of Physics B* **43**, 155303, 11 pages (2010).

300. L. Ponson, N. Boechler, Y.M. Lai, M.A. Porter, P.G. Kevrekidis and C. Daraio, Elastic spin chains, *Physical Review E* **82**, 021301, 9 pages (2010).
301. M. Ma, R. Carretero-González, P.G. Kevrekidis, D.J. Frantzeskakis and B.A. Malomed, Controlling the transverse instability of dark solitons and nucleation of vortices by a potential barrier, *Physical Review A* **82**, 023621, 9 pages (2010).
302. A. Stefanov, Y. Shen and P.G. Kevrekidis, Well-posedness and small data scattering for the generalized Ostrovsky equation, *Journal of Differential Equations* **249**, 2600-2617 (2010).
303. K.J.H. Law, A. Saxena, P.G. Kevrekidis and A.R. Bishop, Stable structures with high topological charge in nonlinear photonic quasicrystals, *Physical Review A* **82**, 035802, 4 pages (2010).
304. F.Kh. Abdullaev, P.G. Kevrekidis and M. Salerno, Compactons in nonlinear Schrödinger lattices with strong nonlinearity management, *Physical Review Letters* **105**, 113901, 4 pages (2010).
305. C. Hoogeboom, G. Theocharis and P.G. Kevrekidis, Discrete breathers at the interface between a diatomic and a monoatomic granular chain, *Physical Review E* **82**, 061303, 8 pages (2010).
306. G. Theocharis, N. Boechler, P.G. Kevrekidis, S. Job, M.A. Porter, C. Daraio, Intrinsic Energy Localization through Discrete Gap Breathers in One-Dimensional Diatomic Granular Crystals, *Physical Review E* **82**, 056604, 11 pages (2010).
307. K.J.H. Law, P.G. Kevrekidis, L.S. Tuckerman, Stable vortex-bright soliton structures in two-component Bose-Einstein condensates, *Physical Review Letters* **105**, 160405, 4 pages (2010).
308. S. Middelkamp, J.J. Chang, C. Hamner, R. Carretero-González, P.G. Kevrekidis, V. Achilleos, D.J. Frantzeskakis, P. Schmelcher and P. Engels, Dynamics of dark-bright solitons in cigar-shaped Bose-Einstein condensates, *Physics Letters A* **375**, 642-646 (2011).
309. Z. Shi, H. Susanto, R. Horne, N. Whitaker, P.G. Kevrekidis, Existence, stability and dynamics of solitary waves in spinor dynamical lattices,

- Journal of Physics A: Mathematical and Theoretical **43**, 505203, 16 pages (2010).
310. V.A. Achilleos, T.P. Horikis, G. Theocharis, P.G. Kevrekidis and D.J. Frantzeskakis, Excited Bose-Einstein condensates: quadrupole oscillations and dark solitons, *Mathematics and Computers in Simulation* **82**, 946-957 (2012).
 311. P.G. Kevrekidis, *Nonlinear Waves in Lattices: Past, Present, Future*, *IMA Journal of Applied Mathematics* **76**, 489-523 (2011).
 312. C. Wang, P.G. Kevrekidis, D.J. Frantzeskakis and B.A. Malomed, Effects of Long-Range Nonlinear Interactions in Double-Well Potentials, *Physica D* **240**, 805-813 (2011).
 313. A. Alvarez, J. Cuevas, F.R. Romero and P.G. Kevrekidis, Dark-bright discrete solitons: a numerical study of existence, stability and dynamics, *Physica D* **240**, 767-778 (2011).
 314. J. Stockhofe, S. Middelkamp, P. Schmelcher and P.G. Kevrekidis, Impact of anisotropy on vortex clusters and their dynamics, *Europhysics Letters* **93**, 20008, 6 pages (2011). [Selected as an Editor's Choice article by the journal]
 315. P.G. Kevrekidis and D.J. Frantzeskakis, Multiple dark solitons in Bose-Einstein condensates at finite temperatures, *Discrete and Continuous Dynamical Systems, Series S* **4**, 1199-1212 (2011).
 316. G.P. Veldes, J. Cuevas, P.G. Kevrekidis and D.J. Frantzeskakis, Quasi-discrete microwave solitons in a split-ring-resonator-based left-handed coplanar waveguide, *Physical Review E* **83**, 046608, 12 pages (2011).
 317. N. Boechler, J. Yang, G. Theocharis, P.G. Kevrekidis and C. Daraio, Tunable vibrational band gaps in one-dimensional diatomic granular crystals with three-particle unit cells, *Journal of Applied Physics* **109**, 074906, 7 pages (2011).
 318. L.Q. English, S. Wheeler, Y. Shen, G.P. Veldes, N. Whitaker, P.G. Kevrekidis, D.J. Frantzeskakis, Backward wave propagation and discrete solitons in a left-handed electrical lattice, *Physics Letters A* **375**, 1242-1248 (2011).

319. P.G. Kevrekidis, A. Nahmod and C. Zeng, Radial standing and self-similar waves for the hyperbolic cubic NLS in 2D, *Nonlinearity* **24**, 1523-1538 (2011) [Selected as Featured Article, by the journal].
320. J. Cuevas, V. Koukouloyannis, P.G. Kevrekidis and J.F.R. Archilla, Multibreather and vortex breather stability in Klein-Gordon lattices: equivalence between two different approaches, *International Journal of Bifurcations and Chaos* **21**, 2161-2177 (2011).
321. H.E Nistazakis, B.A. Malomed, P.G. Kevrekidis and D.J. Frantzeskakis, Control of symmetry breaking in double well potentials by the resonant nonlinearity management, *Chaos* **21**, 013114, 9 pages (2011).
322. D.E. Pelinovsky and P.G. Kevrekidis, Variational approximations of trapped vortices in the large-density limit, *Nonlinearity* **24**, 1271-1289 (2011).
323. J. Cuevas, A.S. Rodrigues, R. Carretero-González, P.G. Kevrekidis, D.J. Frantzeskakis, Nonlinear Excitations, Stability Inversions and Dissipative Dynamics in Quasi-one-dimensional Polariton Condensates, *Physical Review B* **83**, 245140, 10 pages (2011).
324. P.J. Torres, R. Carretero-González, S. Middelkamp, P. Schmelcher, D.J. Frantzeskakis and P.G. Kevrekidis, Vortex interaction dynamics in trapped Bose-Einstein condensates, *Communications on Pure and Applied Analysis* **10**, 1589-1615 (2011).
325. C. Chong, R. Carretero-González, B.A. Malomed and P.G. Kevrekidis, Variational approximations in discrete nonlinear Schrodinger equations with next-nearest-neighbor couplings, *Physica D* **240**, 1449-1459 (2011).
326. E. Kirr, P.G. Kevrekidis and D.E. Pelinovsky, Symmetry-breaking bifurcation in the nonlinear Schrödinger equation with symmetric potentials, *Communications in Mathematical Physics* **308**, 795-844 (2011).
327. K. Li and P.G. Kevrekidis, PT-symmetric oligomers: Analytical solutions, linear stability, and nonlinear dynamics, *Physical Review E* **83**, 066608, 7 pages (2011).
328. R.M. Caplan, R. Carretero-González, P.G. Kevrekidis and B.A. Malomed, Existence, Stability, and Dynamics of Bright Vortices in the

- Cubic-Quintic Nonlinear Schrödinger Equation, *Mathematics and Computers in Simulation* **82**, 1150-1171 (2012).
329. S. Middelkamp, P.G. Kevrekidis, D.J. Frantzeskakis, R. Carretero-González and P. Schmelcher, Emergence and stability of vortex clusters in Bose-Einstein condensates: a bifurcation approach near the linear limit, *Physica D* **240**, 1449-1459 (2011).
330. R. Dong, C.E. Rüter, D. Kip, J. Cuevas, P.G. Kevrekidis, D. Song, J. Xu, Dark-bright gap solitons in coupled-mode one-dimensional saturable waveguide arrays, *Physical Review A* **83**, 063816, 10 pages (2011).
331. V. Achilleos, G. Theocharis, P.G. Kevrekidis, N. Karachalios, F. Diakonov, and D. Frantzeskakis, Nonlinear states of a self-interacting quantum harmonic oscillator on a lattice, *Journal of Mathematical Physics* **52**, 092701, 25 pages (2011).
332. S. Middelkamp, P.J. Torres, P.G. Kevrekidis, D.J. Frantzeskakis, R. Carretero-González, P. Schmelcher, D.V. Freilich, D.S. Hall, Guiding Center Dynamics of vortex dipoles in Bose-Einstein Condensates, *Physical Review A* **84**, 011605(R), 4 pages (2011).
333. F. Palmero, L.Q. English, J. Cuevas, R. Carretero-González, P.G. Kevrekidis, Discrete breathers in a nonlinear electric line: Modeling, Computation and Experiment, *Physical Review E* **84**, 026605 (2011).
334. P.J. Torres, P.G. Kevrekidis, D.J. Frantzeskakis, R. Carretero-Gonzalez, P. Schmelcher and D.S. Hall, “Dynamics of vortex dipoles in confined Bose-Einstein condensates”, *Physics Letters A* **375**, 3044-3050 (2011).
335. J. Stockhofe, P.G. Kevrekidis, D.J. Frantzeskakis, and P. Schmelcher, Dark-bright ring solitons in Bose-Einstein Condensates, *Journal of Physics B: Atomic, Molecular and Optical Physics* **44**, 191003, 5 pages (2011).; see also: <http://iopscience.iop.org/0953-4075/labtalk-article/47589>
336. E. Nicklas, H. Strobel, T. Zibold, C. Gross, B.A. Malomed, P.G. Kevrekidis and M.K. Oberthaler, Rabi flopping induces spatial demixing dynamics, *Physical Review Letters* **107**, 193001, 5 pages (2011).

337. S.P. Cockburn, H.E. Nistazakis, T.P. Horikis, P.G. Kevrekidis, N.P. Proukakis and D.J. Frantzeskakis, Fluctuating and dissipative dynamics of dark solitons in quasi-condensates, *Physical Review A* **84**, 043640, 16 pages (2011).
338. P.G. Kevrekidis, G.J. Herring, S. Lafortune and Q.E. Hoq, The higher-dimensional Ablowitz-Ladik model: from (non-)integrability and solitary waves to surprising collapse properties and more exotic solutions, *Physics Letters A* **376**, 982-986 (2012).
339. Q.-Y. Chen, P.G. Kevrekidis, B.A. Malomed, Dynamics of bright solitons and soliton arrays in the nonlinear Schrödinger equation with a combination of random and harmonic potentials, *Physica Scripta* **T149**, 014001 (2012).
340. D. Yan, J.J. Chang, C. Hamner, P.G. Kevrekidis, P. Engels, V. Achilleos, D.J. Frantzeskakis, R. Carretero-González, P. Schmelcher, Multiple dark-bright solitons in atomic Bose-Einstein condensates, *Physical Review A* **84**, 053630, 10 pages (2011).
341. A. Stefanov and P.G. Kevrekidis, On the existence of solitary traveling waves for generalized Hertzian chains, *Journal of Nonlinear Science* **22**, 327-349 (2012).
342. V. Achilleos, D.J. Frantzeskakis, D. Yan and P.G. Kevrekidis, “Dark-bright solitons in Bose-Einstein condensates at finite temperatures”, *New Journal of Physics* **14**, 055006 (2012).
343. A. Vainchtein and P.G. Kevrekidis, “Dynamics of phase transitions in a piecewise linear diatomic chain”, *Journal of Nonlinear Science* **22**, 107-134 (2012).
344. K. Li, P.G. Kevrekidis, B.A. Malomed and D.J. Frantzeskakis, Transfer and scattering of wave packets by a nonlinear trap, *Physical Review E* **84**, 056609, 8 pages (2011).
345. V. Achilleos, P.G. Kevrekidis, V.M. Rothos and D.J. Frantzeskakis, Statics and dynamics of atomic dark-bright solitons in the presence of impurities, *Physical Review A* **84**, 053626, 10 pages (2011).

346. P.G. Kevrekidis, R. Carretero-González, D.J. Frantzeskakis, Vortices in Bose-Einstein Condensates: (Super)fluids with a twist, Dynamical Systems Web (DSWeb) Magazine Expository Article, October 2011; see <http://www.dynamicalsystems.org/ma/ma/display?item=397>
347. N. Boechler, G. Theocharis, Y. Man, P. G. Kevrekidis, C. Daraio, Defect Modes in One-Dimensional Granular Crystals, *Physical Review E* **87**, 037601, 4 pages (2012).
348. L.Q. English, F. Palmero, P. Candiani, J. Cuevas, R. Carretero-Gonzalez, P.G. Kevrekidis and A.J. Sievers, Generation of localized modes in an electrical lattice using subharmonic driving, *Physical Review Letters* **108**, 084101, 5 pages (2012).
349. Y. Shen, P.G. Kevrekidis, N. Whitaker, B.A. Malomed, Spatial solitons under competing linear and nonlinear diffractions, *Physical Review E* **85**, 026606, 7 pages (2012).
350. D. Yan, J.J. Chang, C. Hamner, M. Hoefer, P.G. Kevrekidis, P. Engels, V. Achilleos, D.J. Frantzeskakis, J. Cuevas, Beating dark-dark solitons in Bose-Einstein condensates, *J. Phys. B* **45**, 115301 (2012).
351. Kai Li, P. G. Kevrekidis, Boris A. Malomed, Uwe Guenther, Nonlinear PT-symmetric plaquettes, *Journal of Physics A* **45**, 444021, 23 pages (2012).
352. V. Achilleos, P.G. Kevrekidis, D.J. Frantzeskakis R. Carretero-González, Dark solitons and vortices in PT-symmetric nonlinear media: from spontaneous symmetry breaking to nonlinear PT phase transitions, *Physical Review A* **86**, 013808, 7 pages (2012).
353. A.S. Rodrigues, P.G. Kevrekidis, J. Cuevas, R. Carretero-González, D. J. Frantzeskakis, Symmetry-breaking Effects for Polariton Condensates in Double-Well Potentials, Chapter in the Volume “Spontaneous Symmetry Breaking, Self-Trapping, and Josephson Oscillations in Nonlinear Systems”, edited by B.A. Malomed, pp. 509-529, Springer-Verlag, New York (2013).
354. J. Stockhofe, P. G. Kevrekidis, P. Schmelcher, Existence, stability and nonlinear dynamics of vortices and vortex clusters in anisotropic Bose-Einstein condensates, Chapter in the Volume “Spontaneous Symmetry

- Breaking, Self-Trapping, and Josephson Oscillations in Nonlinear Systems”, edited by B.A. Malomed, pp. 543-581, Springer-Verlag, New York (2013).
355. J. D’Ambroise, P.G. Kevrekidis, S. Lepri, Asymmetric Wave Propagation Through Nonlinear PT-symmetric Oligomers, *J. Phys. A* **45**, 444012, 16 pages (2012).
 356. Y. Shen, N. Whitaker, P. G. Kevrekidis, N. L. Tsitsas, D. J. Frantzeskakis, Ultrashort pulses and short-pulse equations in $(2 + 1)$ -dimensions, *Physical Review A* **86**, 023841, 7 pages (2012).
 357. Y. Shen, P. G. Kevrekidis, N. Whitaker, N. I. Karachalios, D. J. Frantzeskakis, Finite-temperature dynamics of matter-wave dark solitons in linear and periodic potentials: an example of an anti-damped Josephson junction, *Physical Review A* **86**, 033616, 13 pages (2012).
 358. M. Pola, J. Stockhofe, P. Schmelcher and P.G. Kevrekidis, Vortex–bright-soliton dipoles: Bifurcations, symmetry breaking, and soliton tunneling in a vortex-induced double well, *Physical Review A* **86**, 053601, 11 pages (2012).
 359. M. Duanmu, K. Li, R.L. Horne, P.G. Kevrekidis and N. Whitaker, Linear and Nonlinear PT-symmetric Oligomers: A Dynamical Systems Analysis, *Philosophical Transactions A* **371**, 20120171, 19 pages (2013).
 360. D.E. Pelinovsky and P.G. Kevrekidis, Bifurcations of asymmetric vortices in symmetric harmonic traps, *Applied Mathematics Research Express*, 1-38 (October 2012).
 361. V. Achilleos, A. Álvarez, J. Cuevas, D. J. Frantzeskakis, N. I. Karachalios, P. G. Kevrekidis, B. Sánchez-Rey, Escape Dynamics in the Discrete Repulsive ϕ^4 -Model, *Physica D* **244**, 1-24 (2013).
 362. I. Szelengowicz, P.G. Kevrekidis and C. Daraio, Wave propagation in square granular crystals with spherical interstitial intruders, *Physical Review E* **86**, 061306, 11 pages (2012).
 363. V. Koukouloyannis, P. G. Kevrekidis, J. Cuevas, V. Rothos, Multi-breathers in Klein-Gordon chains with interactions beyond nearest neighbors, *Physica D* **242**, 16-29 (2013).

364. N.I. Karachalios, B. Sánchez-Rey, P.G. Kevrekidis, J. Cuevas, Breathers for the Discrete Nonlinear Schrödinger equation with nonlinear hopping, *Journal of Nonlinear Science*, 1-35 (December 2012).
365. A.S. Rodrigues, K. Li, V. Achilleos, P.G. Kevrekidis, D.J. Frantzeskakis, C.M. Bender, PT-symmetric Double Well Potentials Revisited: Bifurcations, Stability and Dynamics, *Romanian Reports in Physics* **65**, 5-26 (2013).
366. Qian-Yong Chen, P. G. Kevrekidis, Boris A. Malomed, Quenched dynamics of two-dimensional solitons and vortices in the Gross-Pitaevskii equation, *Journal of Optics* **15**, 044012, 10 pages (2013).
367. D.E. Pelinovsky, P.G. Kevrekidis and D.J. Frantzeskakis, PT-symmetric lattices with spatially extended gain/loss are generically unstable, *EPL* **101**, 11002, 6 pages (2013).
368. C. Hoogeboom, Y. Man, N. Boechler, G. Theocharis, P. G. Kevrekidis, I. G. Kevrekidis, C. Daraio, Hysteresis Loops and Multi-stability: From Periodic Orbits to Chaotic Dynamics (and Back) in Diatomic Granular Crystals, *EPL* **101**, 44003, 6 pages (2013).
369. A. Stefanov and P.G. Kevrekidis, Traveling waves for monomer chains with pre-compression, *Nonlinearity* **26**, 539-564 (2013).
370. K. Li, D. A. Zezyulin, V. V. Konotop, P. G. Kevrekidis, Parity-time symmetric coupler with birefringent arms, *Physical Review A* **87**, 033812, 8 pages (2013).
371. C. Hoogeboom and P.G. Kevrekidis, Higher gap breathers in periodic granular chains, *Physical Review E* **86**, 061305, 10 pages (2012).
372. G. James, P.G. Kevrekidis and J. Cuevas, Breathers in oscillator chains with Hertzian interactions, *Physica D* **251**, 39–59 (2013).
373. C. Hoogeboom, P.G. Kevrekidis, A. Saxena and A.R. Bishop, Discrete breathers in a nonlinear polarizability model of ferroelectrics, *Physical Review E* **86**, 066601, 8 pages (2012).
374. C. Wang, K.J.H. Law, P.G. Kevrekidis and M.A. Porter, Dark Solitary Waves in a Class of Collisionally Inhomogeneous Bose-Einstein Condensates, *Physical Review A* **87**, 023621, 9 pages (2013).

375. V. Achilleos, P.G. Kevrekidis, D.J. Frantzeskakis and R. Carretero-González, Solitons and their ghosts in PT-symmetric systems with defocusing nonlinearities, LENCOS Special Volume for the Springer Series in Wave Phenomena, in press (2013).
376. A. Álvarez, J. Cuevas, F. R. Romero, C. Hamner, J. J. Chang, P. Engels, P. G. Kevrekidis, D. J. Frantzeskakis, Scattering of atomic dark-bright solitons from narrow impurities, *Journal of Physics B* **46**, 065302, 11 pages (2013).
377. P.G. Kevrekidis, The Drastic Role of Beyond Nearest-Neighbor Interactions on Discrete Two-Dimensional Dynamical Lattices: A Case Example, *Journal of Optics* **15**, 044013, 10 pages (2013).
378. J. Cuevas, P. G. Kevrekidis, B. A. Malomed, P. Dyke, R. G. Hulet, Interactions of solitons with a Gaussian barrier: Splitting and recombination in quasi-1D and 3D , *New Journal of Physics* **15**, 063006, 16 pages (2013).
379. C. Chong, P.G. Kevrekidis, G. Theocharis, Chiara Daraio, Dark Breathers in Granular Crystals, *Physical Review E* **87**, 042202, 12 pages (2013).
380. P. G. Kevrekidis, A. Vainchtein, M. Serra Garcia and C. Daraio, Interaction of traveling waves with mass-with-mass defects within a Hertzian chain, *Physical Review E* **87**, 042911, 13 pages (2013).
381. R. Navarro, R. Carretero-González, P.J. Torres, P.G. Kevrekidis, D.J. Frantzeskakis, M.W. Ray, E. Altuntas, D.S. Hall, Dynamics of Few Co-rotating Vortices in Bose-Einstein Condensates, *Phys. Rev. Lett.* **110**, 225301, 6 pages (2013).
382. J. D'Ambroise, P.G.Kevrekidis, S. Lepri, Eigenstates and instabilities of chains with embedded defects, *Chaos* **23**, 023109, 10 pages (2013).
383. T. Kapitula, P.G. Kevrekidis and D. Yan, The Krein Matrix: General Theory and Concrete Applications in Atomic Bose-Einstein Condensates, *SIAM Journal of Applied Mathematics* **73**, 1368-1395 (2013).
384. V. Achilleos, D. J. Frantzeskakis, P. G. Kevrekidis, D. E. Pelinovsky, Matter-wave bright solitons in spin-orbit coupled Bose-Einstein condensates, *Physical Review Letters* **110**, 264101, 5 pages (2013).

385. S. Holmes, M.A. Porter, P. Krüger, P.G. Kevrekidis, Solitary Matter Waves in Combined Linear and Nonlinear Potentials: Detection, Stability, and Dynamics, *Physical Review A* **88**, 033627, 7 pages (2013).
386. F. Tsitoura, V. Achilleos, B. A. Malomed, D. Yan, P. G. Kevrekidis, D. J. Frantzeskakis, Matter-wave solitons in the counterflow of two immiscible superfluids, *Physical Review A* **87**, 063624, 9 pages (2013).
387. G.P. Veldes, J. Cuevas, P.G. Kevrekidis, D.J. Frantzeskakis, Coupled backward- and forward-propagating solitons in a composite right/left-handed transmission line, *Physical Review E* **88**, 013203, 14 pages (2013).
388. L.Q. English, F. Palmero, J.F. Stormes, J. Cuevas, R. Carretero-González, P.G. Kevrekidis, Nonlinear localized modes in two-dimensional electrical lattices, *Physical Review E* **88**, 022912, 6 pages (2013).
389. P.G. Kevrekidis, D.E. Pelinovsky and D.Y. Tyugin, Nonlinear stationary states in PT-symmetric lattices, *SIAM Journal of Applied Dynamical Systems* **12**, 1210-1236 (2013).
390. V. Achilleos, J. Stockhofe, P. G. Kevrekidis, D. J. Frantzeskakis, P. Schmelcher, Matter-wave dark solitons and their excitation spectra in spin-orbit coupled Bose-Einstein condensates, *EPL* **103**, 20002, 6 pages (2013).
391. A. Demirkaya, D. J. Frantzeskakis, P. G. Kevrekidis, A. Saxena and A. Stefanov, Effects of parity-time symmetry in nonlinear Klein-Gordon models and their stationary kinks, *Physical Review E* **88**, 023203, 8 pages (2013).
392. Panayotis G. Kevrekidis, Dmitry E. Pelinovsky, Dmitry Y. Tyugin, Nonlinear dynamics in PT-symmetric lattices, *Journal of Physics A* **46**, 365201, 17 pages (2013).
393. K. Li, P. G. Kevrekidis, D. J. Frantzeskakis, C. E. Ruter, D. Kip, Revisiting the PT-symmetric Trimer: Bifurcations, Ghost States and Associated Dynamics, *Journal of Physics A* **46**, 375304 (2013).
394. C. Chong, P.G. Kevrekidis and G. Schneider, Justification of Leading Order Quasicontinuum Approximations of Strongly Nonlinear Lattices,

- Discrete and Continuous Dynamical Systems- Series A **34**, 3403-3418 (2014).
395. J. Cuevas, P.G. Kevrekidis, A. Saxena, A. Khare, PT-Symmetric Dimer of Coupled Nonlinear Oscillators, *Physical Review A* **88**, 032108, 11 pages (2013).
396. A.M. Barry, P.G. Kevrekidis, Few-Particle Vortex Cluster Equilibria in Bose-Einstein Condensates: Existence and Stability, *Journal of Physics A* **46**, 445001, 16 pages (2013).
397. C. Becker, K. Sengstock, P. Schmelcher, P.G. Kevrekidis, R. Carretero-González, Inelastic Collisions of Solitary Waves in Anisotropic Bose-Einstein Condensates: Sling-Shot Events and Expanding Collision Bubbles, *New Journal of Physics* **15**, 113028, 17 pages (2013).
398. K. Li, D. A. Zezyulin, P. G. Kevrekidis, V. V. Konotop, F. Kh. Abdullaev, PT-symmetric coupler with χ^2 nonlinearity, *Physical Review A* **88**, 053820, 11 pages (2013).
399. V. Berardi, J. Lydon, P.G. Kevrekidis, C. Daraio, R. Carretero-González, Directed Ratchet Transport in Granular Crystals, *Physical Review E* **88**, 052202, 8 pages (2013).
400. A.V. Zampetaki, R. Carretero-Gonzalez, P.G. Kevrekidis, F.K. Diakonou, D.J. Frantzeskakis, Exploring Rigidly Rotating Vortex Configurations and their Bifurcations in Atomic Bose-Einstein Condensates, *Physical Review E* **88**, 042914, 11 pages (2013).
401. R.L. Horne, J. Cuevas, P.G. Kevrekidis, N. Whitaker, F.Kh. Abdullaev, D.J. Frantzeskakis, PT-symmetry Management in Oligomer Systems, *Journal of Physics A* **46**, 485101, 19 pages (2013).
402. T.J. Alexander, D. Yan and P.G. Kevrekidis, Complex mode dynamics of coupled wave oscillators, *Physical Review E* **88**, 062908, 6 pages (2013).
403. T.W. Neely, A.S. Bradley, E.C. Samson, S.J. Rooney, E.M. Wright, K.J.H. Law, R. Carretero-González, P.G. Kevrekidis, M.J. Davis and B.P. Anderson, Two-dimensional turbulence in a compressible quantum fluid, *Physical Review Letters* **111**, 235301, 6 pages (2013).

404. P.A. Tsilifis, P.G. Kevrekidis and V.M. Rothos, Cubic-quintic long-range interactions with double well potentials, *Journal of Physics A* **47**, 035201 (2014).
405. H. Xu, P.G.Kevrekidis, Q.Zhou, D.J.Frantzeskakis, V.Achilleos, R.Carretero-González, Nonlinear PT-symmetric models bearing exact solutions, *Romanian Journal of Physics* **59**, 185-194 (2014).
406. J. S. He, E. G. Charalampidis, P. G. Kevrekidis, D. J. Frantzeskakis, Rogue Waves In Nonlinear Schrödinger Models with Variable Coefficients: Application to Bose-Einstein Condensates, *Physics Letters A* **378**, 577-583 (2014).
407. K. J. H. Law, T. W. Neely, P. G. Kevrekidis, B. P. Anderson, A. S. Bradley, and R. Carretero-González, Dynamic and energetic stabilization of persistent currents in Bose-Einstein condensates, *Phys. Rev. A* **89**, 053606, 8 pages (2014).
408. D. Yan, R. Carretero-González, D. J. Frantzeskakis, P. G. Kevrekidis, N. P. Proukakis, and D. Sporn, Exploring vortex dynamics in the presence of dissipation: Analytical and numerical results, *Phys. Rev. A* **89**, 043613, 11 pages (2014).
409. A. Leonard, C. Chong, P.G. Kevrekidis and C. Daraio, Traveling waves in 2D Hexagonal Granular Crystal Lattices, *Granular Matter* **16**, 531–542 (2014).
410. C. Chong, F. Li, J. Yang, M.O. Williams, I.G. Kevrekidis, P. G. Kevrekidis, C. Daraio, Damped-Driven Granular Crystals: An Ideal Playground for Dark Breathers and Multibreathers, *Physical Review E* **89**, 043613, 10 pages (2014).
411. A.S. Rodrigues, P.G. Kevrekidis, R. Carretero-González, J. Cuevas, D.J. Frantzeskakis, F. Palmero, From Nodeless Clouds and Vortices to Gray Rings and Symmetry-Broken States in Two-Dimensional Polaron Condensates, *Journal of Physics Condensed Matter* **26**, 155801, 11 pages (2014).
412. V. Koukoulouyannis, G. Voyatzis and P.G. Kevrekidis, Dynamics of Three Non-co-rotating Vortices in Bose-Einstein Condensates, *Physical Review E* **89**, 042905, 14 pages (2014).

413. V. Achilleos, D. J. Frantzeskakis, and P. G. Kevrekidis, Beating dark-dark solitons and Zitterbewegung in spin-orbit-coupled Bose-Einstein condensates, *Phys. Rev. A* **89**, 033636, 7 pages (2014).
414. P. G. Kevrekidis, Variational method for nonconservative field theories: Formulation and two \mathcal{PT} -symmetric case examples *Phys. Rev. A* **89**, 010102(R), 5 pages (2014).
415. K. Li, P.G. Kevrekidis and B.A. Malomed, Nonlinear Modes and Symmetries in Linearly Coupled Pairs of PT-Invariant Dimers, *Studies in Applied Mathematics*, 10.1111/sapm.12038 (2014).
416. N. Kyriakopoulos, V. Koukouloyannis, C. Skokos, P.G. Kevrekidis, Chaotic behavior of three interacting vortices in a confined Bose-Einstein condensate, *Chaos* **24**, 024410, 12 pages (2014).
417. J. D' Ambroise, B.A. Malomed and P.G. Kevrekidis, Quasi-energies, parametric resonances, and stability limits in ac-driven \mathcal{PT} -symmetric systems, *Chaos* **24**, 10 pages (2014).
418. T. Kolokolnikov, P.G. Kevrekidis, R. Carretero-González, A Tale of Two Distributions: From Few To Many Vortices In Quasi-Two-Dimensional Bose-Einstein Condensates, *Proceedings of the Royal Society A*, **470**, 20140048 (2014).
419. Y. Shen, T.P. Horikis, P.G. Kevrekidis, D.J. Frantzeskakis, Traveling waves of the regularized short pulse equation, *Journal of Physics A* **47**, 31524 (2014).
420. A. Demirkaya, M. Stanislavova, A. Stefanov, T. Kapitula, P.G. Kevrekidis, On the spectral stability of kinks in some PT-symmetric variants of the classical Klein-Gordon Field Theories, *Studies in Applied Mathematics* **133**, 298-317 (2014).
421. Y. Shen, P.G. Kevrekidis, S. Sen, A. Hoffman, Characterizing Traveling Wave Collisions in Granular Chains Starting from Integrable Limits: the case of the KdV and the Toda Lattice, *Physical Review E* **90**, 022905, 12 pages (2014).

422. R. M. Caplan, J. D. Talley, R. Carretero-Gonzalez, P.G. Kevrekidis, Scattering and leapfrogging of vortex rings in a superfluid, *Physics of Fluids* **26**, 097101, 17 pages (2014).
423. Y. Xu, T.J. Alexander, H. Sidhu, P.G. Kevrekidis, Instability dynamics and breather formation in a horizontally shaken pendulum chain, *Physical Review E* **90**, 042921, 11 pages (2014).
424. D. Law, J. D'Ambroise, P.G. Kevrekidis and D. Kip, Asymmetric wave propagation through saturable nonlinear oligomers, *Photonics* **1**, 390–413 (2014).
425. N. Lu, J. Cuevas-Maraver, P.G. Kevrekidis, PT-symmetric sine-Gordon breathers, *Journal of Physics A: Mathematical and Theoretical* **47**, 455101, 15 pages (2014).
426. F. Li, P. Anzel, J. Yang, P.G. Kevrekidis, C. Daraio, Granular Acoustic Switches and Logic Elements, *Nature Communications* **5**, 5311, 6 pages (2014).
427. H. Yue, M.I. Molina, P.G. Kevrekidis and N.I. Karachalios, Self-trapping transition for a nonlinear impurity within a linear chain, *Journal of Mathematical Physics* **55**, 102704, 25 pages (2014).
428. R. B. Mareeswaran, E. G. Charalampidis, T. Kanna, P. G. Kevrekidis, D. J. Frantzeskakis, Vector rogue waves and dark-bright boomeronic solitons in autonomous and non-autonomous settings, *Physical Review E* **90**, 042912, 9 pages (2014).
429. D. Saadatmand, S.V. Dmitriev, D.I. Borisov and P.G. Kevrekidis, Interaction of sine-Gordon kinks and breathers with a \mathcal{PT} -symmetric defect, *Physical Review E* **90**, 052902, 10 pages (2014).
430. F. Li, C. Chong, J. Yang, P. G. Kevrekidis, C. Daraio, Time- and space-variant wave transmission in helicoidal phononic crystals, *Physical Review E* **90**, 053201, 9 pages (2014).
431. Z.-Y. Sun, P.G. Kevrekidis and P. Krüger, A Mean-Field Analogue of the Hong-Ou-Mandel Experiment With Solitons, *Physical Review A* **90**, 063612, 8 pages (2014).

432. E.G. Charalampidis, T.A. Ioannidou and P.G. Kevrekidis, Lattice three-dimensional skyrmions revisited, *Physica Scripta* **90**, 025202, 9 pages (2015).
433. H. Xu, P.G. Kevrekidis, A. Saxena, Generalized Dimers and their Stokes-variable Dynamics, *Journal of Physics A* **48**, 055101, 21 pages (2015).
434. J. Cuevas-Maraver, P.G. Kevrekidis, A. Saxena, Solitary Waves in a Discrete Nonlinear Dirac equation, *Journal of Physics A* **48**, 055204, 22 pages (2015).
435. D. Yan, F. Tsitoura, P.G. Kevrekidis and D. J. Frantzeskakis, Dark-bright Solitons and their Lattices in Atomic Bose-Einstein Condensates, *Physical Review A* **91**, 023619, 12 pages (2015).
436. E. Kim, F. Li, C. Chong, G. Theocharis, J. Yang and P.G. Kevrekidis, Highly Nonlinear Wave Propagation in Elastic Woodpile Periodic Structures: Theory, Computation and Experiment, *Physical Review Letters* **114**, 118002, 5 pages (2015).
437. E. G. Charalampidis, P. G. Kevrekidis, D. J. Frantzeskakis, B. A. Malomed, Dark-bright solitons in coupled NLS equations with unequal dispersion coefficients, *Physical Review E* **91**, 012924, 12 pages (2015).
438. A.M. Barry, F. Hajir, P.G. Kevrekidis, Generating Functions, Polynomials and Vortices with Alternating Signs in Bose-Einstein Condensates, *Journal of Physics A* **48**, 155205, 18 pages (2015).
439. J. Cuevas-Maraver, A. Khare, P.G. Kevrekidis, A. Saxena, \mathcal{PT} -symmetric dimer in a generalized model of coupled nonlinear oscillators, *International Journal of Theoretical Physics*, DOI 10.1007/s10773-014-2429-6, 26 pages (2015).
440. J. D'Ambroise, P.G. Kevrekidis, B.A. Malomed, Staggered \mathcal{PT} -symmetric ladders with cubic nonlinearity, *Physical Review E* **91**, 033207, 11 pages (2015).
441. E.G. Charalampidis, F. Li, C. Chong, J. Yang and P.G. Kevrekidis, Time-Periodic Solutions of Driven-Damped Trimer Granular Crystals, *Mathematical Problems in Engineering*, in press (2015).

442. R.H. Goodman, P.G. Kevrekidis and R. Carretero-González, Dynamics of vortex dipoles in anisotropic Bose-Einstein condensates, *SIAM Journal of Applied Dynamical Systems* **14**, 699–729 (2015).
443. E.T. Karamatskos, J. Stockhofe, P.G. Kevrekidis, P. Schmelcher, Stability and Tunneling Dynamics of a Dark-Bright Soliton Pair in a Harmonic Trap, *Physical Review A* **91**, 043637, 10 pages (2015).
444. H. Xu, P.G. Kevrekidis, A. Stefanov, Traveling Waves and their Tails in Locally Resonant Granular Systems, *Journal of Physics A* **48**, 195204, 19 pages (2015).
445. P.G. Kevrekidis, B.A. Malomed, A. Saxena, D.J. Frantzeskakis, A.R. Bishop, Solitons and Vortices in Two-dimensional Discrete Nonlinear Schrodinger Systems with Spatially Modulated Nonlinearity, *Physical Review E* **91**, 043201, 12 pages (2015).
446. W. Wang and P.G. Kevrekidis, Transitions From Order to Disorder in Multi-Dark and Multi-Dark-Bright Soliton Atomic Clouds, *Physical Review E* **91**, 032905, 10 pages (2015).
447. P.G. Kevrekidis, D.E. Pelinovsky, A. Saxena, When Linear Stability Does Not Exclude Nonlinear Instability *Physical Review Letters* **114**, 214101, 6 pages (2015).
448. D. Saadatmand, S.V. Dmitriev, D.I. Borisov, P.G. Kevrekidis, M.A. Fatukhov, K. Javidan, Kink scattering from a parity-time-symmetric defect in the ϕ^4 model, *Communications in Nonlinear Science and Numerical Simulation* **29**, 267–282 (2015).
449. D. Saadatmand, S.V. Dmitriev, D.I. Borisov, P.G. Kevrekidis, M.A. Fatukhov, K. Javidan, Effect of the ϕ^4 kink's internal mode at scattering on a PT-symmetric defect, *JETP Letters* **101**, 497–502 (2015).
450. B. Gertjerenken, P.G. Kevrekidis, Effects of interactions on the generalized Hong-Ou-Mandel effect, *Physics Letters A* **379**, 1737–1742 (2015).
451. V. S. Bagnato, D. J. Frantzeskakis, P. G. Kevrekidis, B. A. Malomed, D. Mihalache, Bose-Einstein condensation: Twenty years after, *Romanian Reports in Physics* **67**, 5–50 (2015).

452. V. Achilleos, D. J. Frantzeskakis, P. G. Kevrekidis, P. Schmelcher, J. Stockhofe, Positive and negative mass solitons in spin-orbit coupled Bose-Einstein condensates, *Romanian Reports in Physics* **67**, 235-248 (2015).
453. F. Tsitoura, P. Krüger, P.G. Kevrekidis, D.J. Frantzeskakis, Scattering of matter waves in spatially inhomogeneous environments, *Physical Review A* **91**, 033633 (2015).
454. P.G. Kevrekidis, R.L. Horne, N. Whitaker, Q.E. Hoq, D. Kip, Bright discrete solitons in spatially modulated DNLS systems, *Journal of Physics A* **48**, 345201. 16 pages (2015).
455. Wenlong Wang, P.G. Kevrekidis, R. Carretero-Gonzalez, D. J. Frantzeskakis, Tasso J. Kaper, Manjun Ma, Stabilization of ring dark solitons in Bose-Einstein condensates, *Physical Review A* **92**, 033611, 11 pages (2015).
456. D. Saadatmand, S.V. Dmitriev, P.G. Kevrekidis High energy density in multi-soliton collisions, *Physical Review D* **92**, 056005 (2015).
457. E. Nicklas, W. Muessel, H. Strobel, P.G. Kevrekidis, M.K. Oberthaler, Nonlinear dressed states at the miscibility-immiscibility threshold, *Physical Review A* **92**, 053614 (2015) .
458. V. Achilleos, S. Diamantidis, D. J. Frantzeskakis, N. I. Karachalios, P. G. Kevrekidis, Conservation laws, exact travelling waves and modulation instability for an extended nonlinear Schrödinger equation, *Journal of Physics A* **48**, 355205 (2015).
459. J. D'Ambroise, M. Salerno, P. G. Kevrekidis, and F. Kh. Abdullaev, Multidimensional discrete compactons in nonlinear Schrödinger lattices with strong nonlinearity management, *Physical Review A* **92**, 053621 (2015).
460. P.G. Kevrekidis, J. Cuevas-Maraver, A. Saxena, F. Cooper, A. Khare, Interplay between parity-time symmetry, supersymmetry, and nonlinearity: An analytically tractable case example, *Physical Review E* **92**, 042901 (2015).
461. R. N. Bisset, Wenlong Wang, C. Ticknor, R. Carretero-González, D. J. Frantzeskakis, L. A. Collins, and P. G. Kevrekidis, Bifurcation and

- stability of single and multiple vortex rings in three-dimensional Bose-Einstein condensates, *Phys. Rev. A* **92**, 043601, 13 pages (2015).
462. R.N. Bisset, Wenlong Wang, C. Ticknor, R. Carretero-Gonzalez, D.J. Frantzeskakis, L.A. Collins, P.G. Kevrekidis, Robust Vortex Lines, Vortex Rings and Hopfions in 3D Bose-Einstein Condensates, *Phys. Rev. A* **92**, 063611 (2015).
463. E. Kim, R. Chaunsali, H. Xu, J. Jaworski, J. Yang, P. Kevrekidis, A.F. Vakakis, Nonlinear Low-to-High Frequency Energy Cascades in Diatomic Granular Crystals, *Phys. Rev. E* **92**, 062201 (2015).
464. J. Cuevas-Maraver, P.G. Kevrekidis, D.E. Pelinovsky, Nonlinear instabilities of multi-site breathers in Klein-Gordon lattices, *Studies in Applied Mathematics* **117**, 214–237 (2016).
465. D. Pozharskiy, Y. Zhang, M.O. Williams, D.M. McFarland, P.G. Kevrekidis, A.F. Vakakis, I.G. Kevrekidis, Nonlinear Resonances and Antiresonances of a Forced Sonic Vacuum, *Physical Review E* **92**, 063203 (2015).
466. I.K. Mylonas, V.M. Rothos, P.G. Kevrekidis and D.J. Frantzeskakis, Direct perturbation theory for dark-bright solitons: Application to Bose-Einstein condensates, *Journal of Physics A: Mathematical and Theoretical* **49**, 015202 (2015).
467. M.A. Porter, P.G. Kevrekidis, C. Daraio, Granular crystals: Nonlinear dynamics meets materials engineering, *Physics Today* **68**, 44–50 (2015).
468. Q.E. Hoq, P.G. Kevrekidis, A.R. Bishop, Discrete Solitons and Vortices in Anisotropic Hexagonal and Honeycomb Lattices, *Journal of Optics* **18**, 024008 (2016).
469. F. Palmero, J. Han, L.Q. English, T.J. Alexander and P.G. Kevrekidis, Multifrequency and edge breathers in the discrete sine-Gordon system via subharmonic driving: Theory, computation and experiment, *Physics Letters A* **380**, 402–407 (2016).
470. R. Carretero-González, P.G. Kevrekidis, T. Kolokolnikov, Vortex Nucleation in a Dissipative Variant of the Nonlinear Schrödinger Equation under Rotation, *Physica D* **317**, 1–14 (2016).

471. J. Cuevas-Maraver, P.G. Kevrekidis, A. Saxena, F. Cooper, A. Khare, C.M. Bender, Solitary waves of a PT-symmetric Nonlinear Dirac equation, *Journal of Selected Topics in Quantum Electronics* **22**, 7293090 (2016).
472. A.J. Martínez, P.G. Kevrekidis, M.A. Porter, Superdiffusive Transport and Energy Localization in Disordered Granular Crystals, *Physical Review E* **93**, 022902 (2016).
473. B. Gertjerenken, P.G. Kevrekidis, R. Carretero-Gonzalez, B.P. Anderson, Generating and Manipulating Quantized Vortices On-Demand in a Bose-Einstein Condensate: a Numerical Study, *Physical Review A* **93**, 023604 (2016).
474. V. Achilleos, S. Diamantidis, D. J. Frantzeskakis, T. P. Horikis, N. I. Karachalios, P. G. Kevrekidis, Collapse for the higher-order nonlinear Schrödinger equation, *Physica D* **316**, 57–68 (2016).
475. M. Duanmu, N. Whitaker, P.G. Kevrekidis, A. Vainchtein, J. Rubin, Traveling Wave Solutions in a Chain of periodically Forced Couple Nonlinear Oscillators, *Physica D* **325**, 25–40 (2016).
476. H. Xu, P.G. Kevrekidis and D.E. Pelinovsky, Existence and stability of PT-symmetric vortices in nonlinear two-dimensional square lattices, *Physica D* **326**, 1–20 (2016).
477. H. Yasuda, C. Chong, E.G. Charalampidis, P.G. Kevrekidis, J. Yang, Formation of rarefaction waves in origami-based metamaterials, *Physical Review E* **93**, 043004 (2016).
478. C. Chong, P.G. Kevrekidis, M.J. Ablowitz, Yi-Ping Ma, Conical Wave Propagation and Diffraction in 2D Hexagonally Packed Granular Lattices, *Physical Review E* **93**, 012909 (2016).
479. J.C. Tzou, P.G. Kevrekidis, T. Kolokolnikov, R. Carretero-González, Weakly Nonlinear Analysis of Vortex Formation in a Dissipative Variant of the Gross-Pitaevskii Equation, *SIAM Journal for Applied Dynamical Systems* **15**, 904–922 (2016).
480. C. Chong, E. Kim, E.G. Charalampidis, H. Kim, F. Li, P.G. Kevrekidis, J. Lydon, C. Daraio, J. Yang, Nonlinear vibrational-state excitation

- and piezoelectric energy conversion in harmonically driven granular chains, *Physical Review E* **93**, 052203 (2016).
481. W. Wang, P.G. Kevrekidis, R. Carretero-González, D.J. Frantzeskakis, Dark spherical shell solitons in three-dimensional Bose-Einstein condensates: Existence, stability, and dynamics, *Physical Review A* **93**, 023630 (2016).
 482. J. Cuevas-Maraver, P.G. Kevrekidis, A. Saxena, A. Comech, R. Lan, Stability of solitary waves and vortices in a 2D nonlinear Dirac model, *Physical Review Letters* **116**, 214101 (2016).
 483. J. Cuevas-Maraver, B.A. Malomed, P.G. Kevrekidis, A PT-symmetric dual-core system with the sine-Gordon nonlinearity and derivative coupling, *Symmetry* **8**, 39 (2016).
 484. A.J. Martínez, H. Yasuda, E. Kim, P. G. Kevrekidis, M.A. Porter, J. Yang, Scattering of Waves by One or More Impurities in Precompressed Granular Chains, *Physical Review E* **93**, 052224 (2016).
 485. P.G. Kevrekidis, A. Stefanov, H. Xu, Traveling waves for the Mass in Mass model of granular chains, *Letters in Mathematical Physics* **106**, 1067–1088 (2016).
 486. Y. Shen, P.G. Kevrekidis, G. Srinivasan, A. B. Aceves, Existence, Stability and Dynamics of Discrete Solitary Waves in a Binary Waveguide Array, *Journal of Physics A: Mathematical and Theoretical* **49**, 295205 (2016).
 487. E. G. Charalampidis, P. G. Kevrekidis, D. J. Frantzeskakis, B. A. Malomed, Vortex-soliton complexes in coupled nonlinear Schrödinger equations with unequal dispersion coefficients, *Physical Review E* **94**, 022207 (2016).
 488. G.-Y. Lee, C. Chong, P.G. Kevrekidis, J. Yang, Wave mixing in coupled phononic crystals via a variable stiffness mechanism, *Journal of Mechanics and Physics of Solids* **95**, 501–516 (2016).
 489. L. Liu, G. James, P.G. Kevrekidis, A. Vainchtein, Breathers in a locally resonant granular chain with precompression, *Physica D* **331**, 27–47 (2016).

490. P.G. Kevrekidis, D.J. Frantzeskakis, Solitons in Multi-Component Non-linear Schrodinger Models: A Survey of Recent Developments, *Reviews in Physics* **1**, 140–153 (2016).
491. E. G. Charalampidis, Wenlong Wang, P. G. Kevrekidis, D. J. Frantzeskakis, J. Cuevas-Maraver, $SO(2)$ -induced breathing patterns in multi-component Bose-Einstein condensates, *Physical Review A* **93**, 063623 (2016).
492. V. Achilleos, A. R. Bishop, S. Diamantidis, D. J. Frantzeskakis, T. P. Horikis, N. I. Karachalios, P. G. Kevrekidis, The dynamical playground of a higher-order nonlinear Schrödinger equation: from orbital connections and limit cycles to invariant tori and the onset of chaos, *Physical Review E* **94**, 012210 (2016).
493. P.G. Kevrekidis, J. Cuevas-Maraver, D. Pelinovsky, An energy criterion for the spectral stability of discrete breathers, *Physical Review Letters* **117**, 094101 (2016).
494. L. Liu, G. James, P.G. Kevrekidis, A. Vainchtein, Nonlinear waves in a strongly nonlinear resonant granular chain, *Nonlinearity* **29**, 3496–3527 (2016).
495. J. Rossi, R. Carretero-Gonzalez, P. G. Kevrekidis, M. Haragus, On the spontaneous time-reversal symmetry breaking in synchronously-pumped passive Kerr resonators *Journal of Physics A: Mathematical & Theoretical* **49**, 455201, 21 pages (2016).
496. K. Li, P.G. Kevrekidis, H. Susanto and V. Rothos, Intrinsic Localized Modes in Coupled DNLS Equations from the Anti-Continuum Limit, *Mathematics and Computers in Simulation* **127**, 151–165 (2016).
497. M. Syafwan, P. Kevrekidis, A. Paris-Mandoki, I. Lesanovsky, P. Kruger, L. Hackermuller, H. Susanto, Superfluid flow past an obstacle in annular Bose-Einstein condensates, *Journal of Physics B: Atomic, Molecular and Optical Physics* **49**, 235301, 8 pages (2016).
498. I. Danaila, M.A. Khamsehchi, V. Gokhroo, P. Engels, P.G. Kevrekidis, Vector Dark-Antidark Solitary Waves in Multi-Component Bose-Einstein condensates, *Physical Review A* **94**, 053617, 8 pages (2016).

499. Zhi-Yuan Sun, P.G. Kevrekidis, P. Krüger, Performing Hong-Ou-Mandel-type Numerical Experiments with Repulsive Condensates: The case of Dark and Dark-bright Solitons, *Physical Review A* **94**, 063645, 12 pages (2016).
500. Y. Zhang, D. Pozharskiy, D.M. McFarland, P.G. Kevrekidis, I.G. Kevrekidis, A.F. Vakakis, Experimental Study of Nonlinear Resonances and Anti-resonances in a Forced, Ordered Granular Chain, *Experimental Mechanics* **57**, 505–520 (2017).
501. F. Tsitoura, Z. A. Anastassi, J. L. Marzuola, P. G. Kevrekidis, D. J. Frantzeskakis, Dark solitons near potential and nonlinearity steps, *Physical Review A* **94**, 063612, 16 pages (2016).
502. L.Q. English, David Mertens, Saidou Abdoulkary, C.B. Fritz, K. Skowronski, P.G. Kevrekidis, The emergence and analysis of Kuramoto-Sakaguchi-like models as an effective description for the dynamics of coupled Wienbridge oscillators, *Physical Review E* **94**, 062212, 12 pages (2016).
503. S. P. Wallen, J. Lee, D. Mei, C. Chong, P. G. Kevrekidis, N. Boechler, Discrete Breathers in a Mass-in-Mass Chain with Hertzian Local Resonators, *Physical Review E* **95**, 022904, 12 pages (2017).
504. R. Chaunsali, H. Xu, J. Yang, P. G. Kevrekidis, Linear and nonlinear dynamics of isospectral granular chains, *Journal of Physics A: Mathematical & Theoretical* **50**, 175201, 24 pages (2017).
505. E.G. Charalampidis, P.G. Kevrekidis, P.E. Farrell, Computing stationary solutions of the two-dimensional Gross-Pitaevskii equation with deflated continuation, *Communications in Nonlinear Science and Numerical Simulation*, **54**, 482–499 (2018).
506. P.G. Kevrekidis, M.O. Williams, D. Mantzavinos, E.G. Charalampidis, M. Choi, I.G. Kevrekidis, Revisiting diffusion: self-similar solutions and the $t^{-1/2}$ decay in initial and initial-boundary value problems. *Quarterly of Applied Mathematics* **75**, 581–598 (2017).
507. C. Chong, M.A. Porter, P.G. Kevrekidis and C. Daraio, Nonlinear Coherent Structures in Granular Crystals, *Journal of Physics–Condensed Matter* **41**, 413003, 24 pages (2017).

508. H. Yasuda, C. Chong, J.K. Yang, P.G. Kevrekidis, Emergence of dispersive shocks and rarefaction waves in power-law contact models, *Physical Review E* **95**, 062216, 5 pages (2017).
509. G.C. Katsimiga, J. Stockhofe, P.G. Kevrekidis, P. Schmelcher, Stability and Dynamics of Dark-Bright Soliton Bound States Away from the Integrable Limit, *Applied Sciences* **7**, 388 (2017).
510. Y. Shen, P.G. Kevrekidis, G.P. Veldes, D.J. Frantzeskakis, D. DiMarzio, X. Lan, V. Radisic, From Solitons to Rogue Waves in Nonlinear Left-Handed Metamaterials, *Physical Review E* **95**, 032223, 9 pages (2017).
511. W. Wang, P.G. Kevrekidis, Two-component dark-bright solitons in three-dimensional atomic Bose-Einstein condensates, *Physical Review E* **95**, 032201, 8 pages (2017).
512. J. D'Ambroise, P.G. Kevrekidis, Existence, Stability and Dynamics of Nonlinear Modes in a 2D Partially PT Symmetric Potential, *Applied Sciences* **7**, 223 (2017).
513. G. C. Katsimiga, J. Stockhofe, P. G. Kevrekidis, P. Schmelcher, Dark-bright soliton interactions beyond the integrable limit, *Physical Review A* **95**, 013621, 11 pages (2017).
514. Z.A. Anastassi, G. Fotopoulos, D.J. Frantzeskakis, T.P. Horikis, N.I. Karachalios, P.G. Kevrekidis, I.G. Stratis, K. Vetas, Spatiotemporal algebraically localized waveforms for a nonlinear Schrodinger model with gain and loss, *Physica D* **355**, 23–33 (2017).
515. F. Tsitoura, Z.A. Anastassi, J.L. Marzuola, P.G. Kevrekidis, D.J. Frantzeskakis, Dark soliton scattering in symmetric and asymmetric double potential barriers, *Physics Letters A* **381**, 2514–2520 (2017).
516. R. Chaunsali, E. Kim, A. Thakkar, P.G. Kevrekidis, J. Yang, Demonstrating an In Situ Topological Band Transition in Cylindrical Granular Chains, *Physical Review Letters* **119**, 024301, 6 pages (2017).
517. G.C. Katsimiga, G.M. Koutentakis, S.I. Mistakidis, P.G. Kevrekidis and P. Schmelcher, Dark-bright soliton dynamics beyond the mean-field approximation, *New Journal of Physics* **19**, 073004, 19 pages (2017).

518. J. Cuevas-Maraver, P.G. Kevrekidis, D.J. Frantzeskakis, N.I. Karachalios, M. Haragus, G. James, Floquet analysis of Kuznetsov-Ma breathers: A path towards spectral stability of rogue waves, *Physical Review E* **96**, 012202, 7 pages (2017).
519. P.G. Kevrekidis, W. Wang, R. Carretero-González, D.J. Frantzeskakis, Adiabatic Invariant Approach to Transverse Instability: Landau Dynamics of Soliton Filaments, *Physical Review Letters* **118**, 244101 (2017).
520. H. Xu, P.G. Kevrekidis and T. Kapitula, Existence, Stability and Dynamics of Harmonically Trapped One-Dimensional Multi-Component Solitary Waves: The Near-Linear Limit, *Journal of Mathematical Physics* **58**, 061901, 24 pages (2017).
521. W. Wang, R.N. Bisset, C. Ticknor, R. Carretero-González, D.J. Frantzeskakis, L.A. Collins, P.G. Kevrekidis, Single and multiple vortex rings in three-dimensional Bose-Einstein condensates: Existence, stability, and dynamics, *Physical Review A* **95**, 043638, 11 pages (2017).
522. P.G. Kevrekidis, R. Carretero-González, D.J. Frantzeskakis, Stability of single and multiple matter-wave dark solitons in collisionally inhomogeneous Bose-Einstein condensates, *International Journal of Modern Physics B* **31**, 1742013, 19 pages (2017).
523. M. Agaoglou, E.G. Charalampidis, T.A. Ioannidou, P.G. Kevrekidis, Discrete BPS Skyrmions, *Journal of Mathematical Physics* **58**, 091501, 9 pages (2017).
524. J. Cuevas-Maraver, P.G. Kevrekidis, A. Vainchtein, H. Xu, Unifying Perspective: Solitary Traveling Waves As Discrete Breathers And Energy Criteria For Their Stability, *Phys. Rev. E* **96**, 032214 (2017).
525. P.G. Kevrekidis, C.I. Siettos, I.G. Kevrekidis, To infinity and some glimpses of beyond, *Nature Communications* **8**, 1562, 13 pages (2017).
526. P. G. Kevrekidis, W. Wang, R. Carretero-Gonzalez, D. J. Frantzeskakis, S. Xie, Vortex precession dynamics in general radially symmetric potential traps in two-dimensional atomic Bose-Einstein condensates, *Physical Review A*, **96**, 043612 (2017).

527. J. Cuevas-Maraver, P.G. Kevrekidis, A.B. Aceves, A. Saxena, Solitary waves in a two-dimensional nonlinear Dirac equation: from discrete to continuum, *Journal of Physics A: Mathematical & Theoretical* **50**, 495207, 17 pages (2017).
528. I. K. Mylonas, C. B. Ward, P. G. Kevrekidis, V. M. Rothos, D. J. Frantzeskakis, Asymptotic Expansions and Solitons of the Camassa-Holm Nonlinear Schrödinger Equation, *Physics Letters A* **381**, 3965-3971 (2017).
529. G.C. Katsimiga, S.I. Mistakidis, G.M. Koutentakis, P. G. Kevrekidis, P. Schmelcher, Many-Body Quantum Dynamics in the Decay of Bent Dark Solitons of Bose-Einstein Condensates, *New Journal of Physics* **19**, 123012, 17 pages (2017).
530. A. Demirkaya, R. Decker, P. G. Kevrekidis, I. C. Christov, A. Saxena, Kink Dynamics in a Parametric ϕ^6 System: A Model With Controllably Many Internal Modes, *Journal of High Energy Physics*, [https://doi.org/10.1007/JHEP12\(2017\)071](https://doi.org/10.1007/JHEP12(2017)071), 22 pages (2017).
531. L.Q. English, A. Zampetaki, P.G. Kevrekidis, K. Skowronski, C.B. Fritz, Saidou Abdoukary, Direct observation of chimera-like states in a ring of coupled electronic self-oscillators, *Chaos* **27**, 103125, 8 pages (2017).
532. R. Carretero-González, J. Cuevas-Maraver, D.J. Frantzeskakis, T.P. Horikis, P.G. Kevrekidis, A.S. Rodrigues, A Korteweg-de Vries description of dark solitons in polariton superfluids, *Physics Letters A* **381**, 3805-3811 (2017).
533. P.G. Kevrekidis, D.E. Pelinovsky, On the characterization of vortex configurations in the steady rotating Bose–Einstein condensates, *Proceedings of the Royal Society A* **473**, 2017602, 17 pages (2017).
534. V. Koukouloyannis, P.G. Kevrekidis, G.P. Veldes, D.J. Frantzeskakis, D. DiMarzio, X. Lan, V. Radisic, Bright Breathers in Nonlinear Left-Handed Metamaterial Lattices, *Physica Scripta* **93**, 025202, 10 pages (2018) .
535. D. Saadatmand, D.I. Borisov, P.G. Kevrekidis, K. Zhou, S.V. Dmitriev, Resonant interaction of ϕ^4 kink with spatially periodic \mathcal{PT} -symmetric

- perturbation, *Communications in Nonlinear Science and Numerical Simulation* **56**, 62-76 (2018).
536. K. Vorotnikov, Y. Starosvetsky, G. Theocharis, P.G. Kevrekidis, Wave propagation in a strongly nonlinear locally resonant granular crystal, *Physica D* **365**, 27-41 (2018).
537. B. Whitchurch, P.G. Kevrekidis, V. Koukouloyannis, A Hamiltonian Bifurcation Perspective on Two Interacting Vortex Pairs: From Symmetric to Asymmetric Leapfrogging, Period Doubling and Chaos, *Physics of Fluids* **3**, 014401, 17 pages (2018).
538. S. I. Mistakidis, G. C. Katsimiga, P. G. Kevrekidis, P. Schmelcher, Correlation Effects in the Quench-Induced Phase Separation Dynamics of a Two-Component Ultracold Quantum Gas, *New Journal of Physics* **20**, 043052, 17 pages (2018).
539. J. Cuevas-Maraver, B.A. Malomed, P.G. Kevrekidis, D.J. Frantzeskakis, Stabilization of the Peregrine soliton and Kuznetsov-Ma breathers by means of nonlinearity and dispersion management, *Physics Letters A* **382**, 968–972 (2018).
540. R. N. Bisset, P. G. Kevrekidis, C. Ticknor, Enhanced quantum spin fluctuations in a binary Bose-Einstein condensate, *Physical Review A* **97**, 023602, 11 pages (2018).
541. H. Kim, E. Kim, C. Chong, P. G. Kevrekidis, J. Yang, Demonstration of dispersive rarefaction shocks in hollow elliptical cylinder chains, *Physical Review Letters* **120**, 194101 (2018).
542. M.E. Ruth, E. Iacocca, P.G. Kevrekidis, M.A. Hofer, Transverse instabilities of stripe domains in magnetic thin films with perpendicular magnetic anisotropy, *Physical Review B* **97**, 104428, 12 pages (2018).
543. G.C. Katsimiga, P.G. Kevrekidis, B. Prinari, G. Biondini, P. Schmelcher, Dark-bright soliton pairs: Bifurcations and collisions, *Phys. Rev. A* **97**, 043623, 8 pages (2018).
544. E. G. Charalampidis, J. Cuevas-Maraver, D. J. Frantzeskakis, P. G. Kevrekidis, Rogue Waves in Ultracold Bosonic Seas, *Romanian Reports in Physics* **70**, 504, 25 pages (2018).

545. T. Penati, M. Sansottera, S. Paleari, V. Koukouloyannis, P.G. Kevrekidis, On the (non) existence of phase-shift discrete solitons in a dNLS non-local lattice, *Physica D* **370**, 1-13 (2018).
546. T.M. Bersano, V. Gokhroo, M.A. Khamehchi, J. D'Ambroise, D.J. Frantzeskakis, P. Engels, P.G. Kevrekidis, Three-component soliton states in spinor $F = 1$ Bose-Einstein condensates, *Physical Review Letters* **120**, 063202 (2018).
547. H. Xu, J. Cuevas-Maraver, P.G. Kevrekidis, A. Vainchtein, An energy-based stability criterion for solitary traveling waves in Hamiltonian lattices, *Philosophical Transactions A* **376**, 2117, 26 pages (2018).
548. L. Dominici, R. Carretero-Gonzalez, J. Cuevas-Maraver, A. Gianfrate, A.S. Rodrigues, D.J. Frantzeskakis, P.G. Kevrekidis, G. Lerario, D. Ballarini, M. De Giorgi, G. Gigli, D. Sanvitto, Interactions and scattering of quantum vortices in a polariton fluid, *Nature Communications* **9**, 1467, 10 pages (2018).
549. E. Kim, A.J. Martínez, S.E. Phenisee, P. G. Kevrekidis, M.A. Porter, J. Yang, Direct measurement of superdiffusive and subdiffusive energy transport in disordered granular chains, *Nature Communications* **9**, 640, 6 pages (2018).
550. J. D'Ambroise, D. J. Frantzeskakis, P. G. Kevrekidis, Traveling dark-bright solitons in a reduced spin-orbit coupled system: application to Bose-Einstein condensates, *Romanian Reports in Physics* **70**, 503, 16 pages (2018).
551. P. G. Kevrekidis, Wenlong Wang, R. Carretero-Gonzalez, D. J. Frantzeskakis, Adiabatic invariant analysis of dark and dark-bright soliton stripes in two-dimensional Bose-Einstein condensates, *Physical Review A* **97**, 063604 (2018).
552. S. Xie, P.G. Kevrekidis, T. Kolokolnikov, Multi-vortex crystal lattices in Bose-Einstein Condensates with a rotating trap, *Proceedings of the Royal Society A* **474**, 20170553 (2018).
553. D. J. Frantzeskakis, T. P. Horikis, A. S. Rodrigues, P. G. Kevrekidis, R. Carretero-González, J. Cuevas-Maraver, Hydrodynamics and two-

- dimensional dark lump solitons for polariton superfluids, *Physical Review E* **98**, 022205, 11 pages (2018).
554. A.J. Martínez, M.A. Porter, P.G. Kevrekidis, Quasiperiodic granular chains and Hofstadter butterflies, *Philosophical Transactions A* **376**, 20170139 (2018).
555. G. C. Katsimiga, S. I. Mistakidis, G. M. Koutentakis, P. G. Kevrekidis, P. Schmelcher, Many-Body Dissipative Flow of a Confined Scalar Bose-Einstein Condensate Driven by a Gaussian Impurity, *Physical Review A* **98**, 013632, 13 pages (2018).
556. C. Hoffmann, E. G. Charalampidis, D. J. Frantzeskakis, P. G. Kevrekidis, Peregrine solitons and gradient catastrophes in discrete nonlinear Schrödinger systems, *Physics Letters A* **382**, 3064-3070 (2018).
557. E.G. Charalampidis, J. Lee, P.G. Kevrekidis, C. Chong, Phononic Rogue Waves, *Physical Review E* **98**, 032903 (2018).
558. S. Hauver, X. He, D. Mei, E. G. Charalampidis, P. G. Kevrekidis, E. Kim, J. Yang, A. Vainchtein, Lattices With Internal Resonator Defects, *Physical Review E* **98**, 032902 (2018).
559. C. Ticknor, W. Wang, P.G. Kevrekidis, Spectral and dynamical analysis of a single vortex ring in anisotropic harmonically trapped three-dimensional Bose-Einstein condensates, *Physical Review A* **98**, 033609 (2018).
560. K.K. Sabirov, D.B. Babajanov, D.U. Matrasulov, P.G. Kevrekidis, Dynamics of Dirac solitons in networks, *Journal of Physics A* **51**, 435203, 13 pages (2018).
561. C. B. Ward, I. K. Mylonas, P. G. Kevrekidis, D. J. Frantzeskakis, Solitary Waves of the Two-Dimensional Camassa-Holm–Nonlinear Schrödinger Equation, *Journal of Physics A* **51**, 495202, 15 pages (2018).
562. Xuan-Lin Chen, Saidou Abdoukary, P. G. Kevrekidis, L. Q. English, Resonant Localized Modes in Electrical Lattices with Second Neighbor Coupling, *Physical Review E* **98**, 052201, 9 pages (2018).

563. P.G. Kevrekidis, I. Danaïla, J.-G. Caputo, R. Carretero-González, Planar and Radial Kinks in Nonlinear Klein-Gordon Models: Existence, Stability and Dynamics, *Physical Review E* **98**, 052217, 13 pages (2018).
564. M.E. Mossman, M.A. Hofer, K. Julien, P.G. Kevrekidis, P. Engels, Turbulence-induced viscous dissipation in a quantum-mechanical piston shock, *Nature Communications* **9**, 4665, 7 pages (2018) .
565. Y. Kominis, J. Cuevas-Maraver, P.G. Kevrekidis, D.J. Frantzeskakis, A. Bountis, Continuous families of solitary waves in non-symmetric complex potentials: A Melnikov theory approach, *Chaos, Solitons and Fractals* **118**, 222-233 (2019).
566. C.B. Ward, P.G. Kevrekidis, N. Whitaker, A numerical bifurcation analysis of a dryland vegetation model, *Communications in Nonlinear Science and Numerical Simulation* **68**, 319–335 (2019).
567. D. J. Frantzeskakis, N. I. Karachalios, P. G. Kevrekidis, V. Koukouloyannis, K. Vetas, Dynamical transitions between equilibria in a dissipative Klein-Gordon lattice, *Journal of Mathematical Analysis and Applications* **472**, 546–576 (2019).
568. Ivan C. Christov, R. Decker, A. Demirkaya, Vakhid A. Gani, P. G. Kevrekidis, R. V. Radomskiy, Long-range interactions of kinks, *Physical Review D* **99**, 016010, 19 pages (2019).
569. A.S. Rodrigues, P. G. Kevrekidis, M. Dobson, N-break states in a chain of nonlinear oscillators, *Physical Review E* **99**, 022201, 10 pages (2019).
570. F. Palmero, L. Q. English, Xuan-Lin Chen, Weilun Li, Jesús Cuevas-Maraver, and P. G. Kevrekidis, Experimental and numerical observation of dark and bright breathers in the band gap of a diatomic electrical lattice, *Physical Review E* **99**, 032206, 7 pages (2019).
571. I.C. Christov, R.J. Decker, A. Demirkaya, V.A. Gani, P.G. Kevrekidis, A. Khare, A. Saxena, Kink-Kink and Kink-Antikink Interactions with Long-Range Tails, *Physical Review Letters* **122**, 171601, 6 pages (2019).
572. M. Haberichter, P.G. Kevrekidis, R. Carretero-González, M. Edwards, Nonlinear waves in an experimentally motivated ring-shaped Bose-Einstein-condensate setup, *Physical Review A* **99**, 053619, 13 pages (2019).

573. C. Ticknor, V.P. Ruban, P.G. Kevrekidis, Quasistable quantum vortex knots and links in anisotropic harmonically trapped Bose-Einstein condensates, *Physical Review A* **99**, 063604, 8 pages (2019).
574. L.A. Cisneros-Ake, R. Carretero-González, P.G. Kevrekidis, B.A. Malomed, Dynamics and stabilization of bright soliton stripes in the hyperbolic-dispersion nonlinear Schrodinger equation, *Communications in Nonlinear Science and Numerical Simulation* **74**, 268-281 (2019).
575. H. Yasuda, Y. Miyazawa, E.G. Charalampidis, C. Chong, P.G. Kevrekidis, J.K. Yang, Origami-based impact mitigation via rarefaction solitary wave creation, *Science Advances* **5**, eaau2835, 8 pages (2019).
576. J. Cuevas-Maraver, P. G. Kevrekidis, F. G. Mertens, A. Saxena Speed-of-light pulses in a massless nonlinear Dirac equation, *Physical Review E* **100**, 022210, 6 pages (2019).
577. J. Cuevas-Maraver, P. G. Kevrekidis, B. A. Malomed, L. Guo, Solitary waves in the Ablowitz-Ladik equation with power-law nonlinearity, *Journal of Physics A: Mathematical and Theoretical* **52**, 065202, 14 pages (2019).
578. J. D'Ambroise, P. G. Kevrekidis, 2D solutions of the hyperbolic discrete nonlinear Schrödinger equation, *Physica Scripta* **94**, 115203, 10 pages (2019).
579. M. Molerón, C. Chong, A.J. Martínez, M.A. Porter, P.G. Kevrekidis, C. Daraio, Nonlinear Excitations in Magnetic Lattices with Long-Range Interactions, *New Journal of Physics* **21**, 063032, 8 pages (2019).
580. C.B. Ward, P.G. Kevrekidis, N. Whitaker, Evaluating the robustness of rogue waves under perturbations, *Physics Letters A* **383**, 2584-2588 (2019).
581. A. Romero-Ros, G. C. Katsimiga, P. G. Kevrekidis, P. Schmelcher, Controlled Generation of Dark-Bright Soliton Complexes in Two-Component and Spinor Bose-Einstein Condensates, *Physical Review A* **100**, 013626, 17 pages (2019).

582. T. Penati, V. Koukouloyannis, M. Sansottera, P. G. Kevrekidis, S. Paleari, On the nonexistence of degenerate phase-shift multibreathers in a zigzag Klein-Gordon model, *Physica D* **398**, 92–114 (2019).
583. P. G. Kevrekidis, Wenlong Wang, G. Theocharis, D. J. Frantzeskakis, R. Carretero-González, B. P. Anderson, Dynamics of interacting dark soliton stripes, submitted to *Physical Review A* **100**, 033607, 12 pages (2019).
584. C. Chong, A. Foehr, E.G. Charalampidis, P.G. Kevrekidis, C. Daraio, Breathers and other time-periodic solutions in an array of cantilevers decorated with magnets, *Mathematics in Engineering* **1**, 489–507 (2019).
585. P.G. Kevrekidis, Instabilities via negative Krein signature in a weakly non-Hamiltonian DNLS model, *Mathematics in Engineering* **1**, 378–390.
586. L. A. Cisneros-Ake, R. Carretero-González, P. G. Kevrekidis, Reduced dynamics for one and two dark soliton stripes in the defocusing nonlinear Schrödinger equation: a variational approach, *Physical Review Research* **1**, 033043 (2019).
587. C. B. Ward, P. G. Kevrekidis, Rogue Waves as Self-Similar Solutions on a Background: A Direct Calculation, *Romanian Journal of Physics* **64**, 112, 9 pages (2019).
588. J. D’Ambrose, P.G. Kevrekidis, P. Schmelcher, Bright Solitary Waves on a Torus: Existence, Stability and Dynamics for the Nonlinear Schrödinger Model, *Physics Letters A* **384**, 126167 (2020).
589. C.-M. Schmied, T. Gasenzer, M.K. Oberthaler, P.G. Kevrekidis, Stability analysis of ground states in a one-dimensional trapped spin-1 Bose gas, *Communications in Nonlinear Science and Numerical Computation* **83**, 105050, 20 pages (2020).
590. J. J. Bramburger, J. Cuevas-Maraver, P. G. Kevrekidis, Vortex Pairs in the Discrete Nonlinear Schrödinger Equation, *Nonlinearity* **33**, 2159–2180 (2020).

591. W. Wang, P.G. Kevrekidis, E. Babaev, Ring dark solitons in three-dimensional Bose-Einstein condensates, *Physical Review A* **100**, 053621 (2019).
592. M.I. Molina, L.Q. English, M.H. Chang, P.G. Kevrekidis, Linear impurity modes in an electrical lattice: Theory and Experiment, *Physical Review E* **100**, 062114 (2019).
593. A. Vainchtein, J. Cuevas-Maraver, P.G. Kevrekidis, H. Xu, Stability of traveling waves in a driven Frenkel-Kontorova model, *Communications in Nonlinear Science and Numerical Simulation* **85**, 105236 (2020).
594. G. Fotopoulos, D.J. Frantzeskakis, N.I. Karachalios, P.G. Kevrekidis, V. Koukouloyannis, K. Vetas, Extreme wave events for a nonlinear Schrödinger equation with linear damping and Gaussian driving, *Communications in Nonlinear Science and Numerical Simulation*, **82**, 105058, 12 pages (2020).
595. K. Mukherjee, S. I. Mistakidis, P. G. Kevrekidis, P. Schmelcher, Quench induced vortex-bright-soliton formation in binary Bose-Einstein condensates, *Journal of Physics B* **53**, 055302, 18 pages (2020).
596. C.B. Ward, P.G. Kevrekidis, T.P. Horikis, D.J. Frantzeskakis, Rogue Waves and Periodic Solutions of a Nonlocal Nonlinear Schrödinger Model, *Physical Review Research* **2**, 013351, 9 pages (2020).
597. R. Parker, P.G. Kevrekidis, B. Sandstede, Existence and spectral stability of multi-pulses in discrete Hamiltonian lattice systems, *Physica D* **408**, 132414, 21 pages (2020).
598. E.G. Charalampidis, N. Bouillé, P.E. Farrell, P.G. Kevrekidis, Bifurcation analysis of stationary solutions of two-dimensional coupled Gross-Pitaevskii equations using deflated continuation, *Communications in Nonlinear Science and Numerical Simulation* **87**, 105255, 24 pages (2020).
599. F. Williams, F. Tsitoura, T. P. Horikis, P. G. Kevrekidis, Solitary waves in the resonant nonlinear Schrödinger equation: stability and dynamical properties, *Physics Letters A* **384**, 126441 (2020).

600. A. Askari, A.M. Marjaneh, Z.G. Rakhmatullina, M. Ebrahimi-Loushab, D. Saadatmand, V.A. Gani, P.G. Kevrekidis, S.V. Dmitriev, Collision of ϕ^4 kinks free of the Peierls-Nabarro barrier in the regime of strong discreteness, *Chaos, Solitons and Fractals* **138**, 109854, 12 pages (2020).
601. L. Guo, J. He, L. Wang, Y. Cheng, D.J. Frantzeskakis, T.S. van den Bremer, P.G. Kevrekidis, Two-dimensional rogue waves on zero background in a Benney-Roskes model, *Physical Review Research* **2**, 033376, 6 pages (2020).
602. J.E. Allen, D.J. Frantzeskakis, N.I. Karachalios, P.G. Kevrekidis, V. Koukouloyannis, Solitary and Periodic Waves in Collisionless Plasmas: The Adlam-Allen Model Revisited, *Physical Review E* **102**, 013209, 14 pages (2020).
603. K. M. Mittal, S. I. Mistakidis, P. G. Kevrekidis, P. Schmelcher, Many-body effects on second-order phase transitions in spinor Bose-Einstein condensates and breathing dynamics, *Physical Review A* **102**, 013302, 15 pages (2020).
604. G. C. Katsimiga, S. I. Mistakidis, T. M. Bersano, M. K. H. Ome, S. M. Mossman, K. Mukherjee, P. Schmelcher, P. Engels, P. G. Kevrekidis, Observation and Analysis of Multiple Dark-Antidark Solitons in Two-Component Bose-Einstein Condensates, *Physical Review A* **102**, 023301, 11 pages (2020).
605. F. Palmero, L.Q. English, J. Cuevas-Maraver, P.G. Kevrekidis, Nonlinear edge modes in a honeycomb electrical lattice near the Dirac points, *Physics Letters A* **384**, 126664, 7 pages (2020).
606. L.J. Guo, C.B. Ward, I.K. Mylonas, P.G. Kevrekidis, Solitary waves of the Camassa-Holm derivative nonlinear Schrödinger equation, *Romanian Reports in Physics* **72**, 107, 12 pages (2020).
607. A.S. Fokas, J. Cuevas-Maraver, P.G. Kevrekidis, A quantitative framework for exploring exit strategies from the COVID-19 lockdown, *Chaos, Solitons & Fractals* **140**, 110244, 10 pages (2020).

608. J. Sullivan, E.G. Charalampidis, J. Cuevas-Maraver, P.G. Kevrekidis, N.I. Karachalios, Kuznetsov–Ma breather-like solutions in the Salerno model, *European Physical Journal Plus* **135**, 607, 12 pages (2020).
609. G. Deng, G. Biondini, S. Sen, P.G. Kevrekidis, On the generation and propagation of solitary waves in integrable and nonintegrable nonlinear lattices, *European Physical Journal Plus*, **135**, 598, 22 pages (2020).
610. D. K. Maity, K. Mukherjee, S. I. Mistakidis, S. Das, P. G. Kevrekidis, S. Majumder, P. Schmelcher, Parametrically excited star-shaped patterns at the interface of binary Bose-Einstein condensates, *Physical Review A* **102**, 033320, 13 pages (2020) .
611. J. Rossi, R. Carretero-González, P.G. Kevrekidis, Non-Conservative Variational Approximation for Nonlinear Schrödinger Equations, *European Physical Journal Plus* **135**, 854, 17 pages (2020).
612. S. Lannig, C.-M. Schmied, M. Prüfer, P. Kunkel, R. Strohmaier, H. Strobel, T. Gasenzer, P.G. Kevrekidis, M.K. Oberthaler, Collisions of three-component vector solitons in Bose-Einstein condensates, *Physical Review Letters* **125**, 170401 5 pages (2020).
613. R.J. Decker, A.S. Demirkaya, N.S. Manton, P.G. Kevrekidis, Kink-Antikink Interaction Forces and Bound States in a Biharmonic ϕ^4 Model, *Journal of Physics A, Mathematical & Theoretical* **53**, 375702, 14 pages (2020).
614. G. Abbas, P. G. Kevrekidis, J. E. Allen, V. Koukouloyannis, D. J. Frantzeskakis, N. Karachalios, Propagation of periodic wave trains along the magnetic field in a collision-free plasma, *Journal of Physics A: Mathematical & Theoretical* **53**, 425701, 17 pages (2020).
615. N. Boullé, E. G. Charalampidis, P. E. Farrell, P. G. Kevrekidis, Deflation-based Identification of Nonlinear Excitations of the 3D Gross–Pitaevskii equation, *Physical Review A* **102**, 053307, 8 pages (2020).
616. C. -M. Schmied, P. G. Kevrekidis, Dark-Antidark Spinor Solitons in Spin-1 Bose Gases, *Physical Review A* **102**, 053323, 12 pages (2020).

617. P. G. Kevrekidis, T. Thompson, A. Goriely, Anisotropic Diffusion and Traveling Waves of Toxic Proteins in Neurodegenerative Diseases, *Physics Letters A* **384**, 126935, 8 pages (2020).
618. R. Chaunsali, H. Xu, J. Yang, P.G. Kevrekidis, G. Theocharis, Stability of topological edge states under strong nonlinear effects, *Physical Review B* **103**, 024106, 13 pages (2021).
619. P. Subramanian, I.G. Kevrekidis, P.G. Kevrekidis, Exploring Critical Points of Energy Landscapes: From Low-Dimensional Examples to Phase Field Crystal PDEs, *Communications in Nonlinear Science and Numerical Simulation* **96**, 105679, 17 pages (2021).
620. P. G. Kevrekidis, R. Carretero-González, J. Cuevas-Maraver, D. J. Frantzeskakis, J. -G. Caputo, B. A. Malomed, Breather stripes and radial breathers of the two-dimensional sine-Gordon equation, *Communications in Nonlinear Science and Numerical Simulation* **94**, 105596, 18 pages (2021).
621. E. Dufresne, H.A. Harrington, J.D. Hauenstein, P.G. Kevrekidis, P. Tripoli, On some configurations of oppositely charged vortices in the plane, *Advances in Applied Mathematics* **124**, 102099, 29 pages (2021).
622. G. C. Katsimiga, S. I. Mistakidis, P. Schmelcher, P. G. Kevrekidis, Phase Diagram, Stability and Magnetic Properties of Nonlinear Excitations in Spinor Bose-Einstein Condensates, *New Journal of Physics* **23**, 013015, 17 pages (2021).
623. M. Thudiyangal, K. Kasamatsu, B. Dey, P.G. Kevrekidis, Decay of two-dimensional quantum turbulence in binary Bose-Einstein condensates, *Phys. Rev. A* **103**, 023301, 17 pages (2021).
624. A.S. Fokas, J. Cuevas-Maraver, P.G. Kevrekidis, Easing COVID-19 lockdown measures while protecting the older restricts the deaths to the level of the full lockdown, *Scientific Reports* **11**, 5839, 12 pages (2021).
625. C. Chong, Yifan Wang, Donovan Marechal, E. G. Charalampidis, Miguel Moleron, Alejandro J. Martinez, Mason A. Porter, P. G. Kevrekidis,

- Chiara Daraio, Nonlinear Localized Modes in Two-Dimensional Hexagonally-Packed Magnetic Lattices, *New Journal of Physics* **23**, 043008, 17 pages (2021).
626. G. N. Koutsokostas, T. P. Horikis, P. G. Kevrekidis, D. J. Frantzeskakis, Universal reductions and solitary waves of weakly nonlocal defocusing nonlinear Schrödinger equations, *Journal of Physics A: Mathematical & Theoretical* **54**, 085702, 17 pages (2021).
627. W. Wang, L.-C. Zhao, E.G. Charalampidis, P.G. Kevrekidis, Dark-dark soliton breathing patterns in multi-component Bose-Einstein condensates, *Journal of Physics B* **54**, 055301, 15 pages (2021).
628. I.C. Christov, R. J. Decker, A. Demirkaya, V.A. Gani, P. G. Kevrekidis, A. Saxena, Kink-Antikink Collisions and Multi-Bounce Resonance Windows in Higher-Order Field Theories, *Communications in Nonlinear Science and Numerical Simulation* **97**, 105748, 18 pages (2021).
629. R.J. Decker, A. Demirkaya, P.G. Kevrekidis, D. Iglesias, J. Severino, Y. Shavit, Kink Dynamics in a Nonlinear Beam Model, *Communications in Nonlinear Science and Numerical Simulation* **97**, 105747, 14 pages (2021).
630. W.-R. Sun, L. Liu, P.G. Kevrekidis, Rogue waves of ultrahigh peak amplitude: A mechanism to reach up to one thousand times the background level, *Proceedings of the Royal Society A* **477**, 20200842 (2021).
631. A. Romero-Ros, G. C. Katsimiga, P. G. Kevrekidis, B. Prinari, G. Biondini, P. Schmelcher, On-demand generation of dark soliton trains in Bose-Einstein condensates, *Physical Review A* **103**, 023329, 14 pages (2021).
632. T. Mithun, A. Maluckov, B. M. Manda, Ch. Skokos, A. Bishop, A. Saxena, A. Khare, P. G. Kevrekidis, Thermalization in the one-dimensional Salerno model lattice, *Physical Review E* **103**, 032211, 10 pages (2021).
633. G. A. Tsolias, Robert J. Decker, A. Demirkaya, T. J. Alexander, P. G. Kevrekidis, Kink-antikink interaction forces and bound states in a ϕ^4 model with quadratic and quartic dispersion, *Journal of Physics A: Mathematical and Theoretical* **54**, 225701, 22 pages (2021).

634. J. Cuevas-Maraver, P.G. Kevrekidis, Q.-Y. Chen, G.A. Kevrekidis, V. Villalobos-Daniel, Z. Rapti, Y. Drossinos, Lockdown Measures and their Impact on Single- and Two-age-structured Epidemic Model for the COVID-19 Outbreak in Mexico, *Mathematical Biosciences* **336**, 108590, 16 pages (2021).
635. P.G. Kevrekidis, J. Cuevas-Maraver, Y. Drossinos, Z. Rapti, G.A. Kevrekidis, Spatial Modeling of COVID-19: Greece and Andalusia as Case Examples, *Physical Review E* **104**, 024412, 25 pages (2021).
636. W. Wang, T. Kolokolnikov, D.J. Frantzeskakis, R. Carretero-González, P.G. Kevrekidis, Pairwise Interactions of Ring Dark Solitons with Vortices and other Rings: Stationary States, Stability Features and Nonlinear Dynamics, *Physical Review A* **104**, 023314, 13 pages (2021).
637. T. Kapitula, P.G. Kevrekidis, Language competition on lattices, *Studies in Applied Mathematics*, 29 pages (2021).
638. G.L. Celora, H.M. Byrne, C. Zois, P.G. Kevrekidis, Phenotypic variation modulates the growth dynamics and response to radiotherapy of solid tumours under normoxia and hypoxia, *Journal of Theoretical Biology* **527**, 110792, 19 pages (2021).
639. R. M. Ross, P. G. Kevrekidis, D. E. Pelinovsky, Localization in optical systems with an intensity-dependent dispersion, *Quarterly of Applied Mathematics* **79**, 641–665 (2021).
640. K. Kwon, K. Mukherjee, S. Huh, K. Kim, S. I. Mistakidis, D. K. Maity, P. G. Kevrekidis, S. Majumder, P. Schmelcher, J. -y. Choi, Spontaneous Formation of Star-Shaped Surface Patterns in a Driven Bose-Einstein Condensate, *Physical Review Letters* **127**, 113001, 7 pages (2021).
641. T. Mithun, S. I. Mistakidis, P. Schmelcher, P. G. Kevrekidis, Statistical mechanics of one-dimensional quantum droplets, *Physical Review A* **104**, 033316, 11 pages (2021).
642. S. J. Chapman, M. E. Kavousanakis, I. G. Kevrekidis, P. G. Kevrekidis, A Normal Form for the Onset of Collapse: the Prototypical Example of the Nonlinear Schrodinger Equation, *Physical Review E* **104**, 044202, 13 pages (2021).

643. G. N. Koutsokostas, G. Theocharis, T. P. Horikis, P. G. Kevrekidis, D. J. Frantzeskakis, Transverse instability and dynamics of nonlocal bright solitons, *Physical Review E* **104**, 064205, 10 pages (2021).
644. H. Yasuda, E.G. Charalampidis, P.K. Purohit, P.G. Kevrekidis, J.R. Raney, Wave manipulation using a bistable chain with reversible impurities, *Physical Review E* **104**, 054209, 12 pages (2021).
645. D.E. Pelinovsky, R.M. Ross, P.G. Kevrekidis, Solitary waves with intensity-dependent dispersion: variational characterization, *Journal of Physics A: Mathematical and Theoretical* **44**, 445701, 15 pages (2021).
646. H. Duran, H. Xu, P. G. Kevrekidis, A. Vainchtein, Unstable dynamics of solitary traveling waves in a lattice with long-range interactions, *Wave Motion* **108**, 102836, 17 pages (2021).
647. A. Abeya, B. Prinari, G. Biondini, P. G. Kevrekidis, Solitons and soliton interactions in repulsive spinor Bose-Einstein condensates with non-zero background, *European Physical Journal Plus* **136**, 1126, 33 pages (2021).
648. S.I. Mistakidis, T. Mithun, P.G. Kevrekidis, H.R. Sadeghpour, P. Schmelcher, Formation and quench of homonuclear and heteronuclear quantum droplets in one dimension, *Physical Review Research* **3**, 043128, 16 pages (2021).
649. F. Palmero, M.I. Molina, J. Cuevas-Maraver, P.G. Kevrekidis, Discrete embedded solitary waves and breathers in one-dimensional nonlinear lattices, *Physics Letters A* **425**, 127880, 7 pages (2022).
650. V.P. Ruban, W. Wang, C. Ticknor, P.G. Kevrekidis, Instabilities of a vortex-ring-bright soliton in trapped binary three-dimensional Bose-Einstein condensates, *Physical Review A* **105**, 013319, 17 pages (2022).
651. M. Beau, A. del Campo, D. J. Frantzeskakis, T. P. Horikis, and P. G. Kevrekidis Dark solitons in a trapped gas of long-range interacting bosons, *Physical Review A* **105**, 023323, 8 pages (2022).
652. A. Romero-Ros, G. C. Katsimiga, P. G. Kevrekidis, B. Prinari, G. Biondini, and P. Schmelcher, On-demand generation of dark-bright soliton trains in Bose-Einstein condensates, *Physical Review A* **105**, 023325, 23 pages (2022).

653. Y. Miyazawa, C. Chong, P. G. Kevrekidis, and J. Yang Rogue and solitary waves in coupled phononic crystals *Physical Review E* **105**, 034202, 11 pages (2022) .
654. T. Mithun, P. G. Kevrekidis, A. Saxena, and A. R. Bishop, Measurement and memory in the periodically driven complex Ginzburg-Landau equation, *Phys. Rev. E* **105**, 034210, 8 pages (2022).
655. R. Parker, A. Aceves, J. Cuevas-Maraver, and P. G. Kevrekidis Floquet solitons in square lattices: Existence, stability, and dynamics, *Physical Review E* **105**, 044211, 9 pages (2022).
656. T. Mithun, R. Carretero-González, E. G. Charalampidis, D. S. Hall, and P. G. Kevrekidis, Existence, stability, and dynamics of monopole and Alice ring solutions in antiferromagnetic spinor condensates *Physical Review A* **105**, 053303, 16 pages (2022).
657. A. Romero-Ros, G. C. Katsimiga, S. I. Mistakidis, B. Prinari, G. Biondini, P. Schmelcher, and P. G. Kevrekidis, Theoretical and numerical evidence for the potential realization of the Peregrine soliton in repulsive two-component Bose-Einstein condensates, *Phys. Rev. A* **105**, 053306, 13 pages (2022).
658. R. Parker, P.G. Kevrekidis, A. Aceves, Stationary multi-kinks in the discrete sine-Gordon equation, *Nonlinearity* **35**, 1036–1060 (2022).
659. T.J. Alexander, G.A. Tsolias, A. Demirkaya, R.J. Decker, C.M. de Sterke, P.G. Kevrekidis, Dark solitons under higher-order dispersion, *Optics Letters* **47**, 1174–1177 (2022).
660. W. Zhu, W. Khademi, E.G. Charalampidis, P.G. Kevrekidis, Neural networks enforcing physical symmetries in nonlinear dynamical lattices: The case example of the Ablowitz-Ladik model, *Physica D* **434**, 133264, 14 pages (2022).
661. R. Carretero-González, L.A. Cisneros-Ake, R. Decker, G.N. Koutsokostas, D.J. Frantzeskakis, P.G. Kevrekidis D.J. Ratliff, Kink-antikink stripe interactions in the two-dimensional sine-Gordon equation, *Communications in Nonlinear Science and Numerical Simulation*, **109**, 106123, 24 pages (2022).

662. H. Duran, J. Cuevas-Maraver, P.G. Kevrekidis, A. Vainchtein, Moving discrete breathers in a β -FPU lattice revisited, *Communications in Nonlinear Science and Numerical Simulation* **111**, 106435, 15 pages (2022).
663. A. S. Rodrigues, R. M. Ross, V. V. Konotop, A. Saxena, P. G. Kevrekidis, Nonlinear Anti-(Parity-Time) symmetric dimer, *Frontiers in Physics* **10**, 865910, 11 pages (2022).
664. A. Stefanov, G.A. Tsolias, J. Cuevas-Maraver, P.G. Kevrekidis, Mixed dispersion nonlinear Schrödinger equation in higher dimensions: theoretical analysis and numerical computations, *Journal of Physics A: Mathematical and Theoretical* **55**, 265701, 22 pages (2022).
665. J. D'Ambroise, R. Carretero-González, P. Schmelcher, P.G. Kevrekidis, Superfluid vortex multipoles and soliton stripes on a torus, *Physical Review A* **105**, 063325, 18 pages (2022).
666. S.J. Chapman, M.E. Kavousanakis, E.G. Charalampidis, I.G. Kevrekidis, P.G. Kevrekidis, A Spectral Analysis of the Nonlinear Schroedinger Equation in the Co-Exploding Frame, *Physica D* **439**, 133396, 27 pages (2022).
667. P. Subramanian, E. Knobloch, P.G. Kevrekidis, Forced symmetry breaking as a mechanism for rogue bursts in a dissipative nonlinear dynamical lattice, *Physical Review E* **106**, 014212, 12 pages (2022).
668. B.A. Malomed, P.G. Kevrekidis, V. Koukouloyannis, N. Whitaker, D.J. Frantzeskakis, Interactions of solitary waves in the Adlam-Allen model, *Physical Review E* **106**, 034209, 11 pages (2022).
669. R. Parker, J. Cuevas-Maraver, P.G. Kevrekidis, A. Aceves, Revisiting Multi-breathers in the discrete Klein-Gordon equation: A Spatial Dynamics Approach, *Nonlinearity* **35**, 5714-5748 (2022).
670. A. Vaziry, T. Kolokolnikov, P.G. Kevrekidis, Modelling of spatial infection spread through heterogeneous population: from lattice to PDE models, *Royal Society Open Science* **9**, 220064, 12 pages (2022).

671. C. Chong, M. Herrmann, P. G. Kevrekidis, Dispersive Shock Waves in Lattices: A Dimension Reduction Approach, *Physica D* **442**, 133533, 11 pages (2022).
672. S. Halder, K. Mukherjee, S. I. Mistakidis, S. Das, P. G. Kevrekidis, P. K. Panigrahi, S. Majumder, H. R. Sadeghpour, Control of ^{164}Dy Bose-Einstein condensate phases and dynamics with dipolar anisotropy, *Physical Review Research* **4**, 043124, 17 pages (2022).
673. L. Q. English, A. V. Zampetaki, K. P. Kalinin, N. G. Berloff, P. G. Kevrekidis, An Ising machine based on networks of subharmonic electrical resonators, *Communications Physics* **5**, 333, 11 pages (2022).
674. G.A. Kevrekidis, Z. Rapti, Y. Drossinos, P.G. Kevrekidis, M.A. Bar-mann, Q.Y. Chen, J. Cuevas-Maraver, Backcasting COVID-19: A Physics-Informed Estimate for Early Case Incidence, *Royal Society: Open Science* **9**, 220329, 16 pages (2022).
675. E. Kapsabelis, P. G. Kevrekidis, P. C. Stavrinos, A. Triantafyllopoulos, Schwarzschild-Finsler-Randers spacetime: Dynamical analysis, Geodesics and Deflection Angle, *European Physical Journal C* **82**, 1098, 13 pages (2022).
676. L. Guo, P.G. Kevrekidis, J. He, Asymptotic dynamics of higher-order lumps in the Davey–Stewartson II equation, *Journal of Physics A: Mathematical and Theoretical*, **55**, 475701, 17 pages (2022).
677. E.G. Charalampidis, R. Parker, P.G. Kevrekidis, S. Lafortune, The Stability of the b-family of Peakon Equations, *Nonlinearity* **36**, 1192–1217 (2023).
678. G.L. Celora, H.M. Byrne, P.G. Kevrekidis, Spatio-temporal modelling of phenotypic heterogeneity in tumour tissues and its impact on radiotherapy treatment, *Journal of Theoretical Biology* **556**, 111248, 21 pages (2023).
679. G. C. Katsimiga, S. I. Mistakidis, K. Mukherjee, P. G. Kevrekidis, and P. Schmelcher, Stability and dynamics across magnetic phases of vortex-bright type excitations in spinor Bose-Einstein condensates, *Physical Review A* **107**, 013313, 16 pages (2023).

680. T. Mithun, A. R. Fritsch, I. B. Spielman, P. G. Kevrekidis, Dynamical Instability of 3d Stationary and Traveling Planar Dark Solitons, *Journal of Physics: Condensed Matter* **35**, 014004, 9 pages (2023).
681. J. Adriaola, R.H. Goodman, P.G. Kevrekidis, Efficient Manipulation of Bose-Einstein Condensates in a Double-Well Potential, *Communications in Nonlinear Science and Numerical Simulation* **122**, 107219, 14 pages (2023).
682. H. Duran, J. Cuevas-Maraver, P.G. Kevrekidis, A. Vainchtein, Discrete breathers in a mechanical metamaterial, *Physical Review E* **107**, 014220, 19 pages (2023).
683. N. Boullé, I. Newell, P. E. Farrell, P. G. Kevrekidis, Two-Component 3D Atomic Bose-Einstein Condensates Support Complex Stable Patterns, *Physical Review A* **107**, 012813, 7 pages (2023).
684. H. Hu, C.M. Kennedy, P.G. Kevrekidis, H. Zhang, A Modified PINN Approach for Identifiable Compartmental Models in Epidemiology with Applications to COVID-19, *Viruses* **14**, 2464, 28 pages (2022).
685. S. Saqlain, Thudiyangal Mithun, R. Carretero-González, P. G. Kevrekidis, Dragging A Defect in a Droplet Bose-Einstein Condensate, *Physical Review A* **107**, 033310, 14 pages (2023).
686. T. Mithun, A. Maluckov, A. Mančić, A. Khare, P.G. Kevrekidis, How close Are Integrable and Non-integrable Models: A Parametric Case Study Based on the Salerno Model, *Physical Review E* **107**, 024202, 9 pages (2023).
687. M. M. Lee, E. G. Charalampidis, S. Xing, C. Chong, and P. G. Kevrekidis, Breathers in lattices with alternating strain-hardening and strain-softening interactions, *Physical Review E* **107**, 054208, 18 pages (2023).
688. J. Cuevas-Maraver, P.G. Kevrekidis, H.-K. Zhang, Solitary wave billiards, *Physical Review E* **107**, 034217, 11 pages (2023).
689. M.-M. Liu, W.-R. Sun, L. Liu, P.G. Kevrekidis, L. Wang, Periodic traveling waves in the ϕ^4 model: Instability, stability, and localized structures, *Physical Review E* **107**, 034210, 10 pages (2023).

690. S. Li, P.G. Kevrekidis, J.K. Yang, Characterization of elastic topological states using dynamic mode decomposition, *Physical Review B* **107**, 184308, 12 pages (2023).
691. G. C. Katsimiga, S. I. Mistakidis, G. N. Koutsokostas, D. J. Frantzeskakis, R. Carretero-González, P. G. Kevrekidis, Solitary waves in a quantum droplet-bearing system, *Physical Review A* **107**, 063308, 15 pages (2023).
692. R. Parker, J. Cuevas-Maraver, P.G. Kevrekidis, A. Aceves, Standing and Traveling Waves in a Model of Periodically Modulated One-dimensional Waveguide Arrays, *Physical Review E* **108**, 024214 (2023).
693. A.G. Stefanov, R.M. Ross, P.G. Kevrekidis, Ground States in Spatially Discrete Nonlinear Schrödinger Lattices, *Nonlinearity* **36**, 4053–4085 (2023).
694. W. Zhu, H.-K. Zhang, P.G. Kevrekidis, Machine learning independent conservation laws through neural deflation, *Physical Review E* **108**, L022301, 6 pages (2023).
695. R. Chaunsali, P.G. Kevrekidis, D.J. Frantzeskakis, G. Theocharis, Dirac Solitons and Topological Edge States in the β -Fermi-Pasta-Ulam-Tsingou dimer lattice, *Physical Review E* **108**, 054224, 11 pages (2023).
696. S. Saqlain, W. Zhu, E.G. Charalampidis, P.G. Kevrekidis, Discovering Governing Equations in Discrete Systems Using PINNs, *Communications in Nonlinear Science and Numerical Simulations* **126**, 107498, 12 pages (2023).
697. G.A. Tsolias, Robert J. Decker, A. Demirkaya, T.J. Alexander, Ross Parker, P.G. Kevrekidis, Kink-Antikink Interaction Forces and Bound States in a nonlinear Schrödinger Model with Quadratic and Quartic dispersion, *Communications in Nonlinear Science and Numerical Simulations* **125**, 107362, 20 pages (2023).
698. L. Liu, W.-R. Sun, B.A. Malomed, P.G. Kevrekidis, Time-localized solitons generated by zero-wavenumber-gain modulational instability, *Physical Review A* **108**, 033504, 8 pages (2023).

699. Z. Rapti, J. Cuevas-Maraver, E. Kontou, S. Liu, Y. Drossinos, P.G. Kevrekidis, G.A. Kevrekidis, M. Barmann, Q.-Y. Chen, The role of mobility in the dynamics of the COVID-19 epidemic in Andalusia, *Bulletin of Mathematical Biology* **85**, 54, 27 pages (2023).
700. J. Gatlik, T. Dobrowolski, P.G. Kevrekidis, Kink-inhomogeneity interaction in the sine-Gordon model, *Physical Review E* **108**, 034203, 17 pages (2023).
701. S. Li, Y. Miyazawa, K. Yamaguchi, P.G. Kevrekidis, J.K. Yang, Geometry-informed dynamic mode decomposition in origami dynamics, *Extreme Mechanics Letters* **64**, 102082, 10 pages (2023).
702. W.-R. Sun, J.-H. Li, L. Liu, P.G. Kevrekidis, The instabilities beyond modulational type in a repulsive Bose-Einstein condensate with a periodic potential, *Physica D* **458**, 134009, 8 pages (2023).
703. G.C. Katsimiga, S.I. Mistakidis, B.A. Malomed, D.J. Frantzeskakis, R. Carretero-González, P.G. Kevrekidis, Interactions and Dynamics of One-Dimensional Droplets, Bubbles and Kinks, *Condensed Matter* **8**, 67, 17 pages (2023).
704. F. Martin-Vergara, J. Cuevas-Maraver, P.E. Farrell, F.R. Villatoro, P.G. Kevrekidis, Discrete breathers in Klein-Gordon lattices: A deflation-based approach, *Chaos* **33**, 113126, 13 pages (2023).
705. J. Cuevas-Maraver, P.G. Kevrekidis, Q.Y. Chen, G.A. Kevrekidis, Y. Drossinos, Vaccination compartmental epidemiological models for the delta and omicron SARS-CoV-2 variants, *Mathematical Biosciences* **367**, 109109, 14 pages (2024).
706. A. Romero-Ros, G. C. Katsimiga, S. I. Mistakidis, S. Mossman, G. Biondini, P. Schmelcher, P. Engels, P. G. Kevrekidis, Experimental realization of the Peregrine soliton in repulsive two-component Bose-Einstein condensates, *Physical Review Letters* **132**, 033402, 6 pages (2024).
707. S. Mossman, G. C. Katsimiga, S. I. Mistakidis, A. Romero-Ros, T. M. Bersano, P. Schmelcher, P. G. Kevrekidis, P. Engels, Observation of dense collisional soliton complexes in a two-component Bose-Einstein condensate, *Communications Physics* **7**, 163, 5 pages (2024).

708. J. Rossi, S. Chandramouli, R. Carretero-González, P.G. Kevrekidis, On the temporal tweezing of cavity solitons, *Journal of Nonlinear Mathematical Physics* **31**, 43, 27 pages (2024).
709. T. Mithun, A. R. Fritsch, G. N. Koutsokostas, D. J. Frantzeskakis, I. B. Spielman, P. G. Kevrekidis, Stationary solitons in $F=1$ spin-orbit coupled Bose-Einstein condensates, *Physical Review A* **109**, 023328, 17 pages (2024).
710. E.G. Charalampidis, G. James, J. Cuevas-Maraver, D. Hennig, N.I. Karachalios and P.G. Kevrekidis, Existence, stability and spatio-temporal dynamics of time-quasiperiodic solutions on a finite background in discrete nonlinear Schrödinger models, *Wave Motion* **128**, 103324, 9 pages (2024).
711. S. Li, P.G. Kevrekidis, J.K. Yang, Emergence of elastic chiral Landau levels and snake states, *Physical Review B* **109**, 184109, 6 pages (2024).
712. C. Chase-Mayoral, L.Q. English, Y. Kim, S. Lee, N. Lape, A. Andrianov, P.G. Kevrekidis, S. Flach, Compact Localized States in Electric Circuit Flatband Lattices, *Physical Review B* **109**, 075430, 9 pages (2024).
713. R. Parker, P. Germain, J. Cuevas-Maraver, A. Aceves, P.G. Kevrekidis, Standing and Traveling Waves in a Nonlinearly Dispersive Lattice Model, *Physica D* **467**, 134273, 17 pages (2024).
714. J. Gatlik, T. Dobrowolski, P.G. Kevrekidis, An effective description of the impact of inhomogeneities on the movement of the kink front in 2+1 dimensions, *Physical Review E* **109**, 024205, 20 pages (2024).
715. M. Thudiyangal, P.G. Kevrekidis, A. Saxena, A.R. Bishop, A nonlinear journey from structural phase transitions to quantum annealing, *Chaos* **34**, 053134, 10 pages (2024).
716. C. Chong, A. Geisler, P.G. Kevrekidis, G. Biondini, Integrable approximations of dispersive shock waves of the granular chain, *Wave Motion* **130**, 103352, 11 pages (2024).

717. B.M. Manda, R. Carretero-González, P.G. Kevrekidis, V. Achilleos, Skin modes in a nonlinear Hatano-Nelson model, *Physical Review B* **109**,094308, 12 pages (2024).
718. S. Chandramouli, S.I. Mistakidis, G.C. Katsimiga, P.G. Kevrekidis, Dispersive shock waves in a one-dimensional droplet-bearing environment, *Physical Review A* **110**, 023304, 14 pages (2024).
719. S. Li, P.G. Kevrekidis, X. Mao, J. Yang, Topological pumping in origami metamaterials, *Physical Review B* **110**, 075123, 7 pages (2024).
720. T. Bountis, J. Cantisán, J. Cuevas-Maraver, J.E. Macías-Díaz, P.G. Kevrekidis, The Dissipative Effect of Caputo–Time-Fractional Derivatives and its Implications for the Solutions of Nonlinear Wave Equations, *Partial Differential Equations in Applied Mathematics*, **11**, 100807, 8 pages (2024).
721. S. Jon Chapman, M. Kavousanakis, E.G. Charalampidis, I.G. Kevrekidis and P.G. Kevrekidis, Self-similar blowup solutions in the generalized Korteweg-de Vries equation: Spectral analysis, normal form and asymptotics, *Nonlinearity* **37**, 095034, 35 pages (2024).
722. G. Biondini, C. Chong, P.G. Kevrekidis, On the Whitham modulation equations for the Toda lattice and the quantitative characterization of its dispersive shocks, *Physica D* **469**, 134315, 12 pages (2024).
723. M. Chirilus-Bruckner, J. Cuevas-Maraver, P.G. Kevrekidis, Stability of Breathers for a Periodic Klein-Gordon Equation, *Entropy* **26**, 756, 17 pages (2024).
724. G. Bougas, G. C. Katsimiga, P. G. Kevrekidis, S. I. Mistakidis, Stability and dynamics of nonlinear excitations in a two-dimensional droplet-bearing environment, *Physical Review A* **110**, 033317, 13 pages (2024).
725. P. Sprenger, C. Chong, E. Okeyere, M. Herrmann, P.G. Kevrekidis, M.A. Hofer, Hydrodynamics of a Discrete Conservation Law, *Studies in Applied Mathematics* **153**, e12767, 48 pages (2024).
726. S. Yang, W. Chu, P.G. Kevrekidis, An epidemical model with nonlocal spatial infections, *Proceedings of European Society of Sciences and Arts* **3**, 42, 12 pages (2024).

727. S. Yang, S. Chen, W. Zhu, P.G. Kevrekidis, Identification of moment equations via data-driven approaches in nonlinear Schrödinger models, *Frontiers in Photonics* **5**, 1444993, 11 pages (2024).
728. J. Holmer, K.Z. Zhang, P.G. Kevrekidis, On the Ground State Quantum Droplet for Large Chemical Potentials, *Journal of Physics A: Mathematical and Theoretical* **57**, 445701, 12 pages (2024).
729. N. Mohammad Mirzaei, P.G. Kevrekidis, L. Shahriyari, Oxygen, Angiogenesis, Cancer and Immune Interplay in Breast Tumor Micro-Environment: A Computational Investigation, *Royal Society Open Science* **11**, 240718, 28 pages (2024).
730. J.-G. Caputo, T. Dobrowolski, J. Gatlik, P.G. Kevrekidis, Radial kinks in a Schwarzschild-like geometry, *Physical Review D* **110**, 125025, 17 pages (2024).
731. P.G. Kevrekidis, D.E. Pelinovsky, R.M. Ross, Stability of smooth solitary waves under intensity-dependent dispersion, *IMA Journal of Applied Mathematics* **89**, 989–1005 (2024).
732. S. Chen, P.G. Kevrekidis, H.-K. Zhang, W. Zhu, Data-driven discovery of conservation laws from trajectories via neural deflation, *Communications in Nonlinear Science and Numerical Simulation* **143**, 108563, 13 pages (2025).
733. T. Bountis, J. Cantisán, J. Cuevas-Maraver, J. E. Macías-Díaz, P.G. Kevrekidis, On the Fractional Dynamics of Kinks in Sine-Gordon Models. *Mathematics* **13**, 220, 16 pages (2025).
734. Evans C. Boadi, Efstathios G. Charalampidis, Panayotis G. Kevrekidis, Nicholas J. Ossi, Barbara Prinari, On the discrete Kuznetsov-Ma solutions for the defocusing Ablowitz-Ladik equation with large background amplitude, *Wave Motion* **134**, 103496, 17 pages (2025).
735. Y. Gao, R. Geng, P.G. Kevrekidis, H.-K. Zhang, J. Zu, α -SGHN: A Robust Model for Learning Particle Interactions in Lattice Systems, *Physical Review E* **111**, 015309, 18 pages (2025).
736. T. Dobrowolski, J. Gatlik, P.G. Kevrekidis, Kink movement on a periodic background, *Physical Review E* **111**, 024203, 18 pages (2025).

737. S. Li, Y. Oh, S.J. Choi, P.G. Kevrekidis, J. Yang, On-demand realization of topological states using Miura-folded metamaterials, *Extreme Mechanics Letters* **75**, 102294, 9 pages (2025).
738. S. I. Mistakidis, G. Bougas, G. C. Katsimiga, P. G. Kevrekidis, Generic transverse stability of kink structures in atomic and optical nonlinear media with competing attractive and repulsive interactions, *Physical Review Letters* **134**, 123402, 7 pages (2025).
739. M.L. Lytle, E.G. Charalampidis, D.Mantzavinos, J. Cuevas-Maraver, P.G. Kevrekidis, N.I. Karachalios, On the proximity of Ablowitz-Ladik and discrete Nonlinear Schrödinger models: A theoretical and numerical study of Kuznetsov-Ma solutions, *Wave Motion* **137**, 103547, 16 pages (2025).
740. Su Yang, G. Biondini, C. Chong, P.G. Kevrekidis, A regularized continuum model for traveling waves and dispersive shocks of the granular chain, *Journal of Nonlinear Waves* **1**, e2, 1-31 (2025).
741. S. Banerjee, K. Zhou, S.K. Tiwari, H. Tamura, R. Li, P.G. Kevrekidis, S.I. Mistakidis, V. Walther, C.-L. Hung, Collapse of a quantum vortex in an attractive two-dimensional Bose gas, *Physical Review Letters* **135**, 073401, 8 pages (2025).
742. Robert J. Decker, A. Demirkaya, T.J. Alexander, G.A. Tsolias, P.G. Kevrekidis, Fractional Solitons: A Homotopic Continuation from the Biharmonic to the Harmonic ϕ^4 Model, *Nonlinear Science* **4**, 100051, 16 pages (2025).
743. C.J. Lustrì, P.G. Kevrekidis, S.J. Chapman, Exponential asymptotics for translational modes in the discrete nonlinear Schrödinger model, *Quarterly of Applied Mathematics* **1718**, 21 pages (2025).
744. G.P. Veldes, V. Koukouloyannis, D.J. Frantzeskakis and P.G. Kevrekidis, NLS approximation and dark solitons for the Adlam-Allen model of cold collisionless plasmas, *Journal of Physics A: Mathematical Theoretical* **58**, 225701, 16 pages (2025).
745. S. Mossman, S. I. Mistakidis, G. C. Katsimiga, A. Romero-Ros, G. Biondini, P. Schmelcher, P. Engels, P. G. Kevrekidis, Nonlinear stage

- of modulational instability in repulsive two-component Bose-Einstein condensates, *Physical Review Letters* **135**, 113401, 7 pages (2025).
746. J. D'Ambroise, W. Wang, C. Ticknor, R. Carretero-González, P.G. Kevrekidis, Stability and dynamics of massive vortices in two-component Bose-Einstein condensates, *Physical Review E* **111**, 034216, 12 pages (2025).
747. N. Fotiades, J. A. Cizewski, P. Fallon, P. G. Kevrekidis, R. Krücken, and I. Y. Lee, Yrast structures of ^{98}Nb and ^{99}Mo , *Physical Review C* **111**, 014316, 9 pages (2025).
748. I. Lampropoulos, P.G. Kevrekidis, C.E. Zois, H. Byrne, M. Kavoussanakis, Spatio-Temporal Dynamics of M_1 and M_2 Macrophages in a Multiphase Model of Tumor Growth, *Bulletin of Mathematical Biology* **87**, 92, 40 pages (2025).
749. J. Adriaola, W. Zhu, P.G. Kevrekidis, A. Aceves, Computer Assisted Discovery of Integrability via SILO: Sparse Identification of Lax Operators, *SIAM Journal of Applied Dynamical Systems*, in press (2025).
750. A. U. J. Lode, M. C. Tsatsos, P. G. Kevrekidis, G. D. Telles, D. Luo, R. G. Hulet, V. S. Bagnato, Onset and Irreversibility of Granulation of Bose-Einstein condensates under Feshbach Resonance Management, submitted to *Physical Review A*.
751. S. Mohapatra, P.G. Kevrekidis, S. Lafortune, PainleveBacklundCheck: A Sympy-powered Kivy app for the Painlevé property of nonlinear dispersive PDEs and auto-Bäcklund transformations, submitted to *SIGMA*.
752. J. Adriaola, P.G. Kevrekidis, Experimentally Tractable Generation of High-Order Rogue Waves in Bose-Einstein Condensates, submitted to *Physical Review E*.
753. D. Pozharskiy, I.G. Kevrekidis, P.G. Kevrekidis, Global Bifurcations in a Damped-Driven Diatomic Granular Crystal, submitted to *Mechanics Research Communications*.
754. M. Calabrese, V. Koukouloyannis, S. Abbas, G. Abbas, P.G. Kevrekidis, Hydromagnetic shock waves in a cold weakly collisional plasma, submitted to *Physics of Plasmas*.

755. A.G. Stefanov, P.G. Kevrekidis, Kinks of fractional ϕ^4 models: existence, uniqueness, monotonicity, stability, and sharp asymptotics, submitted to *Annals of PDE*.
756. J.S. Chapman, M. Kavousanakis, E.G. Charalampidis, I.G. Kevrekidis, P.G. Kevrekidis, Multi-hump Collapsing Solutions in the Nonlinear Schrödinger Problem: Existence, Stability and Dynamics, submitted to *SIAM Journal of Applied Dynamical Systems*.
757. Y. Miyazawa, C. Chong, P.G. Kevrekidis, J. Yang, Unveiling Solitonic Collisions in Mechanical Metamaterials, submitted to *Nature Communications*.
758. T. Dobrowolski, J. Gatlik, Z. Brylowska, P.G. Kevrekidis Kink Dynamics in a Non-Autonomous Sine-Gordon Model, submitted to *Chaos*.
759. S. Chen, S. Yang, P.G. Kevrekidis, W. Zhu, Robust Moment Identification for Nonlinear PDEs via a Neural ODE Approach, submitted to *Chaos*.
760. C.J. Lustri, I. Aniceto, P.G. Kevrekidis, Borel-Padé exponential asymptotics for the discrete nonlinear Schrödinger model with next-to-nearest neighbour interactions, submitted to *SIAM Journal of Applied Mathematics*.
761. S. Yang, G. Biondini, C. Chong, P.G. Kevrekidis, First-order continuum models for nonlinear dispersive waves in the granular crystal lattice, submitted to *Studies in Applied Mathematics*.
762. S. Mohapatra, P.G. Kevrekidis, S. Yang, S. Chandramouli, Dam breaks in the discrete nonlinear Schrödinger equation, submitted to *Physical Review E*.
763. T. Dobrowolski, J. Gatlik, Z. Brylowska, P.G. Kevrekidis, Parametric Resonance in the Non-Autonomous Sine-Gordon Model, submitted to *Chaos*.
764. S. Li, D. Zhou, F. Li, P.G. Kevrekidis, J. Yang, Topological edge states and amplitude-dependent delocalization in quasiperiodic elliptically geared lattices, submitted to *Physical Review Applied*.

765. A.G. Stefanov, M. Stanislavova, J. Cuevas-Maraver, P.G. Kevrekidis, On a Klein-Gordon reduction for oscillons, submitted to Letters in Mathematical Physics.
766. N. Lape, S. Diubekov, L.Q. English, P.G. Kevrekidis, A. Andreanov, Y. Kim, S. Flach, Realization and characterization of an all-bands-flat electrical lattice, submitted to Physical Review B.
767. J. Adriaola, P.G. Kevrekidis, V. Koukouloyannis, W. Zhu, Machine Learning of Nonlinear Waves: Data-Driven Methods for Computer-Assisted Discovery of Equations, Symmetries, Conservation Laws, and Integrability, submitted to Nonlinearity.

Conference Proceedings & Special Volumes

1. P.G. Kevrekidis, B.A. Malomed, D.J. Frantzeskakis and R. Carretero-González, Higher Order Vortices in Nonlinear Dynamical Lattices, “Focus on Soliton Research”, edited by Nova Publications (L.V. Chen, Editor), pp. 139-166 (2006).
2. F.L. Williams, P.G. Kevrekidis, T. Christodoulakis, C. Helias, G.O. Papadopoulos and Th. Grammenos, On 3 + 1 Dimensional scalar field cosmologies in “Trends in General Relativity and Quantum Cosmology”, (C.V. Benton, Editor) pp. 37–48, edited by Nova Publications (2006).
3. P.G. Kevrekidis and S. Dmitriev, Collisions, Invited Entry, in the Encyclopaedia of Nonlinear Science (A. Scott ed.), Taylor and Francis (2004).
4. P.G. Kevrekidis and I.G. Kevrekidis, Wave of Translation, Invited Entry, in the Encyclopaedia of Nonlinear Science (A. Scott ed.), Taylor and Francis (2004).
5. Y. Drossinos and P.G. Kevrekidis, Classical Nucleation theory: A Modified Form, in the Proceedings of the 16th ICNAA Conference, Kyoto, Japan (2004).
6. Z. Rapti, P.G. Kevrekidis and V.V. Konotop, On the modulational stability of Gross-Pitaevskii type equations in 1+1 dimensions, p. 210-216, in *Localization and Energy Transfer in Nonlinear Systems*, (L.

- Vasquez, R.S. MacKay and M.P. Zorzano eds.), World Scientific, Singapore (2003).
7. N.R. Quintero and P.G. Kevrekidis, Quasilocal modes and the breaking of integrability, in *Localization and Energy Transfer in Nonlinear Systems*, (L. Vasquez, R.S. MacKay and M.P. Zorzano eds.), World Scientific, Singapore (2003).
 8. A.R. Bishop, K.Ø. Rasmussen, J. Röder, T. Lookman, A. Saxena, A. Vanossi and P.G. Kevrekidis, Complexity at Mesoscale, Nonlinearity and Disorder: Theory and Applications. NATO Advanced Research Workshop entitled Nonlinearity and Disorder: Theory and Applications. Kluwer Academic Publishers, 2001, pp. 99-113. Dordrecht, Netherlands.
 9. P.G. Kevrekidis and I.G. Kevrekidis, Pattern Speed Reduction in Heterogeneous 1d Reaction-Diffusion Systems, in the Proceedings of the 13th conference on “Nonlinear Dynamics, Chaos and Complexity”, Chania, Greece (2001).
 10. I.E. Papaharalambous, H.E. Nistazakis and P.G. Kevrekidis, Two Dimensional Solitons and their Interactions in Generalized NLS Equations (in Greek), in the Proceedings of the 14th conference on “Nonlinear Dynamics, Chaos and Complexity”, Patras, Greece (2001).
 11. V.V. Konotop, G.L. Alfimov, P.G. Kevrekidis and M. Salerno, On the reduction of a nonlinear Schrödinger equation with a periodic potential to a vector lattice, in the Proceedings of the Gallipoli meeting (2002).
 12. T. Christodoulakis, C. Helias, P.G. Kevrekidis, I.G. Kevrekidis and G.O. Papadopoulos, On 3+1 dimensional Friedman-Robertson-Walker universes with matter, pp. 135-143, in *Nonlinear Waves: Classical and Quantum Aspects*, F.Kh. Abdullaev and V.V. Konotop (Eds.), Kluwer (Dordrecht, 2004).
 13. P.G. Kevrekidis, The Nonlinear Schrödinger Equation: Variations on a Theme, in the Proceedings of the 15th conference on “Nonlinear Dynamics, Chaos and Complexity” held in Patras, Greece (2003).

14. Yu.B. Gaididei, P.L. Christiansen, P.G. Kevrekidis, H.Büttner and A.R. Bishop, Linear and Nonlinear Bound States in Curved Waveguides, pp. 107-120 in *Nonlinear Waves: Classical and Quantum Aspects*, F.Kh. Abdullaev and V.V. Konotop (Eds.), Kluwer (Dordrecht, 2004).
15. Z. Shi, P.G. Kevrekidis, B. Malomed and D.J. Frantzeskakis, Dark solitons in temporally modulated harmonic potentials, in “Photonics Research Developments” (V.P. Nilsson, Editor), p. 411-427, Edited by Nova Science Publishers (2008).
16. P.G. Kevrekidis, V. Putkaradze, Z. Rapti, Non-holonomic constraints and their impact on discretization of Klein-Gordon lattice dynamical models, AIMS 10th International Conference Proceedings, pp. 696–704 (2015).
17. A. Demirkaya, P.G. Kevrekidis, M. Stanislavova, A. Stefanov, Spectral stability analysis for standing waves of a perturbed Klein-Gordon equation, AIMS 10th International Conference Proceedings, pp. 359–368 (2015).
18. C. Castro-Castro, Y. Shen, G. Srinivasan, A.B. Aceves, P.G. Kevrekidis, Light dynamics in nonlinear trimers and twisted multicore fibers, *Journal of Nonlinear Optical Physics & Materials* **25**, 1650042 (2016).
19. Z.-Y. Sun, P.G. Kevrekidis, X. Yu, K. Nakeeran, Theoretical and Computational Advances in Nonlinear Dynamical Systems, *Advances in Mathematical Physics* 3925964, 3 pages (2017).
20. A. Chernyavsky, P.G. Kevrekidis, D.E. Pelinovsky, Krein Signature in Hamiltonian and \mathcal{PT} -symmetric Systems, “Parity-time Symmetry and Its Applications”, J. Yang and D. Christodoulides (Eds.) Springer-Verlag (2018).
21. J. Cuevas-Maraver, P.G. Kevrekidis, D.J. Frantzeskakis, Y. Kominis, Nonlinear Beam Propagation in a Class of Complex Non-PT -Symmetric Potentials, “Parity-time Symmetry and Its Applications”, J. Yang and D. Christodoulides (Eds.) Springer-Verlag (2018).
22. S.V. Dmitriev and P.G. Kevrekidis, Discrete Variants of the ϕ^4 Model: Exceptional Discretizations, Conservation Laws and Related Topics, in:

- “A Dynamical Perspective on the ϕ^4 model: Past, Present, Future”, P.G. Kevrekidis and J. Cuevas-Maraver (Eds.), pp. 111–136, Springer Nature (2019).
23. J. Cuevas-Maraver and P.G. Kevrekidis, Discrete breathers in ϕ^4 and related models, in: “A Dynamical Perspective on the ϕ^4 model: Past, Present, Future”, P.G. Kevrekidis and J. Cuevas-Maraver (Eds.), pp. 137–162, Springer Nature (2019).
 24. R. M. Ross, P. G. Kevrekidis, D. K. Campbell, R. Decker, A. Demirkaya, ϕ^4 Solitary Waves in a Parabolic Potential: Existence, Stability, and Collisional Dynamics, in: “A Dynamical Perspective on the ϕ^4 model: Past, Present, Future”, P.G. Kevrekidis and J. Cuevas-Maraver (Eds.), pp. 213–234, Springer Nature (2019).
 25. A. Saxena, P.G. Kevrekidis, J. Cuevas-Maraver, Nonlinearity and Topology, in “Emerging Frontiers in Nonlinear Science”, P.G. Kevrekidis, J. Cuevas-Maraver, A. Saxena (Eds.), in press Springer Nature (2020).
 26. P.G. Kevrekidis, R.H. Goodman, Four Decades of Kink Interactions in Nonlinear Klein-Gordon Models: A Crucial Typo, Recent Developments and the Challenges Ahead, DS Web Magazine, October 2020.
 27. J. Catarecha, J. Cuevas-Maraver, P.G. Kevrekidis, Breathers in the fractional Frenkel-Kontorova model, Book Chapter, to appear in “Fractional Dispersive Models and Applications”, P.G. Kevrekidis and J. Cuevas-Maraver (Eds), Springer-Nature (2024).
 28. M.O. Williams, Y.M. Psarellis, D. Pozharskiy, C. Chong, F. Li, J. Yang, P.G. Kevrekidis, I.G. Kevrekidis, Equation-Free Computations as DDDAS Protocols for Bifurcation Studies: A Granular Chain Example, in *Handbook of Dynamic Data Driven Applications Systems*, F. Darema et al. (Eds.), Springer Nature (2023).
 29. C. Chong, P.G. Kevrekidis, Dynamics of Nonlinear Lattices, invited review in *Nonlinear Dynamics and Vibrations: Fundamental Concepts and Analytic Methods*, A.F. Vakakis and O. Gendelman (Eds), World Scientific.

Books

- P.G. Kevrekidis, D.J. Frantzeskakis and R. Carretero-González (Eds.), Emergent Nonlinear Phenomena in Bose-Einstein Condensates, Springer Series in Atomic, Molecular and Optical Physics, vol. 45, Springer-Verlag, Heidelberg (2008).
- P.G. Kevrekidis, The Discrete Nonlinear Schrödinger Equation: Mathematical Analysis, Numerical Computation and Physical Perspectives, Springer Tracts in Modern Physics, Springer-Verlag, Heidelberg, 415 pages (2009).
- R. Carretero-González, J. Cuevas, D.J. Frantzeskakis, N.I. Karachalios, P.G. Kevrekidis and F. Palmero (Eds.), Localized Excitations in Nonlinear Complex Systems (LENCOS'12), Nonlinear Systems and Complexity Series, Springer-Verlag, 400 pages (2013).
- J. Cuevas, P.G. Kevrekidis, F.L. Williams (Eds.), The sine-Gordon Model and its Applications: From Pendula and Josephson Junctions to Gravity and High Energy Physics, Nonlinear Systems and Complexity Series, Springer-Verlag, Heidelberg, 263 pages (2014).
- P.G. Kevrekidis, D.J. Frantzeskakis, R. Carretero-González, The defocusing nonlinear Schrödinger equation: from dark solitons, to vortices and vortex rings, SIAM, Philadelphia, 435 pages (2015).
- C. Chong, P.G. Kevrekidis, Coherent Structures in Granular Crystals, From Experiment and Modeling to Computation and Mathematical Analysis, Springer Nature, Heidelberg, 94 pages (2018).
- P.G. Kevrekidis, J. Cuevas-Maraver (Eds.), A Dynamical Perspective on the ϕ^4 model, Nonlinear Systems and Complexity Series, Springer Nature, 311 pages (2019).
- P.G. Kevrekidis, J. Cuevas-Maraver, A. Saxena (Eds.), Emerging Frontiers in Nonlinear Science, Nonlinear Systems and Complexity Series, Springer Nature, 373 pages (2020).
- P.G. Kevrekidis, J. Cuevas-Maraver, Fractional Dispersive Models and Applications, Nonlinear Systems and Complexity Series, Springer Nature, 337 pages (2024).

- R. Carretero-González, D.J. Frantzeskakis, P.G. Kevrekidis, Nonlinear Waves & Hamiltonian Systems: From One To Many Degrees of Freedom, From Discrete To Continuum, 560 pages (2024).

Theses

- P.G. Kevrekidis, Lattice Dynamics of Solitary Wave Excitations, Ph.D. Thesis, Rutgers University (2000).
- P.G. Kevrekidis, Some Analytical & Numerical Results on a Reaction-Diffusion System, M.S. Essay, Rutgers University (1998).
- T. Gakis and P.G. Kevrekidis, Study of Spatially Uniform Geometries of Bianchi Type A, in Classical & Quantum Level, Undergraduate Thesis, University of Athens, Greece (1996).

Presentations

1. “Soliton and Vortex Patterns: From BECs to Quantum Droplets & Beyond”, Invited Colloquium, Missouri Science & Technology, Rolla (August 2025).
2. “DNLS Dynamics: Teaching an Old Dog Some New Tricks”, Invited Talk at the 80th Birthday workshop for S. Aubry, Spetses, Greece (June 2025).
3. “DNLS Dynamics: Teaching an Old Dog Some New Tricks”, Invited Talk at the 80th Birthday workshop for M.J. Ablowitz, CU Boulder (June 2025).
4. “Soliton and Vortex Patterns: From BECs to Quantum Droplets & Beyond”, Invited Talk at the University of Alabama workshop, Birmingham (May 2025).
5. “Kinks in Nonlinear Klein-Gordon Models: From Variable Nonlinearity to Fractional Dispersion”, Invited Talk at IMACS Meeting, University of Georgia, Athens (April 2025).
6. “On Some Select Klein-Gordon Problems: Internal Modes, Fat Tails Wave Collisions and a Touch of Fractional Calculus Spice”, Plenary Talk at the AMS Spring Sectional Meeting, Lawrence (March 2025).
7. “DNLS Dynamics: Teaching an Old Dog Some New Tricks”, Invited Talk at the Workshop in Honor of Dr. A.R. Bishop, Los Alamos National Lab, Los Alamos (February 2025).

8. “Teaching an old dog some new tricks: from discrete solitons and vortices, to rogue waves, flat bands and PINNs in variants of the discrete nonlinear Schrödinger model”, Invited Talk at the Mathematical Physics Seminar, Rutgers University (November 2024).
9. “Extreme Patterns: From Rogue Waves to Collapses and Beyond”, Applied Mathematics Colloquium, Penn State University (November 2024).
10. “Dispersive shock waves from discrete to continuum: some vignettes”, Plenary Invited Talk at Dispersive Hydrodynamics Isaac Newton Institute Satellite Workshop, Newcastle (July 2024).
11. “DDE Dynamics: Teaching an Old Dog Some New Tricks”, Invited Talk at SIAM Nonlinear Waves and Coherent Structures Conference, Baltimore (June 2024).
12. “Solitary Wave Interactions with Defects: Granular Crystal Localization”, Invited Talk at SIAM Materials Science Conference, Pittsburgh (May 2024).
13. “What are Compartmental Models in Epidemiology?”, Talk at the TWIGS (The What is Graduate Seminar), UMass, Amherst (April 2024).
14. “On Some Select Klein-Gordon Problems: Internal Modes, Fat Tails, Wave Collisions and Beyond”, Invited Talk at AMS Sectional Meeting, Buffalo (September 2023).
15. “The discrete nonlinear Schrödinger equation: a wealth of physical phenomena”, Invited Talk at Complexity Workshop, Athens, Greece (July 2023).
16. “Dark solitons: from 1D to 2D and 3D with some quantum touches”, invited talk to Classical and Quantum Turbulence IESC Workshop, Cargese, Corsica, France (July 2023).
17. “Nonlinear Waves and Physical Applications”, Public Invited Talk at the University of Ioannina, Greece (June 2023).

18. “From discrete solitons to discrete breathers and lattice traveling waves”, Invited Talk at SIAM Dynamical Systems Meeting, Portland (May 2023).
19. “On Some Select Klein-Gordon and Beam Problems: Internal Modes, Fat Tails, Wave Collisions and Beyond”, Mathematics Colloquium at the University of Colorado, Colorado Springs (April 2023).
20. “On Some Select Klein-Gordon and Beam Problems: Internal Modes, Fat Tails, Wave Collisions and Beyond”, Invited Talk at the Boston University Dynamics Seminar (December 2022).
21. “Rogue Waves: Existence, Stability, Dynamics & Applications, Invited Talk at Rogue Waves Workshop, University of Vermont (December 2022).
22. “Nonlinear Waves in Granular Crystals”, Invited Talk at the Physical Applications of Dispersive Hydrodynamics Workshop at the Newton Institute, Cambridge (December 2022).
23. “Nonlinear Waves and Applications”, Invited Talk Presented at Mathematical Physics Online “Lectorium”, organized by E. Alfimov (October 2022).
24. “Some Case Examples of Existence, Stability and Dynamics of Rogue Wave Patterns”, Presentation at the SIAM Nonlinear Waves and Coherent Structures Meeting (August 2022).
25. “On Some Select Klein-Gordon and Beam Problems: Internal Modes, Fat Tails, Wave Collisions and Beyond”, Invited (Virtual) Presentation at the Workshop on Nonlinear Waves in Discrete and Continuum Systems, University of Pittsburgh (June 2022).
26. “Multicomponent Solitons in Atomic Bose-Einstein Condensates”, Invited Presentation at the “Condensed Matter Solitons” Workshop, Institute of Basic Sciences, Korea (June 2022).
27. “On Some Select Klein-Gordon and Beam Problems: Internal Modes, Fat Tails, Wave Collisions and Beyond”, Invited Joint (Virtual) Seminar of Huazhong University of Science and Technology and Universität Augsburg (May 2022).

28. “Nonlinear Waves in Granular Crystals”, Invited Applied Math (Virtual) Seminar, University of Buffalo (May 2022).
29. “Nonlinear Waves in Granular Crystals”, Invited Lecture, Nonlinear Dynamics and Complexity (Virtual) Conference (October 2021).
30. “Some Case Examples of Self-Similar Blowup: to Infinity and (sometimes) Back”, Invited Presentation, SIAM Dynamical Systems Meeting (May 2021).
31. “Multi-component Solitons in Atomic Bose-Einstein Condensates”, APS March Meeting Talk (March 2021).
32. “Nonlinear Waves in Granular Crystals”, Invited Webinar, Laboratory of Acoustics, Le Mans University (January 2021).
33. “Nonlinear Waves in Granular Crystals”, (Virtual) Invited Colloquium, Dalhousie University (January 2021).
34. “Nonlinear Waves and their Applications: From Oceans to Planets, From Lasers to Quantum Fluids, From Origami to Pandemics”, Distinguished Faculty Lecture, University of Massachusetts (November 2020).
35. “Nonlinear Waves in Granular Crystals: Modeling, Analysis, Computation & Experiments”, Invited Applied Mathematics Seminar, Cambridge University (March 2020).
36. “Nonlinear Waves in Granular Crystals”, Invited Colloquium, Department of Mathematics, University of Ioannina (February 2020).
37. “Solitons, Vortices and Vortex Rings in Atomic Condensates & Beyond”, OCIAM Seminar, University of Oxford (February 2020).
38. “Nonlinear Waves in Granular Crystals: Modeling, Analysis, Computation & Experiments”, Invited Colloquium, University of Oxford (January 2020).
39. “Examples of self-similar blowup: to infinity and (sometimes) beyond”, Invited Talk, Complexity Workshop, University of Oxford (December 2019).

40. “Examples of self-similar blowup: to infinity and (sometimes) beyond”, Invited talk, AICHE conference, Orlando (November 2019).
41. “Nonlinear waves in granular crystals”, Invited Colloquium, University of Essex (October 2019).
42. “Rogue Waves: Existence, Stability, Dynamics & Applications”, Invited Talk, Waves and Flows Seminar, University of Oxford (October 2019).
43. “On some select Klein-Gordon Problems: Internal Modes, Fat Tails, Wave Collisions and Beyond”, Invited Talk at Complexity 2019, Athens, Greece (July, 2019).
44. “Dark Solitons in 1d, 2d, and 3d and some Quantum Touches”, Invited Minisymposium talk at ICIAM 2019, Valencia, Spain (July 2019).
45. “Traveling waves, discrete breathers and shock waves in granular crystals”, Invited Talk at the SIAM Dynamical Systems Meeting, Snowbird (May 2019).
46. “Granular Crystals: A Paradigm of Nonlinear Wave Analysis and Materials Science Modeling, Invited Seminar, TU Munich, (May 2019).
47. “On some select Klein-Gordon Problems: Internal Modes, Fat Tails, Wave Collisions and Beyond”, IMACS Meeting, Athens, GA (April 2019).
48. “Dark Solitons in 1d, 2d, and 3d and some Quantum Touches”, Invited Keynote talk at Fields Institute Workshop, Toronto (April 2019).
49. “Filamentary Dynamics of Dark Solitons, Vortex Rings and Knots”, Talk at the APS March Meeting, Boston (March 2019).
50. “Dark Solitons in 1d, 2d, and 3d and some Quantum Touches”, Invited talk at AMS Eastern sectional in Newark, Delaware (Septemeber 2018).
51. “Dark Solitons in 1d, 2d, and 3d Atomic Systems”, Invited talk at the Greek Nonlinear Science and Complexity Meeting, Demokritos Research Center, Athens (July 2018).

52. “Nonlinear Waves in Granular Crystals”, Invited Talk at the Workshop on Nonlinear Localization in Lattices, Spetses, Greece (June 2018).
53. “Dark Solitons: From 1D to 2D and 3D with Some Quantum Touches”, Invited Minisymposium Talk at SIAM Nonlinear Waves Meeting, Anaheim (June 2018).
54. “Coherent Structures in Granular Crystals”, Nonlinear Waves Seminar Talk, UMass Amherst (March 2018).
55. “Coherent Structures in Granular Crystals”, Invited Talk, AMS Sectional Meeting, Columbus (March 2018).
56. “Nonlinear Waves in Granular Crystals”, Invited Talk, Dynamics Days US (January 2018).
57. “Dark-Bright Solitons in Multi-Component Atomic and Optical Systems”, Invited Plenary Talk, XMas Theoretical Physics Workshop at Athens, Greece (December 2017).
58. “Dark-Bright Solitons in Multi-Component Atomic and Optical Systems”, Invited Minisymposium Talk, SIAM Conference on Analysis of PDEs, Baltimore (December 2017).
59. “From discrete solitons to discrete breathers and lattice traveling waves”, Plenary talk at the Brown-BU Dynamics and PDE Seminar, Boston (November 2017).
60. “Multi-component Bose-Einstein Condensates”, Invited minisymposium talk at AMS Meeting in Buffalo (September 2017).
61. “From Dark Solitons to Vortices and Vortex Rings”, Physics Colloquium, University of Bayreuth (July 2017).
62. “From Dark Solitons to Vortices and Vortex Rings”, Mathematics Colloquium, University of Kassel (June 2017).
63. “From Dark Solitons to Vortices and Vortex Rings”, Joint Physics/Mathematics Seminar, University of Oldenburg (June 2017).

64. “From Discrete Solitons to Discrete Breathers and Lattice Traveling Waves”, Invited Applied Mathematics Seminar, National Technical University of Athens, Greece (May 2017).
65. “From Discrete Solitons to Discrete Breathers and Lattice Traveling Waves”, Invited minisymposium at the IMACS Nonlinear Waves Conference, Athens, GA (April 2017).
66. “Nonlinear Waves in Granular Crystals”, Invited Analysis Seminar at the Department of Mathematics, University of Athens, Greece (March 2017).
67. “Superfluid Dynamics in 1d, 2d, and 3d Atomic BECs”, Colloquium at the Physics Department of University of Athens, Greece (February, 2017).
68. “Nonlinear Waves in Granular Crystals”, Informal Seminar in the Departments of Mechanical and Aerospace Engineering, University of Washington, Seattle (November 2016).
69. “Multi-Component Nonlinear Waves in Optics and Bose-Einstein Condensates”, Invited talk, Workshop on Mathematical and Physical Models of Nonlinear Optics, Institute for Mathematics and its Applications, Minneapolis (October 2016).
70. “Nonlinear Waves in Bose-Einstein Condensates, Part II: Multiple Components”, Invited Lecture Series, University of Hamburg (September 2016).
71. “Nonlinear Waves in Bose-Einstein Condensates, Part I: One Component”, Invited Lecture Series, University of Hamburg (September 2016).
72. “Vortex Rings and Multi-Dimensional Patterns in Bose-Einstein Condensates”, Invited Minisymposium Talk, SIAM Conference on Nonlinear Waves and Coherent Structures, Philadelphia (August 2016).
73. “Multi-Component Bose-Einstein Condensates: From Theory to Experiments”, Invited Talk, BIRS-Oaxaca Workshop on Coherent Structures in PDEs and their Applications, Mexico (June 2016).

74. “Nonlinear Waves in Bose-Einstein Condensates”, Colloquium Talk, Department of Mathematics, University of Rouen, France (May 2016).
75. “Breather States in Granular Crystals”, Invited Minisymposium Talk at SIAM Materials Science Meeting, Philadelphia, PA (May 2016).
76. “Nonlinear Waves in Granular Crystals”, Workshop on Nonlinear Dynamics of Many-Body Systems, Buffalo, NY (April 2016).
77. “Vortices and Vortex Rings in Atomic BECs”, Talk at the APS March Meeting, Baltimore, MD (March 2016).
78. “Multi-Component Nonlinear Waves in Optics and Atomic Condensates: Theory, Computations and Experiments”, Plenary Talk at the Workshop on Computation of Quantum Systems in Cold-matter Physics and Chemistry, Fields Institute, Toronto, Canada (February 2016).
79. “Solitary Waves and Vortices in Atomic BECs”, Invited Mathematical Physics Seminar at MIT, Boston, MA (December 2015).
80. “Nonlinear Waves in Granular Crystals”, Mathematical Physics Seminar, Rutgers University, NJ (October 2015).
81. “Dynamics of Solitary Waves in Multi-Components Atomic BECs”, Colloquium Talk at the Center for Nonlinear Studies, Los Alamos, NM (July 2015).
82. “Dynamics of Vortices and Vortex Rings in Atomic Condensates”, Invited Talk at a Pattern Formation Workshop, Dalhousie University, Canada (July 2015).
83. “Dynamics of Multi-Component Waves in BECs”, Invited Talk, Snowbird Dynamical Systems Meeting, Snowbird, UT (May 2015).
84. “The Discrete Nonlinear Schrödinger Equation”, Chalk Talk, University of Colorado, Boulder (April 2015).
85. “Dynamics of Nonlinear Waves in Atomic BECs”, Applied Math Colloquium, University of Colorado, Boulder (April 2015).
86. “Nonlinear Waves in Granular Crystals”, Plenary Talk at 9th IMACS Nonlinear Waves Meeting, Athens, Georgia (April 2015).

87. “Nonlinear Waves in Granular Crystals”, Applied Math Seminar, Boston University (March 2015).
88. “Dynamics of Nonlinear Waves in Atomic BECs”, Physics Colloquium, UMass, Boston (March 2015).
89. “Dynamics of Vortices in BECs”, Applied Math Seminar, University of Pittsburgh, (March 2015).
90. “Nonlinear Waves in Granular Crystals”, Colloquium at the Department of Mathematics, University of Pittsburgh (March 2015).
91. “Nonlinear Waves in Atomic Condensates”, Talk at the APS March Meeting, San Antonio (March 2015).
92. “Dynamics of Solitary Waves, Vortices and Vortex Rings in Atomic BECs”, invited talk at the Institute of Mathematical Sciences Workshop on High Performance and Parallel Computing Methods and Algorithms for Material Defects, University of Singapore, Singapore (February 2015).
93. “Nonlinear Waves in Bose-Einstein Condensates”, Invited Presentation at the Workshop on Localized Dynamics in Nonlinear Hamiltonian Lattices, University of Milan, Italy (January 2015).
94. “Nonlinear Waves in Granular Chains”, CNLS Colloquium, Center for Nonlinear Studies, Los Alamos National Lab (October 2014).
95. “Dynamics of Solitary Waves and Vortices in BECs”, Applied Mathematics Colloquium, University of North Carolina, Chapel Hill (September 2014).
96. “Vortex Dynamics in Atomic BECs”, Invited Minisymposium Presentation at the SIAM Nonlinear Waves and Coherent Structures Meeting, Cambridge, UK (August 2014).
97. “Nonlinear Waves in Granular Crystals”, Invited Minisymposium Presentation at the 10th AIMS Meeting, Madrid, Spain (July 2014).
98. “Vortices in Bose-Einstein Condensates: Some Recent Developments”, Invited Presentation at the De Giorgi Center Workshop on Stability of Nonlinear Waves, Pisa, Italy (May 2014).

99. “Dynamics of Vortices in Bose-Einstein Condensates: Some Recent Developments”, Invited Presentation at the Bose-Einstein Condensates in Waveguides Workshop, ZOQ, DESY-Campus, Hamburg, Germany (May 2014).
100. “Coherent Structures in Granular Crystals”, Invited Minisymposium Talk, AMS Western Sectional Meeting, Albuquerque (April 2014).
101. “Nonlinear Waves in Bose-Einstein Condensates”, CNLS Invited Seminar, Los Alamos National Laboratory (April 2014).
102. “Dark Solitons and Vortices in Bose-Einstein Condensates”, Colloquium, Department of Mathematics, University of Alberta, Edmonton, Canada (March 2014).
103. “Nonlinear Waves in Granular Crystals”, Invited Talk at the Workshop for Lattice Differential Equations at Oberwolfach (September 2013).
104. “Nonlinear Waves in Bose-Einstein Condensates”, Invited talk at the Center for Quantum Dynamics of the University of Heidelberg (July 2013).
105. “PT Surprises: Ghost Modes, Analytic Continuations and Beyond”, Invited Minisymposium Talk at the SIAM Meeting on Applications of Dynamical Systems, Snowbird, UT (May 2013).
106. “Dynamics of Coherent Structures in Bose-Einstein Condensates”, Harmonic Analysis and Differential Equations Invited Seminar at the University of Illinois, Urbana-Champaign (April 2013).
107. “Dynamics of Dark Solitons, Vortices and Vortex Rings”, Dynamical Systems Invited Seminar at the Institute of Mathematics and its Applications, University of Minnesota, Minneapolis (April 2013).
108. “Dynamics of Solitary Waves in Granular Chains”, Invited Talk at the first Jack Hale Memorial Conference on Dynamics of Differential Equations at the Georgia Institute of Technology, Atlanta (March 2013).
109. “From Solitons to Vortices and Beyond”, Invited Talk at the 8th IMACS Nonlinear Waves Meeting, Athens, Georgia (March 2013).

110. “From Dark Solitons to Vortices and Vortex Rings”, Colloquium at the Program of Applied and Computational Mathematics, Princeton University, Princeton (February 2013).
111. “Nonlinear Waves in the Future: from Atomic Physics to Nonlinear Optics and Materials Science”, short invited presentation at Imperial College, London (February 2013).
112. “Some Case Studies of Nonlinear Dynamical Lattices: From the Discrete Nonlinear Schrodinger Equation to PT-Symmetric Oligomers”, Invited talk at the Workshop on Lattice and Nonlocal Dynamical Systems and Applications, IMA, University of Minnesota (December 2012).
113. “Nonlinear Waves in Bose-Einstein Condensates”, Invited talk at the BIRS Workshop on Spectral Analysis, Stability and Bifurcation in Modern Nonlinear Physical Systems, Banff, Canada (November 2012).
114. “Dark Solitons and Vortices in Atomic BECs”, Colloquium Talk at the New Jersey Institute of Technology, Newark (October 2012).
115. “Solitons and their ghosts in PT-symmetric Models”, Invited Talk at the 2nd LENCOS Meeting, Seville, Spain (July 2012).
116. “Discrete solitary waves: from Local to Nonlocal Interactions”, Invited Talk at the SIAM Nonlinear Waves Meeting, Seattle (June 2012).
117. “Dark solitons and vortices in BECs”, Nonlinear PDE seminar at the Applied Mathematics Division, BU-Brown joint seminar, Providence (February 2012).
118. “Dynamics of Coherent Structures in BECs”, Seminar at the University of Southern California, (February 2012).
119. “Soliton and Vortex Dynamics in BECs”, Applied Mathematics Seminar, University of Pittsburgh (January 2012).
120. “Dark soliton and Vortex Dynamics”, Applied Mathematics Colloquium, Columbia University (January 2012).
121. “Dynamics of Dark Solitons and Vortices in Atomic Condensates”, Invited Seminar at the Center for Scientific Computation and Mathematical Modeling of the University of Maryland (December 2011).

122. “Dark Solitons and Vortices: Current Results and Future Perspectives”, Talk at the Interdisciplinary Workshop on Quantum Mechanics and Dynamical Systems in Granada, Spain (October 2011).
123. “Localized Modes in Dynamical Lattices: From DNLS to PT and Beyond”, Invited Talk at the Workshop on PT-Symmetric Quantum Mechanics, Heidelberg, Germany (September 2011).
124. “Dynamics of Dark Solitons in atomic condensates”, 1st Invited Tutorial Lecture at Photonica 2011, III International School and Conference on Photonics, Belgrade, Serbia (August 2011).
125. “Dynamics of Vortices in atomic condensates”, 2nd Invited Tutorial Lecture at Photonica 2011, III International School and Conference on Photonics, Belgrade, Serbia (August 2011).
126. “Existence, stability and dynamics of some single- and multi-component solitary waves: from theory to experiments” Invited talk at the SIAM Conference on Applications of Dynamical Systems, Snowbird, UT (May 2011).
127. “Traveling Waves and Discrete Breathers in Granular Chains”, Invited Presentation at the 7th IMACS Meeting, Athens, GA (April 2011).
128. “Nonlinear Waves in Granular Crystals”, Invited Talk at the Union College Mathematics Conference, Schenectady, New York (April 2011).
129. “Dark Solitons and Vortices in Bose-Einstein Condensates: Oscillations and Precessions, Dynamics and Interactions in an Ultracold World”, Mathematics Colloquium, University of Buffalo (November 2010).
130. “Dark Solitons and Vortices in Bose-Einstein Condensates: Oscillations and Precessions, Dynamics and Interactions in an Ultracold World”, Physics Colloquium, Wesleyan University, Connecticut (October 2010).
131. “Dark Solitons and Vortices in BEC”, Plenary Talk at the Dynamics Days 2010 Conference, University of Bristol, UK (September 2010).
132. “Solitary Waves and Vortices in Bose-Einstein condensates”, Invited Talk at the Dynamics in Samos Workshop, University of the Aegean, Samos, Greece (September 2010).

133. “Dark Solitons and Vortices in BECs”, Invited Talk at Coherent Structures in Evolutionary Equations Workshop, Lorentz Center, Leiden, Netherlands (July 2010).
134. “Dark solitons and some generalizations thereof in Bose-Einstein Condensates”, Talk at the Second International Conference: Nonlinear Waves– Theory and Applications, Beijing, China (June 2010).
135. “Nonlinear Waves in Granular Crystals”, Invited Talk at the 8th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Dresden, Germany (May 2010).
136. “Dark Solitons and Vortices in Bose-Einstein Condensates”, Invited Talk at AMS Spring Easter Section Meeting, Newark, (May 2010).
137. “Traveling Waves and Breathers in Granular Crystals”, Invited Talk at the SIAM Conference on Mathematical Aspects of Materials Science, Philadelphia (May 2010).
138. “What is the DNLS Equation (and what is it good for)”, Joint Mathematical Physics/TWIGS seminar, UMass, Amherst (April 2010).
139. “Dark solitons in Bose-Einstein condensates”, invited talk at the Frontiers in Nonlinear Waves Conference (70th birthday of Prof. V. Zakharov), Tucson (March 2010).
140. “Dynamics of Dark Solitons and Vortices in BEC”, talk at the APS March Meeting Portland (March 2010).
141. “The many faces of discreteness”, invited talk at the Physics Colloquium, Amherst College, Amherst (February 2010).
142. “The many faces of discreteness”, invited talk at the Mathematics Colloquium, Drexel University, Philadelphia (January 2010).
143. “On periodic oscillations of dark solitons/multi-solitons and vortices in Bose-Einstein condensates at zero and finite temperatures”, invited talk at the Condensed Matter Physics Seminar, UMass, Amherst (December 2009).

144. “Discrete Breathers in Nonlinear Schrodinger and Klein-Gordon Lattices: Some Universal Findings”, invited talk at the LCDS Workshop on lattice dynamical systems, Brown University, Providence (November 2009).
145. “On periodic oscillations of dark solitons/multi-solitons and vortices in Bose-Einstein condensates at zero and finite temperatures”, invited talk at the interdisciplinary workshop on periodic oscillations, Granada, Spain (October 2009).
146. “Discrete Solitons and Vortices in DNLS and Klein-Gordon Lattices: some recent results”, invited seminar at TU-München, Garching, Germany (July 2009).
147. “Dark solitons in Bose-Einstein Condensates”, invited talk at the LENCOS (Localized Excitations in Nonlinear Complex Systems) Workshop, University of Sevilla, Spain (July 2009).
148. “The many faces of discreteness: from acoustic crystals and layered optical media to multi-component Bose-Einstein condensates and beyond”, GALCIT Colloquium and Applied Physics Invited Seminar, CalTech (May 2009).
149. “Dynamics and Interactions of Dark Solitons in Continua and Lattices”, Invited Talk at the SIAM Dynamical Systems Meeting, Snowbird, UT (May 2009).
150. “Dark Solitons in Bose-Einstein Condensates: Experimental Findings, Numerical Computations and Theoretical Directions”, Invited Talk at the AMS Sectional Meeting at WPI (April 2009).
151. “Discrete breathers in Nonlinear Schrödinger and Klein-Gordon lattices: some universal findings and their relevance to optical, mechanical and atomic systems”, MMEC seminar at the Department of Mechanical Engineering, M.I.T. (April 2009).
152. “Discrete Breathers in DNLS and KG Chains: Some Recent Results”, Invited Presentation at the 6th IMACS Meeting, Athens, GA (March 2009).

153. “The many faces of discreteness”, Invited talk at the Mechanics: Modeling, Experimentation, Computation (MMEC) seminar at the Department of Mechanical Engineering, M.I.T. (December 2008).
154. “An overview of results on Discrete Solitons”, Invited Talk at the New England Mesoscopic Systems Symposium (NEMESYS), held at Wesleyan University (October 2008).
155. “Solitary Waves Under Spatial or Temporal Periodicities”, Colloquium at the Department of Mathematics & Statistics, University of Massachusetts, Amherst (October 2008).
156. “The Many Faces of “Discreteness” : From Acoustic Crystals and Layered Optical Media to Multi-Component Bose-Einstein Condensates and Beyond”, Invited Talk at the 21st International Conference/Summer School on Nonlinear Science and Complexity, Athens (August 2008).
157. “Few well potentials in Optics and BEC: Variations on a Theme”, Invited Talk at the 2nd Nonlinear Science and Complexity Conference in Porto (July 2008).
158. “Stability of Discrete Solitons in the DNLS Equation: Towards a Classification of Both Defocusing And Focusing Cases And Connections With Experiments”, Invited Talk at the SIAM Conference on Nonlinear Waves and Coherent Structures in Rome (July 2008).
159. “Discrete solitons under Spatial/Temporal Periodicities”, Invited talk at the University of Nottingham (May 2008).
160. “Discrete solitons under Spatial/Temporal Periodicities”, Invited talk at Nonlinear Day, University of Reading (May 2008).
161. “Recent Developments on Discrete Solitons in the DNLS Equation, Invited Seminar at the University of Oxford, (May 2008).
162. “Discrete solitons under Spatial/Temporal Periodicities”, Invited talk at Imperial College, London (May 2008).
163. “Some recent theoretical and experimental results in Bose-Einstein Condensates”, Invited talk at the NLQUGAS (Nonlinear Phenomena in Degenerate Quantum Gases) Conference, Toledo (April 2008).

164. “Solitary Waves and Vortices in the Discrete Nonlinear Schrödinger Equation” and “ The Many Faces of ”Discreteness”: Nonlinear Waves in Inhomogeneous Media With Applications in Nonlinear Optics and Bose-Einstein Condensates”, 2 talks a the workshop on ”Mathematical Topics in Electromagnetic Fields and Wave Propagation” at the University of Karlsruhe (April 2008).
165. “Different Aspects of Discreteness in Physical Models”, Colloquium at the Mathematics Department, College of Charleston (February 2008).
166. “Interplays of discreteness and nonlinearity: from acoustic crystals to layered optical media and Bose-Einstein condensates”, Invited Seminar at the Nonlinear Physics Centre of the Australian National University, Canberra, Australia (November 2007).
167. “Solitary waves and vortices in the discrete nonlinear Schrödinger equation”, Invited Presentation at the workshop on Hamiltonian Lattice Dynamical Systems, in Leiden, Netherlands (October 2007).
168. “The many faces of discreteness in nonlinear waves: from acoustic crystals to layered optical media and Bose-Einstein condensates”, Invited Colloquium at the University of Vermont (October 2007).
169. “Discrete Nonlinear Waves in Atomic and Optical Physics”, Invited Talk at the Workshop on Analysis and its Applications, at the University of Athens, Greece (June 2007).
170. “Discrete Solitons Under Spatial and Temporal Periodicities”, Invited Talk at the SIAM Dynamical Systems Meeting, Snowbird, UT (May 2007).
171. “Interplay of Discreteness and Nonlinearity in Atomic and Optical Physics: Some Case Examples”, Invited Talk at the UMass-Heidelberg Workshop on: Modeling and Computation in Physics, Mathematics and Biology, Amherst, MA (May 2007).
172. “Discrete Solitary Waves: Perspectives and Applications”, Mathematics Colloquium at the University of Kansas (May 2007).

173. “Existence, Stability and Dynamics of Solitary Waves in the Discrete NLS Equation”, Invited Talk at the 5th IMACS meeting, Athens, GA (April 2007).
174. “Discrete Solitary Waves and Applications”, Invited Seminar at Mathematical Sciences Research Institute, Berkeley, CA (January 2007).
175. “Effects of Spatial and Temporal Periodicity on Solitary Waves”, Invited talk at the workshop on Coherent Nonlinear Optics of Artificial Media, Lisbon, Portugal (December 2006).
176. “Solitary Waves in Discrete Settings”, Invited Seminar at the University of Crete, Heraklion, Greece (December 2006).
177. “Solitary Waves Under Spatial or Temporal Periodicity”, Invited talk at the SoliQuantum Conference, Cuenca, Spain (September 2006).
178. “Solitary Wave Dynamics In The Presence of Spatial or Temporal Periodicity: Some Case Examples From BECs and Nonlinear Optics”, Invited Talk at the SIAM Nonlinear Waves Meeting, Seattle (September 2006).
179. “Discrete Solitary Waves and Applications”, Mathematics Colloquium at Worcester Polytechnic Institute (April 2006).
180. “Discrete Solitons: Some Old Aspects, Some Recent Findings and Some Future Perspectives”: Invited Talk at the Meeting: “Successes and Failures of Continuous Models for Discrete Systems”, Bristol, (September 2005).
181. “Discrete Solitons in BECs and Photorefractive Crystals”, Invited Talk at Mark Ablowitz’s 60th Birthday meeting, Colorado Springs (June 2005).
182. “Discrete Solitary waves in BECs and Photorefractives”, Invited Talk at the SIAM Dynamical Systems meeting, Snowbird (May 2005).
183. “Discrete Solitons: Some Old Aspects, Some Recent Findings and Some Future Perspectives”, Invited Talk at the 4th IMACS meeting, Athens, GA (April 2005).

184. “Recent Results on Discrete Solitons: Some Selected Examples”, Invited Talk at McMaster University, Ontario, Canada (March 2005).
185. “Discrete Solitons in BEC and Optics: Teaching a New Dog some Old Tricks”, Invited Talk at the Soliton in Bose-Einstein Condensates Conference, Almagro, Spain (February 2005).
186. “Discrete Soliton Dynamics in BEC and Optics: Selected Examples”, Invited Talk at the SIAM Nonlinear Waves Meeting, Orlando (October 2004).
187. “Solitary Wave Dynamics in Atomic and Optical Physics Problems: Some Case Examples of Recent Successes, Failures and Open Problems”, Invited Talk at the AIMS 5th International Conference on Dynamical Systems and Differential Equations, Pomona (June 2004).
188. “Bose-Einstein Condensates and Mean Field Theories”, Dynamical System Seminar, Boston University (April 2004).
189. “A Dynamic Renormalization Approach to Self-Similarity”, Center for Nonlinear Studies Seminar, Georgia Institute of Technology (March 2004).
190. “Mean Field Models of Bose-Einstein Condensation”, Colloquium at the University of Kansas, (March 2004).
191. “Mean Field Models of Bose-Einstein Condensates: Teaching a New Dog Some Old Tricks”, CAMP/Nonlinear PDE’s Seminar at the University of Chicago (February 2004).
192. “Mean Fields Models of BEC”, Invited Talk at the 90th Statistical Mechanics Meeting in Piscataway, NJ (December 2003).
193. “Mean Field Models of Bose-Einstein Condensates: From Instabilities to Waves, from Solitons to Patterns”, Invited Presentation at the Workshop on Patterns in Physics of the Fields Institute (November 2003).
194. “A Dynamic Renormalization Approach To Self-Similar Collapse-Type Phenomena”, Invited Talk at the AMS Southeastern Section Meeting in Chapell Hill (October 2003).

195. “Nonlinear Waves in BEC: A Collection of Short Stories”, Invited Talk at the AMS Central and Western Section Meeting in Boulder (October 2003).
196. “Nonlinear Waves in BEC: An Experimental Playground for Nonlinear Waves”, Invited Talk at the 5th European Conference for Solid Mechanics, Thessaloniki, Greece (August 2003).
197. “Nonlinear Waves in BEC: A Collection of Short Stories, Invited Talk at the NATO-ARW and LOCNET Meeting, Erice, Italy (July 2003).
198. “A Dynamic Renormalization Approach to Blowups”, Invited Talk at the NATO-ARW Meeting on Nonlinear Waves, Estoril, Portugal (July 2003).
199. “Mean Field Descriptions of BEC: An Experimental Playground for Nonlinear Waves”, Invited Talk at SIAM, Dynamical Systems Meeting, Snowbird, UT (May 2003).
200. “A Dynamic Renormalization Approach to Focusing”, Invited Talk at the 3rd IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (April 2003).
201. “A Dynamic Renormalization Approach to Blowups: the Nonlinear Schrödinger Equation Paradigm, Colloquium at the Physics Department of Rutgers University (September 2002).
202. “A Dynamic Renormalization Approach to Focusing: the NLS Paradigm”, Invited Talk at the 15th conference of Nonlinear Dynamics: Chaos and Complexity, Patras, Greece (August 2002).
203. “On Breather-Type Solutions of the Discrete NLS Equation”; Lefschetz Seminar at Brown University (January 2002)
204. “Recent Results on Discrete NLS Equations”; Condensed Matter Physics Seminar at the University of Massachusetts (November 2001).
205. “Pulses and Multipulses in DNLS Equations”; Applied Math Seminar at the University of Arizona (November 2001).
206. “Recent Results on the Discrete Nonlinear Schrödinger Equation”; Applied Math Seminar at the University of Massachusetts (October 2001).

207. “DNLS: A Survey of Recent Results”; invited talk at the workshop on “Nonlinear Lattices: Structure and Dynamics”, Dresden, Germany (September 2001).
208. “Pulse and Multipulse Solutions of $1d$ and $2d$ DNLS Equations”; invited talk at the 14th conference of Nonlinear Dynamics: Chaos and Complexity, Patras, Greece (July 2001).
209. “Recent Results on DNLS type Equations”; invited talk in the 1st joint AMS-SMF conference; ENS-Lyon, France (July 2001).
210. “Dynamics and Interactions of Coherent Structures in Partial Differential and Differential Difference Equations”; Department of Mathematics seminar at the University of New Mexico (April 2001).
211. “Pulses and Multipulses in Discrete Nonlinear Schrödinger Models”; talk at the IMACS Conference, Athens, GA (April 2001).
212. “Lattice Solitary Wave Dynamics”; Invited Lecture in the Academy of Athens, Greece (December 2000).
213. “Solitary Adventures on a Lattice”; Physics Department Seminar, University of Athens, Greece (December 2000).
214. “Adventures of Solitary Waves”; Mathematics Department Seminar, UMass, Amherst (December 2000).
215. “Lattice Dynamics of Coherent Structures”; Applied Mathematics seminar of UMIST, Manchester, UK (November 2000).
216. “Dynamics and Interactions of Coherent Structures in Hamiltonian Nonlinear PDE’s and DDE’s; Applied Mathematics seminar of the New Jersey Institute of Technology (November 2000).
217. “Dynamics and Interactions of Coherent Structures in Partial Differential and Differential Difference Equations”; MRSEC seminar of the JFI of the University of Chicago (October 2000).
218. “Solitary Adventures on a Lattice”; talk in the 13th conference on Nonlinear Dynamics: Chaos and Complexity, Chania, Greece (July 2000)

219. “Dynamics of Coherent Structures in Hamiltonian Nonlinear Lattice Systems”, talk at the Intl. Congress of Mathematical Physics, London (July 2000).
220. “Hysteresis and Metastability in the Quenched Turbulent Dynamics of the Complex Ginzburg-Landau Equation”, talk at the Intl. Congress of Mathematical Physics, London (July 2000).
221. “Adventures of Solitary Waves in Discrete Worlds”; poster presented at the Nonlinear Analysis 2000 seminar, Courant Institute (June 2000).
222. “Pattern Formation, Dynamics and Applications”; poster presented at the Schloessmann seminar, Bad Lausick, Germany (May 2000).
223. “Solitary Adventures in Discrete Worlds”, invited talk at the “Computations in Science” seminar series of the JFI of the University of Chicago (February 2000)
224. “Modeling Deposition in a Single Bifurcation of the Respiratory Tract”, poster presented in the AWMA Conference, Charleston, SC (January 2000)
225. “Kink Adventures on a Lattice: Putting Together the Full Story”, short talk at the 82nd Statistical Mechanics Meeting, New Brunswick, NJ (December 1999)
226. “Discrete Kinks: The full story”, (informal) seminar at the Division of Applied Mathematics, Brown University, Providence, RI (November 1999).
227. “Lung dosimetry modeling for assessing exposure fine particulate matter”, poster presented in the ISEA Conference, Athens, Greece (September 1999); see also *Epidemiology*, **10**, S82, 1999.
228. “Solitonic Excitations on Lattice Systems”, paper presented at SIAM Dynamical Systems Conference, Salt Lake City, UT (May 1999).
229. “Efficient Laboratory Instruction: A Major Challenge or a Pointless Illusion ?”, paper presented at the 1999 Rutgers Teaching/Learning Conference, New Brunswick, NJ (January 1999).

230. “What Could Possibly Be Special About Lattice Solitons ?”, short talk at the 80th Statistical Mechanics Meeting, New Brunswick, NJ (December 1998).
231. “Solitons on Discrete Lattices” , applied mathematics seminar at Princeton University, Princeton, NJ (October 1998).
232. “What if the world were discrete ?”, paper presentation at the GFD summer school, Woods Hole, MA (August 1998).
233. “Can a boat teach mechanics ?” ; paper presented at the 1997 Rutgers Teaching/Learning Conference, New Brunswick ,NJ (January 1997) .

Professional Service

- Referee for: *Physica D*, *Physics of Fluids*, *Physical Review* and *Physical Review Letters*, *Physics Letters A*, *Mathematical Reviews*, *Journal of Physics A*, *Journal of Physics B*, *Nonlinearity*, *Atmospheric Environment*, *SIAM Journal in Applied Mathematics*, *Communications in Mathematical Physics*, *Journal of Nonlinear Science*, *Physics of Plasmas*, *Optics Letters*, *Europhysics Letters*, *IMA Journal of Applied Mathematics*, *Applied Mathematics Letters*, *Optics Communications*, *Journal of Low Temperature Physics*, *International Journal of Theoretical Mechanics*, *Journal of Mathematical Physics*, *SIGMA* and for the Book Section of the *Bulletin of the American Mathematical Society*, *Advances in Mathematical Physics*, *Research Letters in Physics*, *Advances in Applied Mechanics*, *Frontiers in Physics*.
- Proposal Referee for: US National Science Foundation, the German-Israeli Foundation for Scientific Research and Development, the Israel Science Foundation, the WWTF Vienna Science and Technology Fund, the Dutch Science Foundation, the French National Research Agency and the Fondecyt Program in Chile.
- Member of the Editorial Board of: *Mathematical Physics Electronic Journal (MPEJ)*, 2003-2009.
- Member of the Editorial Board of: *Advances in Mathematical Physics (AMP)*, 2009-2013.

- Member of the Editorial Board of: Discrete and Continuous Dynamical Systems, Series S (DCDS-S), 2011-present.
- Member of the Editorial Board: IMA Journal of Applied Mathematics, 2012-present.
- Member of the Editorial Board: Physica D, 2019-2022.
- Member of the Editorial Board: Journal of Nonlinear Science, 2021-present.
- Editor-in-Chief: Journal of Nonlinear Waves, 2024-present
- Student Advisor for: M. Agrotis (graduate student, U. of Arizona, Mathematics), J. Hudock (graduate student, Lehigh U., EE) and G. Von Nessi (undergraduate student, UMass Lowell, Mathematics and Physics) at Los Alamos (summer 2001).
- Project/Independent Study supervisor for K. Van Der Kloot (undergraduate student, UMass Amherst, Mathematics, Spring and Fall 2002), J. Ketchakeu (graduate student, UMass Amherst, Physics, Spring 2002), C. Spittler (undergraduate student, UMass Amherst, Astronomy, Spring 2004); S. Nandi (M.Sc. student, UMass Amherst, Applied Mathematics, Spring 2004); L. Foreman and D. Machacek (M.Sc. students, UMass, Amherst, Applied Mathematics, Spring 2004); H. Harrington, M. Maier and L. Naidoo (undergraduate students, UMass Amherst, Mathematics, Summer-Fall 2004, Spring 2005); C. Serino (undergraduate student, UMass, Amherst, Physics, Fall 2004); J. Gagnon (Ph.D. student, UMass, Amherst, Mathematics, Summer 2005-Spring 2006); C. Benincasa (M.Sc. student, UMass, Amherst, Applied Mathematics, Fall 2005-Spring 2006); I. Roy (M.Sc. student, UMass, Amherst, Applied Mathematics, Fall 2005-Spring 2006); J. Ortendahl (undergraduate student, UMass, Amherst, Mathematics, Spring 2006); K. Law (M.Sc. student, UMass, Amherst, Applied Mathematics, Summer 2006-Summer 2007); C. Wang (Ph.D student, UMass, Amherst, Applied Mathematics, Fall 2006-Summer 2007); Z. Shi (M.Sc. student, UMass, Amherst, Applied Mathematics, Spring 2007-Summer 2008); Y. Shen (M.Sc. student, UMass, Amherst, Applied Mathematics, Spring, Summer and Fall 2009); C. Hoogeboom (M.Sc. student, UMass, Amherst, Applied Mathematics, Summer-Fall 2009). H. Yue

(PhD student, UMass, Amherst, Applied Mathematics, Spring 2013-Fall 2013). J. Yu (PhD student, UMass, Amherst, Applied Mathematics, Fall 2013). D. Mei (M.Sc. student, UMass, Amherst, Applied Mathematics, Summer 2014). W. Wang (PhD student, UMass, Amherst, Applied Mathematics, Fall 2014-Spring 2015). B. Whitchurch (undergraduate student, Summer-Fall 2016). R. Ross (undergraduate student, Summer-Fall 2016). S. Saqlain (undergraduate student, Summer 2021-Summer 2023). Y. Schechter (undergraduate student, Summer 2022-Summer 2023). I. Sevian (undergraduate student, Summer 2023). A. Chakraborty (undergraduate student, Summer 2024).

- Post-doctoral Mentor for: M. Agrotis (Fall 2002-Spring 2004, most recent position: Instructor at the Cyprus University of Technology, Cyprus); H. Susanto (Spring 2006-Winter 2008, most recent position: Professor at Khalifa University, UAE), J.A. Espinola-Rocha (Fall 2006-summer 2009, most recent position: Associate Professor, Universidad Autónoma Metropolitana, Mexico, Mexico). G. Theocharis (Winter 2008- Winter 2010, most recent position: Researcher at Centre Nationale de la Reserche Scientifique, Le Mans, France), M.A. Alejo-Plana (May-July 2011, most recent position: Associate Professor, Universidad de Córdoba, Spain), C. Chong (Fall 2011-2014, now a tenured Associate Professor at Bowdoin College), B. Gertjerenken (Fall 2014-Spring 2015, now a Project Manager in Ellwangen, Berlin), E. Charalampidis (Fall 2013-Summer 2019, now a tenure-track Assistant Professor at San Diego State University), M. Agaoglu (Winter 2016-Winter 2017, currently an Assistant Professor, E.T.S.I., Dept of Applied Mathematics, Universidad Politécnica de Madrid), M. Haberichter (Fall 2016-Summer 2018), M. Thudiyangal (Fall 2019-Summer 2022, now an Assistant Professor at Manipal Academy of Higher Education, India), G. Katsimiga (Fall 2022–Winter 2024, now an Assistant Teaching Professor at Missouri University of Science & Technology), S. Chandramouli (Fall 2023-present).
- Graduate Student Advisor for: Z. Rapti (Fall 2002-Summer 2004, currently an Associate Professor at UIUC), G. Herring (Spring 2004-Summer 2007, currently a tenured faculty at Cameron University), C. Wang (Fall 2006-Summer 2011, currently a researcher for Bank of America), K. Law (Fall 2007-Winter 2010, currently a Chaired Professor

at University of Manchester), E. Giorgi (Fall 2007-Summer 2011, currently a staff member at Los Alamos National Lab), Y. Shen (Summer 2009-Summer 2012, currently an Associate Professor at University of Kansas), K. Li (Summer 2009-Fall 2013, now working at CCC Information Services Company), C. Hoogeboom (Fall 2010-Winter 2013), M. Duanmu (Fall 2011-Fall 2015), D. Yan (Spring 2010-Spring 2014, now working for Alliance Data Company), H. Xu (Fall 2012-Summer 2016, now an Associate Professor at Huazhong University of Science and Technology, China), C. Ward (Fall 2015-Summer 2019, now a postdoc at University of Houston). G. Tsolias (Fall 2015–Fall 2022, now a Lecturer at Johannes Kepler University, Linz, Austria), D. Mei (Fall 2015–Fall 2018), J. Lee (Fall 2015–Fall 2019, now at Cold Spring Harbor Laboratory), R. Ross (Spring 2020–Fall 2024), S. Mohapatra (Spring 2022–present), S. Yang (Spring 2023–present), M. Calabrese (Spring 2024–present), F. Palmero-Ramos (Spring 2024–present), S. Wu (Winter 2025–present). .

- Co-organizer of the workshop on *Intrinsic Localized Modes, From Paradigm to Reality, From Theory to Experiment* at Los Alamos (July 8-11, 2002).
- Co-Organizer of Special Session on *Nonlinear Waves in Bose-Einstein Condensates* in the 3rd IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (April 7-10, 2003).
- Co-Organizer of Special Session on *Stability, Dynamics, and Asymptotics of Hamiltonian Nonlinear Partial Differential Equations* in the SIAM Dynamical Systems Meeting, Snowbird, UT (May 26-31, 2003).
- Co-Organizer of Special Session on *Nonlinear Waves and Pattern Formation in Biological Systems* in the SIAM Nonlinear Waves Meeting, Orlando, FL (Oct. 2004).
- Co-Organizer of the workshop on *Solitons in Bose-Einstein Condensates* scheduled to take place in Almagro, Spain in February 2005.
- Member of the Organizing Committee of the 4th IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (April, 11-14, 2005).

- Co-Organizer of Special Session on *Nonlinear Waves in Bose-Einstein Condensates* in the 4th IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (April, 11-14, 2005).
- Co-Organizer of Special Session on *Analysis, Computation and Experiments in Bose-Einstein Condensates* in the SIAM Annual Meeting, Boston, MA (July 2006).
- Co-Organizer of Special Session on *Analysis, Modeling and Simulation of Biological Systems* in the SIAM Nonlinear Waves Meeting, Seattle, WA (Sept. 2006).
- Member of the Organizing Committee of the 5th IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (April, 16-19, 2007).
- Co-Organizer of Special Session on *Theory, Simulations and Experiments in Bose-Einstein Condensates* in the 5th IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (April, 16-19, 2007).
- Member of the Organizing Committee of the Meeting on *Nonlinear Phenomena in Degenerate Quantum Gases*, Toledo, Spain (April 1-5, 2008); Also, Guest-Editor of the Special Volume of Physica D that has been published in July 2009 from the Proceedings of this meeting.
- Member of the Organizing Committee of the 6th IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (March, 23-26 2009).
- Co-Organizer of Special Session on *Nonlinear Schrödinger Equations and Applications* in the 6th IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (March 23-26, 2009).
- Co-Organizer of Special Session on *Waves in Nonlinear Lattices* in the in the SIAM Dynamical Systems Meeting, Snowbird, UT (May 17-21, 2009).
- Member of the Organizing Committee of the Meeting on *Localized Excitations in Complex Systems* (LENCOS), Seville, Spain (July 14-17, 2009).

- Co-Organizer of Special Session on *Nonlinear Schrödinger Equations and their Applications* in the 8th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Dresden, Germany (May 25-28, 2010).
- Organizer of Special Session on *Bose-Einstein Condensates: Past, Present, Future*, at the Second International Conference: Nonlinear Waves—Theory and Applications, Beijing, China (June 26-29, 2010).
- Member of the Organizing Committee of the SIAM Meeting on *Nonlinear Waves and Coherent Structures*, Philadelphia, PA (August 16-19, 2010).
- Member of the Organizing Committee of the 6th IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (April 4-7 2011).
- Co-Organizer of Special Session on *Nonlinear Schrödinger Equations and Applications* in the 7th IMACS Meeting on Nonlinear Evolution Equations and Wave Phenomena (April 4-7, 2011).
- Co-Organizer of Special Session on *Nonlinear Phenomena in Granular Chains* in the SIAM Conference on Applications of Dynamical Systems (May 22-26, 2011).
- Co-Organizer of Interdisciplinary Workshop on Quantum Mechanics and Dynamical Systems in Granada, Spain (October 8-10, 2011).
- Member of the Organizing Committee of the Meeting on *Localized Excitations in COMplex Systems* (LENCOS 2), Seville, Spain (July 9-12, 2012).
- Member of the Organizing Committee of the 8th IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (March 25-28 2013).
- Co-Organizer of Special Session on *Nonlinear Schrödinger Equations* in the 8th IMACS Meeting on Nonlinear Evolution Equations and Wave Phenomena (March 25-28, 2013).

- Co-Organizer of Special Session on *Granular Chains as Dynamical Systems* in the 2013 SIAM Conference on Dynamical Systems (May 19-23, 2013).
- Co-Organizer of Special Session on *Nonlinear Schrödinger Equations and Applications* at the 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications (July 7-11, 2014).
- Co-Organizer of Special Session on *Novel Challenges in Atomic Gases: Bose-Einstein condensates and Beyond* in the 2014 SIAM Conference on Nonlinear Waves (August 11-14, 2014).
- Member of the Organizing Committee of the 9th IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (April 1-4 2015).
- Co-Organizer of Special Session on *Nonlinear Schrödinger Equations* in the 9th IMACS Meeting on Nonlinear Evolution Equations and Wave Phenomena (April 1–4, 2015).
- Co-Organizer of Special Session on *Mathematical progress on nonlinear phenomena in parity-time-symmetric systems* in the 9th IMACS Meeting on Nonlinear Evolution Equations and Wave Phenomena (April 1–4, 2015).
- Co-Chair (together with Lora Billings) of the 2015 SIAM Conference on Dynamical Systems (May 17-21, 2015).
- Co-Organizer (together with Avadh Saxena and Fred Cooper) of the Workshop on: “Emergent Paradigm in Nonlinear Complexity: From PT-Symmetry to Nonlinear Dirac Systems, From Polaritons to Skyrmions”, at Santa Fe and the Santa Fe Institute (June 8-10, 2015).
- Co-Organizer (together with P. Constantin, R. Goodman, E. Kirr, J. Marzuola, J. Miller, G. Simpson and V. Zharnitsky), of the conference on “Waves, Spectral Theory and Applications”, at Princeton University in honor of Prof. M.I. Weinstein’s 60th birthday (September 10-11, 2015).

- Co-Organizer (together with R. Carretero, T. Kolokolnikov, D. Uminsky) of the workshop on “Coherent Structures in PDEs and their Applications” in Casa Mathematica Oaxaca at BIRS-Oaxaca, (June 19-24, 2016).
- Co-Organizer (together with V. Koukouloyannis, M. Chirilus-Brueckner) of the workshop on “Analysis and Applications of Localized Structures in Nonlinear Media”, at the Lorentz Center of the University of Leiden (August 29-September 2, 2016).
- Member of the Organizing Committee of the 10th IMACS Conference on Nonlinear Evolution Equations and Wave Phenomena, Athens, GA (March 29–April 1, 2017).
- Member of the Organizing Committee of the Waves 2017 conference, Minneapolis MN (May 15–19, 2017).
- Member of the Organizing Committee (with T. Horikis, G. Theocharis, H. Nistazakis, V. Achilleos) of the Hybrid Workshop on Nonlinear Waves and Dimitri’s Frantzeskakis 60th birthday, Athens, Greece (June 15-16, 2022).
- Co-Organizer (together with V. Koukouloyannis, M. Chirilus-Brueckner and H.J. Hupkes) of the workshop on “Coherent Structures: Current Developments and Future Challenges”, at the Lorentz Center of the University of Leiden (July 4–8, 2022).
- Co-Organizer (Together with A. Vainchtein) of the Nonlinear Waves and Coherent Structures SIAM Conference in Baltimore (June 24-28, 2024).
- Co-Organizer (with R. Carretero, A. Aceves, G. Katsimiga, P. Torres) of the BIRS workshop on “Dynamics of Coherent Structures in Discrete and Continuum Nonlinear Systems” at IMAG Granada (June 8-13, 2025).
- Co-Organizer (with V. Koukouloyannis, J. Holmer, Z. Zhang) of the ICERM workshop on “Nonlinear Waves: From Theoretical and Computational Advances to Experimental Observations” at Brown University (April-May 2026).

- Departmental and University Committees: Colloquium Committee (2001-2002); Applied Mathematics Hiring Subcommittee (2001-present); Numerics Hiring Subcommittee (2001-present); Graduate Affairs Committee (2002-2003, 2018-2019); Publicity Committee (2002-2003); Undergraduate Advisor (2002-present); Undergraduate Affairs Committee (2003-2004 and 2009-2010 (Chair)); College of Natural Sciences and Mathematics Scholarship Committee (2002-2010); Faculty Search Committee (2004-2006, 2012-2013, 2015-2016, 2016-2017, 2021-2022); Strategic Hiring Committee (2022-2023); Graduate Admissions Committee (2006-2007, 2009-2010, 2020-2021, 2021-2022, 2023-2025); Personnel Committee (2008-2009, 2010-2011 (Chair), 2015-2016, 2018-2019, 2020-2021 (Chair), 2021-2022, 2022-2023), University Libraries Director Search (2015–2016); Development Director (2016-2017); Department Space Committee (2018-2019); Conference Committee (for R.S. Ellis Conference, 2018-2019); Executive Committee (2018-2019); Samuel F. Conti Fellowship College Committee (2017-2018, 2018-2019); Strategic Hiring Committee (2023-2025); By-laws Committee (2024-2025).
- Co-Organizer of the Applied Mathematics Seminar at UMass, Amherst.
- Co-Organizer of the Virtual Webinar Series on Nonlinear Waves and Coherent Structures (<https://sites.google.com/view/nwcswebinar/home>)
- Co-Organizer of the Virtual Mathematical and Computational Biology Seminar Series (<https://mathseminars.org/seminar/UMassMathBio>).

Courses Taught

General Physics Laboratory I (Mechanics): 6 sections.

General Physics Laboratory II (Electromagnetism, Waves and Optics): 3 Sections.

Calculus I: 1 section (Fall 2001).

Calculus II: 10 sections (Spring 2002, Fall 2002, Spring 2003, Fall 2003, Fall 2004, Fall 2005 and Fall 2008; Course Chair: Falls 2002, 2005, 2008, 2010, 2011).

Calculus for Life Sciences (Spring 2004).

Introduction to Partial Differential Equations (Spring 2003, Spring 2006 and Spring 2007, Spring 2010, Spring 2011, Spring 2016, Spring 2022, Spring 2023, Spring 2025).

1st Semester Graduate Numerical Analysis (Fall 2004).

2nd Semester Graduate Numerical Analysis (Spring 2005).

Applied Mathematics M.Sc. Project (co-taught with N. Whitaker, Fall 2006 and Spring 2007, and also Fall 2013 and Spring 2014).

Nonlinear Dynamical Lattices: topics graduate course (Spring 2009).

Nonlinear Waves and Applications, topics graduate course (Spring 2018).

Nonlinear Dynamics and Chaos (Fall 2009, Fall 2012, Fall 2013, Fall 2015, Fall 2018, Fall 2020, Summer 2021 (Online), Fall 2023).

Languages

Greek: (Mother Language)

English: Cambridge Certificate of Proficiency in English (1989, C), Cambridge Lower Certificate (1987, A)

French: Sorbonne II (1990 , Bien) , Sorbonne I (1989, Assez Bien)

Italian: Certificato di Lingua Italiana (U. Perugia, 3o grado, A)