

## CONTACT INFORMATION

Voice: (540) 246-3185  
E-mail: laurataalman@gmail.com  
Web: educ.jmu.edu/~taalmala  
Snails: 397 Court Street, 3C, Brooklyn, NY 11231

## EDUCATION

**Duke University**, Ph.D. in Mathematics, 2000  
**Duke University**, M.A. in Mathematics, 1997  
**University of Chicago**, B.S. in Mathematics, 1994

## EMPLOYMENT HISTORY

**The National Museum of Mathematics**, New York City, New York  
Mathematician-in-Residence Fall 2014–present.  
**James Madison University**, Harrisonburg, Virginia  
Tenured Full Professor 2000–present (Tenured in 2006, Full in 2011).  
**Duke University**, Durham, North Carolina  
Graduate Instructor 1994–2000.

## TEACHING EXPERIENCE

### Mathematics Courses Taught:

- Mathematics of Games and Puzzles
- The Nature of Mathematics
- GRE Preparation
- Fundamentals of Mathematics
- Algebra/Precalculus Gateway
- Precalculus
- Lab Calculus with Precalculus I and II
- Calculus with Functions I and II
- Calculus I and II
- Discrete Math and Intro to Proof
- Graph Theory
- Abstract Algebra
- Linear Algebra
- Advanced Linear Algebra
- Algebraic Topology

### 3D Printing Classes and Workshops Taught:

- Introduction to 3D Printing
- Mathematical 3D Printing
- Knot Theory and 3D Printing
- 3D Printing for Faculty
- 3D Design Workshops

### Undergraduate Research Supervised:

- Knot Theory Honors Thesis 2014-15
- Knot Theory REU 2013
- 3D Printing MREU 2013
- Knot Theory Ind. Study 2012-13
- Knot Theory MREU 2013
- Mancala/Tchoukaillon REU 2011
- Mancala  $M^3$  NREUP 2010
- Knot Theory REU 2007
- Sudoku Honors Thesis 2006-7
- Knot Theory REU 2004
- Knot Theory REU 2003

## RESEARCH INTERESTS

Singular Algebraic Geometry, Knot Theory, Games, Puzzles, and 3D Printing.

## KNOT THEORY PAPERS

*Sequences of Spiral Knot Determinants*, with students Kim and Stees, to be submitted to *The Journal of Integer Sequences* in 2014.

*Spiral knots*, with Van Wyk and students Brothers, Evans, Witczak, and Yarnall, *Missouri Journal of Mathematical Sciences*, Vol. 22, Issue #1, 2010.

*p-Coloring classes of torus knots*, written with students Brieland and Oesper, *Missouri Journal of Mathematical Sciences*, Volume 21, Issue 2, 2009.

*Counting m-coloring classes of knots and links*, written with students Brownell and O'Neil, *Pi Mu Epsilon Journal* Volume 12, Number 5, Fall 2006.

SUDOKU  
PAPERS

*Nest graphs and minimal complete symmetry groups for magic Sudoku variants*, written with Arnold, Field, Lorch, and Lucas, *Rocky Mountain Journal of Mathematics*, accepted, to appear 2014.

*Minimal complete Shidoku symmetry groups*, written with Arnold, Field, and Lucas, *Journal of Combinatorial Mathematics and Combinatorial Computing*, accepted, to appear 2014.

*Gröbner basis representations of Sudoku*, written with Arnold and Lucas, *College Math Journal*, March 2010.

MANCALA  
PAPERS

*Mancala Matrices*, with Tongen and students Warren, Wyrick-Flax, and Yoon, *College Math Journal*, Vol. 44, No. 4, 2013.

*Solitaire Mancala games and the Chinese Remainder Theorem*, written with Jones and Tongen, *American Mathematical Monthly*, Vol, 120, No. 8 (October), pp. 706-724, 2013.

POKER  
PAPERS

*Heartless poker and Diophantine Equations*, written with Lanphier, submitted to *The Earnest Contemplation of Trivial Pursuits, Progress in Recreational Mathematics*, MOVES/MoMath, 2013.

ALGEBRAIC  
GEOMETRY  
PAPERS

*An exact sequence of weighted Nash complexes*, *Illinois Journal of Mathematics*, Volume 52, Number 2, 591-610, 2009.

*The Nash sheaf of a complete resolution*, *Manuscripta Mathematica* 106, no.2, 249–270, 2001.

TEXTBOOKS

*Taalman/Kohn Calculus*, a three-semester calculus textbook, W.H. Freeman, 2013. Adoption/usage list has included:

- Alabama A&M University
- Allan Hancock College
- Boise State University
- Catawba Valley Community College
- College of New Rochelle
- Clayton State University
- Colby College
- Columbia Basin College
- Framingham State University
- Graceland University
- Haywood Community College
- Isothermal Community College
- James Madison University
- New Mexico Mining and Technology
- New York University
- North Central Michigan College
- Nova Scotia Agricultural College
- SUNY College at Potsdam
- Univ. of North Carolina, Greensboro
- Wheaton College

*Calculus I with Integrated Precalculus*, a two-semester calculus/precalculus textbook, W.H. Freeman, 2013. Previous edition was titled *Integrated Calculus*, first published with Houghton Mifflin, 2004. Adoption/usage list has included:

- Boston College
- California State Univ. Long Beach
- Centre College
- Gustavus Adolphus College
- Harvard University
- Hope College
- James Madison University
- Knox College
- Loyola University Chicago
- Meredith College
- Miami Dade Community College
- Monash University
- New Mexico Mining and Technology
- New York University
- North Central College
- Oxford College of Emory University
- Trinity College Hartford
- Tulane University
- St. Catherine University
- University of the Redlands
- University of St. Thomas
- University of Wisconsin, Stout
- Urbana University
- Wheeling Jesuit College

## TRADE BOOKS

*Taking Sudoku Seriously: The Mathematics Behind the World's Most Popular Pencil Puzzle*, with Jason Rosenhouse, Oxford University Press, 2012.

*Hardcover sales to date of over 5,000 copies.  
Recently translated into both Chinese and Japanese.*

*Color Sudoku II*, with Philip Riley, popular and colorful Sudoku variants. Brainfreeze Puzzles and Puzzle Wright Press, to appear 2015.

*Double Trouble Sudoku*, with Philip Riley,  $8 \times 8$  and  $10 \times 10$  Sudoku variants with polyomino regions. Brainfreeze Puzzles and Puzzle Wright Press, 2014.

*Fifty Shades of Sudoku*, with Philip Riley,  $10 \times 10$  Sudoku variants with 50 shaded cells in each puzzle. Brainfreeze Puzzles and Puzzle Wright Press, 2014.

*Beyond Sudoku*, with Philip Riley, popular variations of Sudoku puzzles. Brainfreeze Puzzles and Puzzle Wright Press, 2012.

*No-Frills Sudoku*, with Philip Riley, minimal-clue Sudoku puzzles. Brainfreeze Puzzles and Puzzle Wright Press, 2011.

*Naked Sudoku*, with Philip Riley, arithmetic Sudoku variants. Brainfreeze Puzzles and Puzzle Wright Press, 2009.

*Color Sudoku*, with Philip Riley, popular and colorful Sudoku variants. Brainfreeze Puzzles and Sterling Publishing, 2007.

*The seven books above have combined sales to date of over 60,000 copies.*

## EXPOSITORY ARTICLES

*The Mathematics behind xkcd: A conversation with Randall Munroe*, Math Horizons, September 2012, cover article.

*Taking Sudoku Seriously*, Math Horizons, September 2007 issue, cover article.

*Puzzling Over Sudoku*, Madison Magazine, Fall 2007 issue.

*Simplicity is not simple: Tessellations and modular architecture*, Math Horizons cover article (winner of the MAA Trevor Evans Award), written with Eugenie Hunsicker of Lawrence University, September 2002 issue.

## INVITED TALKS AND WORKSHOPS

*3D-Printing Design Workshops at the National Museum of Mathematics*

Two-hour *Cross Product* workshops at MoMath available to the general public, including participants between the ages of 7 and 75.

- Introduction to 3D Printing with MakerBot printers, Fall 2014
- High Resolution Resin Printing with FormLabs printers, Fall 2014
- Trigonometric Bracelets with MakerBot printers, Fall 2014

*Making Mathematics Real: Knot Theory, Experimental Math, and 3D Printing*

One-hour invited address that includes a 3D-printing demonstration, at:

- Friends Seminary High School, New York, November 2014
- Sacred Heart Middle and High School, New York, November 2014
- SUMS Undergraduate Research Conference at JMU, September 2014
- NYU Courant Institute GSTEM Program, New York, August 2014
- Opening the Gate Summer Institute, New Jersey City University, July 2014
- Math Encounters Lecture at the National Museum of Mathematics, July 2014
- USA Mathematics Olympiad Award Presentations (June 2014).
- Virginia Council of Teachers of Mathematics Annual Conference, March 2014
- Carriage House Lecture, MAA National Headquarters, DC, February 2014
- January Symposium at James Madison University, Virginia, January 2014
- Helen Barton Computational Lecture at UNC, Greensboro, November 2013
- Teaching and Learning with Technology Conference at JMU, October 2013

### ***3D-Printing Workshops at JMU 3-SPACE***

Hosted groups of visitors to the JMU 3-SPACE 3D-printing classroom for hands-on workshops and 3D-printing demonstrations.

- MD/DC/VA MAA Spring Section Workshop, April 2014
- Raw Learning personalized education group, March 2014
- First Lego League Virginia State Championships, December 2013
- Loudon County Mercer Middle School, November 2013

### ***Spiral Knots***

Twenty-minute invited knot theory research talks in the following sessions:

- Open & Accessible Problems in Knot Theory, Hartford MathFest, August 2013
- UnKnot Conference, Denison University, Granville, Ohio, July 2009.

### ***Patterns, Proofs, and Purity***

One-hour invited address or colloquium talk about knot theory, Sudoku, 3D printing, and the process of mathematical inquiry given at:

- UT Undergraduate Math Conference, University of Tennessee, April 2013
- Institute for Visual Studies Lecture Series, James Madison Univ., March 2013
- Mu Alpha Theta Induction, Maggie Walker Governor's School, February 2013
- Longwood College colloquium series, January 2013

### ***Sudoku Questions, Variations, and Research***

One-hour invited address on Sudoku and mathematical research questions given at many conferences, events, and universities, including:

- Pi Mu Epsilon Induction Ceremony, Mount St. Mary's University, March 2012
- Moravian Student Mathematics Conference, February 2012
- University of Mary Washington Speaker Series, November 2010
- Notre Dame Lectures for Undergraduates Series, September 2010
- Allegheny MAA Section Meeting, Univ. of Pittsburgh at Johnstown, April 2010
- GRCTM High School Math Conference, JSR Community College, March 2010
- NE MAA Section Meeting, Western New England College, November 2009
- Illinois MAA Section Meeting, Bradley University, Peoria, IL, March 2009
- University of Chicago chapter of the AWM, Chicago, IL, March 2009
- Columbia College Lecture Series, Chicago, IL, March 2009
- EPaDel MAA Section Meeting, Gettysburg College, PA, March 2009
- CURM/MAA Conference, Brigham Young University, Provo, UT, March 2009
- V2CTM Teachers Conference, Rockingham County, VA, November 2008
- Roanoke College, MAA Conversation Series, VA November 2008
- AMTNYS Summer Institute for Math Teachers, Syracuse, NY, August 2008
- MAA Lecture for Students, MathFest 2008, Madison, WI, August 2008
- University of Virginia, Public Lecture Series, Charlottesville, VA, April 2008
- Service Academy Student Math Conference, US Naval Academy, April 2008
- St. Mary's College of MD, Natural Science & Math Colloquium, February 2008
- Maggie Walker Governors School, Mu Alpha Theta Series, December 2007
- Maggie Walker Governors School, Student Research Group, December 2007
- Gettysburg College, Undergraduate Colloquium Series, PA, November 2007
- Eastern Mennonite University, Student Research Group, September 2007
- James Madison University, Colloquium, Harrisonburg, VA, September 2007
- Madison Area Technical College, Sudoku Master Competition, WI, April 2007
- MAA Carriage House Opening Ceremonies, Washington, DC, April 2007
- American University, Fool's Feast Celebration, Washinton, DC, March 2007

- Sam Houston State University, Piney Woods Series, Huntsville, TX, March 2007
- Longwood University, Mathematics Colloquium, Farmville, VA, March 2007
- Harvey Mudd College, Invited Lecture Series, Claremont, CA, January 2007
- University of Maryland, Graduate Minicourse Series, VA, November 2006
- Washington and Lee University, Colloquium, Lexington, VA, November 2006
- Gems of Recreational Mathematics, MAA MathFest, Knoxville, August 2006
- Wake Forest University, Mathematics Colloquium Series, April 2006
- MD/DC/VA MAA Section Meeting, Loyola College, April 2006
- Kentucky Project NExT/MAA Section Meeting, Centre College, March 2006

*Functioning in Calculus: Functioning in Calculus: Combining Algebra, Precalculus, and Calculus for underprepared college students*, a workshop or presentation at each of the following events:

- Madison MathFest workshop for Project NExT Fellows, August 2012.
- Pittsburgh MathFest workshop for Project NExT Fellows, August 2010.
- Kentucky MAA Section Meeting closing address, March 2011.

*Teaching Proofs at the Undergraduate Level*, Brown Bag lunch seminar series with the JMU Center for STEM Education and Outreach, November 2009.

*Topology and the Euler Characteristic*, as a workshop or presentation at the following events at James Madison University:

- Expanding Your Horizons Conference, April 2010
- Expanding Your Horizons Conference, April 2009
- Expanding Your Horizons Conference, April 2008
- Conversations Between Mathematicians Project, January 2008
- Conversations Between Mathematicians Project, January 2006

*Modular Origami Polyhedra*, a one-hour workshop for middle and high school teachers at JMU's Content Teaching Academy, June 2009.

*Math  $\Leftrightarrow$  Art*, Institute for Visual Studies, Class Seminar, James Madison University, April 2009.

*Math  $\Leftrightarrow$  Patterns*, a discussion and presentation for high school students interested in mathematics, at the following events at James Madison University:

- Bridge Program Summer Camp, June 2010
- Bridge Program Summer Camp, June 2009
- Bridge Program Summer Camp, June 2008

*Mathematical projects for science fairs and symposia*, invited address with Peter Kohn and Carla Martin, Meetings of the Valley of Virginia Council of Teachers of Mathematics (V2CTM), November 2007.

*Sudoku: The Puzzle that Ate the World*, radio interview on *With Good Reason*, a Virginia Public Radio program, aired May 6-12, 2006.

*Brainwashing and Great Expectations: Thoughts about teaching, persuasion, intimidation, expectations, bribes, and humor in the classroom*

- MAA MD-DC-VA Project NExT Meeting, Montgomery College, 2005.
- Alder Awards Session, MAA MathFest, Albuquerque, 2005.

*How not to give a talk*, Research Experience for Undergraduates Seminar, James Madison University, 2005.

*Integrated Calculus, Precalculus, and Algebra: Teaching calculus to underprepared students*, Houghton Mifflin Mathematics Faculty Workshop, Chicago, 2004.

CONTRIBUTED  
PRESENTATIONS

*15 Ways to print 15 knots*, Special Session on Knot Theory and its Applications, AMS Sectional Meeting, Greensboro, NC, November 2014.

*JMU 3-SPACE: 3D printing in the classroom*, MD/DC/VA Fall Sectional Meeting of the Mathematical Association of America, Longwood, Virginia, October 2013.

*16 is not enough: The minimum clue conjecture for Sudoku*, Gathering For Gardner Conference 10, Atlanta, Georgia, March 2012.

*Homework is Dead, Long Live Homework*, Contributed Paper Session at the MAA MD/DC/VA Fall Meetings, Christopher Newport University, November 2011.

*Pi Scarf*, at the juried exhibition of *Fibre Art and Mathematics*, Joint Winter Meetings, Washington, DC, January 2009.

*Spiral Knots*, with Len Van Wyk, Contributed Paper Session, AMS/MAA Joint Winter Meetings, San Diego, CA, January 2008.

*Teaching the derivative one rule at a time*, Contributed Paper Session, MAA MathFest, Knoxville, 2006.

*Sudoku Variations*, Contributed Paper Session, MAA MD/DC/VA Fall Meetings, Montgomery College, 2005.

*An exact sequence of weighted Nash complexes*, Contributed Paper Session, MAA MathFest, Albuquerque, 2005.

*Problem Zero: Encouraging students to read math and make it their own*

–MAA MD-DC-VA Fall Meetings, University of Virginia, 2005

–Concepts Through Writing Session, MAA MathFest, Providence, 2004.

*Tracking student success in an integrated calculus/precalculus course*, General Contributed Paper Session, Joint Math Meetings, Phoenix, 2004.

*The Nash bundle and the Nash sheaf*, Mathematics Colloquium, James Madison University, 2002.

*Integrated Calculus: A combination course to effectively train math and science majors*, Contributed Paper Session, Joint Math Meetings, San Diego, 2002.

*Developing combined calculus/precalculus courses from both traditional and reform perspectives*, Project NExT Session, MAA MD-DC-VA Meetings, Virginia Military Institute, 2001.

*Complete resolutions, Hsiang-Pati coordinates, and the Nash sheaf*, AMS Western Section Meetings, San Francisco State University, 2000.

PANEL  
SESSIONS

*3D Printing in Education*, Inside 3D Printing Conference, New York City, April 2014.

*Benefits of hosting a Regional Undergraduate Mathematics Conference*, AMS/MAA Joint Winter Meetings, New Orleans, January 2011.

*Obtaining funding for and maintaining REU Programs*, Project NExT Meeting at the Pittsburgh MathFest, August 2010.

*Making the math major work for the underprepared student*, Project NExT Meeting at the AMS/MAA Joint Winter Meetings, San Diego, CA, January 2008.

*Getting your first textbook published*, Project NExT, Joint Math Meetings in New Orleans, 2007.

*Strategies for establishing a research/scholarship agenda*, James Madison University Center for Faculty Innovation, Faculty Workshop Series, 2006.

*Tenure and Pre-Tenure Review*, Project NExT Meeting at the Knoxville MathFest,

2006.

*Teaching Issues in Calculus*, Thomson/Brooks-Cole/Cengage Learning Workshop, San Francisco, CA, September 2007.

*Finding your classroom style*, Project NExT Meeting at the MAA Kentucky Spring Meetings, Centre College, 2006.

#### SELECTED MEDIA

*Science Friday* with Bre Prettis of MakerBot and host Ira Flatow, *The ABCs of 3D Printing*, July 2014.

*Taalman/Kohn Calculus on Video*, co-creator and presenter in a series of calculus videos with Peter Kohn, created using SketchBook and ScreenFlow and used with W.H. Freeman's *CalcPortal* online learning center, June 2013.

*Wild about Math with Sol Lederman*, podcast interview with Jason Rosenhouse about Sudoku and mathematics, February 2012.

*The Spark*, radio interview about mathematics and why anyone would do such a thing, WMRA, February 2012.

*With Good Reason*, radio interview entitled "Sudoku: The Puzzle that Ate the World," Virginia Public Radio, May 2006.

#### CONFERENCES AND SESSIONS ORGANIZED

**MOVES Conference Director**, in conjunction with MoMath, the National Museum of Mathematics, in New York City. This conference on the Mathematics of Various Entertaining Subjects drew about 250 mathematicians and educators from around the world to see two keynote addresses, six featured talks, 38 research talks, 17 family track activities, and mathematical evening entertainment.

**SUMS Conference Director**, with Elizabeth Brown, for the yearly Shenandoah Undergraduate Mathematics and Statistics (SUMS) Conference, funded by a National Science Foundation MAA RUMC grant as well as support from JMU and various publishers. Each year we host 200-360 attendees, 25-45 student talks, 20-30 student posters, and two invited keynote addresses from prominent speakers. Nine years of the conference have taken place, from 2005-present.

**Program Chair, MAA MD/DC/VA Sectional Meetings**, organizer for two conferences a year for the regional section of the Mathematical Association of America in 2006-2007 and 2007-2008. Each of the four meetings involved 100-200 attendees, 20-40 faculty and student talks, and 3-4 invited speakers. In addition I was Program Chair Elect in 2005 and organizer of the undergraduate portion of the Spring Meeting in 2009.

**Organizer of Paper Sessions**, organizer or co-organizer for invited or contributed MAA paper sessions, each involving 8-21 speakers:

- Knot Theory and its Applications*, AMS Section Meeting 2014
- The Mathematics of Sudoku and other Pencil Puzzles*, Joint Math Meetings 2012
- The Mathematics of Games and Puzzles*, Joint Math Meetings 2011
- Open and Accessible Problems in Knot Theory*, Portland MathFest 2009
- The Mathematics of Games and Puzzles*, Joint Math Meetings 2009
- The Mathematics of Sudoku and Other Puzzles*, Joint Math Meetings 2007

**Organizer of Panel Sessions**, for the MAA or Project NExT, at the following Joint Math Meetings:

- Integrating Calculus, Precalculus, and Algebra*, Joint Math Meetings 2003
- Project NExT Pedagogy Swap*, Joint Math Meetings 2001

#### EDITORIAL EXPERIENCE

**Puzzles Editor**, for a regular column in the Mathematical Association of America's

newsletter magazine *FOCUS*, 2011–present

**Math Horizons Editorial Board**, board of the undergraduate magazine of the Mathematical Association of America, 2008–present.

**Peer Reviews of Mathematical Articles**, for *College Math Journal*, *Math Horizons*, *Mathematics Magazine*, and the *American Mathematical Monthly*, 2001–present.

**Freelance Mathematical Accuracy-Checker**, including extensive work on *Calculus* (Smith and Minton), *Elementary Linear Algebra* (Anton and Rorres), *Visual Linear Algebra* (Herman and Pepe), *The Art and Craft of Problem Solving* (Zeitz), *College Algebra* (Young), and *Technical Mathematics* (Calter), 2001–2009.

**Manuscript Reviewer**, including *Precalculus: Concepts in Context* (Moran, Davis, and Murphy) and *Applied Calculus*, (Hughes-Hallett, et al), 2000–2002.

**Editor and Founder**, *Online Journal of Undergraduate Papers in Knot Theory*, a resource where undergraduates interested in knot theory can find papers written by their peers, established 2003.

**MATHCOUNTS Proofreader and Mathematical Accuracy-Checker**, for Handbook problems and National and State competition problems, 2002–2008.

**Editor**, *Problem of the Week*, James Madison University Department of Mathematics and Statistics, 2003–2008.

**Editor**, *JMU High School Mathematics Contest*, James Madison University Department of Mathematics and Statistics, 2003 and 2004.

## PUBLISHED PUZZLES

**Various Sudoku Puzzles and Variations**; as part of Brainfreeze Puzzles (with Riley), have provided Sudoku puzzles or variations to a wide variety of publications, books, and institutions, only some of which are listed here:

- Mathematical Association of America, website, MathFest, Joint Meetings
- Millennium Mathematics Project, *plus Magazine*, Cambridge University
- For All Practical Purposes*, a COMAP textbook published by W.H. Freeman
- Mythematics*, Michael Huber, Princeton University Press
- Text and Academic Authors Association, website and Conference Program
- The BIG Notebook*, MAA Business, Industry, and Government SIGMAA
- Math Horizons*, as part of contests and back-page features
- The Addict's Guide to Sudoku*, Fiorella Grossi, Fair Winds Press
- FOCUS* Newsletter of the Mathematical Association of America
- Journal of Online Mathematics (JOMA)*, in a research article
- Who Wants to be a Sudoku Master?*, Madison Area Technical College
- Suki and the Beasts*, a Sudoku Odyssey, Galewski, Chapman, and Schuman
- Harvey Mudd College Bulletin*, the alumni magazine of Harvey Mudd
- MAA Carriage House website and opening ceremonies
- dozens of regional colloquia, conferences, newsletters, and contests
- many dozens of colleges each year as part of Pi Day celebrations

**Sudoku Puzzle Syndication**; as part of Brainfreeze Puzzles (with Riley), provided weekly Sudoku syndication for the following college newspapers in 2007–2011:



- *The Breeze*, James Madison Univ.
- *The Collegian*, Kansas State Univ.
- *GW Hatchet*, George Washington U.
- *The New Hampshire*, UNH
- *The Temple News*, Temple Univ.
- *The Manitau Messenger*, St. Olaf
- *The Scarlet*, Clark University
- *The Oswegonian*, SUNY Oswego
- *The Bucknellian*, Bucknell Univ.
- *The Utah Statesman*, Utah State Univ.
- *The Reveille*, Nebraska Wesleyan U.
- *The Creightonian*, Creighton Univ.
- *The Davidsonian*, Davidson College
- *The Voice*, Westfield State College
- *The Globe*, Point Park University
- *The Lance*, Evangel University
- *The Trinitonian*, Trinity University
- *The Review*, University of Delaware
- *The Oregon Daily Emerald*, U. Oregon
- *George-Anne Daily*, Georgia Southern
- *The Daily O'Collegian*, Oklahoma S.U.
- *Manitou Messenger*, St. Olaf College
- *The Lafayette*, Lafayette College
- *The Skyline*, Sul Ross State University
- *The Daily Pennsylvanian*, U. Penn
- *The Lode*, Michigan Technological U.
- *The Mesa Journal*, UT Permian Basin
- *The Bona Venture*, St. Bonaventure U.
- *The Crusader*, Holy Cross
- *The Maroon*, University of Chicago

## COMMITTEES AND SERVICE

**Puzzle Editor, FOCUS**, editor of puzzle column in each issue of the magazine of the Mathematical Association of America, 2011-present.

**Allendorfer Award Committee**, national committee of the Mathematical Association of America, 2008–present.

**Project NExT Mentor and Consultant**, mentor and consultant on the section and national levels, 2006–present.

**Columnist, College Math Journal**, for the *Media Highlights* section of the journal, 2008–2009.

**Carriage House Advisory Board**, national committee of the Mathematical Association of America, 2005–2009.

**Program Chair**, MD/DC/VA Section of the Mathematical Association of America, 2006–2007. (Program Chair-Elect 2005, Outgoing Program Chair 2008).

**Trevor Evans Award Committee**, national committee of the Mathematical Association of America, 2005–2008.

**Shenandoah Valley Science Fair Judge**, Mathematics, computer science, consumer science categories, James Madison University, 2003–2009.

**JMU Service and Committees**, including Faculty Senate, Academic Programs, Academic Integrity Task Force, Honor Board, Judicial Board, Goldwater Scholarship Committee, Faculty Senate Alternate, Pure Math, Recruitment and Activities, Search, Program Review, and Calculus committees, 2000–present.

## GRANTS

**Regional Undergraduate Mathematics Conference (RUMC)**, a National Science Foundation grant via the Mathematical Association of America, with Elizabeth Brown, \$2,500–\$3,000 yearly for the SUMS Conference each year 2005–present.

**Funds for Group Learning Classroom**, obtained a contribution of \$3,000 from the Center for Faculty Innovation at James Madison University for the purchase of tables to convert a classroom to a group learning environment, Fall 2011.

**National Research Experience for Undergraduates Program (NREUP)**, MAA grant “M3: Mentoring for Minorities in Mathematics, Mancala-type games and numerical solution of ODEs,” co-PI under Anthony Tongen, \$27,499, Summer 2010.

**CCLI (Phase II) Grant**, from the National Science Foundation, titled “Advancing Assessment of Scientific and Quantitative Reasoning,” co-PI under Donna Sundre; \$498,765 renewed November, 2009.

## HONORS

**Distinguished Scholar Award**, recognition from the Department of Mathematics and Statistics at James Madison University for active scholarly work in research publications, 2014.

**SCHEV Outstanding Faculty Award**, the Commonwealth's highest honor for faculty at Virginia's public and private colleges and universities, for superior accomplishments in teaching, research, and public service, from the State Council of Higher Education for Virginia, 2013.

**PROSE Award**, the American Publishers Awards for Professional and Scholarly Excellence, for the book *Taking Sudoku Seriously* in the category of Best Popular Science and Mathematics book of 2012.

**Distinguished Teacher Award**, given annually to one faculty member in the College of Science and Mathematics at James Madison University, 2008.

**Texty Award**, the national Textbook Excellence Award from Text and Academic Authors Association (TAA), for the textbook *Integrated Calculus: Calculus with Pre-calculus and Algebra*, 2006.

**Be the Change Representative**, as one of many James Madison University people whose profiles are featured as part of the national *Be the Change* campaign, and one of twelve people on the 2007 JMU calendar, 2006–present.

**Departmental Distinguished Teacher Award**, given annually to one faculty member in the Department of Mathematics and Statistics at JMU, 2006.

**Alder Award**, a national MAA award that recognizes talented young mathematics teachers whose teaching has had influence beyond their own classrooms, 2005.

**Trevor Evans Award**, a national MAA award for exceptional articles that are accessible to undergraduates and published in the magazine *Math Horizons*, 2003.

**Project NExT Fellow**, a competitive fellowship for new mathematicians and teachers of mathematics, part of the *New Experiences in Teaching* professional development program of the Mathematical Association of America, 2000–2001 Fellowship year.

**L.P. and Barbara Smith Award for Excellence in Teaching**, sole recipient for two years running of the highest graduate teaching award given by the Duke University Mathematics Department, 1998 and 1999.

**Dean's Award for Excellence in Teaching**, one of two recipients (on two occasions) of this university-wide annual award from the Duke University Graduate School, 1997 and 1999.

**Duke Mathematics Teaching Award**, annual award given by the Duke University Mathematics Department to graduate student teachers, 1997.

## MEMBERSHIPS

Mathematical Association of America  
Text and Academic Authors Association