Curriculum Vita for Scott Baldridge

Loretta Cox Stuckey and Dr. James G. Traynham Distinguished Professor
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Social Media: Website: www.scottbaldridge.net
Twitter: @scottbaldridge (25,500 current followers)
@scistate (16,000 current followers)
Facebook Page: scottjbaldridge (7,000 current followers)
LinkedIn: Scott Baldridge (25,000 current followers)
Youtube: ScottBaldridge (160,000 views with 1400 subscribers)

Academic Degrees

Ph.D.	2001 Michigan State University, thesis advisor: Ronald Fintushel
M.S.	1996 Michigan State University, Mathematics
B.S.	1993 Kettering University, Information Systems, Magna Cum Laude

Interests

Mathematics:	Geometric Topology and Differential Geometry
Physics:	Gauge Theory, Quantum Field Theory, and String Theory
Philosophy:	Metaphysics, Epistemology, Ethics and Deontology, and Logic
Education:	Knowledge Engineering, Curriculum Design, and Mathematical Knowledge for Teachers

Professional Experience

2015–	Loretta Cox Stuckey and Dr. James G. Traynham Distinguished Professor, Louisiana State University, Department of Mathematics
2015–	Associate Director, The Gordon A. Cain Center for Scientific, Technological, Engineering and Mathematical Literacy, Louisiana State University
2012–15	Lead Author and Lead Mathematician, Eureka Math/EngageNY Curriculum
2012–15	Common Core Fellow in Mathematics, Great Minds
2010	Research Member, Mathematical Sciences Research Institute, Spring Program
2009–15	Associate Professor, Louisiana State University, Department of Mathematics
2004–09	Assistant Professor, Louisiana State University, Department of Mathematics
2003	Research Fellow, Institute for Pure and Applied Mathematics.
2001–04	VIGRE Postdoctoral Fellow, Indiana University at Bloomington, Mathematics Department
1995–01	Teaching Assistant, Michigan State University, Mathematics Department
1994–95	Problem editor and illustrator, Connected Mathematics Project

Publications and Books

Published/Accepted or in Revision

1. S. Baldridge and B. McCarty, *A new way to prove configuration reducibility using gauge theory*, submitted, (2024), 1-22.
2. S. Baldridge and B. McCarty, *Quantum state systems that count perfect matchings*, submitted, (2024), 1-54.
3. S. Baldridge, L. Kauffman, and B. McCarty, *A state sum for the total face color polynomial*, submitted, (2023), 1-19.
4. S. Baldridge and B. McCarty, *A topological quantum field theory approach to graph coloring*, submitted, (2023), 1-103.
5. S. Baldridge, L. Kauffman, and W. Rushworth, *On ribbon graphs and virtual links*, European Journal of Combinatorics, **103**, (2022), 103520, arXiv:2010.04238 [math.GT], 1-35.
6. S. Baldridge, L. Kauffman, and B. McCarty, *Unoriented Khovanov homology*, The New York Journal of Mathematics, **28**, (2022), 367-401.
7. S. Baldridge, B. McCarty, and D. Shea Vela-Vick, *Lifting Lagrangian immersions in $\mathbb{CP}^{n-1}$ to Lagrangian cones in $\mathbb{C}^n$*, The Open Book Series, **5** (2022), no. 1, 43–79.
8. S. Baldridge, A. Lowrance, B. McCarty, *The 2-factor polynomial detects even perfect matchings*, The Electronic Journal of Combinatorics, **27**, (2020), no. 2, #P2.27, 1–16.
9. S. Baldridge, *A new cohomology theory for planar trivalent graphs with perfect matchings*, submitted, arXiv:1810.07302v2, (2020), 1-57.
10. S. Baldridge and J. Madden, *Notes on quantity and measurement*, September 2017, pages 1-11.
11. S. Baldridge and B. McCarty, *On the rotation class of knotted Legendrian tori in $\mathbb{R}^5$*, Topology and its Applications, **209** (2016), 91-114.
12. S. Baldridge and P. Kirk, *Coisotropic Luttinger surgery and some new symplectic 6-manifolds with vanishing canonical class*, Indiana Univ. Math. J. **62** (2013), 1457-1471.
13. S. Baldridge and A. Lowrance, *Cube diagrams and 3-dimensional Reidemeister-like moves for knots*, Journal of Knot Theory and Its Ramifications, **21** (2012) no. 5.
14. A. Akhmedov, S. Baldridge, I. Baykur, P. Kirk, and B. D. Park, *Simply connected minimal symplectic 4-manifolds with signature less than –1*, Journal of the European Mathematical Society, **12** (2010), no. 1, 133-161.
15. S. Baldridge and B. McCarty, *Small examples of cube diagrams of knots*, Topology Proceedings, **36** (2010), 213-228.
16. S. Baldridge and P. Kirk, *Constructions of small symplectic 4-manifolds using Luttinger surgery*, Journal of Differential Geometry, **82** (2009) no. 2, 317–361.

17. S. Baldridge and P. Kirk, *A symplectic manifold homeomorphic but not diffeomorphic to* $\mathbb{CP}^2\#3\overline{\mathbb{CP}}^2$, Geometry & Topology 12 (2008), 919–940.

18. S. Baldridge and P. Kirk, *Symplectic 4-manifolds with arbitrary fundamental group near the Bogomolov-Miyaoka-Yau Line,* Journal of Symplectic Geometry, **4** (2006), no. 1, 63–70. 53D35 (14Jxx 57R17).

19. S. Baldridge and P. Kirk, *On symplectic 4-manifolds with prescribed fundamental group*, Commentarii Mathematici Helvetici, **82** (2007) no. 4, 845–843.

20. S. Baldridge and T. Parker, *Elementary Geometry for Teachers*, Okemos, MI: Sefton-Ash Publishing, (2008) xii+258 pages.

21. S. Baldridge and T.J. Li, *Geography of symplectic 4–manifolds with Kodaira dimension one*, Algebraic and Geometric Topology, **5** (2005), 355-368.

22. S. Baldridge, *New symplectic* 4*–manifolds with* $b_+=1$, Mathematische Annalen **333** (2005) 633-643.

23. S. Baldridge, *Seiberg–Witten vanishing theorem for* S^1*–manifolds with fixed points*, Pacific Journal of Mathematics, **217** (2004), no. 1, 1–10.

24. T. Parker and S. Baldridge, *Elementary Mathematics for Teachers*, Okemos, MI: Sefton-Ash Publishing, (2004) x+237 pages.

25. S. Baldridge, *Seiberg–Witten invariants, orbifolds, and circle actions*, Transactions of the American Mathematical Society **355** (2002), no. 4, 1669 – 1697.

26. S. Baldridge, *Seiberg–Witten invariants of* 4*-manifolds with free circle actions*, Commun. Contemp. Math, **3** (2001), 341 – 353.

27. S. Baldridge, Thesis. Michigan State University, May 2001.

EngageNY/Eureka Math PK-12 Curriculum

I was the Lead Author and Lead Mathematician for a national PK-12 mathematics curriculum based upon the Common Core State Standards. It is the first complete curriculum designed to meet the Common Core State Standards in all grades and includes teacher lesson plans, student textbooks, homework sets, and student assessments. The curriculum is produced through Great Minds, Inc. All 45,000 pages of the curriculum were initially created for New York and are freely available to download at engageNY.org/mathematics; the national version of the curriculum is called Eureka Math, and is available at GreatMinds.org. The curriculum has been downloaded over **20 million times** from these websites. In April 2016, a RAND Corporation study found that **57% of elementary teachers** in the United States and **47% of secondary teachers** use Eureka Math/EngageNY in their classrooms. The curriculum splits into three works: *A Story of Units* in grades PK-5, *A Story of Ratios* in grades 6-8, and *A Story of Functions* in grades 9-12.

Overview Documents

28. Scott Baldridge, Jill Diniz, *A Story of Functions: Curriculum Map and Overview 9-12 Mathematics*, Albany, NY: Engage New York, (2012) 53 pages. Available at:

www.engageny.org/sites/default/files/resource/attachments/a_story_of_functions_currriculum_map_and_overview_9-12.pdf

29. Scott Baldridge, Jill Diniz, *A Story of Ratios: A Curriculum Overview for Grades 6-8*, Albany, NY: Engage New York, (2012) 31 pages. Available at:

    www.engageny.org/sites/default/files/resource/attachments/a-story-of-ratios-a-curriculum-overview-for-grades-6-8.pdf

30. Scott Baldridge, Robin Ramos, *How to Implement "A Story of Units,"* Albany, NY: Engage New York, (2012) 45 pages. Available at:

    www.engageny.org/sites/default/files/resource/attachments/how_to_implement_a_story_of_units.pdf

31. Scott Baldridge, Robin Ramos, *A Story of Units: A Curriculum Overview for Grades P-5*, Albany, NY: Engage New York, (2012) 63 pages. Available at:

    https://www.engageny.org/file/8776/download/a-story-of-units-a-curriculum-overview-and-map-for-grades-p-5.pdf

Kindergarten

32. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade K, Module 1: Numbers to 10*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 368 pages. ISBN:978-1-118-81131-3

33. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade K, Module 2: Two-Dimensional and Three-Dimensional Shapes*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 96 pages. ISBN: 978-1-118-79358-9

34. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade K, Module 3: Comparison of Length, Weight, Capacity, and Numbers to 10*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 312 pages. ISBN: 978-1-118-79350-3

35. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade K, Module 4: Number Pairs, Addition and Subtraction to 10*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 432 pages. ISBN: 978-1-118-81120-7

36. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade K, Module 5: Numbers 10-20 and Counting to 100*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 256 pages. ISBN: 978-1-118-79338-1

37. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade K, Module 6: Analyzing, Comparing, and Composing Shapes*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 120 pages. ISBN: 978-1-118-81121-4

First Grade

38. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 1, Module 1: Sums and Differences to 10*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 496 pages. ISBN: 978-1-118-79285-8

39. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 1, Module 2: Introduction to Place Value Through Addition and Subtraction Within 20*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 384 pages. ISBN: 978-1-118-79336-7

40. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 1, Module 3: Ordering and Comparing Length Measurements as Numbers*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 192 pages. ISBN: 978-1-118-81138-2

41. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 1, Module 4: Place Value, Comparison, Addition and Subtraction to 40*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 400 pages. ISBN: 978-1-118-81124-5

42. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 1, Module 5: Identifying, Composing, and Partitioning Shapes.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 208 pages. ISBN: 978-1-118-81133-7

43. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 1, Module 6: Place Value, Comparison, Addition and Subtraction to 100.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 376 pages. ISBN: 978-1-118-81132-0

Second Grade

44. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 2, Module 1: Sums and Differences to 20.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 136 pages. ISBN: 978-1-118-79293-3

45. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 2, Module 2: Addition and Subtraction of Length Units.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 144 pages. ISBN: 978-1-118-79363-3

46. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 2, Module 3: Place Value, Counting, and Comparison of Numbers to 1,000.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 296 pages. ISBN: 978-1-118-79349-7

47. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 2, Module 4: Addition and Subtraction Within 200 with Word Problems to 100.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 416 pages. ISBN: 978-1-118-79345-9

48. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 2, Module 5: Addition and Subtraction Within 1,000 with Word Problems to 100.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 288 pages. ISBN: 978-1-118-81122-1

49. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 2, Module 6: Foundations of Multiplication and Division.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 288 pages. ISBN: 978-1-118-81141-2

50. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 2, Module 7: Problem Solving with Length, Money, and Data.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 384 pages. ISBN: 978-1-118-81158-0

51. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 2, Module 8: Time, Shapes, and Fractions as Equal Parts of Shapes.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 256 pages. ISBN: 978-1-118-86256-8

Third Grade

52. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 3, Module 1: Properties of Multiplication and Division and Solving Problems with Units of 2-5 and 10.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 288 pages. ISBN: 978-1-118-79295-7

53. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 3, Module 2: Place Value and Problem Solving with Units of Measure*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 296 pages. ISBN: 978-1-118-79360-2

54. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 3, Module 3: Multiplication and Division with Units of 0, 1, 6-9, and Multiples of 10*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 288 pages. ISBN: 978-1-118-79342-8

55. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 3, Module 4: Multiplication and Area*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 224 pages. ISBN: 978-1-118-81149-8

56. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 3, Module 5: Fractions as Numbers on the Number Line*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 384 pages. ISBN: 978-1-118-79411-1

57. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 3, Module 6: Collecting and Displaying Data*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 152 pages. ISBN: 978-1-118-81161-0

58. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 3, Module 7: Geometry and Measurement Word Problems*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 472 pages. ISBN: 978-1-118-81147-4

Fourth Grade

59. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 4, Module 1: Place Value, Rounding, and Algorithms for Addition and Subtraction.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 264 pages. ISBN: 978-1-978-1-118-79296-4

60. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 4, Module 2: Unit Conversions and Problem Solving with Metric Measurement*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 96 pages. ISBN: 978-1-118-79351-0

61. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 4, Module 3: Multi-Digit Multiplication and Division*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 504 pages. ISBN: 978-1-118-79367-1

62. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 4, Module 4: Angle Measure and Plane Figures*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 288 pages. ISBN: 978-1-118-81160-3

63. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 4, Module 5: Fraction Equivalence, Ordering and Operations*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 552 pages. ISBN: 978-1-118-81126-9

64. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 4, Module 6: Decimal Fractions*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 272 pages. ISBN: 978-1-118-81142-9

65. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 4, Module 7: Exploring Multiplication*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 256 pages. ISBN: 978-1-118-81137-5

Fifth Grade

66. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics: A Story of Units, Grade 5, Module 1: Place Value and Decimal Fractions*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 256 pages. ISBN: 978-1-118-79297-1

67. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 5, Module 2: Multi-Digit Whole Number and Decimal Fraction Operations.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 392 pages. ISBN: 978-1-118-79369-5

68. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 5, Module 3: Addition and Subtraction of Fraction.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 256 pages. ISBN: 978-1-118-79371-8

69. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 5, Module 4: Multiplication and Division of Fractions and Decimal Fractions.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 512 pages. ISBN: 978-1-118-79354-1

70. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 5, Module 5: Addition and Multiplication with Volume and Area.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 320 pages. ISBN: 978-1-118-81139-9

71. Scott Baldridge, Ben McCarty, Robin Ramos, *Common Core Mathematics, A Story of Units: Grade 5, Module 6: Problem Solving with the Coordinate Plane.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 440 pages. ISBN: 978-1-118-81129-0

Sixth Grade

72. Scott Baldridge, Erika Silva, *Common Core Mathematics, A Story of Ratios: Grade 6, Module 1: Ratios and Unit Rates.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 424 pages. ISBN: 978-1-118-79347-3

73. Scott Baldridge, Erika Silva, *Common Core Mathematics, A Story of Ratios: Grade 6, Module 2: Arithmetic Operations Including Division of Fractions.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 336 pages. ISBN: 978-1-118-81127-6

74. Scott Baldridge, Erika Silva, *Common Core Mathematics, A Story of Ratios: Grade 6, Module 3: Rational Numbers.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 320 pages. ISBN: 978-1-118-81131-3

75. Scott Baldridge, Erika Silva, *Common Core Mathematics, A Story of Ratios: Grade 6, Module 4: Expressions and Equations.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 608 pages. ISBN: 978-1-118-81117-7

76. Scott Baldridge, Erika Silva, *Common Core Mathematics, A Story of Ratios: Grade 6, Module 5: Area, Surface Area, and Volume Problems.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 528 pages. ISBN: 978-1-118-81123-8

77. Scott Baldridge, Henry Kranendonk, Roxy Peck, *Common Core Mathematics, A Story of Ratios: Grade 6, Module 6: Statistics.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 448 pages. ISBN: 978-1-118-79343-5

Seventh Grade

78. Scott Baldridge, Anne Netter, Julie Wortmann, *Common Core Mathematics, A Story of Ratios: Grade 7, Module 1: Ratios and Proportional Relationships.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 376 pages. ISBN: 978-1-118-79356-5

79. Scott Baldridge, Anne Netter, Julie Wortmann, *Common Core Mathematics, A Story of Ratios: Grade 7, Module 2: Rational Numbers.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 448 pages. ISBN: 978-1-118-81115-3

80. Scott Baldridge, Anne Netter, Julie Wortmann, *Common Core Mathematics, A Story of Ratios: Grade 7, Module 3: Expressions and Equations.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 592 pages. ISBN: 978-1-118-81111-5

81. Scott Baldridge, Anne Netter, Julie Wortmann, *Common Core Mathematics, A Story of Ratios: Grade 7, Module 4: Percent and Proportional Relationships.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 448 pages. ISBN: 978-1-118-81113-9

82. Scott Baldridge, Henry Kranendonk, Roxy Peck, *Common Core Mathematics, A Story of Ratios: Grade 7, Module 5: Statistics and Probability.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 520 pages. ISBN: 978-1-118-81112-2

83. Scott Baldridge, Pia Mohsen, David Wright, *Common Core Mathematics, A Story of Ratios: Grade 7, Module 6: Geometry.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 512 pages. ISBN: 978-1-118-81109-2

Eighth Grade

84. Scott Baldridge, Stefanie Hassan, *Common Core Mathematics, A Story of Ratios: Grade 8, Module 1: Integer Exponents and Scientific Notation.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 240 pages. ISBN: 978-1-118-79370-1

85. Scott Baldridge, Stefanie Hassan, *Common Core Mathematics, A Story of Ratios: Grade 8, Module 2: The Concept of Congruence.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 336 pages. ISBN: 978-1-118-81102-3

86. Scott Baldridge, Stefanie Hassan, *Common Core Mathematics, A Story of Ratios: Grade 8, Module 3: Similarity.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 304 pages. ISBN: 978-1-118-81107-8

87. Scott Baldridge, Stefanie Hassan, *Common Core Mathematics, A Story of Ratios: Grade 8, Module 4: Linear Equations.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 736 pages. ISBN: 978-1-118-81104-7

88. Scott Baldridge, Stefanie Hassan, *Common Core Mathematics, A Story of Ratios: Grade 8, Module 5: Examples of Functions from Geometry.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 272 pages. ISBN: 978-1-118-81082-8

89. Scott Baldridge, Henry Kranendonk, Roxy Peck, *Common Core Mathematics, A Story of Ratios: Grade 8, Module 6: Linear Functions.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 360 pages. ISBN: 978-1-118-81097-2

90. Scott Baldridge, Stefanie Hassan, *Common Core Mathematics, A Story of Ratios: Grade 8, Module 7: Introduction to Irrational Numbers Using Geometry.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 520 pages. ISBN: 978-1-118-81100-9

Algebra I

91. Scott Baldridge, Jill Diniz, *Common Core Mathematics, A Story of Functions: Algebra I, Module I: Relationships Between Quantities and Reasoning with Equations and Their Graphs.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 560 pages. ISBN: 978-1-118-79376-3

92. Scott Baldridge, Henry Kranendonk, Roxy Peck, *Common Core Mathematics, A Story of Functions: Algebra 1, Module 2: Descriptive Statistics.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 432 pages. ISBN: 978-1-118-79364-0

93. Scott Baldridge, Jill Diniz, *Common Core Mathematics, A Story of Functions: Algebra I, Module 3: Linear and Exponential Functions.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2014, 544 pages. ISBN: 978-1-118-81114-6

Geometry

94. Scott Baldridge, Pia Mohsen, *Common Core Mathematics, A Story of Functions: Geometry, Module 1: Congruence, Proof, and Constructions*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2013, 528 pages. ISBN: 978-1-118-79368-8

95. Scott Baldridge, Stefanie Hassan, Pia Mohsen, *Eureka Math, A Story of Functions: Geometry, Module 2: Similarity, Proof, and Trigonometry.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2015, 800 pages. ISBN: 978-1-118-81144-3

96. Scott Baldridge, Pia Mohsen, *Eureka Math, A Story of Functions: Geometry, Module 3: Extending to Three Dimensions.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2015, 352 pages. ISBN: 978-1-118-81140-5

97. Scott Baldridge, Pam Goodner, *Eureka Math, A Story of Functions: Geometry, Module 4: Connecting Algebra and Geometry through Coordinates.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2015, 350 pages. ISBN: 978-1-118-81164-1

98. Scott Baldridge, Pam Goodner, *Eureka Math, A Story of Functions: Geometry, Module 5: Circles with and Without Coordinates.* Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2015, 496 pages. ISBN: 978-1-118-81146-7

Algebra II

99. Scott Baldridge, Chris Black, *Eureka Math, A Story of Functions: Algebra II, Module 1: Polynomial, Rational, and Radical Relationships*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2015, 511 pages. ISBN: 978-1-118-81136-8

100. Scott Baldridge, Chris Black, *Eureka Math, A Story of Functions: Algebra II, Module 2: Trigonometric Functions*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2015, 327 pages. ISBN: 978-1-118-81163-4

101. Scott Baldridge, Chris Black, *Eureka Math, A Story of Functions: Algebra II, Module 3: Exponential and Logarithmic Functions*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2015, 597 pages. ISBN: 978-1-118-81157-3

102. Scott Baldridge, Henry Kranendonk, Roxy Peck, *Eureka Math, A Story of Functions: Algebra II, Module 4: Inferences and Conclusions from Data*. Washington D.C: Common Core, Inc. [producer]. Indianapolis, IN: Jossey-Bass, 2015, 672 pages. ISBN: 978-1-118-81151-1

Preprints and In Preparation

103. S. Baldridge, 2-*isomorphism invariants of trivalent ribbon graphs*, in preparation.

104. S. Baldridge, *The k-factor polynomial of regular ribbon graphs*, in preparation.

105. S. Baldridge, *A cohomological field theory for the decorated moduli space of smooth stable curves*, in preparation.

106. S. Baldridge, *Embedded and Lagrangian Knotted Tori in $\mathbb{R}^4$ and Hypercube Homology*, arXiv:1010.3742v1 [math.GT].

107. S. Baldridge and P. Kirk, *Luttinger Surgery and interesting symplectic 4-manifolds with small Euler characteristic*, arXiv:math/0701400v2 [math.GT].

108. S. Baldridge, *Eureka Math/EngageNY Definitions Progressions*, preprint (126 pages).

109. S. Baldridge, *Representations of Curriculum Knowledge using Description Logic*, in preparation.

110. S. Baldridge, *A new genre of mathematics curricula in the US: the epic curriculum*, preprint (8 pages).

Social Media and Multimedia

111. Scott Baldridge, *Blog and website*. The ScottBaldridge.net website has the following active channels: *Engineering School Mathematics*, *Growing up with Eureka*, *Geometry and Topology Today*, *Baldridge Theorems*, and *News to Me*. **There are 75+ articles that have been posted on the website since inception, and those articles have been view over 75,000 times.** Articles include news events, papers, and videos about the Eureka Math/EngageNY curriculum, my research in mathematics, my research in knowledge engineering (education), and science outreach.

112. Scott Baldridge, Autumn Baldridge, *Growing up with Eureka Video Series*. In this video series, I explore PK-16 mathematics with my (then) 7-year old daughter, Autumn. The goal of the videos is to show teachers and parents positive ways of interacting with their children around the mathematics in the Eureka Math/EngageNY curriculum. Autumn and I write, film, and produce the videos together. **The 21+ youtube videos have been viewed over 157,000 times.** This series can be viewed at:

    `http://scottbaldridge.net/growing-up-with-eureka/`

113. Scott Baldridge, David Shea Vela-Vick, $\langle Sci|State\rangle$ *Video Series.* This video series includes *Geometry and Topology Today* videos, $\langle Sci|State\rangle$ *Science* videos, $\langle Sci|State\rangle$ *Engineering* videos, $\langle Sci|State\rangle$ *Knowledge Engineering* videos, etc. This video series was created by Shea Vela-Vick and me to showcase research scientists and their research at three levels: general audience (high school), undergraduate/graduate, and post-graduate. **The 15+ youtube videos have been viewed over 20,000+ times.** Some of the videos can be viewed at:

    `http://scottbaldridge.net/geometry-and-topology-today/`, or
    `http://www.scistate.com/`

Computer Programs and Non-mathematical Publications

114. S. Baldridge, A. Lowrance. *Cube Knot Calculator*, (Mathematica software), [Computer Program] (2010), http://cubeknots.googlecode.com.

115. S. Baldridge, T. Parker, *Instructor Resources: Elementary Mathematics for Teachers*, [Computer Program and website] (2009), www.elementarymathforteachers.com.

116. S. Baldridge, *Multivariable Alexander Polynomial Calculator for Mathematica*, (Mathematica software), [Computer Program], (1999).

117. S. Baldridge, *Experiments in measuring uncertainty*, Steelcase Inc., (1996), 1–17.

118. S. Baldridge, *Employee Development System*, (ObjectPal, C++), [Computer Program], Whirlpool Corporation, (1993). Includes a 156 page user guide.

119. S. Baldridge, *WIK System*, (EIS Commander, Pascal), [Computer Program], Whirlpool Corporation, (1991).

120. S. Baldridge, *NetQuest System*, (Nomad2), [Computer Program], Whirlpool Corporation, (1989).

121. S. Baldridge, *Teacher Gradebook Module*, (TurboBasic), [Computer Program], Surfside Software, Inc., Massachusetts, (1987). Includes a 46 page user guide. (I started writing this program when I was 15; it sold nationally and paid for my college education.)

Doctoral Thesis Students

1. Adam Lowrance, Ph.D. (2009). Adam is an Associate Professor of Mathematics at Vassar College. He was a VIGRE postdoc at University of Iowa.

2. Ben McCarty, Ph.D. (2012). Ben is an Associate Professor of Mathematics in the Department of Mathematics at the University of Memphis. Ben was part of my leadership team on grades PK-5 of the Eureka Math/EngageNY math curriculum. He served as the mathematician who helped me oversee the design and writing of the modules in these grades. He is also a well-known mathematician in topology and graph theory.

3. Peter Lambert-Cole, Ph.D. (2014). Peter is a (tenure track) Assistant Professor of Mathematics at University of Georgia. He was a postdoc at Georgia Tech and a Zorn Postdoc at Indiana University. In Fall 2013, Peter was awarded the Pasquale Porcelli Award for Graduate Research Excellence, an award that recognizes students who show the greatest promise of making significant contributions to mathematical research.

4. Ryan Leigon, Ph.D. (2021). Ryan's work is in establishing connections between contact geometry and bordered Floer homology.

5. Sudipta Ghosh, Ph.D. (2022). Sudipta's work is on sutured monopole and instant Floer homologies. Sudipta won a Dissertation Year Fellowship from LSU. Only seven such fellowships are given out each year amongst *all* graduate students in all colleges at LSU. In Fall 2021, Sudipta was awarded the Pasquale Porcelli Award for Graduate Research Excellence, an award that recognizes students who show the greatest promise of making significant contributions to mathematical research. He is currently a postdoc at Notre Dame.

6. Amit Kumar, Ph.D. (2024). Amit discovered one of the four gauge-theoretic approaches to the four color theorem in the literature. It uses a topological field theory with defect on CW structures of surfaces.

7. Nilangshu Bhattacharyya (currently a student). Nilu is working on stable homotopy theory of Khovanov homology and its relationship to 2-factor homology.

8. Colton Sandvik (currently a student). Colton is working in representation theory and problems that use constructible sheaves (microlocal sheaves).

9. Kiran Bist (currently a student). She uses neural networks to look for solutions to the Fokker-Planck equations.

10. Gurleenkaur Nanda (currently a student). She is working with Anton Zeitlin and me on spontaneous symmetry breaking in supersymmetry (SUSY) theories.

11. Benjamin Appiah (currently a studentd). Ben is working on topological quantum field theories of ribbon graphs.

12. Krishnendu Kar (currently a student). Krishnendu is working on stable homotopy of virtual knots and links.

Post-Doctoral Students Advised

1. Agniva Roy (2023-2024). Agniva works in contact and symplectic geometry. He obtained a second postdoc at Boston College starting in 2024.

University or Distinguished Lectures

Feb. 2020	Lead Speaker, Louisiana/Mississippi Section of the MAA, Annual Meeting, New Orleans, LA.
Apr. 2018	Invited Lead Speaker, National Council of Mathematics Teachers Annual Meeting, Washington, DC.
Feb. 2018	Keynote Speaker, The 45th Annual Conference of Research Council on Mathematics Learning, Baton Rouge, LA.
Nov. 2016	Invited Speaker, WSU Mathematics and Statistics Department Distinguished Lecture Series, Winona State University
Aug. 2015	Invited Speaker, Hugo Rossi Lecture Series, University of Utah
Sept. 2011	Keynote Speaker, LaGear UP Conference, Baton Rouge, LA
Apr. 2010	University Lecture, Arizona State University.

Recent Invited Lectures and Colloquiums (200+ Lectures)

Jan. 2025	Invited Speaker, Braver Angels, Baton Rouge, LA
Dec. 2024	Invited Speaker, Knots, Graphs, and Groups Seminar, Moscow, Russia
Oct. 2024	Invited Speaker, Topology Seminar, Georgia Tech, Atlanta, GA
Oct. 2024	Invited Speaker, Graduate Student Seminar, Georgia Tech, Atlanta, GA
Oct. 2024	Invited Speaker, Topology Seminar, Michigan State University, East Lansing, MI
Oct. 2024	Invited Speaker, Gauge Theory Seminar, Harvard, Boston, MA
Sep. 2024	Invited Speaker, LSU Math Club, Baton Rouge, LA
Sep. 2024	Invited Speaker, HxA Workshop: Protecting HxA Values on Campus, New York City, NY
Sep. 2024	Invited Speaker, Topology Seminar, Johns Hopkins University, Baltimore, MD
Sep. 2024	AMS Special Session on Differential Geometry, San Antonio, TX
Aug. 2024	Invited Panelist, Richmond Geometry Conference, Virginia Commonwealth University
Aug. 2024	Invited Speaker, Richmond Geometry Conference, Virginia Commonwealth University

Apr. 2024	Presenter, Faculty Senate Resolution 24-01, Louisiana State University, Baton Rouge, LA
Apr. 2024	Invited Panelist, Destination LSU, Louisiana State University, Baton Rouge, LA
Apr. 2024	Colloquium Speaker, Department of Mathematics, University of Southern Alabama, AL
Apr. 2024	Colloquium Speaker, Department of Mathematics, University of Memphis, TN
Mar. 2024	Invited Speaker, Combinatorics Seminar, University of Memphis, TN
Feb. 2024	Invited Speaker, Topology Seminar, University of Illinois Urbana-Champaign, IL
Feb. 2024	Invited Speaker, Combinatorics Seminar, Louisiana State University, LA
Feb. 2024	Invited Speaker, Topology Seminar, University of Glasgow, Scotland
Jan. 2024	Colloquium Speaker, Royal Holloway University of London, England
Jan. 2024	Invited Speaker, Topology Seminar, Mathematical Institute, Oxford University, England
Nov. 2023	Invited Speaker, Graduate Student Colloquium (Part III), University of Memphis, TN
Oct. 2023	Invited Speaker, Graduate Student Colloquium (Part II), University of Memphis, TN
Oct. 2023	Invited Speaker, Graduate Student Colloquium (Part I), University of Memphis, TN
Oct. 2023	Invited Speaker, Topology Seminar, Stanford University
Oct. 2023	Invited Speaker, Quantum Topology Seminar, University of Illinois at Chicago, IL
Aug 2023	Invited Speaker, International Math Circle, Moscow, Russia
Aug 2023	Invited Speaker, Knots, Graphs, and Groups Seminar, Moscow, Russia
July 2023	Invited Speaker, International Math Circle, Moscow, Russia
July 2023	Invited Speaker, Knots and Representation Theory Seminar, Lomonosov Moscow State Technical University
Jun. 2023	Invited Panelist, SEC Geometry and Topology Workshop, University of Alabama, Tuscaloosa, AL
Apr. 2023	Invited Speaker, Topology Seminar, University of New York at Binghamton, Binghamton, NY
Apr. 2023	AMS Special Session on Combinatorial and Geometric Knot Theory, Cincinnati, OH
May 2023	Invited Speaker, Knots and Representation Theory Seminar, Lomonosov Moscow State Technical University
Mar. 2023	Invited Panelist, Destination LSU, Louisiana State University, Baton Rouge, LA
Apr. 2022	Colloquium Speaker, Department of Mathematics, University of Memphis, TN
Apr. 2022	Invited Speaker, Informal Geometry and Topology Seminar, LSU, Baton Rouge, LA
Mar. 2022	Invited Speaker, AMS Special Session on Gauge Theory, Geometric Analysis, and Low-Dimensional Topology, Tufts University, Medford, MA
Feb. 2021	Invited Speaker, Topology Seminar, University of Nevada, Reno, NV
Nov. 2020	Invited Speaker, Knots and Representation Theory Seminar, Lomonosov Moscow State Technical University
Nov. 2020	Invited Speaker, Mathematical Colloquium of the Bauman Moscow State Technical University
Sep. 2020	Invited Speaker, Classical Knots Plus Virtual Knots Seminar, The Ohio State University, OH
Apr. 2020	AMS Special Session on Knots and Links in 3-Manifolds, West Lafayette, IN Canceled due to COVID-19.
Jan. 2020	AMS Special Session on How to Discover and Train Gifted Students, Denver, CO
Jan. 2020	AMS Contributed Paper Session on Topology and Knot Theory, Denver, CO
Oct. 2019	Invited Speaker, Scientist Discovery Chat, LSU College of Science Dean's Circle, Baton Rouge, LA
Sep. 2019	Invited Speaker, Informal Geometry and Topology Seminar, LSU, Baton Rouge, LA
Mar. 2019	Invited Speaker, LSU Mathematics Competition, Baton Rouge, LA
Feb. 2019	Invited Speaker, Graph Theory and Combinatorics Seminar, University of Illinois at Chicago, IL
Feb. 2019	Invited Speaker, Topology and Geometry Seminar, University of Illinois at Chicago, Chicago, IL
Feb. 2019	Invited Speaker, Education Seminar, University of Illinois at Chicago, Chicago, IL

Jan. 2019	Seminar Speaker, Informal Geometry and Topology Seminar, Louisiana State University, Baton Rouge, LA
Nov. 2018	Seminar Speaker, Loop Quantum Gravity Seminar, Physics Department, Louisiana State University, Baton Rouge, LA
Nov. 2018	Seminar Speaker, Algebra and Number Theory Seminar, LSU, Baton Rouge, LA
Oct. 2018	Seminar Speaker, Graph Theory and Combinatorics Seminar, LSU, Baton Rouge, LA
Oct. 2018	Speaker, LA-TX Undergraduate Mathematics Conference, Baton Rouge, LA
Oct. 2018	Seminar Speaker, Topology Seminar, Louisiana State University, Baton Rouge, LA
Apr. 2018	Panelist Speaker with April Strom and Kyle Pearce, National Council of Mathematics Teachers Annual Meeting,Washington, DC.
Mar. 2018	Invited Speaker, LSU Mathematics Competition, Baton Rouge, LA
Mar. 2018	Colloquium Speaker, University of Nebraska, Omaha, NE
Feb. 2018	Public Lecture on the Math of "Arcadia," Baton Rouge, LA
Jan. 2018	Public Lecture, SciArt at LSU Science Cafe: Science in Tom Stoppard's "Arcadia," Baton Rouge, LA
Jan. 2018	Invited Speaker, AMS Special Session on Differential Geometry, San Diego, CA
Jan. 2018	MAA Panel, Mathematicians' Work in Creating Open Education Resources for K-12 , San Diego, CA
Oct. 2017	Colloquium Speaker, University of Memphis, Memphis, TN
Oct. 2017	Invited Speaker, Teacher Group, University of Memphis, TN
Apr. 2017	Invited Speaker, Proportionality and Proportional Relationships Symposium, Scottsdale Community College, Scottsdale, AZ
Apr. 2017	Invited Speaker, Mathematics Matters in Education, Texas A&M University, College Station, TX
Jan. 2017	AMS Special Session on Public School Districts and Higher Education Mathematics Partnerships, Atlanta, GA
Nov. 2016	Colloquium Speaker, Michigan State University, Lansing, MI
Nov. 2016	Invited Speaker, Topology Seminar, Michigan State University, Lansing, MI
Nov. 2016	Colloquium Speaker, Winona State University, Winona, MN
Nov. 2016	Invited Speaker, Student Seminar, Winona State University, Winona, MN
Oct. 2016	Principal Speaker, Teacher Group, University of Oregon, Eugene, OR
Oct. 2016	Colloquium Speaker, University of Oregon, Eugene, OR
Oct. 2016	Invited Speaker, Topology Seminar, University of Oregon, Eugene, OR
April 2016	Invited Speaker, National Council of Teachers of Mathematics, San Francisco, CA
Nov. 2015	Invited Speaker (with Autumn Baldridge), LATM 2015 Conference, Baton Rouge, LA
Nov. 2015	Invited Speaker, Workshop on Geometry, LATM 2015 Conference, Baton Rouge, LA
Oct. 2015	Invited Speaker, AMS Special Session on Strategies of Training Pre-Service Teachers, Fullerton, CA
Aug. 2015	Invited Speaker, Department of Mathematics, Brigham Young University, UT
Aug. 2015	Invited Speaker, Department of Mathematics Education, Brigham Young University, UT
June 2015	Invited Speaker, Louisiana Teacher Leader Conference, New Orleans, LA
June 2015	Invited Speaker, Louisiana Teacher Leader Conference, New Orleans, LA
Apr. 2015	Invited Speaker, National Council of Teachers of Mathematics, Boston, MA
Apr. 2015	Invited Speaker (with Beau Bailey), National Council of Teachers of Mathematics, Boston, MA
Mar. 2015	Invited Speaker, Mathematics Matters in Education, Texas A&M University, College Station, TX
Jan. 2015	AMS Special Session on Creating Coherence in K–12 Mathematics, San Antonio, TX
Jan. 2015	Invited Speaker, Lafayette Parish School System, Lafayette, LA
Dec. 2014	Invited Speaker, Avoyelles Parish School System, Marksville, LA
Oct. 2014	Invited Speaker, National Council of Teachers of Mathematics, LATM, Shreveport, LA

July 2014	Invited Speaker, Network Team Institute, Albany, NY
Apr. 2014	Invited Speaker, National Council of Teachers of Mathematics, Eureka Math, New Orleans, LA
Mar. 2014	Invited Speaker, Mathematicians in Mathematics Education Workshop, Texas A&M, TX
Mar. 2014	Invited Speaker, Critical Issues in Mathematics Education 2014: The role of the mathematics department in the mathematical preparation of teachers, MSRI, Berkeley, CA
Jan. 2014	Invited Speaker, Mathematicians and School Mathematics Education: A Pan-American Workshop, BIRS, Banff
Nov. 2013	Invited Speaker, Network Team Institute, Albany, NY
July 2013	Invited Speaker, Network Team Institute, Albany, NY
May 2013	Invited Speaker, Writer's Workshop, New York City, NY
May 2013	Invited Speaker, Network Team Institute, Albany, NY
Aug. 2012	Invited Speaker, Network Team Institute, Albany, NY
Apr. 2012	Invited Speaker, Geometric Structures on Manifolds (12w5121), BIRS, Banff
Nov 2011	Invited Speaker, LATM 2011 Conference, Monroe, LA
Nov 2011	Invited Speaker, Career Award Regional Forum, LSU
Sep. 2011	Invited Panelist, Making Science Cool: Solving the Shortage of Math and Science Students, U.S. News and World Report, National Press Club, Washington DC
Sep. 2011	Invited Speaker, Common Core, Inc., Washington DC
Aug. 2011	Invited Speaker, Aarhus Gauge Theory Workshop, Aarhus, Denmark
June 2011	Invited Speaker, LSU Math Circle, LSU
July 2011	Principal Speaker, 2 day mini-course, Los Angeles
April 2011	Invited Speaker, Burroughs Wellcome Fund, Research Triangle Park, North Carolina
April 2011	AMS Special Session on Knots, Surfaces and 3-manifolds, University of Nevada, NV
Jan. 2011	Principal Speaker, 1 day mini-course, Episcopal Lower School, Baton Rouge, LA
Sept. 2010	Invited Speaker, Rockford High School, Rockford, MI
Sept. 2010	Invited Speaker, Internat. Seminar on Math., Physics and Chem. Textbook, Santiago, Chile
Aug. 2010	Invited Speaker, Tiger Prep, LSU
July 2010	Principal Speaker, 10 day mini-course, City of Baker, LA
June 2010	Invited Speaker, LSU Math Circle, LSU
June 2010	Principal Speaker, 4 day mini-course, Episcopal Lower School, Baton Rouge, LA
May 2010	AMS Special Session on Homology Theories for Knots and Skein Modules, Newark, NJ
May 2010	AMS Special Session on Invariants of Knots, Links, and 3-Manifolds, Newark, NJ
Feb. 2010	Invited Speaker, Texas Geometry and Topology Conference, Fort Worth, TX, hosted by Texas Christian University and University of Texas at Arlington
Feb. 2010	Invited Speaker, Spring Program, Mathematical Sciences Research Institute, CA
Feb. 2010	Invited Speaker, Teacher Circle, Laney College, CA
Jan. 2010	Invited Speaker, Association of Mathematics Teacher Educators, Irvine, CA
Jan. 2010	AMS Committee on Education Panel Discussion on the Common Core Standards, San Francisco, CA
Aug. 2009	Invited Speaker, Tiger Prep
June 2009	Principal Speaker, 10 day mini-course, City of Baker, Louisiana
June 2009	Invited Speaker, LSU Math Circle
Apr. 2009	Seminar Speaker, Georgia Tech, Atlanta, GA
Mar. 2009	Invited Speaker, Spring Topology and Dynamics Conference, Gainesville, FL
Mar. 2009	Colloquium, Purdue University (in Mathematics)
Mar. 2009	Seminar Speaker, Purdue University (in Education)

Feb. 2009	LSU/Iowa Virtual Seminar, LSU
Jan. 2009	AMS Committee on Education Panel Discussion on National Mathematics Panel, Washington, D.C.
Jan. 2009	AMS Special Session on Mathematics Education on Baker Grant, Washington, D.C.
Jan. 2009	AMS Special Session on Mathematics Education on NSF CCLI grant, Washington, DC.
Jan. 2009	MAA Poster Session on Projects Supported by the NSF Division of Undergraduate Education.
Nov. 2008	Invited Speaker, University of Michigan (in Mathematics)
Nov. 2008	Invited Speaker, University of Michigan (in Education)
June 2008	Principal Speaker, 10 day mini-course, City of Baker, Louisiana
May 2008	Invited Speaker, Stepping up to the Challenge, 40th Annual Conference, WMC, Green Lake, WI
May 2008	Speaker (w/ T. Parker), Stepping up to the Challenge, 40th Annual Conference, WMC, WI
May 2008	Invited Speaker, AMS Special Session, Claremont University, CA
Apr. 2008	Invited Speaker, Isidore Newman School, New Orleans, LA
Mar. 2008	Invited Speaker, AMS Special Session, Baton Rouge, LA
Feb. 2008	Colloquium, University of Memphis (in Education)
Feb. 2008	Colloquium, University of Memphis (in Mathematics)
Feb. 2008	Seminar Speaker, Indiana University
June 2007	Principal Speaker, 5 day mini-course, Delaware Foundation for Sci. and Math. Ed., Wilmington, DE.
May 2007	Invited Speaker, Georgia Topology Conference, Univ. of Georgia.
May 2007	Seminar Speaker, University of Massachusetts.
Mar. 2007	Invited Speaker, Interactions of geo. and topology in low dimensions conference, BIRS, Banff.
Mar. 2007	Invited Speaker, Tulane University.
Feb. 2007	Invited Speaker, Second Louisiana-Texas-Topology-Retreat Conference
Jan. 2007	AMS-MAA-MER Special Session on Mathematics and Education Reform, New Orleans
Nov. 2006	Invited Speaker, University of Louisiana, Lafayette.
Nov. 2006	Invited Speaker, Symplectic Geometry and Topology and their Applications Conference, Poland.
Aug. 2006	Principal Speaker, 5 day mini-course, Wyoming, Michigan.
Apr. 2006	AMS Special Session on Invariants of Low Dimensional Manifolds, Miami, Florida
Mar. 2006	Colloquium, Texas State University
Feb. 2006	Principal Speaker, 2 day mini-course, Beaumont Texas
Feb. 2006	Colloquium, Rice University
Jan. 2006	AMS Special Session on New Developments in Symplectic Topology, San Antonio
Dec. 2005	Principal Speaker, 2 day mini-course, Beaumont Texas
Aug. 2005	Principal Speaker, 5 day mini-course, Singapore Mathematics Institute, Madison, Wisconsin
May 2005	Invited Speaker, Conference, Mathematical Sciences Research Institute (MSRI)
May 2005	Invited Speaker, Symplectic Geometry Program Reunion Conference (IPAM), Lake Arrowhead
Apr. 2005	Colloquium, Southeastern Louisiana University
Apr. 2005	Colloquium, California State University, Fullerton
Apr. 2005	Colloquium, Chapman University, California
Apr. 2005	Colloquium, California State University, Northridge
Mar. 2005	Invited Speaker, Geometry and Topology Seminar, Tulane University
Feb. 2005	Invited Speaker, BRACTM conference, Baton Rouge
Jan. 2005	AMS Special Session on Mathematicians' work on Mathematics Education, Atlanta Georgia
Oct. 2004	Lecture to introduce graduate students to topology, Louisiana State University
Sept. 2004	Colloquium, Southeastern Louisiana University
Aug. 2004	Principal Speaker, 3 day mini-course, Singapore Mathematics Institute, Madison, Wisconsin

May 2004 Invited Speaker, Conference on Geometry and Topology of Manifolds, McMaster University
Feb. 2004 Colloquium, The Ohio State University
Feb. 2004 Colloquium, Loyola University of Chicago
Jan. 2004 Colloquium, Louisiana State University (in Mathematics)
Jan. 2004 Colloquium, Louisiana State University (in Education)
Jan. 2004 AMS Special Session on Geometric Structures on Manifolds
Jan. 2004 AMS Special Session on Low-Dimensional Topology
Jan. 2004 AMS-MAA-MER Special Session on Mathematics and Education Reform, Phoenix
Nov. 2003 Invited Speaker, Special Workshop on Mathematics Education, The Ohio State University
Aug. 2003 Invited Speaker, Differential Geometry Seminar, University of Minnesota
Aug. 2003 Principal Speaker, 5 day mini-course, Singapore Mathematics Institute, Madison, Wisconsin
May 2003 Invited Speaker, Tenth Gökova Geometry/Topology Conference, Gökova, Turkey
May 2003 Colloquium, California State University at Los Angeles
April 2003 Colloquium, University of Memphis
April 2003 Invited Speaker, Symplectic Geometry Seminar, IPAM, UCLA
April 2003 AMS Special Session on Topology, Indiana University
Jan. 2003 Invited Speaker, Differential Geometry Seminar, Georgia Tech
Nov. 2002 Invited Speaker, AMS Committee on Education, Washington, D.C., November, 2002
Nov. 2002 Invited Speaker, Differential Geometry Seminar, University of Illinois
April 2002 Invited Speaker, Gauge Theory Seminar, Michigan State University
Feb. 2002 Topology and Geometry seminar, Indiana University
Jan. 2002 Low Dimensional Topology Seminar, AMS/MAA Joint Mathematics Meeting
Nov. 2001 Invited Speaker, Differential Geometry Seminar, Massachusetts Institute of Technology
Nov. 2001 Invited Speaker, Topology Seminar, Indiana University, November 2001
Oct. 2001 Invited Speaker, Topology Seminar, Indiana University, October 2001

Awards, Honors, Grants, Recognitions: $8.8 Million+.

Mathematics Research:	$6,804,505.
Mathematics Education and Research:	$1,495,236.
Mathematics Graduate/Undergraduate Outreach:	$510,282.

2024 **Ogden Honors College Outstanding Teaching Award**, $2,000. This award is given in recognition of faculty with an exceptional record in teaching and mentoring students within the Ogden Honors College.
2023-8 NSF, Senior Personnel, Research Training Groups in the Mathematical Sciences, Topology, Representation Theory, and Mathematical Physics at Louisiana State University, $2,496,082.
2019 NSF, The Institute for Mathematics in Science (submitted), $12,264,649.
2018 NSF, Collaborative Research: Developing and Validating a Learning Trajectory for Courses on Mathematical Knowledge for Elementary Teaching (submitted), $739,892.
2012-4 **Common Core, Development of Common Core PK-12 Curriculum in Mathematics**, $359,156.
2011 **Tiger Athletic Foundation President's Award.** Awarded to 1-4 professors per year university-wide: "recognizes a faculty member for extraordinary classroom teaching as demonstrated

by an impact on and involvement with students."

2011 Louisiana Systemic Initiatives Program (LaSIP), Building a High Performing Mathematics Program in the City of Baker School System, $137,775.

2011 The Brookhill Foundation, Building a High-Performing Mathematics Program in the City of Baker School System, Private Donation, $63,000.

2010 Rockford Hall of Fame, Rockford, MI. I am one of 10 inductees to my alma mater's hall of fame.

2010 Louisiana Systemic Initiatives Program (LaSIP), Building a High Performing Mathematics Program in the City of Baker School System, $211,994.

2010 The Brookhill Foundation, Building a High-Performing Mathematics Program in the City of Baker School System, Private Donation, $70,000.

2008 NSF, Louisiana State University University VIGRE Proposal EMSW21-VIGRE, $3,745,347.

2008 Rainmaker Award, LSU's "Top 100 Faculty Scholars"

2008 Invited to run for Member at Large to the Council of the AMS

2008 LEQSF(2008-10)-ENH-TR-04, Board of Regents, Human Resource Development in Mathematical Science, $140,000.

2008 LEQSF, Board of Regents, Professional Master's Degree Programs for K-12 STEM Teachers, $140,336.

2008 **NSF CAREER Award DMS-0748636, CAREER: The topology of smooth and symplectic 4-manifolds**, $452,869.

2008 Louisiana Systemic Initiatives Program (LaSIP), Building a High-Performing Mathematics Program in the City of Baker School System, $352,140.

2008 The Brookhill Foundation, Building a High-Performing Mathematics Program in the City of Baker School System, Private Donation, $136,650.

2008 Gabriella and Paul Rosenbaum Foundation, Building a High-Performing Mathematics Program in the City of Baker School System, Private Donation, $15,000.

2007 NSF-DUE, Collaborative Research: Elementary Mathematics for Teachers, $149,521.

2006 Research fellowship, Park City Mathematics Institute, IAS.

2005 Nominated by LSU for the Rising Star of Academia award, given by the Chronicles of Higher Education.

2005 LEQSF-ENH grant, Overcoming Louisiana's Mathematics Gap: From Algebra to Calculus, $229,946

2005 NSF Grant DMS-0506737, Conference in Honor of Ronald Fintushel, $15,000

2004 NSF Grant DMS-0507857, Transfer of Grant DMS-0406021 to LSU, $67,163, ($57,163 from NSF and $10,000 from LSU)

2004 **NSF Grant DMS-0406021, The Topology of Smooth 4–manifolds, with Applications to the Topology of Symplectic 4–Manifolds**, $75,207

2003 Research fellowship, Institute for Pure and Applied Mathematics (Spring Program)

2001 Research consultant, Michigan State University, $5000

2001 Research fellowship, Park City Mathematics Institute, IAS

2001 Dissertation completion fellowship, College of Natural Sciences, Michigan State University

1998 Graduate student teaching award, Michigan State University

1996 Steelcase Research Grant, Steelcase Corporation, $10,000

1993 Special distinction for outstanding thesis, Kettering University

1992 Sigma Alpha Chi Honorary Management Society

Conferences Organized

2010 Critical Issues in Mathematics Education: Reasoning and Sense-Making in the Math Curriculum, Mathematical Sciences Research Institute, CA from June 07, 2010 to June 09, 2010.

2008 AMS Special Session on Gauge Theory in Smooth and Symplectic Topology, Spring Southeastern Meeting in Baton Rouge, LA on March 28-30.

2007 AMS Special Session on Recent Developments in Floer Homology, AMS/MAA Joint Mathematics Meetings New Orleans, LA, January 5-8, 2007.

2006 Topology Conference Honoring Ronald Fintushel. Held at Tulane University, November 10–12, 2006. Co-organizers: Terry Lawson and Thomas Mark.

Service and Professional Activities

2021- 2024	Faculty Senator, Department of Mathematics Representative, LSU
2023-	Member, IT Committee, Faculty Senate, LSU
2022-2023	Member, Strategic Planning Steering Committee, College of Science, LSU
2023	Strategic Planning Committee, Cain Center for STEM literacy, LSU
2022	LSU Flagship Strategic Plan Working Group–Academics, LSU
2022-	Cofounder (with Anton Zeitlin), Mathematical Physics and Representation Theory Seminar, LSU
2022-2023	Internal Panel Handbook, Office of Institutional Effectiveness, LSU
2021-2023	Internal Review Committee, Department of Mathematics, LSU
2021-	Executive Committee, Department of Mathematics, LSU
2021-2022	Administrative Process Improvement Committee (APIC), LSU
2021-	Porcelli Lecture and Scholarship Committee, Department of Mathematics, LSU
2021-	GeauxTeach Professorship Committee, LSU
2020-2023	Institute Effectiveness Council, Office of Institutional Effectiveness, LSU
2019-	Moderator (along with Jim Madden) of MathEd, the premier list server for Math Education
2016-	**National Assessment of Education Progress (NAEP) Mathematics Standing Committee**
2015-	Undergraduate Advisors Committee, Department of Mathematics
2015-	Director of the Cain Center for STEM Literacy, LSU
2010-2012	Hiring Committee, Department of Mathematics
2008-2013	VIGRE Steering Committee, Department of Mathematics
2009-2012	LSU Curriculum Committee, Department of Mathematics
2006-2012	Undergraduate Advisors Committee, Department of Mathematics
2008-2012	VIGRE Steering Committee, Department of Mathematics
2008-2009	**Team Leader, American Mathematical Society, National Math Panel Forum.**
2008	**Participant, Science and Mathematics Teacher Imperative-NASULGC, Austin, TX, February.**
2006-2007	Internal Review Committee, Department of Mathematics, LSU
2006	Masters of Natural Science Development Committee, Department of Mathematics, LSU
2005	Organizer, Teaching in East Baton Rouge Parish Schools after Katrina presentation, LSU.
2005	Volunteer, Pete Maravich Assembly Center, LSU's Hurricane Katrina acute care field hospital

2005	Review team member, Chancellor's Distinguished Lectureship Series, LSU
2004–2008	Student Advisor Committee, Department of Mathematics, Louisiana State University
2004–2008	Secondary Education Committee, College of Arts and Science, Louisiana State University
2004	Participant, Step thru Stem Retreat, May
2004	Participant, Standards Setting Meeting, American Board for Certification of Teacher Excellence
2003	REU Project Advisor, Student: Russell Halper
2002–2004	Principal organizer, VIGRE Seminar, Indiana University
2002	**Participant, Standards for Success Project**
2002	Course Adoption Committee, 21st Century Teacher Project
1997–1998	Principal organizer, Knot theory student seminar, Michigan State University
1998–1999	Dean's Student Advisory Council, College of Natural Science, Michigan State University
1997–1998	Graduate Student Committee, Department of Mathematics, Michigan State University
1997–1998	Directed a knot theory student seminar, Michigan State University
1998	Member of the Mathematical Association of America
1996–	Member of the American Mathematical Society

Courses Taught

The courses are listed by level from graduate school (listed in bold) to remedial college level. Courses taught multiple times are listed by semester and year under course. I have taught 30 *different* courses in mathematics, physics, philosophy and education, half of which are at the graduate level.

- **Gromov-Witten Theory in Symplectic and Algebraic Geometry.** Topics course for graduate students. (LSU, Math 7590, Spring 2025)
- **Gauge Theory and Seiberg-Witten Invariants.** Topics course for graduate students on the Seiberg-Witten invariants of smooth 4-dimensional manifolds. (LSU, Math 7590, Geometric Topology, Fall 2023)
- **Moduli Spaces of Curves.** Topics course for graduate students on the moduli space of stable genus g curves with n marked points. (LSU, Math 7590, Geometric Topology, Spring 2023)
- **Khovanov homology and ribbon graphs.** Topics course for graduate students on new cohomology theories of ribbon graphs and their relationships to Khovanov homology of virtual links. (LSU, Math 7590: Geometric Topology, Spring 2021)
- **Trisections on 4-Manifolds.** Topics course for graduate students. (LSU, Math 7590, Fall, 2019)
- **4-Manifolds and Seiberg-Witten Theory.** Topics course for graduate students. (LSU, Math 7590, Spring, 2017)
- **Chern-Simons Theory.** Topic course for graduate students on Maxwell's equations, Yang-Mill's equations, and Chern-Simons Theory. (LSU, Math 7590, Fall 2015).

- **Differential Geometry.** Course on differentiable manifolds, transversality, differential forms, de Rham cohomology, and Lie groups. (LSU, Math 7550, Spring 2015, Spring 2018, Spring 2019, Spring 2022, Spring 2025)
- **4-Manifold Theory.** Topics course for graduate students. (LSU, Math 7590, Fall 2010)
- **Riemannian Geometry**. Text: Manfredo do Carmo, *Riemannian Geometry*. (LSU, Math 7590-1, Fall 2020)
- **Seiberg-Witten-Floer Theory.** Topics course for graduate students. (LSU, Math 7590, Spring 2010)
- **Pseudoholomorphic maps and Gromov-Witten invariants.** Topics course for graduate students. (LSU, Math 7590, Fall 2007)
- **Seiberg-Witten Theory.** Topics course for graduate students. (IU, Math 624, Spring 2004)
- **Riemannian and Symplectic Geometry.** Introduction to Riemannian geometry: manifolds, metrics, Levi-Civita connections, and symplectic geometry. (LSU, Math 7590-2, Fall 2006)
- **Topology I.** Text: Munkres (graduate course). Basic notions of general topology, with emphasis on Euclidean and metric spaces, continuous and differentiable functions, inverse function theorem and its consequences. (LSU, Math 7510, Fall 2005, Fall 2009)
- Foundations of Mathematics. Text: Ian Stewart and David Tall, *The Foundations of Mathematics*. (LSU, Math 4158, Spring 2020, Fall 2021)
- Complex Variables. Text: Brown and Chruchill, *Complex Variables and Applications.* (LSU, Math 4036, Fall 2010)
- Geometry. Text: S. Baldridge and T. Parker, *Elementary Geometry for Teachers*; Supervised two GAANN fellows. (LSU, Math 4005, Spring 2005, Spring 2011, Spring 2016, Spring 2020, Spring 2022)
- Step II Course for Teachers. (LSU, Math 3002)
- Step I Course for Teachers. (LSU, Math 3001)
- Ordinary Differential Equations. Text: Adkins and Davidson, *Ordinary Differential Equations*. (LSU, Math 2065, Fall 2011, Fall 2015, Spring 2017, Fall 2020)
- Calculus III. Text: Thomas and Finney, *Calculus, part II, 9th ed*. Supervised one teaching assistant. (MSU, Math 234)
- Honors 2000. Louisiana: Paradise Lost? A course on the ethics and philosophy in the context of environmental concerns found in Louisiana. (LSU, HNRS 2000, Fall 2022, Fall 2023)
- Calculus I. Text: Stewart, *Early Transcendentals*. Supervised teaching assistants. (IU, Math 211)
- Elementary Measurement and Geometry. Text: Euclid, *Book I*; E. E. Moise and F. L. Downs, *Geometry*; *Singapore*, Grades 3-7. (MSU, Math 202)

- Elementary Arithmetic and Algebra. Text: T. H. Parker and S. J. Baldridge, *Elementary Mathematics for Teachers*; *Singapore*, Grades 3-6. Supervised teaching assistants. (LSU, Math 1201, Fall 2017 and Fall 2018, MSU and IU, Math 201 and Math T101)
- Survey of Calculus with Applications. Text: Gleason, Hughes-Hallet, et. al., *Applied Calculus for Business, Social Science, and Life Sciences*. (MSU, Math 124)
- College Algebra. Text: Larson, Hostetler, and Edwards, *College Algebra*. Worked in a special program for disadvantaged and under-prepared students (Enrichment Program). Supervised teaching assistants. (MSU, Math 103)
- Intermediate Algebra. Text: Phillips, Butts, and Shaughnessy, *Intermediate Algebra, 2nd Edition*. Enrichment Program. Supervised teaching assistants. (MSU, Math 1825)
- Becoming a Scientist. A course designed to let first year students ask questions about becoming a scientist and getting used to university life. (LSU, SCI 1001, Fall 2023)

A Sample of Media Coverage, News Releases, Government Reports

I was quoted, my mathematical research was highlighted, or my work in education was discussed in the following newspapers, magazines, or government reports:

1. Bill Davidson, *Episode 98: Scott Baldridge, Mental Math*, Centering the Pendulum Podcast, May, 2023.
2. Bill Davidson, *Episode 26: Scott Baldridge*, Centering the Pendulum Podcast, December, 2021.
3. Bill Davidson, *Episode 7: The Pre-K - 5th Grade Engine, Part 2*, Centering the Pendulum Podcast, April 23, 2021.
4. Bill Davidson, *Episode 6: The Pre-K - 5th Grade Engine, Part 1*, Centering the Pendulum Podcast, April 16, 2021.
5. Bill Davidson, *Episode 5: The Craftsman*, Centering the Pendulum Podcast, April 2, 2021.
6. Bill Davidson, *Episode 3: The Architect of EngageNY/Eureka Math, Part 2*, Centering the Pendulum Podcast, March 2021.
7. Bill Davidson, *Episode 2: The Architect of EngageNY/Eureka Math, Part 1*, Centering the Pendulum Podcast, March 2021.
8. Megan Pauly, *Why now?*, Virginia Public Media, May 29, 2020. `https://vimeo.com/423862679`
9. Megan Pauly, *Why Eureka?*, Virginia Public Media, May 29, 2020. `https://vimeo.com/423863535`
10. Megan Pauly, *What we know about Richmond School's proposed math curriculum*, Virginia Public Media, May 29, 2020.

11. Harry Levinson, *Engineers and K-12*, National Association of Scholars, May 11, 2020.

12. Brigitte Lahme, Cam McLeman, Michael Nakamaye, and Kristin Umland, *The Number Line: Unifying the Evolving Definition of Number in K-12 Mathematics,* Notices of the American Mathematical Society, October 2019, Volume 66, no. 9, p. 1465-1470.

13. LSU, College of Science, *How did you get your cool job?*, LSU Pursuit for Kids!, Fall, 2019.

14. Chris Brownell, *Curricula narratives thought of as stories*, Zone of Potential Construction Podcast, recorded December 21, 2017. This recording will be published as two or three episodes in March and April of 2018.

15. Robert Pondiscio, *Louisiana Threads the Needle on Ed Reform*, EducationNext, Fall 2017, Vol 17, No. 4.

16. Chris Rogers, *WSU brings math education expert to lecture*, Winona Post, October 31, 2016.

17. Sally Todorow, *Intensive Training Is the Key at Kuumba Academy: A Field Report from Wilmington, DE*, medium.com, April 26, 2016.

18. Saffron VanGalder, *This Math Curriculum Created by Teachers Is Raising Standards for Students Across the Country,* High Standards, Education Post, April 21, 2016.

19. Amber M. Northern, *Implementation of K12 State Standards for Mathematics and English Language Arts and Literacy,* The Thomas B. Fordham Institute, April 20, 2016.

20. Liana Heitin, *The Search for Common-Core Curricula: Where Are Teachers Finding Materials?*, Education Week, April 19, 2016.

21. Opfer, V. Darleen, Julia H. Kaufman and Lindsey E. Thompson, *Implementation of K12 State Standards for Mathematics and English Language Arts and Literacy: Findings from the American Teacher Panel. Santa Monica*, CA: RAND Corporation, 2016.
`http://www.rand.org/pubs/research_reports/RR1529.html`.

22. Jay Mathews, *Many parents hated Common Core math at first, before figuring it out*, The Washington Post, January 31, 2016.

23. Allison McCollister, *Eureka! Connecting Math to the Real World*, The Pursuit, pages 32-33, 2015.

24. Leigh Guidry, *How did Eureka Math Start? 2 Writers Answer*, The Town Talk, July 31, 2015.

25. Robert Pondiscio, *Common Core's First Breakout Hit: EngageNY's curriculum is getting attention well beyond the Empire State,* U.S. News & World Report, May 29, 2015.

26. Jessica Hughes, *'Eureka Math' Embeds Real-World Problems in Pre-K12 Mathematics Lessons*, Center for Digital Education, April 2, 2015.

27. Rachel Monahan, *How Common Core is Killing the Textbook*, The Hechinger Report, March 31, 2015.

28. Jessica Williams, *Inside Eureka Math: Does a popular Common Core math curriculum move too fast for young students?*, The Hechinger Report, March 13, 2015.

29. Jessica Williams, *Common Core, Eureka Math shake up Louisiana classrooms*, The Times-Picayune, March 13, 2015.

30. Liana Heitin, *Most Math Curricula Found to Be Out of Sync with Common Core*, Education Week, March 4, 2015. (Guess which curriculum was the only one found to be in sync!)

31. Ginger Moored, *An inside look at some of the top teacher prep programs*, National Quality on Teacher Quality, June, 17, 2013.

32. Anne Pfaelzer de Ortiz, *Common Core Mathematics Comes to Delaware*, i-Newswire, August 2, 2012.

33. Hillary Marder, *Common Core to Create New York State's Recommended PK-12 Mathematics Curriculum*, Common Core, July 18, 2012.

34. Jason Koebler, *Experts: STEM Education is all about jobs*, U.S. News and World Report, September 27, 2011.

35. The National Press Club, *'Cool' experts to discuss how to get students exited about STEM education*, September 27, 2011.

36. Rena Pederson, *Tom Luce to be featured speaker at U.S. News and World Report summit*, National Math+Science Initiative, September 2, 2011.

37. Danielle Arndt, *Hall of Fame inductees 'represent what's possible'*, Rockford Independent, October 10, 2010.

38. Ron Cammel, *Busy weekend planned for first inductees of Rockford Public Schools' Hall of Fame*, Grand Rapids Press, September 28, 2010.

39. NBC's Education Week: a nationally televised conference on education, September 22-23, 2010. Panel discussions and speeches televised on NBC, CNBC, MSNBC, and NBC's websites.

40. Faiza Elmasry, *Singapore Math Adds Up for US Teachers*, Voice of America, August 10, 2010. http://www.voanews.com/english/news/usa/Singapore-Math-Adds-Up-for-US-Teachers-100338189.html

41. Danielle Arndt, *Hall of Fame inductees announced*, Rockford Independent, August 10, 2010.

42. Satellite Media Tour: I did several local, national, and international television and radio interviews about elementary mathematics curricula in the U.S. Sample of locations: Miami (2 interviews), Phoenix, Los Angeles, Seattle, Atlanta, Waco and networks: Fox Business Network, etc., June 23, 2010.

43. John Fensterwald, *Common-core standards under fire*, The Educated Guess, January 17th, 2010.

44. Patricia Clark Kenschaft, *Is Elementary Education a Concern of MAA Members?*, MAA Focus, p. 23-24, August/September 2009.

45. Ashley Berthelot, *NSF grants LSU $5 million to develop Louisiana math and science teacher institute*, Louisiana State University, September 4, 2009.

46. Chante' Warren, *Math Retreat*, The Baton Rouge Advocate, June 27, 2009, page 4B.

47. Beth Courtney and Craig Freeman, *Louisiana Public Square: Legislative Review 2009*, Louisiana Public Broadcasting, Aired June 24, 2009 (7:00p.m.). I was part of a panel discussion on television to discuss the 2009 Louisiana State Budget. My goal was to point out that LSU's budget was already lean and cutting it further would hurt the core missions of Louisiana's flagship university.

48. Andy Magid (editor), et. al., *Mathematics People*, Notices of the American Mathematical Society, Vol. 56, No. 2, p. 268-271, 2009.

49. Andy Magid (editor), et. al., *Biographies of Candidates 2008*, Notices of the American Mathematical Society, Vol. 55, No. 8, p. 1002–1013, September 2008.

50. Julie Greenberg and Kate Walsh, *No Common Denominator: The Preparation of Elementary Teachers in Mathematics by America's Education Schools*, National Council on Teacher Quality, June 2008. Visit http://www.nctq.org:80/p/publications/reports.jsp.

51. Brenda Macon, *Assistant Professor Scott Baldridge Receives NSF CAREER Award*, Kaleidoscope, **4** (2), Spring, 2008.

52. John Colvin, *Baker School Board updated on math program, gets audit*, The Advocate, Published Jan. 30, 2008.

53. Singaporemath.com, *California Teachers Get Approval From Board of Education for State Funds to Use 'Standards Edition' of Math Textbooks Originally Developed by Singapore's Ministry of Education, Used by No. 1-Ranked Students and Distributed by SingaporeMath.com Inc.*, Marketwire, November 7, 2007.

54. John Hoven and Barry Garelick, *Singapore Math: Simple or Complex?*, Educational Leadership, **65** (3), November, 2007.

55. Massachusetts Department of Education, *Guidelines for the Mathematical Preparation of Elementary Teachers*, www.doe.mass.edu/mtel, 2007.

56. Barry Garelick, *A tale of two countries and one school district*, Third Education Group Review/Essay **2** (8), 2006.

57. Barry Garelick, *Miracle Math*, Education Next, No. 4, September 2006. (Currently the most viewed article at Education Next.)

58. Mark Hoover Thames, *Using math to teach math*, Critical Issues in Mathematics Education Series, Volume 2, Mathematical Sciences Research Institute, Berkeley, CA, 2006.

59. Raven McCrory, *Mathematicians and Mathematics Textbooks for Prospective Elementary Teachers*, Notices of the American Mathematical Society, Vol. 53, No. 1, p. 20-29, January 2006.

60. News Brief, *Teaching Katrina's kids*, The Baton Rouge Advocate, September 8, 2005.

61. Gerald & Natalie Sirkin, *Singapore Math vs. Mediocrity*, The Valley Patriot, August, 2005.

62. Australian Mathematical Sciences Institute, *Submission to House of Representatives Standing Committee on Education and Vocational Training Inquiry into Teacher Education*, (2005).

63. Hung-Hsi Wu, *Must Content Dictate Pedagogy in Mathematics Education?*, Forthcoming, May 2005.

64. Cris Prystay, *As math skills slip, U.S. schools seek answers from Asia*, Wall Street Journal, December 13, 2004.

    This article also ran in San Francisco Chronicle on the same day.

65. Ho Ai Li, *US teachers get lessons on S'pore maths*, The Straits Times, December 28, 2004.

    The Strait Times is the major newspaper in Singapore.

66. W.G. McCallum, *Promoting Work on Education in Mathematics Departments*, Notices of the American Mathematical Society, p. 1096, October 2003.

Other Interests

Physics: I am interested in supersymmetry and how it relates to Seiberg-Witten theory. I audited the following courses at Michigan State University: PHY 820 Classical Mechanics, PHY 851-2 Quantum Mechanics I & II, AST 860B Gravitational Astrophysics, PHY 853 Advanced Quantum Mechanics, PHY 854 Quantum Electrodynamics.

Programming Languages: Java, Mathematica, Maple, C, C++, Pascal, Basic, COBOL, FORTRAN, ObjectPAL and PAL, Nomad2.

Hobbies: Running (PR's: 16:23 minutes in 5 km, 1:59 minutes in $\frac{1}{2}$ mile), playing guitar, backpacking, restoring antique cars.

References

Ronald Fintushel, Michigan State University
Roger Howe, Yale University, (on education)
Paul Kirk, Indiana University
William McCallum, University of Arizona (on education)
Clifford Taubes, Harvard University
Patrick Thompson, Arizona State University (on education)