

RYAN HONAN PELLICO

PERSONAL INFORMATION

email ryan.pellico@trincoll.edu
website <http://calculus.domains.trincoll.edu>
location Department of Mathematics
 Trinity College
 300 Summit Street
 Hartford, CT 06106
phone (W) +1 (860) 297 2297

EDUCATION

Ph.D. Math 2011-2015 University of Connecticut
 GPA: 4.0 · Research Area: Partial differential equations & numerical analysis
 Major Advisor: P. J. McKenna
M.S. Math 2010-2011 University of Connecticut
 GPA: 3.96
B.S. Math 2005-2009 Carnegie Mellon Univeristy
 GPA: 3.47 · University Honors

TEACHING EXPERIENCE

2019-present TRINITY COLLEGE, Lecturer
2015-2019 TRINITY COLLEGE, Visiting Assistant Professor
 FYSM 140 - Mathematical Gems F '22
 Math 107 - Elements of Statistics S '16
 Math 114 - Judgement and Decision Making F '15, F '16, F '18
 Math 131 - Calculus 1 F '15, S '16, F '16, F '17, F '18, F '19, F '20, F '21, F '22
 Math 131 - Calculus 1 Workshop F '15, F '16, S '17, F '17
 Math 132 - Calculus 2 F '16, S '20, SUM '20, S '21, S '22
 Math 205 - Abstraction and Argument S '18, S '20, F '21
 Math 207 - Statistical Data Analysis S '19, S '21, S '22
 Math 210 - Scientific Computing in MATLAB F '17, S '20, J '21, F '21
 Math 229 - Applied Linear Algebra F '20, F '22
 Math 231 - Calculus 3 F '18
 Math 234 - Differential Equations S '17
 Math 241 - Sequences and Series S '17
 Math 305 - Probability F '17, F '19
 Math 306 - Mathematical Statistics S '18
2010-2015 UNIVERSITY OF CONNECTICUT, Teaching Assistant
Instructor Math 2210 - Applied Linear Algebra SUM 2012
 Math 2410 - Elementary Differential Equations F 2013
 Math 2110 - Multivariable Calculus S 2014, F 2014
 Math 1020 - Problem Solving SUM 2015
Teaching Assistant Math 1131 - Calculus 1 F 2010, F 2011
 Math 1132 - Calculus 2 S 2011, S 2012
 Math 1151 - Honors Calculus 1 F 2012
 Math 1152 - Honors Calculus 2 S 2013
 Math 2410 - Elementary Differential Equations S 2014, S 2015

INDEPENDENT STUDY COURSES OFFERED

Senior Honors Thesis

S 2021	Thu Bui '21	A New Spectral Algorithm for Finding Shortest Paths in Graphs
S 2020	Hanae Bouazza '20	Partial Differential Equations Models in Macroeconomics
S 2017	Subekshya Bidari '17	Using numerical methods to explore the space of solutions of a nonlinear partial differential equation

Independent Research

F 2022	B.D.S. Aritra '25
F 2021	Adam Minahan '23
S 2020	Thu Bui '21
F 2019	Thu Bui '21

ISP Research Apprenticeship

S 2022	B.D.S. Aritra '25
--------	-------------------

Scientific Computing in MATLAB

S 2021	Tucker O'Brien '21
S 2021	Mackenzie Rosenberg '21
J 2021	Matthew Solomon '22
J 2021	Ayana Tabo '23

Finite Difference Methods for Partial Differential Equations

S 2020	Divyansh Gaur '22
S 2020	Blake Jamilkowski '21
S 2020	Divas Subedi '22
S 2019	Aashwin Basnet '19
F 2016	Subekshya Bidari '17

Math Finance

F 2019	Hanae Bouazza '20
S 2018	Charles Stafford '19

Measure Theory and Probability

S 2018	Richard Samuelson '18
--------	-----------------------

Point Set Topology

F 2017	Samantha Jarvis '19
--------	---------------------

Internship Advisor

S 2020	Jack Rindini '22
S 2019	Christina Miele '19
S 2018	Chris Giottonini '20

SUMMER RESEARCH ADVISING

<i>Summer 2022</i>	A SPECTRAL ALGORITHM FOR SHORTEST PATHS: RESULTS FOR HYPERCUBES AND RANDOM GRAPHS, B.D.S. Aritra '25
<i>Summer 2022</i>	MULTIPLICITY OF STABLE PERIODIC RESPONSES FOR A DIMENSIONLESS FOUR PARAMETER FAMILY OF DAMPED DRIVEN NONLINEAR OSCILLATORS, Benedicte Baile '25, Saurabh Tiwari '25
<i>Summer 2021</i>	NONLINEAR MASS-SPRING SYSTEMS: FROM PERIODIC TO RANDOM FORCING, Hanyang Luo '23, Adam Minahan '23
<i>Summer 2020</i>	COMPARISON OF DISCRETE AND CONTINUOUS MODELS OF OPTIONS PRICING, Divyansh Gaur '21, Hanjatiana Nirina Randrianarisoa '21

Summer 2020	A SPECTRAL ALGORITHM FOR THE SHORTEST PATH PROBLEM IN EDGE-WEIGHTED GRAPHS, Thu Bui '21
Summer 2019	THE SPECTRUM AND VIBRATION MODES OF HANOI GRAPHS, Thu Bui '21
Summer 2019	TAKING A "CLUSTERED" LOOK AT EU IMMIGRATION, Hanae Bouazza '20
Summer 2017	BIFURCATION AND STABILITY ANALYSIS IN A NONLINEAR MASS-SPRING SYSTEM, Alison Adamski '19
Summer 2017	SYNCHRONIZATION IN NONLINEAR HARMONIC OSCILLATORS, Yesenia Garcia-Balbuena '19, Fumihito Tamada '20, Daniel Melesse '20
Summer 2016	NONLINEAR HARMONIC OSCILLATORS, Alison Adamski '19 and Samantha Jarvis '19

PEER-REVIEWED PUBLICATIONS

<i>in progress</i>	B.D.S. ARITRA, H.M.T. BUI, AND R.H. PELLICO, A New Spectral Algorithm for Finding Shortest Paths in Edge-Weighted Graphs.
<i>accepted</i>	H. LUO, A. MINAHAN, P.J. MCKENNA, AND R.H. PELLICO, Nonlinear Mechanical Systems with Random Forcing: First Steps. <i>The College Mathematics Journal</i>
2020	B.L. POLLACK, R.H. PELLICO, H. GLASS, C.E. KAMPA, AND M.H. SCHMITT, Modeling magnetic fields with helical solutions to Laplace's equation. <i>Nuclear Instruments and Methods in Physics Research Section A</i> , 977:164303
2016	A.C. LAZER, P.J. MCKENNA AND R.H. PELLICO, An abstract theorem in nonlinear analysis and two applications. <i>Journal of Mathematical Analysis and Applications</i> , 438(2), pp.720-737
2015	R.H. PELLICO, Multiple Periodic Solutions of a Nonlinear Suspension Bridge System of Partial Differential Equations. <i>doctoral dissertation</i> , https://opencommons.uconn.edu/dissertations/844/
2012	M. BEGUE, D.J. KELLEHER, A. NELSON, H. PANZO, R.H. PELLICO, A. TEPLYAEV Random Walks on Barycentric Subdivisions and the Strichartz Hexacarpet <i>Experimental Mathematics</i> , 21(4):402-417

OTHER SCHOLARLY WRITING

2021	R.H. PELLICO, Random Walks in the Plane, MathWorks online MATLAB Teaching Activity
2017	A. BAGHERI, V. BARRA, L. BRYANT, K. DUBOVSKAYA, E. GOLDWYN, E. KADAUB, R.O. MOORE, D. PASUT, R.H. PELLICO, L. ROSSI, V. SHINGLOT, A. TURNQUIST, Predicting Exacerbation and Associated Triage in COPD Patients, Executive Summary for Mathematical Problems in Industry (MPI) workshop, held June 19-23, 2017 at NJIT, Newark, NJ
2016	A.A. WESHAH, A. BARDALL, V. BARRA, D. DUFFY, H. GHADGALI, S. IYANIWURA, H. JI, Q. LI, R. MOORE, R.H. PELLICO, C. SELBY, R. STEFANESCU, M. STRAIT, P. VEPAKOMMA, Z. WANG, A. VARGAS, Scoring Practices for Remote Sensing , Technical report prepared for CoVar Applied Technologies as part of the 32nd Workshop on Mathematical Problems in Industry (MPI), held June 13-17, 2016 at Duke University, Durham, NC

TALKS & PRESENTATIONS

- Oct. 16, 2022* INTRODUCING STUDENTS TO MODELING WITH DIFFERENTIAL EQUATION AND NUMERICAL SIMULATION IN MATLAB,
Teaching Computation with MATLAB virtual workshop, Oct. 16-18, 2022
- Feb. 25, 2022* NONLINEAR CABLES AND THE COLLAPSE OF THE TACOMA NARROWS BRIDGE,
Math Department Colloquium, University of Hartford
- Jan. 8, 2022* RANDOM FORCING OF A NONLINEAR MECHANICAL SYSTEM,
Poster presentations, Dynamics Days 2022
- Jun. 24, 2020* ANALYSIS ON GRAPHS,
Summer Undergraduate Math Research at Yale (SUMRY) Colloquium, Yale University
- Jan. 13, 2020* BUILDING LEARNING RESOURCES FOR CALCULUS 1,
Contributed Talk, Winter Institute for Teaching and Technology, Trinity College
- Nov. 23, 2019* DERIVATIONS AND APPLICATIONS OF HELICAL HARMONIC FUNCTIONS,
Contributed Talk, MAA Northeastern Sectional Meeting, Babson College
- Jun. 26, 2019* THE GRAPH LAPLACIAN WITH APPLICATIONS,
Summer Undergraduate Math Research at Yale (SUMRY) Colloquium, Yale University
- Jan. 7, 2017* PERIODIC OSCILLATIONS IN A NONLINEAR SUSPENSION BRIDGE MODEL,
AMS Contributed Paper Session on PDE, Joint Mathematics Meetings, Hyatt Regency, Atlanta, GA
- Nov. 18, 2016* DESMOS IN THE CLASSROOM,
Workshop, MAA Northeastern Sectional Meeting, Trinity College
- Mar. 6, 2015* NONLINEAR SUSPENSION BRIDGES,
Graduate Student SIGMA Seminar, University of Connecticut
- Dec. 4, 2014* PERIODIC OSCILLATIONS IN SUSPENSION BRIDGES,
Math Department Seminar Talk, Rhode Island College
- Nov. 22, 2014* MULTIPLE PERIODIC SOLUTIONS TO A SUSPENSION BRIDGE SYSTEM OF PDE,
Contributed Talk, MAA Northeastern Sectional Meeting, SCSU
- Oct. 24, 2014* CONTINUATION METHODS FOR DIFFERENTIAL EQUATIONS,
Graduate Student SIGMA Seminar, University of Connecticut

WORKSHOPS ATTENDED

- Oct. 16-18, 2022* TEACHING COMPUTATION WITH MATLAB,
MathWorks
- Jan. 20, 2022* TEACHING WITH ZOOM WORKSHOP,
Trinity College Library & Information Services
- Oct. 17-19, 2021* TEACHING COMPUTATION WITH MATLAB,
MathWorks

MISCELLANEOUS

1. Trinity College CTL Mellon Inclusive Teaching Grant recipient (2020-2021 academic year)
2. Trinity College CTL Fellow (2017-2018 academic year)

3. UCONN Math Department Predoctoral Fellowship (Spring 2015)
4. UCONN Math Department Predoctoral Fellowship (Summer 2014)
5. Carnegie Mellon University Honors (May 2009)

Computer Skills MATLAB, Mathematica, Java, L^AT_EX, WordPress, Microsoft Office

Memberships Mathematical Association of America

October 14, 2022