

Erik D. Demaine

Artist Curriculum Vitæ

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American and Canadian
Born in Canada on February 28, 1981

BIOGRAPHY

Erik Demaine is a visual artist and theoretical computer scientist. His artistic focus is on sculpture with hand-folded paper and hand-blown glass, with additional interests in film and photography. Most of his artwork explores the connections between mathematics and art, using mathematics as both a tool and inspiration for sculpture. His curved-crease folded paper sculptures, jointly designed and made with his father Martin Demaine, are in the permanent collections of the Museum of Modern Art (MoMA) in New York and of the Smithsonian American Art Museum. Erik is based at the Massachusetts Institute of Technology where he is an Professor in computer science. He received a MacArthur Fellowship as a “computational geometer tackling and solving difficult problems related to folding and bending—moving readily between the theoretical and the playful, with a keen eye to revealing the former in the latter”. He appears in the recent documentary *Between the Folds* about the art and science of origami.

ARTIST STATEMENT

The most surprising and exciting results arise at the borders between different fields of study. This importance of interdisciplinary work is well known in the sciences, but it extends far beyond, in particular to the boundary between science and art. By pursuing every project in both scientific and artistic directions, our work can be in both fields simultaneously. By imagining new forms of visual art, we encounter new scientific questions about how they might be constructed; and scientific results and unsolved problems inspire new visual art illustrating the beauty and challenge of science, which in turn helps us better understand the science. This inspiration in both directions leads us to more unusual and rich results, both artistic and scientific, than would be possible by focusing in just one discipline.

Central to this marriage between fields is an effective collaboration among different people with different backgrounds. In particular, much of my artistic and scientific work is joint with my father, Martin Demaine, whose original background is in visual arts, while my original background is in computer science. We have taught each other about the practice and beauty of both sides, and now work extensively together where they meet. We find that collaboration brings together more ways of thinking and more tools than any one person could possess, making for more balanced and less pretentious work. We enjoy collaborating with over 300 other artists and scientists.

Another type of collaboration is between different media. While our folded paper sculpture and blown glass sculpture continue to evolve, our most recent work aims to marry these two materials together. Complementary video documenting the creation of the work further enriches the viewer’s experience, showing not only the finished work but also the process that brought it to be. We envision a future renaissance where the cooperation between multiple disciplines, people, and media is an essential way of life at all levels.

PERMANENT COLLECTIONS AND INSTALLATIONS

1. “Natural Cycles”, “Hugging Circles”, “Green Balance” (3 paper sculptures, joint work with Martin Demaine), Renwick Gallery, Smithsonian American Art Museum, Washington, DC, acquired 2011.
2. “Floating glass ceiling” (waterjet-cut glass, joint work with Martin Demaine and Jo Ann Fleischhauer), part of *Leonardo Dialogo*, an installation at UT Health Science Center, MD Anderson Cancer Center, Houston, Texas, installed 2010.
3. “Computational Origami” (3 paper sculptures, joint work with Martin Demaine), Museum of Modern Art (MoMA), New York, acquired 2008.

EXHIBITIONS

July 2012– Feb. 2013	Renwick Gallery, Smithsonian American Art Museum, Washington, DC	“40 under 40: Craft Futures” (invitational), curated by Nicholas R. Bell	paper sculptures (joint work with Martin L. Demaine)
May–July 2012	Dorsky Gallery Curatorial Programs, Long Island City, NY	“(Un)folding Patterns” (invitational), curated by Ombretta Agrò Andruff	paper sculptures (joint work with Martin L. Demaine)
Apr. 2012	Mary Porter Sesnon Gallery, University of California, Santa Cruz	“Origami Exhibition” (invitational), curated by Linda Pope	paper sculptures (joint work with Martin L. Demaine)
Jan.–Apr. 2014	Peoria Riverfront Museum, Peoria, IL	“Folding Paper: The Infinite Possibilities of Origami” (invitational), curated by Meher McArthur (traveling show)	“Splash II” and “Three Waves Meeting II” (paper sculptures, joint work with Martin L. Demaine)
Oct. 2013– Jan. 2014	Oregon Historical Society, Portland, OR		
June–Sept. 2013	Crocker Art Museum, Sacramento, CA		
Jan.–Apr. 2013	Leigh Yawkey Woodson Art Museum, Wausau, WI		
Oct.–Dec. 2012	Thorne-Sagendorph Art Gallery, Keene, New Hampshire		
Mar.–Aug. 2012	Japanese American National Museum, Los Angeles, CA		
Feb.–Apr. 2012	Fuller Craft Museum, Brockton, MA	“Mens et Manus” (juried), curated by Perry Price	paper sculptures (joint work with Martin L. Demaine)
Jan.–Mar. 2012	Moreau Center for the Arts, Saint Mary’s College, Notre Dame, IN	“Math+Art Collaborative” (invitational), curated by Steven Broad	paper and glass sculptures (joint work with Martin L. Demaine)
Jan.–Feb. 2012	Guided By Invoices, Chelsea, New York City	Solo show, curated by Chris Byrne	paper and glass sculptures (joint work with Martin L. Demaine)
Jan. 2012	Joint Mathematics Meetings, Boston, MA	“Exhibition of Mathematical Art” (juried), curated by Robert Fathauer	“Science/Art” (limited-edition poster, joint work with Martin L. Demaine)
Oct.–Nov. 2011	Sarah Silberman Art Gallery, Montgomery College, Rockville, MD	“Art and Science Exhibition” (invitational), curated by Kay McCrohan and Percy North	paper and glass sculptures and video (joint work with Martin L. Demaine)
Feb.–Apr. 2011	Central Booking, Brooklyn, NY	“Measure for Measure” (invitational), curated by Maddy Rosenberg	“The Circle” series (paper sculptures, joint work with Martin L. Demaine) “Yes/No” (limited-edition poster, joint work with Martin L. Demaine and Sarah Stengle)

Jan. 2010	Joint Mathematics Meetings, San Francisco, CA	“Exhibition of Mathematical Art” (juried), curated by Robert Fathauer	“Natural Cycles” (paper sculpture, joint work with Martin L. Demaine)
Nov. 2009– Jan. 2010	Peel Gallery, Houston, TX	“paper: torn twisted & cut” (invitational), curated by Steven Hempel	“Pushing Curves to the Limit” (paper sculptures, joint work with Martin L. Demaine)
Mar. 2009	Art C�ezar, Rotselaar, Belgium	“Papier, Vergankelijke materie, Blijvende indrukken (Paper, Transient matter, Lasting impressions)” (invitational), curated by Isabel De Craene	“Waves” (paper sculptures, joint work with Martin L. Demaine)
Nov. 2008– Oct. 2009	Museum of Modern Art (MoMA), New York City	“Rough Cut: Design Takes a Sharp Edge” (invitational), curated by Paola Antonelli	“Computational Origami” (paper sculptures, joint work with Martin L. Demaine)
Feb.–May 2008	Museum of Modern Art (MoMA), New York City	“Design and the Elastic Mind” (invitational), curated by Paola Antonelli	“Computational Origami” (paper sculptures, joint work with Martin L. Demaine)
Feb.–Mar. 2007	Andrew and Laura McCain Gallery, Florenceville, Canada	Solo show, curated by Mandy Ginson	“Fluency” (glass sculptures, joint work with Martin L. Demaine)
2006	MIT Museum, Cambridge, MA	(invitational)	“Elephant goblets” (glass sculptures, joint work with Martin L. Demaine)
Feb. 2005	Massachusetts Institute of Technology, Cambridge, MA		“Junkyard Art: The Art of Recycling” (mixed-media sculpture, joint show with students)
Apr.–June 2004	Boston Public Library, Boston, MA	(traveling show)	“Building with Books: A Bibliophile’s Bedroom” (mixed-media sculpture, joint show with students)
Feb.–Mar. 2004	Massachusetts Institute of Technology, Cambridge, MA		

FILM SHOWINGS

Lino Tagliapietra: Glass Magician (joint work with Martin L. Demaine)

- Dec. 2011 Creative Arts Film Festival
- Nov. 2011 30th Three Rivers Film Festival, Competitive Shorts Program, Pittsburgh, PA
- Nov. 2011 7th River’s Edge International Film Festival, Paducah, KY
- May–Aug. 2011 Hallwylska museet, “Samtida konstglas fr an Murano — ur Fondazione di Venezias samlingar”, Stockholm, Sweden
- Apr. 2011 MIT150: Under the Dome, Cambridge, MA
- Apr. 2011 Mobilia Gallery Glass Quake Symposium, Boston, MA
- Apr. 2011 The Entertainment Gathering, Monterey, CA
- Mar. 2011 CraftBoston, Boston, MA

Feb.–May 2011 Istituto Veneto di Scienze, Lettere ed Arti, Palazzo Cavilli-Franchetti, “Lino Tagliapietra, da Murano allo Studio Glass, opere 1954–2011”, Venice, Italy

EDUCATIONAL BACKGROUND

- Ph.D. University of Waterloo, 1996–2001.
- Ph.D. University of Waterloo, 1995–1996.
- Ph.D. Dalhousie University, 1993–1995.

POSITIONS HELD

- July 2011–present Professor, Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology
- July 2007–June 2011 Associate Professor with tenure, Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology
- July 2005–June 2007 Associate Professor, Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology
- July 2005–June 2008 Esther and Harold E. Edgerton Professor, Massachusetts Institute of Technology
- Sept. 2001–June 2005 Assistant Professor, Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology
- Sept. 2001–present Member, Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology

TEACHING

Teaching computer science since 1999. Listed here are art-related classes; others described at <http://erikdemaine.org/classes/>.

- Summer 2012 Folding Glass, cotaught class during 3-week artist-in-residence, Pilchuck Glass School, Stanwood, Washington.
- Fall 2010 MIT 6.849, Geometric Folding Algorithms: Linkages, Origami, Polyhedra. 39 MIT students. Rated 6.5/7.0. According to the *Underground Guide to Course 6*, “Demaine had a casual yet engaging style of presentation . . . had good blackboard technique and explained the concepts of the class clearly . . . [and] was very enthusiastic and knowledgeable about the material.” One student wrote “this class was one of the reasons I came to MIT!”
- Fall 2007 MIT 6.885, Geometric Folding Algorithms: Linkages, Origami, Polyhedra. 20 MIT students, 44 listeners. According to the *Underground Guide to Course 6*, “Demaine . . . is an enthusiastic and fun lecturer. . . . Several students took the class because of the professor.” Rated 6.6/7.0.
- IAP 2007 MIT 6.096, Knot Language: Recreating Inca Quipu/Khipu, with Martin Demaine and Jean-Jacques Quisquater. 23 credit MIT students, 20 listeners.
- IAP 2005 MIT IAP 6451, Junkyard Art: The Art of Recycling, with Jeff Smith, Justin Adams, and Martin Demaine.
- Fall 2004 MIT 6.885, Folding and Unfolding in Computational Geometry. 12 MIT students, 7 listeners. According to the *Underground Guide to Course 6*, “Demaine . . . was universally praised as an excellent, clear lecturer who made good use of the blackboard and projector. . . . No CS student should leave MIT without taking an Erik Demaine class.” Rated 6.5/7.0.
- Fall 2004 MIT 4.491, Form-Finding and Structural Optimization, with Barb Cutler, Martin Demaine, Simon Greenwold, Axel Kilian, and John Ochsendorf.
- Spring 2004 MIT 4.493, 3-D Design Tools for Equilibrium: Exploring Gaudi’s World, with Barb Cutler, Martin Demaine, Axel Kilian, and John Ochsendorf.
- IAP 2004 MIT IAP 5804, Building with Books, with Martin Demaine, Chris Dewart, Stephanie Hartman, Wendy Jacob, and John Ochsendorf.

CURATORIAL WORK

1. MIT 150 Curatorial Board (2010–2011)
2. Curator of CSAIL Collection (2003–present)
3. Video committee chair, 12th Annual Video Review of Computational Geometry, 19th Annual Symposium on Computational Geometry, San Diego, California, June 2003.
4. Video committee, 9th Annual Video Review of Computational Geometry, 16th Annual ACM Symposium on Computational Geometry, Hong Kong, June 2000.

PUBLICATIONS

Published two co-authored books, two co-edited books, over 125 refereed journal papers, and over 100 other refereed conference papers, jointly with over 310 co-authors. For details, see <http://erikdemaine.org/cv.pdf>. Listed here are art-related publications.

1. “Balloon Polyhedra” (joint work with Martin L. Demaine and Vi Hart), in *Shaping Space: A Polyhedral Approach*, M. Senechal and G. Fleck, eds., Second Edition, to appear.
2. “The Distance Geometry of Music” (joint work with Francisco Gomez-Martin, Henk Meijer, David Rappaport, Perouz Taslakian, Godfried T. Toussaint, Terry Winograd, and David R. Wood), *Computational Geometry: Theory and Applications*, to appear. Special issue of selected papers from CCCG 2005.
3. “Recreational Computing: Puzzles and tricks from Martin Gardner inspire math and science”, *American Scientist*, volume 98, number 6, pages 452–456, Nov.–Dec. 2010.
4. “Reconstructing David Huffman’s Legacy in Curved-Crease Folding” (joint work with Martin L. Demaine and Duks Koschitz), in *Origami⁵: Proceedings of the 5th International Conference on Origami in Science, Mathematics and Education*, pages 39–52, Singapore, July 2010, A K Peters.
5. “Conveyer-Belt Alphabet” (joint work with Martin L. Demaine and Belén Palop), in *Findings in Elasticity*, H. Aardse and A. van Baalen, eds., pages 86–89, Apr. 2010, Pars Foundation, Lars Müller Publishers.
6. “Conveyer Belt Puzzle Font” (joint work with Martin L. Demaine and Belén Palop), in *Proceedings of the 9th Gathering for Gardner*, to appear, Atlanta, GA, Mar. 2010.
7. “Origami Maze Puzzle Font” (joint work with Martin L. Demaine and Jason Ku), in *Proceedings of the 9th Gathering for Gardner*, to appear, Atlanta, GA, Mar. 2010.
8. “Algorithms Meet Art, Puzzles, and Magic”, in *Proceedings of the 11th Algorithms and Data Structures Symposium*, Lecture Notes in Computer Science 5664, pages 193, Banff, Canada, Aug. 2009.
9. “Mathematics Is Art” (joint work with Martin L. Demaine), in *Proceedings of 12th Annual Conference of BRIDGES: Mathematics, Music, Art, Architecture, Culture*, pages 1–10, Banff, Canada, July 2009.
10. “Curved Crease Origami” (joint work with Duks Koschitz and Martin L. Demaine), in *Abstracts from Advances in Architectural Geometry*, pages 29–32, Vienna, Austria, Sept. 2008.
11. “Computational Balloon Twisting: The Theory of Balloon Polyhedra” (joint work with Martin L. Demaine and Vi Hart), in *Proceedings of the 20th Canadian Conference on Computational Geometry*, Montréal, Canada, Aug. 2008. Invited to special issue of *Computational Geometry: Theory and Applications*.
12. *Geometric Folding Algorithms: Linkages, Origami, Polyhedra* (joint work with Joseph O’Rourke), Cambridge University Press, July 2007.
13. “Sand Drawings and Gaussian Graphs” (joint work with Martin L. Demaine, Perouz Taslakian, and Godfried T. Toussaint), *Journal of Mathematics and the Arts*, volume 1, number 2, pages 125–132, June 2007.
14. “Curves in the Sand: Algorithmic Drawing” (joint work with Mirela Damian, Martin L. Demaine, Vida Dujmović, Dania El-Khechen, Robin Flatland, John Iacono, Stefan Langerman, Henk Meijer, Suneeta Ramaswami, Diane L. Souvaine, Perouz Taslakian, and Godfried T. Toussaint), in *Proceedings of the 18th Canadian Conference on Computational Geometry*, pages 11–14, Aug. 2006.
15. “Puzzles, Art, and Magic with Algorithms” (joint work with Martin L. Demaine), *Theory of Computing Systems*, volume 39, number 3, pages 473–481, June 2006. Special issue of selected papers from FUN 2004.

16. “The Helium Stockpile: A Collaboration in Mathematical Folding Sculpture” (joint work with Martin L. Demaine and A. Laurie Palmer), *Leonardo*, volume 39, number 3, pages 233–235, June 2006.
17. “Puzzles, Art, and Magic with Algorithms” (joint work with Martin L. Demaine), in *Proceedings of the 15th Annual International Symposium on Algorithms and Computation*, Lecture Notes in Computer Science 3341, pages 1, Hong Kong, China, 2004.
18. “Hinged Dissection of the Alphabet” (joint work with Martin L. Demaine), *Journal of Recreational Mathematics*, volume 31, number 3, pages 204–207, 2003.
19. “The CCCG 2001 Logo” (joint work with Martin L. Demaine and Anna Lubiw), in *Proceedings of the 13th Canadian Conference on Computational Geometry*, pages iv–v, Waterloo, Canada, Aug. 2001.
20. “Polyhedral Sculptures with Hyperbolic Paraboloids” (joint work with Martin L. Demaine and Anna Lubiw), in *Proceedings of the 2nd Annual Conference of BRIDGES: Mathematical Connections in Art, Music, and Science*, pages 91–100, Winfield, KS, July–Aug. 1999.
21. “Metamorphosis of the Cube” (joint work with Martin Demaine, Anna Lubiw, Joseph O’Rourke, and Irena Pashchenko), in *8th Annual Video Review of Computational Geometry, Proceedings of the 15th Annual ACM Symposium on Computational Geometry*, pages 409–410, Miami Beach, FL, June 1999.
22. “Planar Drawings of Origami Polyhedra” (joint work with Martin L. Demaine), in *Proceedings of the 6th Symposium on Graph Drawing*, Lecture Notes in Computer Science 1547, pages 438–440, Montréal, Canada, Aug. 1998.
23. “Planar Drawings of Origami Polyhedra” (joint work with Martin L. Demaine), Technical Report CS-98-17, Department of Computer Science, University of Waterloo, Aug. 1998.

INVITED TALKS

Given over 85 plenary talks and over 95 other invited talks at events and institutions around the world. For details, see <http://erikdemaine.org/cv.pdf>. Listed here are art-related talks.

- Nov. 2012 “To Be Announced”, Plenary talk, AMS Arnold Ross Lecture, Museum of Mathematics, New York, NY.
- Mar. 2012 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, Pólya Lecture, Kentucky Section Meeting of the Mathematical Association of America, Louisville, KY.
- Mar. 2012 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, Pólya Lecture, Southeastern Section Meeting of the Mathematical Association of America, Atlanta, GA.
- Mar. 2012 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, Pólya Lecture and Anderson Distinguished Lecture, Louisiana/Mississippi Section Meeting of the Mathematical Association of America, Natchitoches, LA.
- Jan. 2012 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, Carnegie Capital Science Evening, Carnegie Institution for Science, Washington, DC.
- Nov. 2011 “Algorithms Meet Art, Puzzles, and Magic”, Invited talk, Computer Science Colloquium Series, University of Maryland, College Park, MD.
- Oct. 2011 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, Distinguished Lecture Series, Thematic Program on Discrete Geometry and Applications 2011, Fields Institute, Toronto, Canada.
- May 2011 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, Pólya Lecture, Michigan Section Meeting of the Mathematical Association of America, Kalamazoo, MI.
- Apr. 2011 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, Pólya Lecture, 79th Annual Wisconsin Section Meeting of the Mathematical Association of America, Menomonee, WI.
- Apr. 2011 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, Pólya Lecture, Missouri Section Spring Meeting of the Mathematical Association of America, Columbia, MO.
- Mar. 2011 “Developments in Mathematical Art” (joint work with George Hart, Martin Demaine, Susan Happersett, and Sarah Stengle (moderator)), Panel discussion.
- Mar. 2011 “The Geometry of Origami, from Science to Sculpture”, Plenary talk, Math Encounters, Museum of Mathematics, New York, NY.
- Feb. 2011 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, Pólya Lecture, Northern California, Nevada and Hawaii Section Meeting of the Mathematical Association of America, Santa Rosa, CA.
- Jan. 2011 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, Distinguished Lecture Series, Uni-

- versity of British Columbia, Vancouver, Canada.
- Nov. 2010 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, 55th Annual Fall Sectional Meeting, Northeastern Section, Mathematical Association of America, Providence, RI.
- Oct. 2010 “Algorithms Meet Art, Puzzles, and Magic”, Invited talk, Renaissance colloquium, Renaissance Technologies, East Setauket, NY.
- Sept. 2010 “Magic, Origami and Puzzles: The Art of Mathematics”, Plenary talk, Richard and Louise Guy Lecture, University of Calgary, Calgary, Canada.
- July 2010 “Computational Origami from Science to Sculpture”, Invited talk, Huamin Primary School, Singapore.
- July 2010 “Computational Origami from Science to Sculpture”, Plenary talk, 5th International Conference on Origami in Science, Mathematics and Education, Singapore.
- July 2010 “Algorithms Meet Art, Puzzles, and Magic”, Invited talk, Department of Mathematics, National University of Singapore, Singapore.
- Apr. 2010 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, 17th Annual Hudson River Undergraduate Mathematics Conference, Keene, NH.
- Apr. 2010 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, 26th British Colloquium for Theoretical Computer Science, Edinburgh, Scotland.
- Jan. 2010 “Mathematics Is Art: Art Is Mathematics” (presented with Martin L. Demaine), Plenary talk, The Entertainment Gathering, Monterey, CA.
- Jan. 2010 “Computational Origami from Science to Sculpture”, Invited talk, MAA Invited Paper Session on The Mathematics of Origami, Joint Mathematics Meetings of the American Mathematical Society and Mathematical Association of America, San Francisco, CA.
- Jan. 2010 “Mathematics Is Art”, Invited talk, MAA Session on Arts and Mathematics, I, Joint Mathematics Meetings of the American Mathematical Society and Mathematical Association of America, San Francisco, CA.
- Jan. 2010 “Algorithms Meet Art, Puzzles, and Magic”, Invited talk, Northwestern University, Chicago, IL.
- Nov. 2009 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, 7th Japan Conference on Computational Geometry and Graphs, Kanazawa, Japan.
- Sept. 2009 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, 17th Annual European Symposium on Algorithms, Copenhagen, Denmark.
- Sept. 2009 “Computational Origami from Science to Sculpture”, Invited talk, Session on “From Flapping Birds to Space Telescopes: The Modern Science of Origami”, British Science Festival, Guildford, England.
- Sept. 2009 “Computational Origami from Science to Sculpture”, Invited talk, British Origami Society Autumn Convention, Winchester, England.
- Aug. 2009 “Algorithms Meet Art, Puzzles, and Magic”, Plenary talk, 11th Algorithms and Data Structures Symposium, Banff, Canada.
- July 2009 “Mathematics Is Art”, Plenary talk, 12th Annual Conference of BRIDGES: Mathematical Connections in Art, Music, and Science, Banff, Canada.
- May 2009 “Between the Folds: The Art and Science of Origami”, Plenary talk, The Graduate Center, City University of New York, New York, NY.
- Nov. 2008 “Mathematics meets Art, Puzzles, and Magic: Fun with Algorithms”, Plenary talk, International Francqui Chair Lectures, Université Libre de Bruxelles, Brussels, Belgium.
- July 2008 “Fun with Algorithms and Folding I: Mathematics Meets Art, Puzzles, and Magic”, Plenary talk, Earle Raymond Hedrick Lecture Series, MathFest 2008, Madison, WI.
- Apr. 2008 “Computational Origami”, Plenary talk, The Design and the Elastic Mind Symposium (MIND 2008), New York, NY.
- Apr. 2007 “Mathematics Meets Art, Puzzles, and Magic: Fun with Algorithms”, Plenary talk, Cantrell Lecture Series, University of Georgia, Athens, GA.
- Feb. 2005 “Mathematics Meets Origami, Art, Puzzles, and Magic: Fun with Algorithms”, Plenary talk, Annual Meeting of the American Association for Advancement of Science, Washington, DC.
- May 2004 “Puzzles, Art, and Magic with Algorithms”, Plenary talk, 3rd International Conference on FUN

- with Algorithms, Isola d'Elba, Italy.
 July 1999 “Polyhedral Sculptures with Hyperbolic Paraboloids”, 2nd Annual Conference of BRIDGES: Mathematical Connections in Art, Music, and Science, Winfield, KS.

MEDIA COVERAGE

Video:

- Featured on *GATCHAN!*, NHK Japan, Nov. 2010.
 Featured on Belgian talk show *De Laatste Show*, Mar. 2009.
 Interviewed in 56-minute documentary *The Man Who Saved Geometry* about Donald Coxeter, 2009.
 Featured in 56-minute documentary *Between the Folds* about origami, 2008.
 Featured on *Chronicle*, WCVB TV Boston, May 2005.
 Featured on *Daily Planet*, Discovery Channel Canada, Oct. 2003.
 Featured on *CBS Sunday Morning*, Oct. 2003.

Radio:

- Radio 1 Belgium, Feb. 2009.
 Shift, CBC Radio, Feb. 2007.
 Maritime Magazine, CBC Radio, Feb. 2004.
 The World, BBC Radio, Nov. 2003.
 Quirks and Quarks, CBC Radio, Nov. 2003.
 Morning Edition, NPR, Oct. 2003.
 Associated Press, Oct. 2003.

Books:

- 2010 Joint Mathematics Meetings Exhibition of Mathematical Art*, edited by Robert Fathauer and Anne Burns, mathartfun, 2010. Catalog featuring our Natural Cycles sculpture (including on the cover).
Visions: MIT Interviews by Andrea Frank, 2008.
Folded: Paper in Design, Art, Architecture and Industry by Petra Schmidt and Nicola Stattmann, Birkhäuser, 2009, pp. 240–241. Features our Computational Origami sculptures.
Design and the Elastic Mind by Paola Antonelli, The Museum of Modern Art, New York, 2008. Features our Computational Origami sculptures.
Fragments of Infinity by Ivars Peterson, John Wiley and Sons, Inc., 2001, pp. 79–80. Features our Hyparhedra sculptures.

Magazines and newspapers: (a selection from over 200 articles)

- “Shifty Science: Programmable Matter Takes Shape with Self-Folding Origami Sheets” by John Matson, *Scientific American*, June 2010.
 “Magic numbers: A meeting of mathematical tricksters” by Alex Bellos, *New Scientist*, Mar. 2010.
 “The mutual inspiration of art and mathematics” by Julie Rehmeyer, *Science News*, Mar. 2010.
 “Power of Mathematics”, *Asahi Shimbun Globe*, Feb. 2010.
 “Origami, science-inspired exhibition makes waves” by Sarah Turner, *The Daily Cougar*, Nov. 2009.
 “Math, Art, and Origami at MIT” by Emily Stone, *Popular Science*, Apr. 2009.
 “Creased lightning”, *The Economist*, Mar. 2009.
 “Even chimps know when they’re not getting paid enough” by Trine Tsouderos and Robert Mitchum, *Chicago Tribune*, Feb. 2009.
 “To Fold a Bunny Rabbit” by John Bohannon, *Science*, Feb. 2009.
 “De Mozarts van de wiskunde” by Dirk Huylebrouck, *De Standaard*, Jan. 2009.
 “De wiskunde van de vouw” by Bennie Mols, *NRC Handelsblad*, Dec. 2008.
 “De wiskunde van de vouw” by Bennie Mols, *De Standaard*, Nov. 2008.
 “Sweet Inspiration” by Barry Cipra, *Science*, Sept. 2008.
 “Shapeshifting Made Easy” by Barry Cipra, *Science*, Sept. 2008.
 “Computer Scientists Honored with International Awards” by Josh Fischman, *The Chronicle of Higher Education*, Mar. 2008.

- “Exhibition: Beauty meets utility at MoMA” by Josie Glausiusz, *Nature*, Mar. 2008.
- “Of greed and ants”, *The Economist*, Sept. 2007.
- “Numerical Nomad” by Matthew Hutson, *Psychology Today*, July 2007.
- “Not Bound By Expectation”, *Bugle-Observer*, Mar. 2007.
- “Why Origami Is Critical to New Drugs” by Unmesh Kher, *Time*, Sept. 2005.
- “Erik Demaine” by Monica Byrne, *Atomica*, Sept. 2005.
- “Origami as the Shape of Things to Come” by Margaret Wertheim, *The New York Times*, Feb. 2005.
- “Revolutionary Minds” by Adeline Goss, *Seed Magazine*, Oct. 2004.
- “Professor Tetris” by Steve Nadis, *Wired*, Jan. 2004.
- “Der mit den Falten rechnet” by Hubertus Breuer, *Die Zeit*, Jan. 2004.
- “Unfolding the field of computational origami” by Stephen Strauss, *The Globe and Mail*, Oct. 2003.
- “Random Samples: People” by Yudhijit Bhattacharjee, *Science*, Oct. 2003.
- “Former Halifax whiz kid wins ‘Genius Award’” by Joseph Brean, *National Post*, Oct. 2003.
- “Canadian ‘genius’ wins huge U.S. grant” by Caroline Alphonso, *The Globe and Mail*, Oct. 2003.
- “24 Win MacArthur ‘Genius Awards’ of \$500,000” by Felicia R. Lee, *The New York Times*, Oct. 2003.
- “Boston-area thinkers get 6 of 24 ‘genius’ grants” by Gareth Cook and Katherine Lutz, *The Boston Globe*, Oct. 2003.
- “Granted, They’re All Geniuses” by Natalie Hopkinson, *Washington Post*, Oct. 2003.
- “PopSci’s 2nd Annual Brilliant 10” by Laurie Goldman, *Popular Science*, Sept. 2003.
- “Die Welt in Falten gelegt” by Tobias Hürter, *Süddeutsche Zeitung*, Mar. 2003.
- “Out of the fold” by Steve Nadis, *New Scientist*, Jan. 2003.
- “A prodigy on paper” by Sanjida O’Connell, *The Times*, June 2002.
- “Origami solves road map riddle” by Helen Pearson, *Nature*, Feb. 2002.
- “Road scholar finds home at MIT” by Ellen Barry, *The Boston Globe*, Feb. 2002.

AWARDS

- Platinum Reel Award Winner (Nevada Film Festival, 2011) and Honorable Mention Award, Experimental Film Category (Los Angeles New Wave International Film Festival, 2011) for our 13-minute video “Lino Tagliapietra: Glass Magician” (2011)
- George Pólya Lecturer, Mathematical Association of America, 2010–2012
- Université Libre de Bruxelles Gold Medal, 2008
- Earle Raymond Hedrick Lecturer, Mathematical Association of America, 2008
- Katayanagi Emerging Leadership Prize, Carnegie Mellon University and Tokyo University of Technology, 2008
- International Francqui Chair of Belgium and Francqui Gold Medal, 2007
- Honorary Doctor of Laws degree, Dalhousie University, 2007
- Alfred P. Sloan Research Fellowship, 2006–2008
- Esther and Harold E. Edgerton Professor at MIT, 2005–2008
- Harold E. Edgerton Faculty Achievement Award, Apr. 2005
- DOE Early Career Principal Investigator Award, Sept. 2004
- NSF CAREER Award, June 2004
- Ruth and Joel Spira Award for Distinguished Teaching in EECS at MIT, May 2004
- MacArthur Fellowship, Nov. 2003
- NSERC Doctoral Prize and Silver Medal, Mar. 2003 (best PhD thesis & research in Canada, 1 of 4 awards)
- Popular Science “Brilliant 10”, Sept. 2003
- Boston Magazine “40 Bostonians to Watch”, June 2002
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