Davide P. Cervone

Department of Mathematics
Union College
Schenectady, New York  12308
(518) 388-6557

364 Kenmore Street
Morgantown, WV  26505
(518) 588-4089    dpvc@union.edu
⟨http://www.math.union.edu/~dpvc/⟩

RESEARCH INTERESTS:

> The geometry and topology of polyhedral manifolds; tight immersions and vertex-minimal immersions of simplicial surfaces in low dimensional spaces; mathematical software development; the use of computer graphics and networks as tools in research, publication, and education.

EDUCATION:

1988–1993   *Brown University*, Providence, Rhode Island; Ph.D. in Mathematics.
Thesis: "Vertex-minimal simplicial immersions of surfaces in three-space"
Advisor: Thomas F. Banchoff

1980–1984   *Williams College*, Williamstown, Massachusetts;
B.A., *summa cum laude*, with highest honors in Mathematics.
Thesis: "Graph coloring and short cycles on the torus"
Advisor: William Lenhart

EMPLOYMENT:

6/96–       *Union College*, Schenectady, NY: Mathematics Department
Assistant Professor 1996–2002; Associate Professor, 2002–2010;
Full Professor, 2010–; Department Chairman, 2007–2009.

8/93–6/96   *The Geometry Center*, Minneapolis, MN: Postdoctoral Research Fellow.

6/92–8/92   *Brown University*, Providence, RI: Research Assistant.

9/89–9/90   *Brown University*, Providence, RI: Math Department Computing Coordinator.

10/85–7/88  *University of Rochester*, Rochester, NY: VAX/VMS group leader and consulting group leader.

8/84–10/85  *University of Rochester*, Rochester, NY: User Services consultant.

TEACHING EXPERIENCE:

6/96–       *Union College*: Assistant Professor, Associate Professor, Full Professor.

6/13, 6/14, *MAA PREP Program*: Co-instructor for on-line course "Authoring Effective Home-
and 6/15    work Problems with WeBWorK".

9/94–5/95   *University of Minnesota Talented Youth Mathematics Program*: Instructor.

6/93–7/93   *A Running Start, Brown University*: Lead Instructor.
Assistant Instructor for a similar course, 5/92–6/92.

9/90–5/92   *Brown University*: Instructor, second- and third-semester calculus (4 semesters).

PUBLICATIONS:

Towards Universal Rendering in MathJax (with Peter Krautzberger and Volker Sorge), Proceedings of W4A 2016, The 13th International Web for All Conference, "Education for All on the Web", Montreal, Canada, 11–13 April 2016.

New Accessibility Features in MathJax (with Peter Krautzberger and Volker Sorge), Proceedings of CSUN 2016, 31st Annual International Technology and Persons with Disabilities Conference, San Diego, CA, 23–25 May 2016; to appear in: *Journal on Technology & Persons with Disabilities*, Volume 4.

Towards ARIA Standards for Mathematical Markup (with Peter Krautzberger and Volker Sorge), Proceedings of DEIMS 2016, The 3rd International Workshop on "Digitization and E-Inclusion in Mathematics and Science 2016", Kanagawa, Japan, February 4–6, 2016.

Employing Semantic Analysis for Enhanced Accessibility in MathJax (with Peter Krautzberger and Volker Sorge), Proceeding of CCNC 2016, The 13th Annual IEEE Consumer Communications & Networking Conference, Las Vegas, Nevada, 9–12 January 2016.

Towards Meaningful Visual Abstraction of Mathematical Notation (with Peter Krautzberger and Volker Sorge), Proceedings of MathUI 2015, 10th Workshop on Mathematical User Interfaces at the Conference on Intelligent Computer Mathematics (CICM), Washington, D.C., 13 July 2015.

The changing landscape of retirement rules of thumb (with Naomi E. Boyd, Presha E. Neidermeyer, and Adolph Neidermeyer), *Journal of Financial Regulation and Compliance*, **23** (2015) no. 2, 106–114.

MathJax: a platform for mathematics on the web, *Notices of the American Mathematical Society*, **59** (2012) no. 2, 312–316.

Voting with rubber bands, weights, and strings (with R. Dai, D. Gnoutcheff, G. Lanterman, A. Mackenzie, A. Morse, N. Srivastava, and W. Zwicker), *Mathematical Social Sciences*, **64** (2012) no. 1, 11-27.

Accounting in the clouds: how web 2.0, cloud computing, and SaaS are impacting the accounting profession (with J. Santucci, B. Morris, P. Neidermeyer, and A. S. Flemming), in *Enterprise 2.0: How Technology, E-Commerce, and Web 2.0 Are Transforming Business Virtually*, ed. by Tracy Tuten, Praeger Publishers, 2010.

Convex decompositions (with W. Zwicker), *Journal of Convex Analysis*, **16** (2009), 367-376.

Which scoring rule maximizes Condorcet efficiency? (with W. Gehrlein and W. Zwicker), *Theory and Decision*, **58** (2005) no. 2, 145–185.

Math Awareness Month 2000: an interactive experience (with T. F. Banchoff), *Mathematics and Culture II Visual Perfection: Mathematics and Creativity*, ed. Michele Emmer, Springer-Verlag, (2005) 83–97.

Every tight immersion in three-space of the projective plane with one handle is asymmetric, *Pacific Journal of Mathematics*, **215** (2004) no. 2, 223–243.

A virtual reconstruction of a virtual exhibit (with T. F. Banchoff), *Multimedia Tools for Communicating Mathematics*, Springer-Verlag, (2002) 27–38.

The `StageTools` package for creating geometry for the web, *Multimedia Tools for Communicating Mathematics*, Springer-Verlag, (2002) 67–78.

A tight polyhedral immersion of the twisted surface of Euler characteristic $-3$, *Topology*, **40** (2001) 571–584.

A tight polyhedral immersion of the real projective plane with one handle, *Pacific Journal of Mathematics*, **196** (2000) 113–122;
see also ⟨`http://www.math.union.edu/locate/rp2-handle`⟩.

An interactive gallery on the internet: "Surfaces beyond the third dimension", with T. F. Banchoff, *International Journal of Shape Modeling*, **5** (1999) 7–22;
see also ⟨`http://www.math.brown.edu/~banchoff/art/PAC-9603/`⟩.

"Tightness for smooth and polyhedral immersions of the real projective plane with one handle", in *Tight and Taut Submanifolds*, Proceedings of the Mathematics Sciences Research Institute, ed. T. E. Cecil and S.-S. Chern, 1997, 119–133.

Tight immersions of simplicial surfaces into three-space, *Topology*, **35** no. 4 (1996) 863–873.

Vertex-minimal simplicial immersions of the Klein bottle in three-space, *Geometriae Dedicata*, **50** (1994) 117–141.

Illustrating *Beyond the Third Dimension*, with T. F. Banchoff, *Leonardo*, special issue: *Visual Mathematics*, **25** (1992) 273–280.

## Lectures and Panels:

"The Elegance of Line: Ruled Surfaces and the Dynamics of the Olivier Models", Math Department Student Seminar, Union College, 20 September 2015.

"WEBSIGMAA panel on Creating Effective On-line Homework Problems" (Panelist), MAA MathFest conference, August 9, 2014.

"Open Source Resources for Mathematics - Benefits and Costs" (Panelist), MAA MathFest conference, August 8, 2014.

"The Hypercube and Hypersphere: Breaking them Down and Building them Up", Math Department Student Seminar, Union College, 24 September 2013.

"MathJax from an Author's Point of View", AMS Special Session on The Present and Future of Mathematics on the Web, Joint Meetings of the AMS and MAA, San Diego, CA, 12 January 2013.

"MathJax: The Past and the Future", SIGMAA on Mathematics Instruction Using the Web, Joint Meetings of the AMS and MAA, San Diego, CA, 11 January 2013.

"WeBWorK Projects: MathJax and MathObjects", *invited presentation*,
Joint Meetings of the AMS and MAA, Boston, MA, 4 January 2012.

"The Hypercube and Hypersphere: Breaking them Down and Building them Up", Leonard C. Sulski Memorial Lecture, College of the Holy Cross, Worchester, MA, 20 March 2012.

"An Introduction to MathJax for the Technically Inclined," SageDays31 conference,
Seattle, Washington, 14 June 2011.

"MathJax: a JavaScript-based engine for including TEX and MathML in HTML,"
Joint Meetings of the AMS-MAA, San Fransisco, CA, 15 January 2010.

"Using Game Show Technology as a Teaching Aid" (with Presha Neidermeyer),
Clute Institute for Academic Research, Honolulu, Hawai'i, 7 January 2009.

"Voting with Rubber Bands and Pulleys" (with William Zwicker), *invited lecture*,
Siena College Mathematics Seminar Lecture, Siena College, 21 November 2008.

"Voting with Pulleys and Rubber Bands" (with William Zwicker),
Undergratuate Mathematics Seminar, Union College, 7 October 2008.

"Voting and the Geometry of Means and Medians" (with William Zwicker),
  *invited presentation and workshop*, Math for America, Manhattan, NY, 20 September 2008.

"Offsets, Inversions, and Evolutes: Taking Plane Ideas into Space," *invited lecture*,
  Art-Math Math-Art Conference, SUNY Albany, Albany, NY, 26 April 2008.

"Tight Surfaces in Three-Dimensional Compact Euclidean Space Forms,"
  Math Department Research Seminar, Union College, 24 January 2008.

"Putting Math on the Web: The jsMath Approach," *invited lecture*,
  Presentation to Faculty, Haverford College, 8 October 2007.

"The Hypercube and Hypersphere: Breaking them Down and Building them Up," *invited lecture*,
  Bi-College Colloquium, Haverford College, Haverford, PA, 8 October 2007.

"The Elegance of Line: Ruled Surfaces and the Dynamics of the Olivier Models,"
  Math Department Student Seminar, Union College, 18 September 2007.

"Beyond the Box: A Whirlwind Tour of the Hypercube," *invited lecture*,
  Sigma Xi Initiation Banquet, Union College, 23 May 2007.

"Tight Surfaces in Three-Dimensional Compact Euclidean Space Forms," *invited lecture*,
  Topology Seminar, State University of New York at Albany, Albany, NY, 30 April 2007.

"WeBWorK at a Liberal Arts College: the Union Experience," *invited lecture*,
  Department of Mathematics, Lafayette College, 22 February 2007.

"The Current State and Future of jsMath," *invited lecture*,
  Conference on the Evolution of Mathematical Communication in the Age of Digital Libraries,
  IMA, University of Minnesota, 8 December 2006.

"The Good, the Bad, and the Ugly: Writing Problems Using WeBWorK's New Parser,"
  Joint Meetings of the AMS-MAA, Knoxville, TN, 12 August 2006.

"Decomposing the Four-Dimensional Hypersphere," *invited lecture*,
  Conference on Four-Dimensional Worlds, Institute for Mathematical Behavioral Sciences and
  The Center for Decision Analysis, University of California at Irvine, 25 February 2005.

"Decomposing the Four-Dimensional Hypersphere,"
  Mathematics Department Student Seminar, Union College, 21 February 2005.

"Tight Surfaces in Three-Dimensional Compact Euclidean Space Forms," *invited lecture*,
  University of Massachussetts at Amherst, Amherst, MA, 16 April 2004.

"From Flatland to Spaceland and Beyond: Visualizing the Four-Dimensional Hypercube," *invited
  lecture*, Slippery Rock University, Slippery Rock, PA, 1 April 2004.

"WeBWorK Developments at Union College: New Problems, Answer Checkers and Graders for
  Multivariable Calculus," *invited lecture*,
  Joint Meetings of the AMS-MAA, Pheonix, AZ, 9 January 2004.

"Visualizing the Four-Dimensional Hypercube: Projections and Slices,"
  Hudson River Undergraduate Mathematics Conference, Union College, 12 April 2003.

"Cubes and Hypercubes: Rotations and Slicing," *invited lecture*
  Society of Hispanic Professional Engineers, Union College, 26 February 2002.

"Mathematical Art: Visualization, Computer Graphics and the Internet," *invited lecture,*
  Electrical Engineering Seminar, Union College, 16 October 2001.

"Interactive Demonstrations Using StageTools,"
  Faculty Research Seminar, Union College, 17 May 2001.

"Visualizing the hypercube: folding and slicing",
  Hudson River Undergraduate Mathematics Conference, Skidmore College, 24 April 2001.

"Creating the virtual gallery 'Surfaces beyond the third dimension'", *invited lecture*,
  Multimedia Tools for Communicating Mathematics, Lisbon, Portugal, 23 November 2000.

"Cubes and hypercubes: rotations and slicing", *invited lecture*,
  Madeira Tecnopolo, Funchal, Portugal, 22 November 2000.

"Research on the internet: past, present and future",
  Teaching and Learning with Technology Series, Union College, 20 October 1999.

"An unexpected polyhedron: geometry on the internet", *invited lecture*,
  Mathematics Colloquium, Brown University, 24 September 1999.

"To the fourth dimension and beyond!",
  Parent's day talk, Union College, 8 May 1999.

"Some new tight immersions of surfaces in three-space",
  Math Department Research Seminar, Union College, 11 November 1998.

"Some new tight immersions of surfaces in three-space", *invited lecture*,
  Topology Seminar, University of Rochester, 6 November 1998.

"The hypercube and the three-sphere", *invited lecture*,
  Student Colloquium, University of Rochester, 6 November 1998.

"Mathematics on the internet: looking back and looking forward", *invited lecture*,
  Sectional Meeting of the AMS, Kansas State University, 27 March 1998.

"Vertex-minimal immersions of simplicial surfaces into three-space", *invited lecture*,
  Topology Seminar, SUNY Albany, 6 March 1998.

"The future of mathematics on the internet: an historical perspective", *invited lecture*,
  Joint Teaching Seminar and Colloquium, SUNY Albany, 4 March 1998.

"Mathematics on the web: looking back and looking forward", *invited lecture*,
  Northeastern sectional MAA fall meeting, Western New England College, 21 November 1997.

"Polyhedra, the fourth dimension and art: mathematics on the Internet", *invited lecture*,
  Student Colloquium, The University of the South, 31 October 1997.

"Mathematics on the web, looking back and looking forward", *invited lecture*,
  Conference on Electronic Communication of Mathematics, The Geometry Center, University
  of Minnesota, 31 May 1997.

"An unusual polyhedral object: mathematics on the internet", *invited lecture*,
  Eastern Pennsylvania and Delaware MAA sectional meeting, Ursinus College, 19 April 1997.

"The hypercube and the three-sphere", *invited lecture*,
  Student Colloquium, Swarthmore College, 27 February 1997.

"Gutenberg today: communicating mathematics in an electronic age",
  Senior Math Colloquium, Union College, 6 November 1996.

"Vertex minimal immersions of surfaces into three-space",
  Math Department Research Seminar, Union College, 28 October 1996.

"A surprising tight polyhedral immersion: mathematics on the web", *invited lecture*,
  Software and mathematical visualization workshop, DIMACS, Princeton, NJ, 28 June 1996.

"Using computer-based labs in multi-variable calculus", *invited lecture*,
  Software and mathematical visualization workshop, DIMACS, Princeton, NJ, 27 June 1996.

"A surprising tight polyhedral immersion: mathematics on the web", *invited lecture*,
   Visualizing Geometry conference, Rutgers University, Camden, March 1996.

"The hypercube and the three-sphere", *invited lectures*,
   Trinity College, 5 February 1996, Dickinson College, 12 February 1996,
   Macalester College, 20 February 1996, Union College, 23 February 1996.

"A tight polyhedral immersion of the real projective plane with one handle",
   Joint Meetings of the AMS-MAA, Orlando, FL, January 1996.

"Gutenberg today: communicating mathematics in an electronic age", *invited lecture*,
   Mathematics Colloquium, St. Olaf College, 19 October 1995.

"A surprising tight polyhedral immersion", *invited lecture*
   Meetings of the Clavius Group, University of Notre Dame, 13 July 1995.

"The National Science and Technology Research Center for Computation of
      Geometric Structures: a postdoc's perspective", *invited lecture*,
   Texas Geometry and Topology Conference, Texas A & M, 12 November 1994.

"Tight immersions of simplicial surfaces into three-space",
   Geometric Analysis seminar, University of Minnesota, 14 January 1994.

"Vertex-minimal immersions of simplicial surfaces into three-space",
   Geometric Analysis seminar, University of Minnesota, 7 January 1994.

"Vertex-minimal immersions of the Klein bottle into three-space",
   Joint meetings of the AMS-MAA, San Antonio, CA, 15 January 1993.

## Grants:

Co-PI of grant from the American Institute of Mathematics to hold a week-long workshop on
   assistive technology for mathematical notation on the web, to be held in 2018.

Sloan Foundation grant "Semantic enrichment of mathematics for accessibility and display on
   the web", 2015.

Co-PI of grant from the American Institute of Mathematics to hold a week-long conference on
   enhancing the authoring capabilities of WeBWorK, 2007.

NSF grant to start electronic journal, *Communications in Visual Mathematics*, 1997–1999.

## Illustrations and Artwork:

*The Cartesian MathArt Hive*, an exhibition by artist John Simms at the Bowery Poetry Club
   in NYC, December 2010, as part of his series "Rhythm of Structure: Mathematics, Art and
   Poetic Reflection", featuring the works of 23 artists, poets, and musicians. My image "Klein
   Fountain" was included by request.

*Knotting Mathematics and Art*, an exhibition connected to a conference held at the University
   of South Florida by artist John Sims, November 1–4, 2007, featuring mathematical artwork
   of more than a dozen participants. Four of my images were requested by the organizer. They
   were used again in a similar presentation in 2009.

Four animations used in the educational materials accompanying the DVD version of *Flatland:
   the Movie*, 2007.

*Mathématiques & Arts*, sponsored by the Société Mathématique de France and the Ministère de
   la Culture, originally held at the Institut Henri Poincaré, Paris, now a traveling exhibit, 2004–.

This exhibit includes six joint works with Thomas Banchoff among the over 100 items by more than thirty mathematical artists; see ⟨`http://hermay.org/ARPAM/IHP/index.html`⟩.

Move clip of unfolded hypercube refolding used in the episode *Tesseract* (sesson 3, epsiode 4) of the TV series *Stange Days at Blake Halsey High*, 2003.

Four artworks produced for and shown in the Social Sciences Gallery, Union College, (at the request of the request of the gallery manager) beginning November 2001 and continuing through the Winter term.

*Para Além da Terceira Dimensão*, physical and virtual reproduction of the art gallery listed below, including a traveling exhibit visiting the cities of Óbidos, Funchal, Covilhã, Tomar, Lisbon, and others in Portugal, and the 23rd Brazilian Colloquium of Mathematics in Rio de Janeiro, July 2001. Two new images were commissioned specially for this exhibit, and all previous works were recreated using modern computer techniques; see ⟨`http://alem3d.obidos.org/`⟩.

*Surfaces Beyond the Third Dimension*, a virtual mathematical art gallery on the web at ⟨`http://www.math.brown.edu/~banchoff/art/PAC-9603/`⟩.

*Math Spans All Dimensions*, an interactive poster for Math Awareness Month 2000, available at ⟨`http://mam2000.mathforum.com/`⟩.

Cover art for *Focus*, March 2000.

Animated logos for the *New York Journal of Mathematics* and the NCTM 2000 project.

Imagery for the 50th anniversary of the American High School Mathematics Exam (AHSME) award, Fall 1998.

Images used in recruiting materials for the MAA during three different drives, 2000–2002.

Poster images used for Hudson River Undergraduate Mathematics Conference held at Union College, April, 1998.

Cover images for the *Notices of AMS* for November 1996 and March 1997.

Illustrations for articles and books, including:

*Shadows of Reality, The Fourth Dimension in Relativity, Cubism, and Modern Thought*,
A. Robbin, Yale Press (2006).

*Tuning the Diamonds: Electromagnetism and Spiritual Evolution*,
S.J. Rennison, Joyfire Publications, (2006).

*Geometric Computation*,
C. Wang, World Scientific Pub. Co., (2004). Portion of cover illustration.

*Statistics, the conceptual approach*,
G.R. Iverson and M. Gergen, Springer-Verlag (1997). Cover illustration, chapter openings.

*Beyond the Third Dimension: Geometry, Computer Graphics, and Higher Dimensions*,
T. F. Banchoff, Scientific American Library, W. H. Freeman and Co., New York (1990).

*On the Shoulders of Giants: New Approaches to Numeracy*,
L. A. Steen, ed., National Academy of Sciences Press (1991).

*Fractal Music, Hypercards, and More. . .*,
M. Gardner, W. H. Freeman and Co., New York (1992). Cover Illustration.

*Rational Points on Elliptic Curves*,
J. H. Silverman and J. Tate, Springer-Verlag, New York (1992).

On the geometry of piecewise circular curves,
T. F. Banchoff and P. Giblin, *Amer. Math. Monthly*, **101** (1994) 403–416.

Images for two novels, several art magazines, a number of websites and posters, various articles, a television episode, ineractive learning materials, and the Ph.D. theses of several mathematics students.

SOFTWARE DEVELOPMENT:

Continuing development of `MathJax` software for representing mathematical equations in web pages, under the sponsorship of the AMS and SIAM, with support from the StackExcahnge, AIP, APS, OSA, Elsevier, Springer, Project Euclid, IEEE, London Math Society, IOP Publishing, and others. MathJax is one of the primary methods of doing this, and it has been incorporated into hundreds of content-management systems, educational platforms, text-processing programs, mathematical algebra systems, on-line journals, EPUB readers, mobile Apps, and more; for example, it is used by Wikipedia to render their mathematical formulas. This work builds on my earlier `jsMath` software that pioneered this technology.

Continuing development of `WeBWorK` problems and system-level software. This is a web-based homework-delivery system from the University of Rochester, and I am one of the core developers of this system. My MathObjects library has changed the way problems are encoded for WeBWorK — and what types of questions can be asked — in a fundamental way.

Continuing development of computer tools for my mathematical research. These include, for example, a simulation of a physical system that models certain voting situations which has lead to a joint publication with William.

Google ChromeVox, Mountain View, CA, July 6–13, 2013. I was invited to the Google Campus to consult with their ChromeVox development team to help them integrate MathJax into their screen reader.

WeBWorK Code Camps (intensie coding workshops for WeBWorK programmers and problem authors): Raleigh, NC, March 7–11, 2013; Ann Arbor, MI, June 1–4, 2013; Rochester, NY, October 4–7, 2013; Portland, OR, August 3–7, 2014;

Wrote the `StageTools` suite of mathematical tools for the `Geomview` graphics program. These programs provide a means of generating and animating geometric objects in arbitrary dimensions, and can be used to create video clips, still images, or interactive demonstrations.

Wrote software to assist in the placement of freshmen into proper calculus courses during the summer orientation program.

Wrote software for handling department card-course sign-up requests via web-based forms.

Developed electronic announcement system for maintaining department seminar series via a forms-based web interface.

COLLEGE SERVICE:

Tenure committee for Shane Cotter, 2010–2011 (chair: Steve Sargent)
Co-chair of department chairs group, 2007–2008
Chairman of the Mathematics Department, 2007–2009
Tenure committee for Kara Doyle, 2005–2006 (chair: Hilary Tann)
Watson Fellowship Committee, chair, 2004–2007
WAC committee member, 2004–2007 (chair: Mary Mar)
Mandeville Gallery Committee, 2002– (chair: Rachel Seligman)
Faculty Review Board, 1998–99 (chair: David Hannay)
Library Committee, 1996–97
Teaching Learning and Technology Roundtable committee, 1996–97 (chair: Linda Cool)
Melon technology grant committee, 1997 (chair: Linda Cool)
Olin Classroom Planning Committee, 1996–97 (chair: Bill Schafer?)
Search Committee for OCS Olin Consultant, 1997 (chair: Diane Keller)
Search Committees for all Math Department hires since 1996 (fourteen of them).
Department Webmaster, 1996–
General department computer resource person, 1996–
Assist with admissions functions (tour guide, parent's weekend lecturer, lunches, etc.), 1996–
Assisted with orientation for new faculty, 1997, 1999

## Editing and Reviewing:

Editor for AMS Student Mathematics Library (SML) series, 2003–2004

Editor for MAA *Journal of On-line Mathematics and its Applications* (JOMA), 2002–2004

Co-founding editor of *Communications in Visual Mathematics*, a totally electronic journal, 1997–1999, now defunct, but archived as part of the MAA Math Digital Library.

Reviewed two books and more than a dozen journal articles for *Topology*, *Discrete Mathematics*, *Computers and Mathematics with Applications*, *The American Math Monthly*, *Proceedings of the MCTM Conference*, *Transactions of the AMS*, *Experimental Mathematics*, *Mathematical Social Sciences*, *Social Choice*, *Processings of the Math Knowledge Management Conference*, and *Mathematics Magazine.*

Reviewer for NSF grant proposal, 1998.

Commissioned reviewer for electronic NCTM2000 standards document, 1999.

## Awards and Honors:

Division Award, Special Libraries Association's Physics-Astronomy-Mathematics (PAM) Division (awarded to MathJax), 12 June 2016.

*Highly Commended Paper Emerald Literati Network Awards for Excellence*, for "The changing landscape of retirement rules of thumb", 2016

*Stillman Prize*, Union College, college-wide teaching award, one given yearly, 2003

*Graduate Research Assistantship*, Brown University, 1989–1990, 1992–1993

*Graduate Teaching Assistantship*, Brown University, 1990–1992

*Graduate Fellowship*, Brown University, 1988–1989

*Goldberg Prize* for Excellence in Colloquium Performance, Williams College, 1984

*Benedict Prize* in Mathematics, Williams College, 1982

*Tyng Scholarship*, Williams College, 1980–1984

Member of the *American Mathematical Society*, the *Mathematical Association of America*, *Phi Beta Kappa*, and *Sigma Xi*, The Scientific Research Society