

8. J. D'Ambroise, S. Lepri, B. A. Malomed and P.G. Kevrekidis, *\mathcal{PT} -symmetric ladders with a scattering core*, Phys. Lett. A **378** No. 38-39 (2014), 2824, [arXiv:nlin/1407.1086](#).
7. J. D'Ambroise, P. G. Kevrekidis and B. A. Malomed, *Quasi-energies, parametric resonances, and stability limits in ac-driven \mathcal{PT} -symmetric systems*, Chaos **24** (2014), 023136, [arXiv:nlin/1308.3245](#).
6. J. D'Ambroise, P. G. Kevrekidis and S. Lepri, *Eigenstates and instabilities of chains with embedded defects*, Chaos, **23** No. 2 (2013), p 023109 - 023109-10, [arXiv:nlin/1211.5707](#).
5. J. D'Ambroise, P. G. Kevrekidis and S. Lepri, *Asymmetric wave propagation through nonlinear \mathcal{PT} -symmetric oligomers*, Jour. of Phys. A: Math. and Theor. **45** No. 44 (2012), 444012, [arXiv:nlin/1202.4483](#).
4. J. D'Ambroise and F. L. Williams, *Parametric solution of a certain nonlinear differential equations in cosmology*, Jour. of Nlin. Math. Phys., **18** No. 2 (2011), 269-278 [arXiv:gr-qc/1202.4422](#).
3. J. D'Ambroise and F. L. Williams, *A dynamic correspondence between FRLW cosmology with cosmological constant and Bose-Einstein condensates*, Jour. of Math. Phys., **51** No. 6 (2010), 062501-062511, [arXiv:math-ph/1007.4237](#).
2. J. D'Ambroise, *A Schrödinger formulation of Bianchi I scalar field cosmology*, Internat. Jour. of Pure and Applied Math., **42** No. 3 (2008), 405-410, [arXiv:hep-th/0711.3916](#).
1. J. D'Ambroise and F. L. Williams, *A nonlinear Schrödinger type formulation of FRLW scalar field cosmology*, Internat. Jour. of Pure and Applied Math., **34** No. 1 (2007), 117-126, [arXiv:hep-th/0609125](#).

CONFERENCE PROCEEDINGS

3. J. D'Ambroise and F.L. Williams, *Parametric solution of certain nonlinear differential equations in cosmology II*, Proc. of Sci. (2012), Invited Contribution for 7th International Conference on Math. Methods in Physics (ICMP), [arXiv:gr-qc/1208.4812](#).
2. J. D'Ambroise, *EMP reformulations of Einstein's equations as an application of a property of suitable second order differential equations*, conference proceedings for Lie Theory and its Applications to Physics, Varna Bulgaria, June 2009.
1. J. D'Ambroise, *Applications of elliptic and theta functions to Friedman-Robertson-Lemaître-Walker cosmology with cosmological constant*, A Window Into Zeta and Modular Physics, Cambridge University Press (2010) [arXiv:gr-qc/0908.2481](#).

UNPUBLISHED PAPERS

- 2.* F. Kh. Abdullaev, J. D'Ambroise, P. G. Kevrekidis and Y. N. Truong Vu, *Some case example exact solutions for quadratically nonlinear optical media with \mathcal{PT} -symmetric potentials.*, [arXiv:nlin/1501.00519](#).
1. J. D'Ambroise, *EMP and linear Schrödinger models for a conformally Bianchi I cosmology*, [arXiv:hep-th/0809.4817](#).

TEACHING AWARDS

- May 2021 · SUNY Chancellor's Award for Excellence in Teaching (EIT) for Old Westbury campus
- May 2010 · Department of Mathematics and Statistics Teaching Award, UMass Amherst
- Apr 2009 · Residential First Year Experience Student Choice Award, UMass Amherst
- Apr 2007 · University of Massachusetts Distinguished Teaching Award (among two TAs university-wide)

FUNDS

- Sum 2021 · Model INstructors Differential Equations (MINDE) Workshop
- Spring 2020 · Faculty Guild: Pedagogy Foundations Fellowship
- Spring 2016 · Faculty Development Grant, SUNY Old Westbury: for video creation, [see my youtube series](#)
- Spring 2014 · Project in Innovative Curriculum and Teaching (PICT) Grant, Amherst College
- 2012 - 2014 · AMS-Simons Travel Grant
- Jul 2012 · AWM Workshop Speaker, at SIAM Annual Meeting AWM Workshop, Minneapolis, MN
- Jan 2009 · AWM Workshop Grant, Joint Mathematics Meetings, Washington D.C.
- Aug 2007 · Graduate Student Travel Grant, UMass Univ. and UMass Dept of Math & Stats
- May 2007 · Summer Research Assistantship, UMass Dept of Math & Stats

ONLINE FACULTY DEVELOPMENT COURSES

- Spring 2022 · Completed: Helping Non-Traditional Students Succeed, by SUNY Ctr. for Prof. Dev.
- Sum 2018 · Completed: Collab. Online Internat. Learning (COIL) Orientation, by SUNY COIL Center
- Sum 2017 · Completed: Grants and Proposals, by The Institute for Writing and Learning
- Spring 2016 · Completed with Distinction: Teach. & Learn. Cert. for New Faculty, by SUNY Ctr. for Prof. Dev.
See online portfolio: <https://sites.google.com/site/jenniedambroiseportfolio>
- Spring 2016 · Completed with Distinction: Quality by Design, by SUNY Ctr. for Prof. Dev.
- S16-F16 · Completed: Online, Hybrid, and Blended Training, by SUNY Old Westbury with C. Shehigian

UNDERGRADUATE PROJECT SUPERVISION

- *Independent Study*
F18 · Efrat Shani, Differential Geometry Reading Course
- *CSTEP Internship Supervisor: Noteguides Project*
Wint 19 · Supervised 1 student, Asad Imam, making Differential Equations Noteguides
F18 · Supervised 2 students, Asad Imam and Parwinder Kaur, making Pre-Calculus & Calc II Noteguides
Sum 18 · Supervised 2 students, Asad Imam and Jacob Jones, making Calculus I-II Noteguides
- *Senior Project Primary Advisor*
F12 - S13 · Emily Carlson, *A Model of Charge Transport in a Dye-Sensitized Solar Cell*, at Bard College
F11 - S12 · Jeannette Benham, *Auditory Perception in Flatland: The Physical Applicability of a Two-Dimensional Cochlear Model*, at Bard College
- *Senior Project Non-Primary Advisor*
F12 · Board Member for Grant Anderson, at the Bard College Prison Initiative
F12 · Board Member for John Aufioros, at the Bard College Prison Initiative
S11 · Secondary Advisor for Nick Grieme, *Finite-Element Method*, at UMM

TEACHING EXPERIENCE († videos, ★ MyMathLab, * Mathematica, △ WebWork, ○ WebAssign, ⊙ OER Open Ed. Res.)

See various open access course materials: www.jdambroise.com/classnotes. Number of sections in parentheses.

- *SUNY Old Westbury*
S22 · Differential Calculus (2) ○ † ⊙
F21 · Transitions to Adv. Math. · Differential Calculus ○ † ⊙
S21 · Differential Equations △ † ⊙ · Differential Calculus (2) ○ † ⊙
F20 · Transitions to Adv. Math. · Differential Calculus (2) ○ † ⊙
S20 · Geometry · Differential Calculus (2) ○ † ⊙
F19 · Advanced Calculus · Differential Calculus ○ † ⊙ · PreCalculus †★
S19 · Differential Equations △ † ⊙ · Integral Calculus ★† · Differential Calculus ★†
F18 · Multivariable Calculus ○ † ⊙ · Integral Calculus ★† · Differential Calculus ★†
S18 · Differential Equations △ · Integral Calculus † · PreCalculus †★
F17 · Differential Calculus ★† · PreCalculus ★† · Business PreCalculus ○†
S17 · Differential Equations · Integral Calculus ★†
F16 · Integral Calculus ★† · Differential Calculus ★ · PreCalculus ★
S16 · Differential Equations · Integral Calculus ★
F15 · Integral Calculus ★ · Differential Calculus ★ · PreCalculus ★
- *Amherst College*
S15 · Linear Algebra (2) **
F14 · Complex Analysis · Differential Calculus ★†
S14 · Intro. to Analysis · Differential Calculus ★†
F13 · Intro. to Analysis · Multivariable Calculus ★
- *Bard College*
S13 · ODE/PDE * · Integral Calculus (2) *
F12 · Linear Algebra with ODE · Integral Calculus (2) ★
S12 · Complex Analysis · Integral Calculus (2) ★
F11 · Ordinary Differential Equations · Differential Calculus (2) ★

- *UMM*
 - S11 · Multivariable Calculus ★ · Integral Calculus ★★ · Differential Calculus ★★
 - F10 · Real Analysis · Differential Calculus ★★
- *UMass*
 - Section Lecturer*
 - S10 · Linear Algebra \triangle
 - S07, F09 · Multivariate Calculus for Sci/Eng \triangle
 - F06, S09 · Integral Calculus for Sci/Eng \circ
 - S05, F08 · Differential Calculus for Sci/Eng \circ
 - S08 · Honors Integral Calculus
 - Su06 · Integral Calculus
 - F04, F05 · Basic Math Skills for the Modern World
 - F03 · Precalculus Trigonometry
 - Qualifying Exam Review Instructor*
 - Su06 · Real Analysis · Geometry
 - Recitation Instructor and Grader*
 - S06, F07 · Ordinary Differential Equations
 - Grader*
 - S04 · Complex Analysis · Real Analysis
 - F03 · Abstract Algebra II

PROFESSIONAL SERVICES

- *Reviewer for Journals*
 - 2020-now · Physica Scripta ($\sim 1/\text{yr}$)
 - 2020-now · Journal of Modern Physics ($\sim 1/\text{yr}$)
 - 2019-now · Mathematics, An Open Access Journal from MDPI ($\sim 1/\text{yr}$)
 - 2019-now · Applied Sciences, An Open Access Journal from MDPI ($\sim 1/\text{yr}$)
 - 2018-now · Chaos: An Interdisciplinary Journal of Nonlinear Science ($\sim 2/\text{yr}$)
 - 2018-now · Wave Motion: An Internat. Jour. Reporting Research on Wave Phenomena ($\sim 1/\text{yr}$)
 - 2017-now · Reviewer for Bulletin of the London Mathematical Society ($\sim 1/\text{yr}$)
 - 2016-now · Physics Letters A ($\sim 1/\text{yr}$)
 - 2012-now · Communications in Nonlinear Science and Numerical Simulation ($\sim 1/\text{yr}$)
 - 2010-2017 · Mathematical Reviews/MathSciNet ($\sim 1/\text{yr}$)
- *Conferences Services*
 - Feb 2022 · Discussion Moderator *How to Get Started with Modeling in Coursework*, SIMIODE EXPO 2022
 - Feb 2022 · Organizing Committee, SIMIODE EXPO 2022
 - May 2019 · Session Chair *Nonlinear Waves*, DS19: SIAM Conf. on App. of Dynamical Systems, Snowbird, UT
 - Jun 2011 · Session Chair, LT9: Lie Theory and its App. to Phys., Varna, Bulgaria
- *Other*
 - Dec 2020 · Judge for SIMIODE V 2020 Challenge Using Diff. Eq. Modeling undergraduate contest

ON CAMPUS SERVICE & ACTIVITIES

- *SUNY Old Westbury - CAMPUS-WIDE*
 - F21-S22 · Capital Planning Advisory Committee
 - F21-S22 · Promoting Recruitment, Opportunity, Diversity, Inclusion and Growth (PRODIG) Committee
 - F21-S22 · Faculty University Awards Committee (FUAC)
 - F21-S22 · Faculty Senate Chair (i.e. Campus Governance Leader (CGL))
 - S21 · Distance Learning Task Force, Faculty Co-Chair
 - S21 · PRODiG Committee, Faculty Co-Chair (as Faculty Senate Chair Designee)
 - S21 · Academic Integrity Discussion, Faculty Group
 - S21 · Faculty Mentoring Program, Mentor
 - F20-S21 · Faculty Senate, Vice Chair and At-Large Senator
 - Sum20 · Campus Proctoring Discussion, Faculty Group
 - Apr 2019 · WISE Radio appearance, focusing on women in STEM

- F19-S20 · OER (Ad-Hoc) Committee
- F19 · Scholarship Reviewer, Old Westbury Institutional Advancement
- F18-F18 · Faculty Senate Vice Chair
- F18-S19 · Archiving Project for the Faculty Senate Website
- S17 · Committee for Shuttle Improvements, Chair
- F16-S18 · Faculty Senate Secretary & Treasurer
- F16-S18 · Faculty Judicial Committee
- recurring · Academic Standing Committee: Jun 2016, Jan 2016, Aug 2016, Jan 2017, Jun 2017, Aug 2017
- *SUNY Old Westbury - DEPARTMENTAL*
 - Nov 2019 · Networking event: WISE "Off The Clock" Dinner
 - S18-now · WebWork administrator, for open source online math homework on OW campus
 - F17-now · OW Representative at Delegate Assembly for the Metro NY Section of the MAA
 - S16-now · Academic and Transfer Advising
 - F19-S21 · Math Department Curriculum Committee Member
 - F17-S18 · Content Coordinator for Smart Scholars Program
 - Sum 2018 · Search Committee for Assistant Director for the Math Learning Center
 - S17 · Helped to draft Math Learning Center improvements recommendations
 - S16-S21 · CSTEP Coordinator for Math/CIS Dept.
 - F16-F18 · Math & CIS Faculty Senate Senator
 - recurring · Open House representative for Mathematics: Apr 2016, Nov 2016
 - Mar 2016 · Presentation: *Careers/Pathways for Math Majors*, sponsored by CSTEP
See careers website: www.jdambroise.com/mathcareers
- *Amherst College*
 - Fall 2013 · Putnam Problems Practice Sessions
 - Nov 2013 · Graduate School Info Session
- *Bard College*
 - Aug 2011 · Graduate School Panel at Undergrad Workshop
- *UMM*
 - F10-S11 · Calculus Tutoring Center Math Liason
- *UMass*
 - F08-S10 · Calculus Tutoring Center, organizing and scheduling
 - F08-S10 · Mathematical Physics Seminar Organizer
 - F08, F09 · Distinguished Teaching Award Selection Committee
 - Jan 2008 · Volunteer renovation of Mathematics undergraduate lounge
 - S07, S08 · Workshop at Campus TA Orientation: *Making the Most of Your TA Experience Workshop*
 - Sep 2008 · Student welcome and discussion, Mathematics and Statistics TA Orientation
 - May 2008 · Dinner and discussion, Women and Minorities in Physics mentoring event

PROFESSIONAL ORGANIZATIONS

- SIAM: Society for Industrial and Applied Mathematics
- AWM: Association for Women in Mathematics

SEMINARS, WORKSHOPS, & ROUNDTABLES

- S20 · Host: Innovation Lab Workshop, How I Learned to Stop Taking Attendance and Increase Participation (two sessions), SUNY Old Westbury
- F20 · Co-Organizer: Community of Practice on Distance Instruction, SUNY Old Westbury
- Feb 2020 · Co-Presenter: Open Educational Resources (OER) Faculty Roundtable, SUNY Old Westbury
- Jun 2020 · Co-Host: Lessons Learned Exam Integrity Session, SUNY Old Westbury
- Nov 2018 · *Using Prep Videos for Math Class* (discussion prompt)
Videos & New Media in the Classroom, SUNY Old Westbury Faculty Roundtable
- F13-S15 · Nonlinear Waves Seminar, UMass Amherst
- Jun 2009 · Summer School: *Connecting Quarks with the Cosmos*, Univ Washington, Seattle WA
- Jun 2009 · Graduate Summer School: Geometry of Quantum Fields and Strings, UPenn
- Jun 2008 · MSRI Workshop: A Window Into Zeta and Modular Physics, UC Berkeley

- Jul 2009 · Career Mentoring for Women in Mathematics, Wheaton College, Norton, MA
- F08 - S10 · Organizer: Mathematical Physics Seminar

TALKS

- *Lightning Talk: Some Gaming Ideas for Grading Student Points*
Sep 2019 · Second Annual Metro NExT Workshop, Courant Institute, NYC
- *2D solutions of the hyperbolic discrete nonlinear Schrödinger equation*
May 2019 · DS19: SIAM Conf. on App. of Dynamical Systems, Snowbird, UT
Aug 2018 · Internat. Conf. on Nonlin. Phenomena in BEC & Optical Systems, Tashkent, Uzbekistan
- *Roads and Wheels and Ellipses*
Apr 2018 · The Math Talks (for undergraduate students), SUNY Old Westbury
- *Lightning Talk: Prep Videos for Math Courses*
Apr 2018 · The Future of Higher Ed. – TLRC Spring 2018 Mini-Conference, SUNY Old Westbury
- *Wave Propagation in PT -Symmetric Systems*
Apr 2017 · Applied Math Seminar, Univ. of Vermont at Burlington
- *Overview of Nonlinear Wave Equations Appearing in Cosmological Settings*
Oct 2016 · Workshop on the Future of Vibration Energy Transfer, Seattle, WA
- *Multidimensional discrete compactons in nonlinear Schrödinger lattices*
Jun 2016 · 4rd Internat. Conf. of Nonlinear Waves – Theory and Applications, Tsinghua Univ., Beijing, China
May 2016 · Nonlinear Waves Seminar, UMass Amherst
- *Eigenstates of chains with embedded defects*
Apr 2014 · Analysis and PDE Seminar, Worcester Polytechnic Institute, Worcester, MA
Jun 2013 · 3rd International Conference of Nonlinear Waves – Theory and Applications, Beijing, China
- *Parametric and other exact solutions to Einstein's equations in terms of special functions*
Sep 2012 · AMS Eastern Section Meeting, Special Session on Geometric Evolution Equations, RIT, NY
Jul 2012 · AWM Workshop at SIAM Annual Meeting AWM Workshop, Minneapolis, MN
- *Parametric Solution of Certain Nonlinear Differential Equations in Cosmology*
Jun 2011 · LT9: Lie Theory and its Applications to Physics, Varna, Bulgaria
Jan 2011 · Joint Mathematics Meetings, New Orleans, LA
- *Elliptic functions in cosmology*
Oct 2009 · AMS Fall Central Sectional Meeting, Baylor University, Waco, Texas
- *One correspondence used in reformulating Einstein equations for various scalar field cosmologies*
Jun 2009 · LT8: Lie Theory and its Applications to Physics, Varna, Bulgaria
Sep 2009 · Baylor University Mathematical Physics Seminar, Waco, Texas
Sep 2009 · Texas A&M University Mathematical Physics Seminar, College Station, Texas
- *A linear Schrödinger formulation of d -dimensional Bianchi I cosmology and its relation to BECs*
Aug 2008 · 5th International Conference of Math. and Computing, Plovdiv, Bulgaria
- *On Relating d -dimensional FRLW Cosmology to Bose-Einstein Condensates,*
Jun 2008 · MSRI Workshop: A Window into Zeta and Modular Physics, UC Berkeley
- *A Schrödinger type formulation of some scalar field cosmologies,*
Mathematical Physics and General Relativity Seminar, UMass Dept of Math & Stats, Nov 2007
- *A nonlinear Schrödinger type formulation of FLRW and Bianchi I&V scalar field cosmologies*
Aug 2007 · 4th International Conference of Math. and Computing, Plovdiv, Bulgaria
- *A nonlinear Schrödinger type formulation of FLRW scalar field cosmology,*
Geometric Relativity and Cosmology Seminar, UMass Dept of Math & Stats, Oct 2006

POSTERS

- *Multidimensional discrete compactons in nonlinear Schrödinger lattices*
Sep 2015 · Conference on Waves, Spectral Theory & Applications, Princeton Univ.
- *Uncoupled EMP and linear Schrödinger models for a conformally Bianchi I scalar field cosmology*
Jan 2009 · AWM Workshop for Women Graduate Students and Recent PhDs, Washington D.C.
- *A linear Schrödinger formulation of d -dim. Bianchi I cosmology and its relation to BEC*
Sep 2008 · Conference on Non-linear Phenomena in Mathematical Physics, Toronto, Canada
- *A nonlinear Schrödinger type formulation of FLRW and Bianchi I scalar field cosmologies,*

Jul 2007 · 18th International Conference on General Relativity and Gravitation, Sydney, Australia

CONFERENCES (△ presented)

- Feb 2022 · SIMIODE EXPO, International Online Conference
- Feb 2021 · SIMIODE EXPO, International Online Conference
- Sep 2019 △ Second Annual Metro NExT Workshop, Courant Institute, NYC
- May 2019 △ DS19: SIAM Conf. on App. of Dynamical Systems, Snowbird, UT
- Aug 2018 △ Internat. Conf. on Nonlin. Phenomena in Bose Condensates & Optical Syst., Tashkent, Uzbekistan
- Apr 2018 △ The Future of Higher Ed. – TLRC Spring 2018 Mini-Conference, SUNY Old Westbury
- Oct 2017 · Conference on Waves, Spectral Theory & Applications Part 2, Chapel Hill, NC.
- Aug 2017 · Science Education for New Civic Engagements and Responsibilities (SENCER), Stony Brook, NY
- Mar 2017 · Conf. on Financial Math., Farmingdale State College, Farmingdale, NY
- Aug 2016 △ Workshop on the Future of Vibration Energy Transfer, Seattle, WA
- Aug 2016 · SIAM Conf. on Nonlinear Waves and Coherent Structures, Philadelphia, PA
- Jul 2016 · SIAM Annual Meeting, Boston, MA
- Jun 2016 △ 4th Internat. Conf. of Nonlinear Waves – Theory and Applications, Tsinghua Univ., Beijing, China
- Sep 2015 △ Conference on Waves, Spectral Theory & Applications, Princeton, NJ.
- Jan 2015 · Joint Mathematics Meetings, San Antonio, TX
- Jun 2013 △ 3rd International Conference of Nonlinear Waves – Theory and Applications, Beijing, China
- Sep 2012 △ AMS Eastern Section Meeting, Special Session on Geometric Evolution Equations, Rochester, NY
- Jul 2012 △ AWM Workshop at SIAM Annual Meeting AWM Workshop, Minneapolis, MN
- Jun 2012 SIAM Conf. on Nonlinear Waves and Coherent Structures, Univ. of Wash., Seattle, WA
- Apr 2012 · Great Lakes Geometry Conference, Ohio State Univ, Columbus, OH
- Jan 2012 · Joint Mathematics Meetings, Boston, MA
- Jun 2011 △ LT9: Lie Theory and its Applications to Physics, Varna, Bulgaria
- May 2011 · Conference on Connections in Geometry and Physics: GAP, Fields Institute, Toronto, ON
- Jan 2011 △ Joint Mathematics Meetings, New Orleans
- Oct 2010 · Yamabe Memorial Symposium: Geom. and Low-Dim'l Topology 5th Biennial, UMN Twin Cities
- Sept 2010 · Symmetry, Separation, Super-integrability and Special Functions (S4) Conf., UMN Twin Cities
- Jan 2010 · Joint Mathematics Meetings, San Francisco
- Oct 2009 △ Represent. Thy. and Math. Phys. Conf. in honor of Gregg Zuckerman's 60th birthday, Yale Univ., CT
- Oct 2009 · AMS Fall Central Sectional Meeting, Baylor Univ., Waco, TX
- Jun 2009 △ LT8: Lie Theory and its Applications to Physics, Varna, Bulgaria
- Apr 2009 · AMS Spring Eastern Sectional Meeting, Worcester Polytechnic Institute, Worcester MA
- Jan 2009 · Joint Mathematics Meetings, Washington D.C.
- Jan 2009 · AWM Workshop for Women Graduate Students and Recent PhDs, JMM, Wash. D.C.
- Sep 2008 △ Conference on Non-linear Phenomena in Mathematical Physics, Fields Institute, Toronto, Canada
- Aug 2008 △ 5th International Conference of Math. and Computing, Tech. Univ. of Plovdiv, Bulgaria
- Jun 2008 · Motives, Quantum Field Theory and Pseudodifferential Operators, Boston Univ.
- Jun 2008 △ MSRI Workshop, *A Window Into Zeta and Modular Physics*, UC Berkeley
- Oct 2007 · AMS Fall Eastern Section Meeting, Rutgers, New Jersey
- Aug 2007 △ 4th International Conference of Math. and Computing, Tech. Univ. of Plovdiv, Bulgaria
- v • Jul 2007 · 18th Intern. Conf. on General Relativity and Gravitation, Sydney, Australia
- Jul 2007 △ 7th Eduardo Amaldi Conf. on Gravitational Waves, Australia
- Oct 2006 · AMS Fall Eastern Section Meeting, University of Connecticut