

DAVID A. REIMANN

Mathematics and Computer Science
Albion College
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Education

PhD in Computer Science, Wayne State University, Detroit, Michigan, 1998.
Parallel Computational Methods for Cone Beam X-Ray Computed Tomography
MA in Mathematics, Wayne State University, Detroit, Michigan, 1990.
BS in Mathematics, The University of Toledo, Toledo, Ohio, 1986.

Employment History

Albion College, Albion, Michigan 1996 – present
Mathematics and Computer Science Department
Professor, July 2013 – present
Chair, July 2002 – June 2009
Associate Professor, July 2002 – June 2013
Assistant Professor, December 1998 – June 2002
Instructor, August 1996 – December 1998

Henry Ford Health System, Detroit, Michigan October 1986 – August 1996
Department of Diagnostic Radiology and Medical Imaging
Radiologic Computer Systems Specialist

Professional and Honorary Societies

The American Mathematical Society (AMS)
The Mathematical Association of America (MAA)
The ACM Special Interest group on Computer Science Education (SIGCSE)
Kappa Mu Epsilon (KME)
Sigma Xi ($\Sigma\Xi$)

Awards and Commendations

Best photograph, painting, or print, 2022 Joint Mathematics Meetings, *Septenary Circles*

Teaching Experience

LA 101: Mathematics and Technology in the Arts
LA 101: Innovations in Imaging
Math 120: Precalculus
Math 125: Functions
Math 127: Trigonometry
CS 151: Information Technology

CS 171: Introduction to Computer Science I
CS 173: Introduction to Computer Science II
CS 187: Special Topics – Website Design Fundamentals
CS 187: Special Topics – Mathematical and Computational Art
Math 239: Discrete Structures
CS 256: Practicum in Problem Solving
CS 256: Practicum in Programming Languages – C
CS 256: Practicum in Programming Languages – JavaScript
CS 256: Practicum in Programming Languages – PHP
CS 256: Practicum in Programming Languages – R
CS 256: Practicum in Programming Languages – SQL
CS 256: Practicum in Programming Languages – MATLAB
CS 287: Special Topics – Android Programming
CS 287: Special Topics – Digital Modeling and Fabrication
Math/CS 299/399: Colloquium in Mathematics and Computer Science I & II
Math/CS 326: Operations Research
CS 261: Computers, the User and Society
CS 263: Operating Systems and Networks
CS 273: Computer Graphics and Imaging Processing
CS 275: Software Engineering
CS 352: Algorithms
CS 354: Computer Organization and Systems
CS 356: Programming Languages
CS 389: Special Topics – Web Programming

Direction of Independent Studies

Decentralizing the Web: Hosting and Accessing Websites on the Blockchain, with Venkata (Sai) Chintalapati. Spring 2021, Albion College (HSP 424H).

Mechanical Pixels, with Kevin Claucherty. Spring 2017, Albion College (CS 412).

Algorithmic Trading, with Austin Denha. Fall 2015, Albion College (CS 412).

Simple Program Generation for Tutoring Novice Computer Science Students, with Richard J. Straughen. Fall 2002 – Spring 2003, Albion College (HSP 422H).

A Design Document for the Construction of an Interactive Entertainment Experience entitled Paradox, with Matthew Linden. Spring 2002 – Spring 2003, Albion College (HSP 422H).

Intellectual Property issues in Computer Science, with Hans Chen. Spring 2002, Albion College (CS 412).

Operating Systems, with Dan Knapp. Spring 2002, Albion College (CS 412).

Video Game Design and Implementation, with Scott Campbell. Spring 2002, Albion College (CS 412).

Quantitative Measurement of Visual Performance of Display Devices, with Thomas Sikma. Fall 2001 – Spring 2002, Albion College (CS 412).

An Interactive Java-based Interface to SQL Databases, with John McAtee. Fall 2001 – Spring 2002, Albion College (CS 412).

Measurement of Modulation Transfer Functions, with Holly Jacobs. Spring 2000 – Spring 2001, Albion College (HSP 422H).

Elementary Encryption and Cryptanalysis, with Mark Jeromin. Fall 2000 – Spring 2001, Albion College (CS 412).
Simulation and Classification of Skin Tumors, with Mark Jazayeri. Fall 1999, Fall 2000, Albion College (CS 412).
Albion Community Web Project, with Matthew Huber. Spring 1999, Albion College (CS 412).
Computer Graphics and Animation, with John Peters. Fall 1998 – Spring 1999, Albion College (CS 412).
Computer Aided Instruction, with Joe Smith. Fall 1998 – Spring 1999, Albion College (CS 412).
Image processing and Analysis, with Jamie Kucab. Spring 1997, Albion College (Math 411).
Computer graphics, GUI programming, and 3D Modeling, with Phil Dietrich. Spring 1997, Fall 1996, Albion College (Math 411).

Thesis Involvement

Predicting Head and Neck Cancers Treatment Response from MRI-LINAC Images using Artificial Neural Networks. Bach Viet Tran, Departmental Honors Thesis, 2023. Thesis committee member. *In preparation*.

Experimentation for Art Not Animals. Elizabeth M. Powell, College Honors Thesis, 2023. Thesis committee member. *In preparation*.

Algorithmic Solving and Generation of Three-Dimensional Sudoku Puzzles. Noah Keck, College Honors Thesis, 2022. Thesis advisor.

Decentralizing the Web: Hosting and Accessing Websites on the Blockchain. Venkata (Sai) Chintalapati, College Honors Thesis, 2021. Thesis advisor.

Bringing dessert bars to Michigan. Michele Gervais, College Honors Thesis, 2020. Thesis committee member.

Living on the Edge: Improved Reconstruction of Fourier Series using Jump Information with Applications to MRI. Angela Morrison, Departmental Honors Thesis, 2017. Thesis advisor.

Classification of Consonance in Generalized Tonal Systems. Jonathan Satoshi Takeshita, Departmental Honors Thesis, 2017. Thesis committee member.

How does variation in life history strategies effect long term population trajectories of eelgrass? Stephanie Thurner, College Honors Thesis, 2017. Thesis advisor.

Analyzing the Collatz Conjecture Through Use of Modulus Graphs. Timothy A. Szocinski, Departmental Honors Thesis, 2016. Thesis advisor.

Changes in Mathematical Laws. Brian Wu, College Honors Thesis, 2014. Thesis committee member.

Spider Craps: Simulation and Statistical Analyses of Game Variations. Jacob D. Engel, Departmental Honors Thesis (Mathematics), 2013. Thesis committee member.

Primality Testing. Willian J. Sturdavant, Departmental Honors Thesis (Mathematics), 2013. Thesis committee member.

The Effects of Interest Rates and an Individual's Time Preference on the Optimal Repayment of Student Loans. Aaron A. Croad, Departmental Honors Thesis (Mathematics/Economics), 2012. Thesis committee member.

A Probabilistic Model of Large Woody Debris Distribution and Movement in Small Mountain Streams. Sophia N. Potoczak, Departmental Honors Thesis (Mathematics), 2012. Thesis committee member.

Quantum Algorithms. Timothy Rambo, Departmental Honors Thesis (Computer Science), 2009. Thesis committee member.

BRU-SCI: Bandwidth reservation for users of science applications. Andrew Lake, Departmental Honors Thesis (Computer Science), 2006. Thesis advisor.

The Chicane Tracker Module in the ORBIT Injection Upgrade. Daniel Copeland, Departmental Honors Thesis (Physics), 2006. Thesis committee member.

A Design Document for the Construction of an Interactive Entertainment Experience entitled Paradox. Matthew Linden, College Honors Thesis (Computer Science), 2003. Thesis advisor.

The Magic of Web-based Database Systems. John R. McAtee, Departmental Honors Thesis (Computer Science), 2002. Thesis advisor.

Human Assessment of Computer Monitor Fidelity. Thomas G. Sikma, Departmental Honors Thesis (Computer Science), 2002. Thesis advisor.

Emotional Expression Recognition. Holly Sprunger, College Honors Thesis (Psychology), 2002. Thesis committee member.

The Effect of Lake Michigan on the Weather in the Great Lakes Region. Dennis VanCleve, College Honors Thesis, 2002. Thesis committee member.

Use of Wiener Filtering to Determine the Two-Dimensional Modulation Transfer Function, Holly A. Jacobs, College Honors Thesis, 2001. Thesis advisor.

Gaussian Quadrature of a function of two variables, Todd M. Krabach, Departmental Honors Thesis (Mathematics), 1999. Thesis committee member.

Student Research Involvement

Algorithmic Solving and Generation of Three-Dimensional Sudoku Puzzles. Noah Keck, Elkin R. Isaac Student Research Symposium, 21 April 2022, Faculty Sponsor.

Decentralizing the Web: Hosting and Accessing Websites on the Blockchain. Venkata (Sai) Chintalapati, Elkin R. Isaac Student Research Symposium, 22 April 2021, Faculty Sponsor.

Structures of Symmetry Groups, Nichole Brown, '19, FURSCA Summer Researcher, Summer 2018. Faculty Mentor.

Designing an Electro-Mechanical Physical Pixel Array, Kevin Claucherty, '18, FURSCA Summer Researcher, Summer 2017. Faculty Mentor.

Sheets, Tubes and Capsules Constructed from Corner Connected Rectangles, Liliya Chernysheva, '19, Elkin R. Isaac Student Research Symposium, 20 April 2017. Faculty Sponsor.

Structural modeling and analysis of arising patterns, Liliya Chernysheva, '19, FURSCA Summer Researcher, Summer 2016. Faculty Mentor.

Modulus graphs with applications to the Collatz conjecture, Timothy Szocinski, Elkin R. Isaac Student Research Symposium, 21 April, 2016. Faculty Sponsor.

Algorithmic Stock Trading: Mathematical Strategies and Computational Implementation, Austin Denha and Ethan Sutton, Elkin R. Isaac Student Research Symposium, 21 April, 2016. Faculty Sponsor.

Effects of Addition on Prime Factorization with Applications to the Collatz Conjecture, Timothy Szocinski, FURSCA Summer Researcher, Summer 2014. Faculty Mentor.

Algorithmic Techniques for Creating Visual Patterns, Auston Dehna (Fall 2013 – present) and Jacob Fenton (Fall 2013 – Spring 2014), Student Research Partners, Faculty Mentor.

Algorithmic Techniques for Creating Visual Patterns, Jonathon Lorenz and Timothy Szocinski, Student Research Partners, Fall 2012 – Spring 2013. Faculty Mentor.

A 3D Rendering and Analysis Tool for Mathematical Modular Knots, Preston M. Arquette, FURSCA Summer Researcher, Summer 2012. Faculty Mentor.

Developing an Framework for Algorithmically Constructing Tilings of the Plane, Mingjia Yang, Student Research Assistant, Summer 2010. Faculty Mentor.

Software for User Comparison of Two Images, Jacob Engel, Student Research Partner, Fall 2009 – Spring 2010. Faculty Mentor.

History of Mathematics at Albion College, Amanda Tilot, Student Research Partner, Fall 2006 – Spring 2007. Faculty Mentor.

Simple Program Generation for Tutoring Novice Computer Science Students, Richard J. Straughen, Fourteenth Annual Elkin R. Isaac Student Research Symposium, 24 April, 2003. Faculty Sponsor.

A Design Document for the Construction of an Interactive Entertainment Experience entitled Paradox, Matthew Linden, Fourteenth Annual Elkin R. Isaac Student Research Symposium, 24 April, 2003. Faculty Sponsor.

Simple Program Generation for Tutoring Novice Computer Science Students, Richard J. Straughen, FURSCA Summer Researcher, Summer 2002. Faculty Mentor.

- A Design Document for the Construction of an Interactive Entertainment Experience entitled Paradox*, Matthew Linden, FURSCA Summer Researcher, Summer 2002. Faculty Mentor.
- Rendering Three-Dimensional Graphics*, Alex Oatley, FURSCA Summer Researcher, Summer 2002. Faculty Mentor.
- The Magic of Web-based Database Systems*, John R. McAtee, Thirteenth Annual Elkin R. Isaac Student Research Symposium, 18 April, 2002. Faculty Sponsor.
- Human Assessment of Computer Monitor Fidelity*, Thomas G. Sikma, Thirteenth Annual Elkin R. Isaac Student Research Symposium, 18 April, 2002. Faculty Sponsor.
- Optimizing X-ray Imaging of Fossils in Rock*, Jenny Tobin, FURSCA Summer Researcher, Summer 2001. Faculty Mentor.
- Fault-Tolerant Behavior Set for Nomad200 Robots*, Andrew Frick, Twelfth Annual Elkin R. Isaac Student Research Symposium, 19 April, 2001. Faculty Sponsor.
- Four Years at Albion – Just a Blur: The Imaging behind It*, Holly Jacobs, Twelfth Annual Elkin R. Isaac Student Research Symposium, 19 April, 2001. Faculty Sponsor.
- Optimizing X-ray Imaging of Fossils in Rock*, Jenny Tobin, Student Research Partner, Fall 1999 – Spring 2001. Faculty Mentor.
- Image Distortion Correction*, Emily Arend, FURSCA Summer Researcher, Summer 2000. Faculty Mentor.
- Gender Issues in Computer Science*, Elizabeth Souder, FURSCA Summer Researcher, Summer 2000. Faculty Mentor.
- Image Quality*, Jason Preglow, FURSCA Summer Researcher, Summer 2000. Faculty Mentor.
- Simulating the Effects of Various Parameters on the Measurement of the Two-Dimensional Modulation Transfer Function Using Wiener Filtering*, Holly Jacobs, Eleventh Annual Elkin R. Isaac Student Research Symposium, 18 April, 2000. Faculty Sponsor.
- MTF Measurements*, Holly Jacobs, FURSCA Summer Researcher, Summer 1999. Faculty Mentor.
- Simulation and Classification of Skin Tumors*, Mark Jazayeri, FURSCA Summer Researcher, Summer 1999. Faculty Mentor.
- Computer-Aided Instruction of Linear Least Squares Fitting*, Joseph M. Smith, Tenth Annual Elkin R. Isaac Student Research Symposium, 15 April, 1999. Faculty Sponsor.
- Albion Community Web Project*, Matthew S. Huber, Tenth Annual Elkin R. Isaac Student Research Symposium, 15 April, 1999. Faculty Sponsor.
- Using Weiner Filtering to Measure the Modulation Transfer Function*, Holly A. Jacobs, Tenth Annual Elkin R. Isaac Student Research Symposium, 15 April, 1999. Faculty Sponsor.
- Computer Vision of the Human Knee*, Holly Jacobs, Student Research Partner, Fall 1997 – Spring 1999. Faculty Mentor.

Institutional Service

- Faculty Representative, Data Governance Working Group, Fall 2015 – *present*.
- Faculty Representative, Budgets, Salaries and Benefits Committee (BS&BC), May 2016 – May 2019. (LOA Spring 2018, Chair AY 2018-19).
- Albion College Representative, Great Lakes College Association (GLCA) Academic Council, Fall 2011 – Spring 2014.
- Member, Faculty Personnel Committee, Fall 2006 – Spring 2009.
- Member, Hearing and Grievance Committee, Fall 2001 – Spring 2002.
- Member, Science Complex Building and Renovation Steering Committee, Spring 2001 – Fall 2006.
- Micro-Teaching Workshop Facilitator, 2003, 2002, and 2000.

Member, Dow Laboratory Committee, Fall 1997 – Spring 2001.

Faculty Advisor, Student Orientation, Advising, and Registration (SOAR), Summer 2002, Summer 2001.

Member, Judicial Board, Fall 1997 – Spring 2000.

Member, Vice-President for Information Technology Search Committee, Spring 1999.

Member, Academic Information Technology Committee, Fall 1997 – Spring 2000. Chair, Spring 1999 – Spring 2000.

Professional Service

Paper Reviewer, Bridges Halifax 2023: Mathematics, Art, Music, Architecture, Culture, Dalhousie University, Halifax, Nova Scotia, Canada, 27–31 July 2023.

Program Chair, Bridges Aalto 2022: Mathematics, Art, Music, Architecture, Culture, Aalto University, Helsinki and Espoo, Finland, 1–5 August 2022.

Art Exhibition Co-organizer (with Joshua Holden), Trisection Meeting of the Indiana, Illinois, and Michigan Sections of the MAA, Valparaiso University Valparaiso, Indiana, March 23–24, 2018.

Grant Panel Expert, European Commission, Brussels, Belgium, 2016.

Project Manager, MoSAIC (Mathematics of Science, Art, Industry, Culture). August 2015–July 2016. Worked to create a series of interdisciplinary mini conferences and festivals on mathematical connections in science, art, industry, and culture, held in colleges and universities around the United States.

Paper Reviewer, First Midstates Conference for Undergraduate Research in Computer Science and Mathematics (MCURCSM-2003) 25 October 25 2003, Denison University, Granville, Ohio.

Panelist, College Teaching Seminar, University of Michigan's Center for Research in Learning and Teaching, 15 May 2003.

Assistant Judge, 2001 ACM East Central North America Programming Competition, Ashland University, Ashland, Ohio. 10 November 2001.

Assistant Judge, 2000 ACM East Central North America Programming Competition, Case Western Reserve University, Cleveland, Ohio. 11 November 2000.

Invited Judge, Sigma Xi Graduate Research Symposium. The University of Toledo, Toledo, Ohio. 8 May 1998.

Community Service

Polygons and Polyhedra (hands on activity), STEM Saturdays, INNOVATE Albion, Albion, Michigan, 21 January 2023.

Church Council-person, Immanuel Lutheran Church, Jackson, Michigan. Spring 1999 – January 2005, January 2010 – January 2016

Financial Secretary, February 1999 – January 2001, February 2012 – January 2014

Treasurer, February 2004 – January 2005, February 2010 – 2012

President, February 2002 – January 2004, January 2014 – January 2016

High School Sunday School Teacher, Immanuel Lutheran Church, Jackson, Michigan, Fall 1999 – Spring 2003.

7th/8th Grade Sunday School Teacher, Immanuel Lutheran Church, Jackson, Michigan, Fall 1997 – Spring 1999.

3 Gallon American Red Cross Blood Donor

Education Committee Member, St. Paul Lutheran Church, Dearborn, Michigan, 1996.

9th Grade Sunday School Teacher, St. Paul Lutheran Church, Dearborn, Michigan, Fall 1995.

7th Grade Sunday School Teacher, St. Paul Lutheran Church, Dearborn, Michigan, Fall 1993 – Spring 1995.

Evangelism Committee Member, St. Paul Lutheran Church, Dearborn, Michigan, 1993 – 1994.

9th Grade Sunday School Teacher, St. Paul Lutheran Church, Dearborn, Michigan, Fall 1992.

6th Grade Sunday School Teacher, St. Paul Lutheran Church, Dearborn, Michigan, Fall 1991 – Spring 1992.

3rd Grade Sunday School Teacher, St. Stephen Lutheran Church, Sylvania, Ohio, Fall 1982 – Spring 1983.

Workshops and Tutorials Attended

- Engaging Underserved, Marginalized Students*, Amelia Gamel (Jackson College), Albion College, 12 March 2019,
- Programming web services on the cloud with Node.js*, 49th ACM Technical Symposium on Computer Science Education, Baltimore, Maryland, 21–24 February, 2018,
- Chrome Home: Six Fun Activities Introducing Basic Web Programming Techniques*, 49th ACM Technical Symposium on Computer Science Education, Baltimore, Maryland, 21–24 February, 2018,
- Micro:bit Magic: Engaging K-12, CS1/2, and non-majors with IoT & Embedded*, 49th ACM Technical Symposium on Computer Science Education, Baltimore, Maryland, 21–24 February, 2018,
- AMS Short Course on Discrete Differential Geometry*, Keenan Crane (Carnegie Mellon University), organizer. Joint Mathematics Meetings, San Diego, California, 8–9 January, 2018
- Illustrating Mathematics*, Kelly Delp (Cornell University), Saul Schleimer (University of Warwick), Henry Segerman (Oklahoma State University), and Laura Taalman (James Madison University). The Institute for Computational and Experimental Research in Mathematics (ICERM), Brown University, 27 June – 1 July, 2016.
- MAA Short Course on Discrete and Computational Geometry*, Satyan L. Devadoss (Williams College) and Joseph O'Rourke (Smith College), 2012 Joint Mathematics Meetings, Boston, Massachusetts, January 2–3, 2012.
- Geometry and Art*, Anneke Bart (Saint Louis University) and Philip Huling (Saint Louis University). MAA Professional Enhancement Program Online Workshop, June 20 – 24, 2011.
- Making Music With Scratch*, Jesse M. Heines (Univ. of Massachusetts Lowell) and John Maloney (MIT Media Laboratory). SIGCSE 2011: The 42nd ACM Technical Symposium on Computer Science Education, March 12, 2011, Dallas, Texas.
- Computational art and creative coding: Teaching CS1 with Processing*, Ira Greenberg (Southern Methodist University), Deepak Kumar (Bryn Mawr College), Dianna Xu (Bryn Mawr College), and Ursula Wolz (The College of New Jersey). SIGCSE 2011: The 42nd ACM Technical Symposium on Computer Science Education, March 11, 2011, Dallas, Texas.
- Audacious Android Application Programming*, Frank McCown (Harding University). SIGCSE 2011: The 42nd ACM Technical Symposium on Computer Science Education, March 9, 2011, Dallas, Texas.
- Grant Writing Workshop*, J.L. Narum (ICO-PKAL). Albion College, 30–31 January 2009.
- Statistical Image Reconstruction Methods*, 2003 IEEE Nuclear Science Symposium and Medical Imaging Conference, Portland, Oregon, 21 October 2003.
- GLCA Sponsored "Computer Science Conversation"*, Denison University, Granville, Ohio, 15 September 2001.
- Support Tools for Teaching CS1 & CS2 in Java*, Dean Sanders and Phillip Heeler, Northwest Missouri State University, Eighth Annual Consortium for Computing in Small Colleges: Midwest Conference, Olivet Nazarene University, Kankakee, Illinois, 28 September 2001.
- Teaching Multithreaded Programming Made Easy*, Ching-Kuang Shene, Michigan Technical University, Eighth Annual Consortium for Computing in Small Colleges: Midwest Conference, Olivet Nazarene University, Kankakee, Illinois, 29 September 2001.
- Just-in-Time Computer Education for the 21st Century*, Project Kaleidoscope (PKAL) 2001 Summer Institute, Snowbird Ski and Summer Resort, Snowbird, Utah, 25–28 July 2001.
- Workshop on Service-Learning in the Curriculum*, facilitated by Dale Rice, Professor of Special Education and Director of Academic Service-Learning at Eastern Michigan University. Albion College, Albion, Michigan, 15 December 2000.
- Workshop on First Year Instruction: FYI 2000*, Duke University, Durham, North Carolina, 15–16 July 2000.
- Modern User Interactivity in CS1 & CS2: Bringing Back the Fun Stuff with Java*, ACM SIGCSE 2000, Austin, Texas, 11 March 2000.
- Active and Group Learning Techniques for Computer Science*, ACM SIGCSE 2000, Austin, Texas, 11 March 2000.

Workshop on Fostering Critical Thinking, facilitated by Matt Kaplan and Beverly Black, Center for Research on Learning and Teaching, University of Michigan, Albion College, Albion, Michigan. 10 December 1999.

1999 GLCA Course Design and Teaching Workshop, Holland, Michigan, 20–25 June 1999.

Faculty Writing Workshop, facilitated by Judy Lockyer and Ian MacInnes, Albion College, Albion, Michigan, 10–11 May 1999.

Workshop on Promoting and Enhancing Class Discussions, facilitated by Matt Kaplan and Beverly Black, Center for Research on Learning and Teaching, University of Michigan, Albion College, Albion, Michigan, 26 March 1999.

Albion College Micro-Teaching Workshop, Albion College, Albion, Michigan, January 1999.

1998 Chautauqua Short Course on Cryptology, Memphis, Tennessee, 28–30 June 1998.

Unleashing the Power of Learning and Teaching with Technology, (Invited), Livonia, Michigan, 20–21 May 1998.

1996 ICPP Workshop on Challenges for Parallel Processing, Bloomingdale, Illinois, 12 August 1996.

1996 ICPP Tutorial: High-Performance Parallel Processing Using PC's and Linux, Bloomingdale, Illinois, 16 August 1996.

Workshop on Vectorizing/Parallelizing on the Cray J916, Wayne State University, Detroit, Michigan, 28 March 1996.

MPI Tutorial, MPI Developers Conference, University of Notre Dame, 21–23 June 1995.

Programming the X Window System, Version 11, USENIX Technical Conference, Nashville, TN, 10–14 June 1991.

Introduction to Programming with the X Toolkit Intrinsics, USENIX Technical Conference, Nashville, TN, 10–14 June 1991.

Symposium on Bootstrapping Methods of Statistical Analysis, Wayne State University, Detroit, Michigan, 28 February 1990.

Image Communication and Image Analysis, AAPM Summer School, University of Michigan, Ann Arbor, Michigan, 12–17 July 1987.

Grants and Sabbaticals

Sabbatical Leave, *Mathematical Art and Artifacts*, January–May 2018.

Photographic Equipment for Disseminating Mathematical Art, Albion College Faculty Development Grant, Summer 2017, \$1113.88 funded 11 April 2017.

Communicating Mathematics, Albion College Faculty Development Grant, Summer 2016, \$4810, funded 10 May 2016.

Laser Cutter for Creating Mathematical Art, Albion College Faculty Development Grant, Summer 2015, \$5000, funded 30 April 2015.

Specialized Input and Output Hardware and Supplies for Mathematical Art and Analysis, Albion College Faculty Development Grant, Summer 2014, \$4473, funded 7 April 2014.

The development of mathematical patterns as art and ornament in the United Kingdom, Albion College Faculty Development Grant, Summer 2013, \$4500, funded 26 April 2013.

Theoretical and Computational Methods for Rating and Ranking Items, New Directions Initiative, Great Lakes Colleges Association (GLCA), Summer 2013, \$3600, funded 5 June 2013.

Knot Theory and Its Applications in the Analysis of Structures from Decorated Tilings, New Directions Initiative, Great Lakes Colleges Association (GLCA), Summer 2011, \$5400, funded 20 May 2011.

Attendance at a Workshop on Discrete and Computational Geometry, Albion College Faculty Development Grant, January 2012, \$811, funded 1 December 2011.

Influences of mathematical Moorish themes on the artwork of M.C. Escher, Albion College Faculty Development Grant, April 2011, \$3,500, funded 8 February 2011.

Attendance of Three Computer Science Education Workshops at SIGCSE 2011, Albion College Faculty Development Grant, Spring 2011, \$1,000, funded 2 February 2011.

Sabbatical Leave, January–May 2011

Developing an Framework for Algorithmically Constructing Tilings of the Plane, Albion College Faculty Development Grant, Summer 2010, \$2,368, funded 16 April 2010.

Enhancing the Interdisciplinary Connections between Mathematics, Computer Science, and Art at Albion College, David A. Reimann, Darren E. Mason, and Gary B. Wahl. Albion College Foundation for Interdisciplinary Study, \$15,000, funded 15 December 2006.

Sabbatical Leave, July 2003 – June 2004.

Travel to Workshop on First Year Computer Science Instruction, Albion College Faculty Development Grant, Summer 2000.

Travel to Chautauqua Short Course on Cryptology, \$500.00 Albion College Faculty Development Grant, Summer 1998.

Improvements of Computer Science Laboratory Infrastructure, \$2500.00 Albion College Faculty Development Grant, Summer 1998.

Resources for Parallel Computing at Albion College, \$2035.18. Albion College Faculty Development Grant, Summer 1997.

Books

1. David Reimann, Douglas Norton, and Eve Torrence, editors. *Proceedings of Bridges 2022: Mathematics, Art, Music, Architecture, Culture*. Tessellations Publishing, Phoenix, Arizona, 2022.

Journal Articles

1. Amy L. Reimann and David A. Reimann. Chris K. Palmer: Origami in action. *Mathematics Magazine*, 90(5):380–382, December 2017.
2. Amy L. Reimann and David A. Reimann. Anne Burns: Mathematical botanist. *Mathematics Magazine*, 89(5):375–377, December 2016.
3. Amy L. Reimann and David A. Reimann. Dick Termes: Art of the sphere. *Mathematics Magazine*, 89(4):290–292, October 2016.
4. Amy L. Reimann and David A. Reimann. Robert Fathauer: Polymath purveyor. *Mathematics Magazine*, 89(3):220–222, June 2016.
5. Amy L. Reimann and David A. Reimann. Bjarne Jespersen: The magic woodcarver. *Mathematics Magazine*, 89(1):55–57, February 2016.
6. Amy L. Reimann and David A. Reimann. George Hart: Troubadour for geometry. *Mathematics Magazine*, 88(5):374–6, December 2015.
7. David A. Reimann. Symmetric interlace patterns on polyhedra using generalized Truchet tiles. *Symmetry: Culture and Science*, 24:185–190, 2013.
8. David A. Reimann. Engaging students using a simple electronic daily response journal. *The Journal of Computing in Small Colleges*, 17(1):147–157, October 2001.
9. Fu J. Hou, Susan M. Lang, Susan J. Hoshaw, David A. Reimann, and David P. Fyhrie. Human vertebral body apparent and hard tissue stiffness. *Journal of Biomechanics*, pages 1009–1015, November 1998.
10. Ehsan Samei, Michael J. Flynn, and David A. Reimann. A method for measuring the presampled MTF of digital radiographic systems using an edge test device. *Medical Physics*, 25:102–113, January 1998.
11. David A. Reimann, Sean M. Hames, Michael J. Flynn, and David P. Fyhrie. A cone beam computed tomography system for true 3D imaging of specimens. *Applied Radiation and Isotopes*, 48(10–12):1433–1436, October – December 1997.
12. Mitchell B. Schaffler, David A. Reimann, A. Michael Parfitt, and David P. Fyhrie. Which stereologic methods offer the greatest help in quantifying trabecular structure from biological and mechanical perspectives? *Forma*, 12:197–207, 1997. Figure 1 was featured as the cover illustration.

13. Michael J. Flynn, Sean M. Hames, David A. Reimann, and Scott J. Wilderman. Microfocus x-ray sources for 3D microtomography. *Nuclear Instruments and Methods in Physics Research A*, 353:312–315, 1994.
14. Allan M. Hagggar, Joe P. Windham, David A. Reimann, David O. Hearshen, and Jerry W. Froelich. Eigenimage filtering in MR imaging: An application in the abnormal chest wall. *Magnetic Resonance in Medicine*, 11:85–97, 1989.
15. Joe P. Windham, Mahmoud A. Abd-Allah, David A. Reimann, Jerry W. Froelich, and Allan M. Hagggar. Eigenimage filtering in MR imaging. *Journal of Computer Assisted Tomography*, 12:1–9, 1988.

Conference Proceedings Articles

1. David A. Reimann. Artistic depiction of numbers defined by sets. In David Reimann, Douglas Norton, and Eve Torrence, editors, *Proceedings of Bridges 2022: Mathematics, Art, Music, Architecture, Culture*, pages 399–402, 2022.
2. David A. Reimann. Lifelines: A series of artworks that invite contemplation on the human condition. In David Swart, Frank Farris, and Eve Torrence, editors, *Proceedings of Bridges 2021: Mathematics, Art, Music, Architecture, Education, Culture*, pages 305–308, 2021.
3. David A. Reimann. Reciprocal polyhedral forms using strip pairs. In Carolyn Yackel, Robert Bosch, Eve Torrence, and Kristóf Fenyvesi, editors, *Proceedings of Bridges 2020: Mathematics, Art, Music, Architecture, Education, Culture*, pages 431–434, Bridges 2020 Conference Proceedings, 2020.
4. David A. Reimann. Symmetry patterns from multiple identically patterned cubes. In Susan Goldstine, Douglas McKenna, and Kristóf Fenyvesi, editors, *Proceedings of Bridges 2019: Mathematics, Art, Music, Architecture, Education, Culture*, pages 431–432, 2019.
5. David A. Reimann. Visualizing symmetry subgroup structures using simple motifs. In Eve Torrence, Bruce Torrence, Carlo Séquin, and Kristóf Fenyvesi, editors, *Proceedings of Bridges 2018: Mathematics, Art, Music, Architecture, Education, Culture*, pages 363–366, Bridges Conference, Stockholm, Sweden, 25–29 July, 2018.
6. David A. Reimann. Transforming squares to strips in expanded polyhedral forms. In David Swart, Carlo Séquin, Kristóf Fenyvesi, and Craig S. Kaplan, editors, *Bridges: Mathematics, Art, Music, Architecture, Education, Culture*, pages 435–438, Bridges Conference, Waterloo, Ontario, Canada, 27–31 July, 2017.
7. David A. Reimann. Snub polyhedral forms constructed from flexible 60-120 degree rhombic tiles. In Eve Torrence, Bruce Torrence, Carlo Séquin, Douglas McKenna, Kristóf Fenyvesi, and Reza Sarhangi, editors, *Bridges: Mathematics, Music, Art, Architecture, Culture*, pages 443–444, Bridges Conference, Jyväskylä, Finland, 9–13 August, 2016.
8. David A. Reimann. Nonplanar expansions of polyhedral edges in Platonic and Archimedean solids. In Kelly Delp, Craig S. Kaplan, Douglas McKenna, and Reza Sarhangi, editors, *Bridges Baltimore: Mathematics, Music, Art, Architecture, Culture*, pages 143–150, Bridges Conference, Baltimore, Maryland, 29 July–2 August, 2015.
9. David A. Reimann. Art and symmetry of Scottish carved stone balls. In Gary Greenfield, George Hart, and Reza Sarhangi, editors, *Bridges Seoul: Mathematics, Music, Art, Architecture, Culture*, pages 441–444, Bridges Conference, Seoul, Korea, 14–19 August, 2014.
10. David A. Reimann. Point symmetric ribbon patterns using a hexagonal motif from M.C. Escher. In George Hart and Reza Sarhangi, editors, *Bridges Enschede: Mathematics, Music, Art, Architecture, Culture*, pages 531–534, Bridges Conference, Enschede, The Netherlands, 27–31 July, 2013.
11. David A. Reimann. Symmetric interlace patterns on regular octahedra. In *Hyperseeing*, pages 61–66, Shape Modeling International, Bournemouth, UK, 10–12 July 2013.
12. David A. Reimann. Point symmetry patterns on a regular hexagonal tessellation. In Robert Bosch, Douglas McKenna, and Reza Sarhangi, editors, *Bridges Towson 2012: Mathematics, Music, Art, Architecture, Culture*, pages 365–368, Towson, Maryland, 25–29 July 2012.
13. David A. Reimann. Modular construction of knots. In *Hyperseeing*, pages 63–69, The International Society of the Arts, Mathematics, and Architecture, ISAMA '12, Chigago, Illinois, USA, 18–22 June 2012.
14. David A. Reimann. Decorating regular tiles with arcs. In Reza Sarhangi and Carlo Sequin, editors, *Bridges Coimbra: Mathematics, Music, Art, Architecture, Culture*, pages 581–584, Coimbra, Portugal, 27–31 July 2011.

15. David A. Reimann. Tessellation patterns from a simply decorated triangle. In *Hyperseeing*, pages 127–130, The International Society of the Arts, Mathematics, and Architecture, ISAMA '11, Chigago, Illinois, USA, 13–17 June 2011.
16. David A. Reimann. Patterns from Archimedean tilings using generalized Truchet tiles decorated with simple Bézier curves. In George W. Hart and Reza Sarhangi, editors, *Bridges Pécs: Mathematics, Music, Art, Culture*, pages 427–430, Pécs, Hungary, 24–28 July 2010.
17. David A. Reimann. Text from Truchet tiles. In Craig S. Kaplan and Reza Sarhangi, editors, *Bridges Banff: Mathematics, Art, Architecture, Culture*, pages 325–326, Banff, Alberta, Canada, 26–29 July 2009.
18. David A. Reimann, Holly A. Jacobs, and Ehsan Samei. Use of Wiener filtering in the measurement of the two-dimensional modulation transfer function. In James T. Dobbins III and John M. Boone, editors, *Medical Imaging 2000: Physics of Medical Imaging*, Proceedings of the SPIE 3977, pages 670–680, San Diego, California, 13–15 February 2000.
19. David A. Reimann, Vipin Chaudhary, and Ishwar K. Sethi. Modeling cone-beam tomographic reconstruction using LogSMP: An extended LogP model for clusters of SMPs. In P. Banerjee, V. K. Prasanna, and B. P. Sinha, editors, *High Performance Computing — HiPC'99, 6th International Conference Proceedings*, volume 1745 of *Lecture Notes in Computer Science*, pages 77–86, Calcutta, India, 17–20 December 1999. Springer-Verlag.
20. David A. Reimann, Michael J. Flynn, Vipin Chaudhary, and Ishwar K. Sethi. Parallel computing methods for x-ray cone beam tomography with large array sizes. In *1996 IEEE Nuclear Science Symposium and Medical Imaging Conference Record*, pages 1710–1713, Anaheim, California, 6–9 November 1996.
21. David A. Reimann, Vipin Chaudhary, Michael J. Flynn, and Ishwar K. Sethi. Parallel implementation of cone beam tomography. In A. Bojanczyk, editor, *Proceedings of the 1996 International Conference on Parallel Processing*, volume II, pages 170–173, Bloomington, Illinois, 12–16 August 1996.
22. David A. Reimann, Vipin Chaudhary, Michael J. Flynn, and Ishwar K. Sethi. Cone beam tomography using MPI on heterogeneous workstation clusters. In *Proceedings, Second MPI Developer's Conference*, pages 142–148, University of Notre Dame, Notre Dame, Indiana, 1–2 July 1996. IEEE Computer Society Press.
23. David A. Reimann, Michael J. Flynn, and James J. Ciarelli. A system to maintain perceptually linear networked display devices. In *Medical Imaging 1995: Image Display*, Proceedings of the SPIE 2431, pages 316–326, San Diego, California, 26 February – 2 March 1995.
24. David A. Reimann, Michael J. Flynn, and Sean M. Hames. A flexible laboratory system for 3D x-ray microtomography of 3–50 mm specimens. In *3D Microscopy: Image Acquisition and Processing 1995*, Proceedings of the SPIE 2412, pages 186–195, San Jose, California, 5–10 February 1995.
25. David A. Reimann, Michael J. Flynn, and Sean M. Hames. Direct measurement of resolution in volumetric imaging systems. In *1994 IEEE Nuclear Science Symposium and Medical Imaging Conference Record*, volume 4, pages 1784–1787, Norfolk, Virginia, 30 October – 5 November 1994.
26. Michael J. Flynn, David A. Reimann, and Sean M. Hames. Measurement of noise and resolution in x-ray computed microtomograms. In Rodney Shaw, editor, *Physics of Medical Imaging*, Proceedings of the SPIE 2163, pages 192–198, Newport Beach, California, 13–14 February 1994.
27. Michael J. Flynn, Sean M. Hames, David A. Reimann, and Scott J. Wilderman. Resolution and noise in x-ray microtomography of bone. In *1993 IEEE Nuclear Science Symposium and Medical Imaging Conference Record*, pages 1869–1872, San Francisco, California, 4–6 November 1993.
28. David A. Reimann and Michael J. Flynn. Automated distortion correction of x-ray image intensifier images. In *1992 IEEE Nuclear Science Symposium and Medical Imaging Conference Record*, volume 2, pages 1339–1341, Orlando, Florida, 29–31 October 1992. IEEE.
29. Michael J. Flynn, David A. Reimann, A. Michael Parfitt, and David P. Fyhrie. An x-ray microtomography system for bone structure measurements. In *1992 IEEE Nuclear Science Symposium and Medical Imaging Conference Record*, volume 2, pages 1292–1294, Orlando, Florida, 29–31 October 1992.
30. Sean M. Hames, Michael J. Flynn, and David A. Reimann. Measurement of very small (1–10 μm) x-ray focal spot intensity distributions. In *1992 IEEE Nuclear Science Symposium and Medical Imaging Conference Record*, volume 2, pages 1331–3, Orlando, Florida, 29–31 October 1992.
31. David A. Reimann, John C. Engdahl, and Tsur Bernstein. Central region sensitivity enhancement using a

combination of parallel and converging collimators. In *1991 IEEE Nuclear Science Symposium and Medical Imaging Conference Record*, volume 3, pages 1758–1762, Santa Fe, New Mexico, 5–9 November 1991.

32. David A. Reimann, John C. Engdahl, and Robert R. Bruner. A rebinning technique using a new projection ray distance function. In *1990 IEEE Nuclear Science Symposium and Medical Imaging Conference Record*, volume 2, pages 1513–1517, Arlington, Virginia, 22–27 October 1990.

Commissioned Artwork

1. David A. Reimann. *Synergy Squared*. Funded by the Special Interest Group on Mathematics and the Arts (SIGMAA-ARTS). Donated to the STEM Discovery Center at Piedmont College, Demorest, Georgia. 5 January 2017. 125 cm sculpture, birch plywood and metal hardware.

Exhibitions

1. *Mathematics as Muse*. Ella Sharp Museum. 1–31 October 2016. Solo Exhibition.

Juried Group Exhibitions

1. David A. Reimann. *2023 Units*. Mathematical Art Exhibition, Joint Mathematics Meetings, Boston, Massachusetts. 4–7 January 2023. 50 cm × 50 cm digital print.
2. David A. Reimann. *Julia is the Solution*. Mathematical Art Exhibition, Joint Mathematics Meetings, Boston, Massachusetts. 4–7 January 2023. 50 cm × 50 cm digital print.
3. David A. Reimann. *Braces Of Eight*. Bridges 2022 Exhibition of Mathematical Art, Espoo, Finland. 1–5 August 2022. 50 cm × 50 cm digital print.
4. David A. Reimann. *Septenary Circles*. Mathematical Art Exhibition, Joint Mathematics Meetings, Virtual. 2022. 50 cm × 50 cm digital print.
5. David A. Reimann. *Binomial Bits*. Mathematical Art Exhibition, Joint Mathematics Meetings, Virtual. 2022. 50 cm × 50 cm digital print.
6. David A. Reimann. *Seeds of Lifelines*. Bridges 2021 Exhibition of Mathematical Art, Virtual. 1–3 August 2021. 50 cm × 50 cm digital print.
7. David A. Reimann. *Fabric of Lifelines*. Mathematical Art Exhibition, Joint Mathematics Meetings, online. 2021. 50 cm × 50 cm digital print.
8. David A. Reimann. *Sea of Lifelines*. Mathematical Art Exhibition, Joint Mathematics Meetings, online. 2021. 50 cm × 50 cm digital print.
9. David A. Reimann. *Unbinilium*. Bridges 2020 Exhibition of Mathematical Art, Virtual. 1–5 August 2020. 60 cm × 60 cm × 60 cm sculpture.
10. David A. Reimann. *Ramanujan's Butterfly*. Mathematical Art Exhibition, Joint Mathematics Meetings, Denver, Colorado. 15–18 January 2020. 51 cm × 51 cm digital print.
11. David A. Reimann. *Parabolas*. Mathematical Art Exhibition, Joint Mathematics Meetings, Denver, Colorado. 15–18 January 2020. 51 cm × 51 cm digital print.
12. David A. Reimann. *Computus*. Bridges 2019 Exhibition of Mathematical Art, Linz, Austria. 16–20 July 2019. 51 cm × 51 cm digital print.
13. David A. Reimann. *Symmetric Flowers*. Mathematical Art Exhibition, Joint Mathematics Meetings, Baltimore, Maryland. 16–19 January 2019. 51 cm × 51 cm digital print.
14. David A. Reimann. *Symmetric Flowers (*632)*. Mathematical Art Exhibition, Joint Mathematics Meetings, Baltimore, Maryland. 16–19 January 2019. 51 cm × 51 cm digital print.
15. David A. Reimann. *Cosine Approximations*. Bridges 2018 Exhibition of Mathematical Art, Stockholm, Sweden. 25–29 July 2018. 51 cm × 51 cm digital print.
16. David A. Reimann. *Symmetric Flowers*. Bridges 2018 Exhibition of Mathematical Art, Stockholm, Sweden. 25–29 July 2018. 51 cm × 51 cm digital print.

17. David A. Reimann. *Integer Sequence Rosettes*. Mathematical Art Exhibition, Joint Mathematics Meetings, San Diego, California. 10–13 January 2018. 20 × 20 in digital print.
18. David A. Reimann. *Sixty Serpents*. Bridges 2017 Exhibition of Mathematical Art, Waterloo, Ontario, Canada. 27–31 July 2017. 18 in sculpture.
19. David A. Reimann. *Capsule*. Mathematical Art Exhibition, Joint Mathematics Meetings, Atlanta, Georgia. 4–7 January 2017. 18 × 18 × 45 cm sculpture, Cherry veneer and brass fasteners.
20. David A. Reimann. *Giuseppe Peano Curve*. Bridges 2016 Exhibition of Mathematical Art, Jyväskylä, Finland. 9–13 August 2016. 46 × 46 cm digital print.
21. David A. Reimann. *Rhombic Trio*. Bridges 2016 Exhibition of Mathematical Art, Jyväskylä, Finland. 9–13 August 2016. 38 × 50 × 50 cm three-part sculpture.
22. David A. Reimann. *Radiance*. Mathematical Art Exhibition, Joint Mathematics Meetings, Seattle, Washington. 6–9 January 2016. 20 in × 20 in digital print.
23. David A. Reimann. *Walnut Star*. Mathematical Art Exhibition, Joint Mathematics Meetings, Seattle, Washington. 6–9 January 2016. 15 in sculpture, Walnut veneer and brass fasteners.
24. David A. Reimann. *Inconceivable Symmetries*. In the Realm of Forms, Ohio State University Mansfield. 9 November – 8 December 2015. 16 in mixed media.
25. David A. Reimann. *Reptiling Escher*. In the Realm of Forms, Ohio State University Mansfield. 9 November – 8 December 2015. 24 in × 24 in digital print.
26. David A. Reimann. *Kepler Constellation*. In the Realm of Forms, Ohio State University Mansfield. 9 November – 8 December 2015. 11 in × 14 in, laser-cut paper.
27. David A. Reimann. *Studded Walnut*. Bridges 2015 Exhibition of Mathematical Art, Baltimore, Maryland. 29 July–2 August 2015. 16 in × 16 in × 16 in sculpture.
28. David A. Reimann. *Reptiling Escher*. Bridges 2015 Exhibition of Mathematical Art, Baltimore, Maryland. 29 July–2 August 2015. 24 in × 24 in digital print.
29. David A. Reimann. *Fibonacci Florescentia*. Bridges 2015 Exhibition of Mathematical Art, Baltimore, Maryland. 29 July–2 August 2015. 22 in × 18 in digital print.
30. David A. Reimann. *Kepler Constellation*. Mathematical Art Exhibition, Joint Mathematics Meetings, San Antonio, Texas. 10–13 January 2015. 11 in × 14 in, laser-cut paper.
31. David A. Reimann. *Mathematics is Universal*. Bridges 2014 Exhibition of Mathematical Art, Seoul, Korea. August 2014. 23 in × 23 in × 23 in mixed media sculpture.
32. David A. Reimann. *Fibonacci Nautilus*. Bridges 2014 Exhibition of Mathematical Art, Seoul, Korea. August 2014. 8 in × 10 in, digital print.
33. David A. Reimann. *Fibonacci Nautilus*. Mathematical Art Exhibition, Joint Mathematics Meetings, Baltimore, Maryland. 15–18 January 2015. 8 in × 10 in, digital print.
34. David A. Reimann. *1944*. Bridges 2013 Exhibition of Mathematical Art, Enschede, Netherlands. 27–31 July 2013. 12 in × 12 in, digital print.
35. David A. Reimann. *Ménage à Trois*. Mathematical Art Exhibition, Joint Mathematics Meetings, San Diego, California. 9–12 January 2013. 8 in × 8 in, digital print.
36. David A. Reimann. *Pi*. Bridges 2012 Exhibition of Mathematical Art, College of Fine Arts Gallery, Towson University, Towson, Maryland. 29 June – 29 July 2012. 17 in × 22 in, digital print.

Published Artworks

1. David A. Reimann. *Ramanujan's Butterfly*. *Mathematics Magazine*, 92(5), December 2019. Cover Art.
2. David A. Reimann. *Sudoku Asters*. *Mathematics Magazine*, 92(4), October 2019. Cover Art.
3. David A. Reimann. *Chicken Feet*. *Mathematics Magazine*, 92(3), June 2019. Cover Art.
4. David A. Reimann. *Computus*. *Mathematics Magazine*, 92(2), April 2019. Cover Art.
5. David A. Reimann. *Julia*. *Mathematics Magazine*, 92(1), February 2019. Cover Art.

6. David A. Reimann. *Ninety-One as a Sum of Four Squares*. *Mathematics Magazine*, 91(5), December 2018. Cover Art.
7. David A. Reimann. *Convergent Gershgorin disks*. *Mathematics Magazine*, 91(4), October 2018. Cover Art.
8. David A. Reimann. *Circle of Lifelines*. *Mathematics Magazine*, 91(3), June 2018. Cover Art.
9. David A. Reimann. *Approximations of Cosine*. *Mathematics Magazine*, 91(2), April 2018. Cover Art.
10. David A. Reimann. *Franklin's Magic*. *Mathematics Magazine*, 91(1), February 2018. Cover Art.
11. David A. Reimann. *Euler's Number*. *Mathematics Magazine*, 90(5), December 2017. Cover Art.
12. David A. Reimann. *Wave*. *Mathematics Magazine*, 90(4), October 2017. Cover Art.
13. David A. Reimann. *Phyllotactic Filigree*. *Mathematics Magazine*, 90(3), June 2017. Cover Art.
14. David A. Reimann. *Quintic*. *Mathematics Magazine*, 90(2), April 2017. Cover Art.
15. David A. Reimann. $2017 = 7^3 + 7^3 + 11^3$. *Mathematics Magazine*, 90(1), February 2017. Cover Art.
16. David A. Reimann. *LCR-5-10*. *Mathematics Magazine*, 89(5), December 2016. Cover Art.
17. David A. Reimann. *Carl B. Allendoerfer*. *Mathematics Magazine*, 89(4), October 2016. Cover Art.
18. David A. Reimann. *Binomial Pursuit*. *Mathematics Magazine*, 89(3), June 2016. Cover Art.
19. David A. Reimann. *Triples*. *Mathematics Magazine*, 89(2), April 2016. Cover Art.
20. David A. Reimann. *Zap*. *Mathematics Magazine*, 89(1), February 2016. Cover Art.
21. David A. Reimann. *Hanabi*. *Mathematics Magazine*, 88(5), December 2015. Cover Art.
22. David A. Reimann. *Middle of the Fiddle*. *Mathematics Magazine*, 88(4), October 2015. Cover Art.
23. David A. Reimann. *Stereographic MAA*. *Mathematics Magazine*, 88(3), June 2015. Cover Art.
24. David A. Reimann. *Suit Soirée*. *Mathematics Magazine*, 88(2), April 2015. Cover Art.
25. David A. Reimann. *Snowflake Calligram*. *Mathematics Magazine*, 88(1), February 2015. Cover Art.

Conference Presentations and Published Abstracts

1. David A. Reimann. Connections between Truchet tiling and hitomezashi patterns. Joint Mathematics Meetings, Boston, Massachusetts, 4–7 January. 2023. Abstract 21336.
2. David A. Reimann. Visual representations of natural numbers using geometric patterns. 2022 Virtual Joint Mathematics Meetings. 2022. Abstract 7234.
3. David A. Reimann. Art from Langford sequences. MAA MathFest, Virtual, 4–7 August. 2021.
4. David A. Reimann. A retrospective of creating five years of cover art for *Mathematics Magazine*. Joint Mathematics Meetings, Denver, Colorado, 15–18 January. 2020. Abstract 1154-K1-2743.
5. David A. Reimann. Simultaneously visualizing symmetry subgroups. Joint Mathematics Meetings, Baltimore, Maryland, 16–19 January. 2019. Abstract 1145-D1-2989.
6. David A. Reimann and Antoniu Fodor. Panoramic photographic polyhedral pavilions. Joint Mathematics Meetings, San Diego, California, 10–13 January. 2018. Abstract 1135-F1-3101.
7. David A. Reimann and Liliya Chernysheva. Sheets, tubes, and capsules constructed from corner connected rectangles. Joint Mathematics Meetings, Atlanta, Georgia, 4–7 January. 2017. Abstract 1125-I1-97.
8. David A. Reimann. Forms resulting from replacing edges with flexible plates in convex equilateral polyhedra. Joint Mathematics Meetings, Seattle, Washington, 6–9 January. 2016. Abstract 1116-K5-2609.
9. David A. Reimann. Halftoning images using solid convex and nonconvex dodecagons on a hexagonal tessellation. Joint Mathematics Meetings, San Antonio, Texas, 10–13 January. 2015. Abstract 1106-H1-2130.
10. David A. Reimann. Relationships between Scottish carved stone balls and Platonic solids. Annual Meeting of the Michigan Section of the Mathematical Association of America, Flint, Michigan, 2–3 May. 2014.
11. David A. Reimann. Symmetries of generalized Truchet tiles. Joint Mathematics Meetings, Baltimore, Maryland, 15–18 January. 2014. Abstract 1096-C5-2682.
12. David A. Reimann. Symmetric interlace patterns on polyhedra using generalized Truchet tiles. Symmetry Festival 2013, Delft, Netherlands. 2–7 August 2013.

13. David A. Reimann. Point symmetry patterns on 1-uniform tessellations. Joint Mathematics Meetings, San Diego, California, 9–12 January. 2013. Abstract 1086-K1-2836.
14. David A. Reimann. Modular construction of knot and link patterns from simple tangles on k -uniform tessellations. Joint Mathematics Meetings, Boston, Massachusetts, 4–7 January. 2012. Abstract 1077-B1-1280.
15. David A. Reimann. Exploring regular and decorated tessellations. European Society for Mathematics and Art Conference, Paris, France, 19–22 July. 2010.
16. David A. Reimann and Darren E. Mason. Developing a successful undergraduate colloquium course. Joint Mathematics Meetings, New Orleans, Louisiana, 5–8 January. 2007. Abstract 1023-Z1-1695.
17. David A. Reimann, Ehsan Samei, Thomas G. Sikma, and Rene Vargas-Voracek. Perceptual assessment of soft-copy display quality. American Association of Physicists in Medicine, 44th Annual Meeting, Montreal, Quebec, Canada, 14–18 July. *Medical Physics*, 29(6):1219, June 2002. Poster SU-EE-EXH-07.
18. David A. Reimann. Engaging students using a simple electronic daily response journal. Eighth Annual Consortium for Computing in Small Colleges: Midwest Conference, Olivet Nazarene University, Kankakee, Illinois, 28–29 September 2001.
19. David A. Reimann, Ehsan Samei, and Holly A. Jacobs. Evaluation of a new technique for the measurement of the two dimensional MTF of digital radiographic systems. American Association of Physicists in Medicine, 43rd Annual Meeting, Salt Lake City, Utah, 22–26 July. *Medical Physics*, 28(6):1187, June 2001. Poster SU-EE-EXH C-02.
20. Brian K. Bay, T. S. Smith, David P. Fyhrie, R. B. Martin, David A. Reimann, and M. Saad. Three-dimensional texture correlation measurement of strain in trabecular bone. In *Transactions of the 44th Annual Meeting*, page 109, Orthopaedic Research Society Meeting, New Orleans, Louisiana, 16–19 March, 1998.
21. Ehsan Samei, Michael J. Flynn, and David A. Reimann. Physical measures of image quality in photostimulable phosphor radiographic systems. SPIE Medical Imaging 1997: Physics of Medical Imaging, Newport Beach, California, 22–28 February 1997.
22. Michael J. Flynn, Ehsan Samei, and David A. Reimann. Experimental comparison of noise and resolution for 2K and 4K storage phosphor chest radiography systems. 82nd Scientific Assembly and Annual Meeting of the Radiologic Society of North America, Chicago, Illinois, 1–6 December. *Radiology*, 201(P Supplement):328, November 1996. Paper 1082.
23. David A. Reimann, Sean M. Hames, Michael J. Flynn, and David P. Fyhrie. A cone beam computed tomography system for true 3D imaging of specimens. IRRMA'96: 3rd Topical Meeting on Industrial Radiation and Radioisotope Measurements and Applications, Raleigh, North Carolina. 6–9 October 1996.
24. David A. Reimann and Michael J. Flynn. Accuracy of positions using x-ray image intensifier systems with distortion correction. American Association of Physicists in Medicine, 38th Annual Meeting, Philadelphia, Pennsylvania, 21–25 July. *Medical Physics*, 23(6):1077, June 1996. Paper TU-C4-09.
25. Ehsan Samei, Michael J. Flynn, David A. Reimann, and Sean M. Hames. Field measurement of the presampled modulation transfer function for digital radiographic systems using an edge phantom. American Association of Physicists in Medicine, 38th Annual Meeting, Philadelphia, Pennsylvania, 21–25 July. *Medical Physics*, 23(6):1076, June 1996. Paper TU-C4-04.
26. Michael J. Flynn, Scott Tashman, Frank Cverna, Kevin Dupre, and David A. Reimann. Evaluation of high speed joint kinetics with a biplane digital radiographic system. SPIE Medical Imaging 1996: Physiology and Function from Multidimensional Images, Newport Beach, California. 10–15 February 1996. Poster 2709-51.
27. David O. Hearshen, David A. Reimann, and Michael J. Flynn. Measurement of CT resolution in three dimensions. 81st Scientific Assembly and Annual Meeting of the Radiologic Society of North America, Chicago, Illinois, 26 November – 1 December. *Radiology*, 197(P Supplement):291, November 1995.
28. Michael J. Flynn, David P. Fyhrie, Susan Hoshaw, David A. Reimann, and Susan Lang. Measurement of bone volume change in the in-vivo rat tail using 3D x-ray micro-CT. 11th International Bone Densitometry Workshop, Gleneden Beach, Oregon, 24–28 September 1995. *Osteoporosis International*, 6, 1995.
29. Michael J. Flynn, Scott Tashman, Frank Cverna, Kevin Dupre, Kevin Albright, David A. Reimann, and Roger Block. A system for tracking fast motion in human joints using high frame rate digital radiography. 1994 IEEE Nuclear Science Symposium and Medical Imaging Conference, Norfolk, Virginia. 30 October – 5 November

- 1994.
30. Michael J. Flynn, Sean M. Hames, Scott J. Wilderman, and David A. Reimann. Comparison of x-ray sources for 3D microtomography. 1994 Symposium on Radiation Measurements and Applications, 8th in a Series, Ann Arbor, Michigan. 16–19 May 1994.
 31. Michael J. Flynn and David A. Reimann. 3D measurement of trabecular architecture with microtomography: Dose and resolution. 10th International Bone Densitometry Workshop, Venezia Lido, Italy, 24–28 April 1994. *Bone and Mineral*, 25(Supplement 2):S4, April 1994.
 32. David A. Reimann, Sean M. Hames, and Michael J. Flynn. An instrument for three dimensional x-ray microscopy. The Ohio Academy of Science 103rd Annual Meeting, Toledo, Ohio, 22–24 April. *The Ohio Journal of Science*, 94(2):36, April 1994.
 33. Michael J. Flynn, David A. Reimann, and Sean M. Hames. Image quality of radiographs with high geometric magnification. American Association of Physicists in Medicine, 35th Annual Meeting, Washington D.C., 8–12 August. *Medical Physics*, 20(3):921, May/June 1993.
 34. Jeanne Li, David A. Reimann, S. Ramsey, Michael J. Flynn, Dianna D. Cody, and Joe P. Windham. Computer graphic display and analysis of detailed three-dimensional bone densitometry data. 9th International Workshop on Bone Densitometry, Traverse City, Michigan, 26–30 September 1992. *Calcified Tissue International*, 52:162, 1993.
 35. James J. Ciarelli, J. Crowe, David A. Reimann, Michael J. Flynn, Dianna D. Cody, and D. Nelson. Computer automated measurement of vertebral characteristics from lateral spine radiographs. 9th International Workshop on Bone Densitometry, Traverse City, Michigan, September 26–30, 1992. *Calcified Tissue International*, 52:173, 1993.
 36. David A. Reimann, David P. Fyhrie, N. L. Fazzalari, and Mitchell B. Schaffler. Trabecular bone morphometry by volume projection. In *Transactions of the 38th Annual Meeting*, page 561, 1992 Orthopaedic Research Society Meeting, Washington D.C., 17–20 February, 1992.
 37. Michael J. Flynn, Dianna D. Cody, Jeanne Li, David A. Reimann, and James J. Ciarelli. Noise in three-dimensional quantitative computed tomography. American Association of Physicists in Medicine, 33rd Annual Meeting, San Francisco, California, 28 July – 1 August. *Medical Physics*, 18(3):660, May/June 1991.
 38. John C. Engdahl, David A. Reimann, Jian-Qiao Luo, and Tsur Bernstein. SPECT simulation and reconstruction using a combination of ray collimation geometries. Society of Nuclear Medicine, 37th Annual Meeting, Washington D.C., June 19–22, 1990. *Journal of Nuclear Medicine*, 31(5):719, May 1990.
 39. Michael J. Flynn, Brian A. Wolfe, Eric Davies, E. Muka, David A. Reimann, Suresh Patel, and Allan M. Haggar. A noninteractive multi-format film server in a digital image network. 75th Scientific Assembly and Annual Meeting of the Radiologic Society of North America, Chicago, Illinois, 26 November – 1 December. *Radiology*, 173(P Supplement):293, November 1989.
 40. Joe P. Windham, David O. Hearshen, Joseph R. Roebuck, David A. Reimann, and Allan M. Haggar. MR volume determination utilizing eigenimage filtering. 74th Scientific Assembly and Annual Meeting of the Radiologic Society of North America, Chicago, Illinois, 27 November – 2 December. *Radiology*, 169(P Supplement):239, November 1988.
 41. Joe P. Windham, Allan M. Haggar, David O. Hearshen, Joseph R. Roebuck, and David A. Reimann. A novel method for volume determination using MR image sequences. In *Book of Abstracts*, volume 2, page 1081, Society of Magnetic Resonance in Medicine, Seventh Annual Meeting, San Francisco, California, 22–26 August 1988.
 42. David A. Reimann and Joe P. Windham. A generalized method for constant feature suppression in digital angiography. World Congress on Medical and Biomedical Engineering, San Antonio, Texas, 6–13 August. *Physics in Medicine and Biology*, 33(Supplement 1):8, 1988.
 43. Joe P. Windham, David A. Reimann, and David O. Hearshen. Minimizing artifacts in eigenimage filtering. World Congress on Medical and Biomedical Engineering, San Antonio, Texas, 6–13 August. *Physics in Medicine and Biology*, 33(Supplement 1):151, 1988.
 44. Joe P. Windham and David A. Reimann. Suppression of multiple interfering processes in digital angiography. American Association of Physicists in Medicine, 29th Annual Meeting, Detroit, Michigan, 19–23 July. *Medical*

Physics, 14(3):494, May/June 1987.

Other Presentations, Workshops, and Professional Activities

1. David A. Reimann. Polygons and polyhedra. STEM Saturdays K–12 Activity, INNOVATE Albion, Albion, Michigan. 21 January 2023.
2. David A. Reimann. Truchet cubes. Pi Mu Epsilon Undergraduate Mathematics Reception Activity, Joint Mathematics Meetings, Boston, Massachusetts. 6 January 2023.
3. David A. Reimann. Soccer-ball symmetries: Exploring symmetric patterns on spheres. Alma College Mathematics Colloquium. 2 November 2022.
4. David A. Reimann. A travelogue of the mathematical universe. Albion College Faculty Lecture. 13 October 2022.
5. David A. Reimann. Soccer-Ball Symmetries: Exploring Symmetric Patterns on Spheres. Albion College Mathematics and Computer Science Colloquium. 29 September 2022.
6. David A. Reimann. Family day sculpture build: *Rudbeckia Ball*. Bridges Conference, Helsinki, Finland, 1–5 August. 2022.
7. David A. Reimann. Play truchet: fun with tiling patterns and generalizations. Math Encounters, National Museum of Mathematics. 11 May 2022.
8. David A. Reimann. Geometric constructions. NYC Math Festival, National Museum of Mathematics. 14 August 2021.
9. David A. Reimann. Visual Representations of Natural Numbers using Geometric Patterns. Albion College Mathematics and Computer Science Colloquium. 16 September 2021.
10. David A. Reimann. Fun with figurate numbers. On-line NYC Math Festival, National Museum of Mathematics. 17 July 2021.
11. David A. Reimann. A Travelogue of the Mathematical Universe. Albion College Mathematics and Computer Science Colloquium. 12 September 2019.
12. David A. Reimann. Breathing room. Charge from the Faculty, Matriculation Ceremony, Albion College. 21 August 2020.
13. David A. Reimann. Symmetry Groups: The mathematical connection between patterns in Moorish architecture and the artwork of M.C. Escher. Albion College Mathematics and Computer Science Colloquium. 13 February 2020.
14. David A. Reimann. Sculpture build: *Fireball*. Hope College Mathematics Department. 5 February 2019.
15. David A. Reimann. Symmetry: A mathematical approach using group theory and linear algebra. Hope College Mathematics Colloquium. 5 February 2019.
16. David A. Reimann. Mathematical art. Heritage Commons Lunch and Learn, Marshall, Michigan. 11 October 2018.
17. David A. Reimann. Spherical panoramic photographic processing. Albion College Mathematics and Computer Science Colloquium. 11 October 2018.
18. David A. Reimann. Sculpture build: *Goldberg Variation*. MoMath NYC Math Festival, New York City, 18 August. 2018.
19. David A. Reimann. The art of symmetry. Family Fridays, National Museum of Mathematics (MoMath), New York City, 17 August. 2018.
20. David A. Reimann. Family day sculpture build: *Fire Pyre*. Bridges Conference, Stockholm, Sweden, 25–29 July. 2018.
21. David A. Reimann. Sculpture build: *Trisection Tribute*. Mathematical Art Exhibition, Trisection Meeting of the Indiana, Illinois, and Michigan Sections of the MAA, Valparaiso University, Valparaiso, Indiana. 23–24 March 2018.
22. David A. Reimann. Symmetry: A mathematical approach using group theory and linear algebra. 19 October 2017.

23. David A. Reimann. Mathematics in art, art in mathematics. Eastern Michigan University, Ypsilanti. 11 March 2017. Keynote Address, Michigan Mathematics Prize Competition Awards Banquet.
24. David A. Reimann. Fourth annual sculpture build. Joint Mathematics Meetings, Atlanta, Georgia, 4–7 January. 2017.
25. David A. Reimann. Creating Escher-like tessellations. Albion College Mathematics and Computer Science Colloquium. 8 September 2016.
26. David A. Reimann. Family day sculpture build. Bridges Conference, Jyväskylä, Finland, 9–13 August. 2016.
27. David A. Reimann. Building with squares. MoSAIC Festival, University of Colorado - Boulder. 2 April 2016. Workshop.
28. David A. Reimann. Creating Escher-like tessellations. MoSAIC Festival, University of Colorado - Boulder. 2 April 2016. Workshop.
29. David A. Reimann. Mathematics in the art of M.C. Escher. MoSAIC Festival, University of Colorado - Boulder. 1 April 2016. Workshop.
30. David A. Reimann. Forms resulting from replacing edges with flexible plates in convex equilateral polyhedra. Albion College Mathematics and Computer Science Colloquium. 4 February 2016.
31. David A. Reimann. Creating Escher-like tessellations. MoSAIC Festival, MIT Museum, Cambridge, Massachusetts. 11–12 December 2015. Workshop.
32. David A. Reimann. Mathematics in the art of M.C. Escher. MoSAIC Festival, MIT Museum, Cambridge, Massachusetts. 11–12 December 2015.
33. David A. Reimann. Creating Escher-like tessellations. MoSAIC Festival, University of Nebraska - Lincoln. 14–15 November 2015. Workshop.
34. David A. Reimann. Mathematics in the art of M.C. Escher. MoSAIC Festival, University of Nebraska - Lincoln. 14–15 November 2015.
35. David A. Reimann. Soccer-ball symmetries: Exploring symmetric patterns on spheres. Hillsdale College Mathematics and Computer Science Colloquium. 29 October 2015.
36. David A. Reimann. Mathematical building with squares: A hands-on mathematical art sculpture construction. Ella Sharp Museum, Jackson, Michigan. June 25 and July 2 2015.
37. David A. Reimann. Mathematical art of the MoSAIC exhibition. Ella Sharp Museum, Jackson, Michigan. 11 June 2015. Gallery Talk.
38. David A. Reimann. Symmetry groups: The mathematical connection between patterns in Moorish architecture and the artwork of M.C. Escher. Dominican University, River Forest, Illinois. 12 April 2015. Guest Speaker, KME Induction Ceremony.
39. David A. Reimann. Symmetry groups: The mathematical connection between patterns in Moorish architecture and the artwork of M.C. Escher. Hope College Mathematics Colloquium. 2 December 2014.
40. David A. Reimann. Relationships between Platonic solids and Scottish carved stone balls. Albion College Mathematics and Computer Science Colloquium. 25 September 2014.
41. David A. Reimann. The art of teaching without teaching. Albion College Teaching Symposium. 12 April 2014.
42. David A. Reimann. Principles of x-ray computed tomography. Andrews University, Pi Mu Epsilon Lecture, jointly sponsored by Mathematics, Physics, and Engineering. 28 March 2014.
43. David A. Reimann. Symmetry groups: The mathematical connection between patterns in Moorish architecture and the artwork of M.C. Escher. Alma College Mathematics Colloquium. 7 October 2013.
44. David A. Reimann. Symmetries on spheres. Albion College Mathematics and Computer Science Colloquium. 12 September 2013.
45. David A. Reimann. Principles of x-ray computed tomography. Albion College, Physics Department Colloquium. 5 April 2013.
46. David A. Reimann. Symmetry groups: The mathematical connection between patterns in Moorish architecture and the artwork of M.C. Escher. Andrews University, Pi Mu Epsilon Lecture, jointly sponsored by Mathematics, Physics, and the School of Architecture, Art and Design. 29 March 2013.

47. David A. Reimann. Symmetry groups: The mathematical connection between patterns in Moorish architecture and the artwork of M.C. Escher. Kalamazoo College, Mathematics and Computer Science Department Colloquium. 6 March 2013.
48. David A. Reimann. Symmetry groups: The mathematical connection between patterns in Moorish architecture and the artwork of M.C. Escher. University of Detroit Mercy Mathematics and Computer Science Colloquium. 27 November 2012.
49. David A. Reimann. Tessellations and symmetries of the plane. Albion College Mathematics and Computer Science Colloquium. 27 September 2012.
50. David A. Reimann. Symmetry groups: The mathematical connection between patterns in Moorish architecture and the artwork of M.C. Escher. Hillsdale College Mathematics and Computer Science Colloquium. 11 April 2012.
51. David A. Reimann. Exploring mathematical themes in M. C. Escher's artwork. Albion College ARTH 216: Modern and Contemporary Art. 5 April 2012. Guest Lecturer.
52. David A. Reimann. Finding symmetry: mathematical connections between Moorish architecture and the artwork of M.C. Escher. Albion College Faculty Lecture. 9 September 2011.
53. David A. Reimann. Knot theory: A new personal direction. Albion College Fall Faculty Forum. 17 August 2011.
54. David A. Reimann. Cancer imaging. Albion College IDY 187: Selected Topics: Cancer — An Introduction. 4 March 2011. Guest Lecturer.
55. David A. Reimann. The Rubik's cube. Albion College Mathematics and Computer Science Colloquium. 2 September 2010.
56. David A. Reimann. Exploring the mathematical themes of M. C. Escher's artwork. Albion College Mathematics and Computer Science Colloquium. 17 September 2009.
57. David A. Reimann. Imaging the human brain. Albion College Mathematics and Computer Science Colloquium. 5 April 2007.
58. David A. Reimann. An introduction to parallel computing. Albion College Mathematics and Computer Science Colloquium. 30 August 2007.
59. David A. Reimann. A brief introduction to PostScript: (PS — I love you!). Albion College Mathematics and Computer Science Colloquium. 4 December 2003.
60. David A. Reimann. Computed tomography: The technology behind the pictures. Albion College Mathematics and Computer Science Colloquium. 6 March 2003.
61. David A. Reimann. Computer representation of pictures. Albion College Mathematics Colloquium. April 1996.
62. David A. Reimann. A cone beam computed tomography system for true 3D imaging of specimens. William Beaumont Hospital Medical Physics Colloquium. January 1996.