

Daniel M. Look

St Lawrence University
Associate Professor of Mathematics
Rutherford Professor of Mathematics
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Education

- **Ph.D. Mathematics** Dissertation: *Perturbations of Complex Polynomials and Circle Inversions*
1999-2005
Boston University, Boston, MA.
- **M.A. Mathematics** Thesis: *Classifying Topological 2-Disk Intersections in the Plane*
1996-1998
University of Maine, Orono, ME.
- **B.A. Mathematics**
1992-1996
University of Maine, Orono, ME.

Teaching Experience

- St. Lawrence University 2009-Present – Associate Professor of Mathematics (2012-Present), Assistant Professor of Mathematics (2009-2012)
- American Public University 2011-2017 – Adjunct Professor of Mathematics
- Boston University 2011-2016 (Summers only) – Adjunct Professor
- Harvard University 2011-2015 (Summers only) – Adjunct Professor
- Boston University Fall 2011 – Adjunct Professor
- Williams College 2008-2009 – Visiting Assistant Professor of Mathematics
- Indiana University of Pennsylvania 2005-2008 – Assistant Professor of Mathematics
- Boston University Academy 2004-2005 – Adjunct Mathematics Faculty
- Boston University 1999-2005 – Graduate Teaching Fellow
- University of Maine Spring 1999 – Mathematics Instructor
- University of Maine 1996-1998 – Graduate Teaching Assistant

Publications

1. *Sequences of Complex Radius Values that yield Capture Sierpński Carpet Julia Sets for n-Circle Inversion*, Submitted

2. *A Bounded Sequence of Bitransitive and Capture Sierpiński Carpet Julia Sets for 3-Circle Inversions*, Submitted
3. *An Infinite Sequence of Bitransitive Sierpiński Carpets for $z \mapsto \lambda(z + \frac{1}{z})$* , The International Journal of Bifurcations and Chaos, 32, No. 3 (2022)
4. *Stylometry and Collaborative Authorship: Eddy, Lovecraft, and ‘The Loved Dead’* with A. Gladwin and M. Lavin, Digital Scholarship in the Humanities, Vol. 32, Issue 1, April (2017), 123-140.
5. *Queer Geometry and Higher Dimensions: Mathematics in the fiction of H. P. Lovecraft*, Lovecraft Annual, Issue 10 (2016), 101-120.
6. *Checkerboard Julia Sets for Rational Maps* with P. Blanchard, F. Çilingir, D. Cuzzocreo, R. L. Devaney, and E. Russell, The International Journal of Bifurcations and Chaos, 23, No. 2 (2013), 48-60.
7. *Statistics in the Hyborean Age: An Introduction to Stylometry via Conan the Barbarian*, “Conan meets the Academy: Multidisciplinary Essays on the Enduring Barbarian”, Ed. J. Prida, McFarland Press (2012), 103-121.
8. *Classifying Simple Closed Curve Pairs in the 2-Sphere and a Generalization of the Schoenflies Theorem* with R. Franzosa and I. Gotchev, Topology and its Applications, 158 (2011), 748-760.
9. *Sierpinski Carpets as Julia sets for Imaginary 3-Circle Inversions*, Journal of Difference Equations and Applications, Vol. 16, Issue 5,6 (2010), 705-713.
10. *The Dynamics of Two and Three Circle Inversion*, Fundamenta Mathematicae, 199 (2008), 227-247.
11. *Singular Perturbations of z^n* with R. L. Devaney, M. Holzer, M. Moreno Rocha, and D. Uminsky, “Transcendental Dynamics and Complex Analysis”, London Math Society Lecture Notes Series, Vol. 348, Cambridge University Press, eds. P. Rippon and G. Stallard, (2008), 111-137.
12. *Sierpinski Carpets and Gaskets as Julia Sets of Rational Maps* with P. Blanchard, R. L. Devaney, M. Moreno Rocha, P. Seal, S. Siegmund, and D. Uminsky, “Dynamics on the Riemann Sphere: A Bodil Branner Festschrift”, Eds. P. Horth and C. Petersen, European Mathematical Society, (2006), 97-119.
13. *A Criterion for Sierpinski Curve Julia Sets for Rational Maps* with R. L. Devaney, Topology Proceedings, 30 No. 1 (2006), 1-17.
14. *Locally Sierpinski Julia Sets of Weierstrass Elliptic \wp Functions* with J. Hawkins, International Journal of Bifurcation and Chaos, 16, No. 5 (2006), 1505-1520.
15. *Sierpinski Curve Julia Sets and Singular Perturbations of Complex Polynomials* with P. Blanchard, R. L. Devaney, P. Seal, and Y. Shapiro, Ergodic Theory and Dynamical Systems, 25 (2005), 1047-1055.
16. *Symbolic Dynamics for a Sierpinski Curve Julia Set* with R. L. Devaney, Journal of Difference Equations and Applications, 11 (2005), 581-596.
17. *Buried Sierpinski Curve Julia Sets* with R. L. Devaney, Discrete and Continuous Dynamical Systems, 13 (2005), 1035-1046.
18. *The Escape Trichotomy for Singularly Perturbed Rational Maps* with R. L. Devaney and D. Uminsky, Indiana University Mathematics Journal, 54 (2005), 1621-1634.
19. *Perturbations of Complex Polynomials and Circle Inversion Maps* Boston University Doctoral Thesis

Blog Posts/Online Publications

1. *A Nontraditional Approach to the Posthumous Collaborations of de Camp and Howard* Invited Blog Post for Two-Gun Raconteur - <http://www.rehtwogunraconteur.com/a-nontraditional-approach-to-the-posthumous-collaborations-of-de-camp-and-howard/> - Published 11 May 2016; site inactive on 31 May 2022.

Awards

- 2019-2026 Rutherford Chair of Mathematics
- 2018-2019 Selected to give the annual Piskor (research) Lecture at St. Lawrence University

Senior Year Experience Research Projects (* indicates Honors Projects)

- 2022 - Eduardo Puerta (*) *Planar Graph Representation of a Mathematical Knot: A Survey of The Knot Determinant*
- 2021 - Skylar Ratcliffe (*) *The Dynamics of Circle Inversions*
- 2020 - Mairead Drake *Naive Bayes, Sentiment Analysis, and "The Hitchiker's Guide to the Galaxy"*
- 2019 - Emily Casey-Wagemaker *Deconstructing discipline: A mixed methods analysis of disciplinary policies in New York State's Capital District*
- 2019 - Xizhao (Amber) Liu *Robinson or Doyle?, Authorship Attribution and 'The Hounds of The Baskervilles'*
- 2019 - Zeyu Lu *Knot Polynomials and Graph Theory*
- 2018 - Andrea Mossey *Graph Theory and Infectious Diseases*
- 2017 - Allison Macri *Fractals, Forgeries, and Forensics: Using Fractal Analysis to Identify Forged Handwriting*
- 2015 - Nat Shenton (*) *The Double Pendulum: A Case Study in Chaos Theory*
- 2015 - Brett Smith *Introductory SIR Analyses*
- 2014 - John Balderston (*) *Foxes, Hipsters, and the Internet Meme: A Comprehensive Model of Today's First-World Social Epidemic*
- 2014 - Alex Gladwin (*) *"[Who?] can write no more"?: Stylometry, Authorship, and "The Loved Dead"*
- 2014 - Thomas Lehmann (*) *Allometric Scaling Theory and a Test of Area-Preserving Branching in Trees*
- 2013 - Kathryn Christensen (*) *Fixed-Point Iteration Methods* (Joint with Dr. Ivan Ramler)
- 2013 - Roelof Groenwald (*) *Next Generation Matrices for Epidemic Models*
- 2013 - Luke Reed (*) *Compartmental Models: An Epidemiological Application of Ordinary Differential Equations*
- 2013 - Devlin Rutherford (*) *Fractal Geometry and its Applications to Volcanology*
- 2013 - Alex Root *Exploratory Complex Dynamics*

Summer Fellows

- 2022 - Alexandra Hill (Clare Boothe Luce Fellowship) *The Interaction Between Mental Health and Positionality in Literature: A Mathematical Analysis*
- 2021 - Alyssa Bigness (McNair Fellowship) *Using R Studio to Explore 40 Years of Winning Results: The Statistics Behind the New York Lottery*
- 2021 - Alexandra Hill (Saints Start) *Exploring Portrayals of Mental Health in Literature using Text Mining*

- 2020 - Skylar Ratcliffe (Clare Boothe Luce Fellowship) *Artistic Mathematics and Mathematical Art - Group Theory and the art of M.C. Escher*
- 2018 - Emily Casey-Wagemaker (McNair Fellowship; Joint with Dr. Jessica Sierk) *Racism, classism, and education policy: A mixed methods analysis of disciplinary policies in the Greater Capital District of New York State*

Service to the Fields of Mathematics and Popular Culture

- Has served as a referee for the following subjects and journals:
 - Complex Dynamics
 - * *Topology and its Applications* - 2016, 2022
 - * *Monatshefte für Mathematik* - 2019
 - * *AMS Contemporary Mathematics (CONM) book series* - 2019
 - * *The American Mathematical Monthly* - 2011, 2013, 2015
 - * *SIAM Undergraduate Research Online* - 2012
 - * *Journal of Difference Equations and Applications* - 2011
 - * *Topology Proceedings* - 2008, 2009, 2011
 - * *Proceedings of the American Mathematical Society* - 2008
 - * *Nonlinear Dynamics* - 2007
 - * *International Journal of Bifurcations and Chaos* - 2006
 - Text Mining, Stylometry, Sentiment Analysis
 - * *Journal of the Fantastic in the Arts* - 2018
- 2017, 2018, 2020, 2022: Co-Organizer for Mathematics Conference and Competition of Northern New York (MCCNNY) held Fall 2017, Fall 2018, Spring 2020, Spring 2022
- 2017 Co-PI on a (successfully funded) NSF grant for the Hudson River Undergraduate Mathematics Conference
- 2016 Acting Area Chair for the Pulp Studies section for the national PCA Conference
- 2015 Planning committee for Fall 2015 MAA Seaway Section Meeting
- 2013 Wrote a review of *Visions of Infinity: The Great Mathematical Problems* by Ian Stewart for *The American Statistician*
- 2011 Served on a committee of three responsible for organizing the Dynamics portion of the Spring Topology and Dynamics Conference 2011
- 2010 Reviewed the text *Dynamics and Linear Algebra* by Colonius and Kliemann for *The American Mathematical Society*
- 2010 Panelist for the session *Motivating the Unmotivated: Getting Students to Buy Into Your Course, the Next Course, and the Math Major* at Mathfest
- 2010 Co-Organized an Invited Paper Session titled *Complex Dynamics and Undergraduate Research* at Mathfest
- 2005 Helped \LaTeX third edition of *Differential Equations* by P. Blanchard, R. L. Devaney, and G. Hall
- 2003 Helped proofread second edition of *Differential Equations, Dynamical Systems and An Introduction to Chaos* by M. W. Hirsch, S. Smale, and R. L. Devaney

University and Department Service

- University Committee Work
 - 2022-Present St. Lawrence University Student Life Committee
(**Chair**)
 - 2022-Present St. Lawrence University Spiritual and Religious Life Committee
 - 2021-Present St. Lawrence University Conflict Resolution Committee
 - 2021-2022 St. Lawrence University Academic Planning Committee
 - 2017-2019, 2020-2022 St. Lawrence University Faculty Council
(**Recording Secretary 2020-2021**)
 - 2010-2017 St. Lawrence University Academic Affairs Committee
(**Co-Chair 2012-2013; Chair 2013-2015; Committee Delegate to Board of Trustees 2010-2011**)
- Administrative/University Misc.
 - 2017-2019, 2020-Present Presider for St. Lawrence University Faculty Meetings
 - 2017, 2018, 2022 Read names for Commencement
 - 2015-2019 Chair of St. Lawrence University's Department of Mathematics, Statistics, and Computer Science's Assessment Committee
 - 2015-2019 Chair of St. Lawrence University's Department of Mathematics, Statistics, and Computer Science
- Search Committees and Related Work
 - 2017-Present Diversity Advocate for University Search Committees
 - 2021-2022 Search Committee Chair for Mathematics tenure-track position
 - 2021-2022 Diversity Advocate for Geology tenure-track position
 - 2020-2021 Diversity Advocate for Geology visiting position
 - 2018-2019 Search Committee for Mathematics/Statistics visiting position
 - 2018-2019 Search Committee for Data Science tenure-track position
 - 2018-2019 London abroad program student selection committee
 - 2017-2018 Search Committee for Data Science tenure-track position
 - 2017 Member of a three person team responsible for defining and submitting a proposal for a new Data Science position
 - 2014-2015 Search Committee Chair for Mathematics tenure-track position
- Club Advising
 - 2019-Present Faculty Advisor for the Table-Top Games Club
 - 2013-Present Faculty Advisor for the HUB Theme House
 - 2010-2019, 2022-Present Faculty Advisor for St. Lawrence University's chapter of Pi Mu Epsilon (Honorary National Mathematics Society)
 - 2010-Present Faculty Advisor for St. Lawrence University's Anime Club
 - 2009-Present Organizer for π athlon, the annual departmental celebration of π day
 - 2010-2015 Faculty Advisor for Q-Club; St. Lawrence University's Department of Mathematics, Statistics, and Computer Science student group
 - 2006-2008 Faculty Advisor for the IUP chapter of Students for a Democratic Society

- 2006-2008 Faculty Advisor for the Eta chapter of the coeducational National Honors Fraternity $\Phi\Sigma\Pi$ at IUP
- Misc.
 - 2015 Member of a four person grant proposal team seeking an HHMI grant to aid first generation, under-represented students in STEM fields (in the end the grant was unfunded)
 - 2009-2011 AP Calculus Reader
 - 2006-2008 IUP Mathematics Department Representative on University Senate
 - 2006 Served as a panelist regarding graduate school at the SUMS (Shenandoah Undergraduate Mathematics and Statistics) conference at James Madison University

Talks

1. MAA Seaway Section at Sienna College October 29, 2022
Victims of Higher Space: Science Fiction for the Mathematics Classroom
2. International Association for the Fantastic in the Arts, Online October 7-9, 2022
Transforming Representation: Gender and Orientation in UK/US Transformers Comics
3. Clarkson/SUNY Potsdam REU in Mathematics, Potsdam, NY July 14, 2022
Ordered Chaos: An Introduction to Chaos Theory in Continuous and Discrete Dynamical Systems (Invited Talk)
4. MAA Seaway Section Special Event October 8, 2020
Panel/Workshop: Coordinating Group-work Remotely
5. Joint Meeting of the PCA/ACA, Washington DC April 17-20, 2019
Not Your Parents' Autobots - The Evolution of Gender and Sexuality in US/UK Transformers Fiction
6. Piskor Lecture at St. Lawrence University April 9, 2019
Nancy Drew and the Secret of the Whispering Words: A Text Mining Exploration of the Nancy Drew Series
7. International Conference on the Fantastic in the Arts, Orlando, FL March 13-17, 2019
Lovecraft of Eddy: The Contested Authorship of 'The Loved Dead'
8. Midwestern Popular Culture Association Fall Meeting, Indianapolis, IN October 4-6, 2018
Exploring Collaborative Authorship in the Pulps using Stylometry
9. International Conference on the Fantastic in the Arts, Orlando, FL March 14-18, 2018
Dimension and Non-Euclidean Geometry in Lovecraft's Fiction
10. Joint Meeting of the AMS/MAA in San Diego, CA January 10-14, 2018
Revisiting Complex 2-Circle Inversion (Invited Talk)
11. NecronomiCON, Providence, RI August 17-20, 2017
H.P. Lovecraft's use of Non-Euclidean Geometry (Invited Talk)
12. International Conference on the Fantastic in the Arts, Orlando, FL March 22-26, 2017
Uses of Mathematics and Physics in Early 20th Century Horror
13. Midwestern Popular Culture Association Fall Meeting, Chicago, IL October 7-9, 2016
Weird Tales from the Fourth Dimension! - Uses of Higher Dimension from the Pulps to Comic Books
14. Robert E. Howard Days in Cross Plains, TX June 10-12, 2016
Stylometric Results on the Authorship of Almuric (Invited Talk)

15. Popular Culture Conference “We’d like to avoid any Imperial entanglements’: Empire in popular culture”
at College of St. Joseph April 8-9, 2016
A Stylometric look at the Empire of Robert E. Howard’s Conan Writings
16. Joint Meeting of the PCA/ACA, Seattle, WA March 22-25, 2016
The Stylometer in the Dark: A Stylometric Discussion of the Posthumous Collaborations of L. Sprague de Camp and Robert E. Howard
17. International Conference on the Fantastic in the Arts, Orlando, FL March 16-20, 2016
The Stylometer in the Dark: A Stylometric Discussion of the Posthumous Collaborations of L. Sprague de Camp and Robert E. Howard
18. MAA Seaway Section Meeting, St Lawrence University November 6-7, 2015
Stylometry and the Seldon Crisis: Using Stylometry to Categorize Novels in Asimov’s Foundation Universe
19. Northeast Meeting of the PCA/ACA at Colby-Sawyer College October 30-31, 2015
Intra-author Stylometry: Distinguishing Works from a Single Author
20. NecronomiCON, Providence, RI August 20-22, 2015
Panel Member for *The Science of H.P. Lovecraft*
21. Popular Culture Conference “Sequels, Serials, and Remakes: Recycling Fictions in the Fantastic Sphere”
at College of St. Joseph April 10-11, 2015
Stylometry and the Seldon Crisis: Using Stylometry to Categorize Novels in Asimov’s Foundation Universe
22. Joint Meeting of the PCA/ACA, New Orleans, LA April 1-4, 2015
[Who] Can Write No More?: The Contested Authorship of CM Eddy’s “The Loved Dead”
23. Southwest Meeting of the PCA/ACA, Albuquerque, NM February 11 - 14, 2015
Stylometry and the Seldon Crisis: Can Mathematics detect stylistic changes in Asimov’s Foundation Series?
24. Joint Meeting of the AMS/MAA, San Antonio, TX January 10-13, 2015
Addressing the Contested Authorship of CM Eddy’s “The Loved Dead” using Stylometry
25. Midwestern Popular Culture Association Fall Meeting, Indianapolis, IN October 3-5, 2014
It Came From.....The Fourth Dimension!!: Comic Panels and Higher Dimensions
26. Hudson River Undergraduate Mathematics Conference at Marist College April 26, 2014
It Came from the Fourth Dimension: Visualizing Higher Dimensions via the Art of Comic Books
27. Joint Meeting of the PCA/ACA in Chicago, IL April 18, 2014
The Cosmic Angle Regarding: Mathematics and the Fiction H. P. Lovecraft
28. Popular Culture Conference “American Horror from the Great Depression to the Great Recession” at
College of St. Joseph April 11-12, 2014
Towards a Horrific Ecosystem– Joint with J. Prida
29. Annual Meeting of the Eastern Psychological Association in Boston, MA March 14, 2014
Horrific Ecosystems – Joint with J. Prida
30. Mathematics Conference and Competition of Northern New York at Clarkson University February 28,
2014
Flatland and the Art of Comic Books
31. Joint Meeting of the AMS/MAA in Baltimore, MD January 16, 2014
It Came from the Fourth Dimension: Visualizing Higher Dimensions via the Art of Comic Books
32. *Thriving in a Connected World* Technology Conference at SUNY Canton November 2, 2013
Livescribe and Pen-Capture Devices
33. Popular Culture Conference “Weird Lovecraft” at College of St. Joseph April 12-13, 2013
The Mathematics of H.P. Lovecraft

34. Hudson River Undergraduate Mathematics Conference at Williams College April 6, 2013
Fractals, Chaos, and Newton's Method
35. Faculty Cafe at St. Lawrence University February 15, 2013
Introduction to Stylometry
36. Lecture at the United States Military Academy at West Point May 11, 2012
Differential Equations and the Undead (Invited Talk)
37. Hudson River Undergraduate Mathematics Conference at Western New England University April 21, 2012
Fractals from Circles
38. Popular Culture Conference "The Enduring Barbarian" at College of St. Joseph April 13-14, 2012
Statistics in the Hyborean Age: An Introduction to Stylometry via Conan the Barbarian
39. Spring Topology and Dynamical Systems Conference at Universidad Nacional Autonoma de Mexico, Mexico City, Mexico March 22-24, 2012
Connectedness Locus and Dynamics of Complex 2-Circle Inversion
40. Q-Club talk at St. Lawrence University March 2, 2012
Complex Dynamics and the Mandelbrot Set
41. Joint Meeting of the AMS and MAA in Boston, MA January 5, 2012
Organizing effective Math Club events
42. Special Seminar at Endicott College December 6, 2011
Relationships between Mathematics and Art
43. Dynamics Seminar at Boston University November 21, 2011
General Overview of n -Circle Dynamics
44. Differential Equations across the Curriculum, a conference in honor of Paul Blanchard's 60th Birthday at Gustavus Adolphus College June 23-26, 2011
Some thought on Differential Equations and the Undead in the Classroom (Invited Talk)
45. Clay Institute Workshop: Trends in Complex Dynamics, Cambridge, MA May 17, 2011
Complex Dynamics and 2-Circle Inversions
46. Spring 2011 Pi Mu Epsilon Induction at SUNY Plattsburgh April 27, 2011
Beauty in Chaos: An Introduction to Complex Dynamics and Julia Sets (Invited Talk)
47. Hudson River Undergraduate Mathematics Conference at Skidmore College April 16, 2011
Introduction to Stylometry
48. MAA Seaway Section Meeting at Nazareth College April 2, 2011
Visual Complex Dynamics
49. Spring Topology and Dynamical Systems Conference at The University of Texas at Tyler March 17-19, 2011
Symbolic Dynamics and Bifurcations for a Family of Circle Inversion Maps
50. MAA Mathfest in Pittsburgh, PA August 5-7, 2010
Introduction to Complex Dynamics via Multiple Circle Inversions
51. AIMS Conference on Dynamical Systems, Differential Equations and Applications at Dresden University of Technology in Dresden, Germany May 25-28, 2010
Checkerboard Julia Sets
52. Hudson River Undergraduate Mathematics Conference at Keene State College April 17, 2010
A Parameter Plane for Symmetric Circle Inversion
53. Spring Topology and Dynamical Systems Conference at Mississippi State University March 18-20, 2010
Checkerboard Julia Sets

54. Dynamics Seminar at Boston University March 15, 2010
Some Remarks on the Dynamics of 2-Circle Inversion
55. Mathematics Club talk at SUNY Potsdam November 12, 2009
Mathematics and Horror
56. Q-Club talk at St. Lawrence University October 30, 2009
Mathematics and Horror
57. Hudson River Undergraduate Mathematics Conference April 18, 2009
Symmetric Circle Inversion
58. Mathematics Colloquium at Adelphi University January 18, 2009
A Parameter Plane for Symmetric Circle Inversion
59. Mathematics Colloquium at St. Lawrence University January 3, 2009
A Parameter Plane for Symmetric Circle Inversion
60. Joint Meeting of the AMS/MAA in Washington D.C. January 5-8, 2009
Imaginary Circles and Sierpinski Carpets
61. Dynamics Seminar at Boston University October 27, 2008
Complex Circle Inversions and Sierpinski Carpets
62. Faculty Seminar at Williams College October 3, 2008
Imaginary Circles and Sierpinski Carpets
63. Dynamical Systems and Topology Conference in honor of Robert L. Devaney's 60th Birthday in Tosse de Mar, Catalunya, Spain April 21-25, 2008
Cantor, Apollonius, and Sierpinski: Julia Sets Generated from 3-Circle Inversion Maps (Invited Talk)
64. MAA Allegheny Mountain Section Meeting at the University of Pittsburgh April 11-12, 2008
Cantor, Apollonius, and Sierpinski: Julia Sets Generated from 3-Circle Inversion Maps
65. Mathematics Colloquium at Indiana University of Pennsylvania February 5, 2008
Cantor, Apollonius, and Sierpinski: Julia Sets Generated from 3-Circle Inversion Maps
66. The First Joint Meeting of the American Mathematical Society and the Polskie Towarzystwo Matematyczne at the University of Warsaw in Warsaw, Poland July 31-August 3, 2007
The Dynamics of a Circle Inversion Map
67. Allegheny Section Meeting of the MAA at Mercyhurst College April 13-14, 2007
Introduction to the Mandelbrot Set
68. Spring Topology and Dynamical Systems Conference at University of Missouri at Rolla March 29-31, 2007
The Dynamics of a Circle Inversion Map
69. PA-SSHEMA conference at Bloomsburg University March 23-24, 2007
Dynamics of Circle Inversion
70. Mathematics Colloquium at Bates College March 14, 2007
Introduction to Complex Dynamics via the Quadratic Map and a Circle Inversion Map
71. Spring Southeastern Section Meeting of the AMS at Davidson College March 3-4, 2007
The Dynamics of a Circle Inversion Map
72. Complex Analysis course meeting at Indiana University of Pennsylvania March 1, 2007
Introduction to Complex Dynamics
73. Mathematics Colloquium at Juniata College November 6, 2006
Beauty in Chaos: An Introduction to Complex Dynamics and Julia Sets

74. MAA Alleghany Mountain Section Meeting at Juniata College April 7-8, 2006
Sierpinski Curve Julia Sets for the Weierstrass Elliptic \wp -Function
75. SSHE-MA Conference at Edinboro University of Pennsylvania March 31-April 1, 2006
Buried Sierpinski Curve Julia Sets
76. Spring Topology and Dynamical Systems Conference at University of North Carolina at Greensboro March 23-25, 2006
Sierpinski Curve Julia Sets for the Weierstrass Elliptic \wp -Function
77. Mathematics Colloquium at Indiana University of Pennsylvania February 23, 2006
Geometry Gone Wild: An Introduction to Complex Dynamics and Julia Sets
78. Mathematics Colloquium at Indiana University of Pennsylvania October 18, 2005
Buried Sierpinski Curve Julia Sets
79. Mathematics Seminar at Colby College March 30, 2005
Beauty from Chaos: Complex Dynamics and the Mandelbrot Set
80. Mathematics Seminar at Indiana University of Pennsylvania March 21, 2005
An Escape Trichotomy for Singularly Perturbed Polynomials
81. Spring Topology and Dynamical Systems Conference at Berry College March 19, 2005
Buried Sierpinski curve Julia sets
82. Topology and Dynamics Seminar at University of Alabama at Birmingham March 16, 2005
Buried Sierpinski curve Julia sets
83. Dynamics Seminar at Boston University March 14, 2005
Thesis Defense
84. Analysis and Probability Seminar at University of Connecticut March 2, 2005
An Escape Trichotomy for Singularly Perturbed Polynomials
85. Mathematics Seminar at Bowdoin College February 21, 2005
Beauty from Chaos: Complex Dynamics and the Mandelbrot Set
86. Workshop on Holomorphic Dynamics at the University of Warwick, UK December 9, 2004
An Escape Trichotomy for Singularly Perturbed Polynomials
87. Northeastern Section Meeting for the Mathematical Association of America at the Worcester Polytechnic Institute November 20, 2004
An Escape Trichotomy for Singularly Perturbed Polynomials
88. Mathematics Colloquium at the University of Maine November 11, 2004
An Escape Trichotomy for Singularly Perturbed Polynomials
89. Midwest Dynamical Systems Seminar at the University of Cincinnati October 23, 2004
An Escape Trichotomy for Singularly Perturbed Polynomials
90. Mathematics Seminar at Tufts University April 30, 2004
The Dynamics of Circle Inversion
91. Complex Analysis course meeting at Tufts University April 30, 2004
Apollonian Gaskets and Circle Inversion
92. Spring Topology and Dynamical Systems Conference at the University of Alabama, Birmingham March 25, 2004
An Escape Trichotomy for Singularly Perturbed Polynomials
93. Dynamics Seminar at Boston University March 15, 2004
An Escape Trichotomy for Singularly Perturbed Polynomials
94. Graduate Student Dynamics Seminar at Boston University March 15, 2004
Complex Dynamics and Circle Inversions

Conferences (*Attended but did not Present*)

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|---|------------------|
| 1. MAA Mathfest <i>via Zoom</i> | August 3-6, 2022 |
| 2. MAA Mathfest <i>via Zoom</i> | August 4-7, 2021 |
| 3. Spring Topology and Dynamical Systems Conference <i>via Zoom</i> | May 11-15, 2021 |
| 4. Course Hero Virtual Education Summit '20 <i>via Zoom</i> | July 29-31, 2020 |

Talks (*non-professional*)

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| 1. Nerdfest III at The Wind Up Space, Baltimore, MD
<i>To the Third Dimension..and Beyond! or Doctor Dan's Adventures in Dimension</i> | June 6, 2009 |
| 2. Nerdfest II held at Load of Fun Studios, Baltimore, MD
<i>Infinity</i> | May 17, 2008 |
| 3. Beware the Pides of March held at The Sidebar Tavern, Baltimore, MD
<i>Pi</i> | March 13, 2008 |
| 4. Nerdfest held at The Hamilton Arts Collective, Baltimore, MD
<i>Fractals</i> | April 7, 2007 |

Outreach Activities

- SOAR Class *September 24 and October 1, 2021*
Taught a two-session course on the intersection of Mathematics and Art open to community members
- Mathfest *August 4-7, 2021*
Judged Undergraduate Poster Competition
- SOAR Class *September 12 and 19, 2018*
Taught a two-session course on Stylometry open to community members
- International Science and Engineering Fair at SUNY Potsdam *March 11, 2017*
Coordinated a team of four Science Fair Judges in the Middle School category
- Science Cafe Potsdam, NY and Canton, NY *October 15-16, 2013*
Gave a talk on stylometry open to community members
- Mathematics Faculty for Upward Bound Regional Math/Science Program *Summers 1997-2010*
Coordinated Mathematics and Statistics for the Upward Bound summer program
- Mathematics Field Day at Boston University *October 29, 2002; October 29, 2003; October 28, 2008; October 27, 2010*
Gave a presentation on Knot Theory to roughly 600 High School students

- Joint Meeting for the AMS/MAA 2007-2009
Judged Undergraduate Poster Competition
- M.I.T. Splash November 22 and 23, 2008
Taught four short-courses to highly-motivated 7-12 grade students
- Indiana University of Pennsylvania Science Festival May 5, 2006, May 4, 2007, and May 2, 2008
Gave a presentation on Fractals for participating High School students
- ARIN Mentorship at Indiana University of Pennsylvania Spring 2006 and Spring 2008
Presented material on Knot Theory, Chaos, and Fractals to High School participants
- Mathematics Career Talk at Indiana High School October 20, 2005
Spoke on the field of mathematics and mathematics careers
- Mathmeet 2004 at Colby College November 6, 2004
Aided undergraduate mathematics team with Putnam competition style problems

Professional Societies

- Popular Culture Association/American Culture Association
- International Association for the Fantastic in the Arts
- American Mathematical Society
- Mathematical Association of America
- Sigma Xi (Scientific Research Society)
- Phi Kappa Phi (Honors Society)
- Pi Mu Epsilon (Honorary National Mathematics Society)