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Department of Mathematics
Houghton University
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EDUCATION

Ph. D. Mathematics, May 2009, University of Montana
Advisor: Dr. Thomas Tonev
Dissertation: Norm-Preserving Criteria for Uniform Algebra Isomorphisms
M. A. Mathematics, May 2006, University of Montana
Advisor: Dr. Adam Nyman
Professional Project: Classifying Quadratic Forms
B.S. Mathematics, May 2003, Wheaton College, magna cum laude
Illinois Initial Teaching Certificate, Mathematics, Grades 6–12

TEACHING
EXPERIENCE

Houghton College/University
Professor, 2023–present
Associate Professor, 2016–2023
Mathematics Department Chair, 2015–2022
Assistant Professor, 2009–2016
Courses Taught: Calculus I with Precalculus A, Calculus and Problem Solving, Calculus I and II, Linear Algebra I and II, Introduction to Proofs, Real Analysis I and II, Complex Analysis, Abstract Algebra II, Probability and Statistics I, Graph Theory, Mathematics for the Liberal Arts, Mathematics Research Seminar, Reason and Abstraction: The Infinite, Reason and Abstraction: Mathematics for Human Flourishing, Reason and Abstraction: Origami and Math, Reason and Abstraction: Math of Games and Puzzles, Introduction to Category Theory, Game Theory, Mathematics of Origami, Senior Seminar, various independent studies.
Honors Projects Supervised
Numerical Range over Finite Fields (Timothy Lund, 2023)
Exploring Numerical Range over Finite Fields (Amy Huddell, 2020)
Variations on Multiplicative Preservers of the C -Numerical Range and Radius (Samantha Fairchild, 2015)
University of Montana
Teaching Assistant/Predoctoral Associate, Fall 2004–Spring 2009
Courses Taught: Linear Algebra, Calculus I, Precalculus, Probability and Linear Math, Contemporary Mathematics
Courses Assisted: Applied Calculus, Probability and Linear Math
Whitefield Academy, Smyrna, GA
Middle School Teacher, August 2003–May 2004
Courses Taught: 7th grade math, 8th grade honors algebra

PUBLICATIONS

Camenga, K. A., Paranamana, P., and Yates, R. B. J. *Bingo! A solution to syllabus information overload*, FOCUS, Volume 45(6), Mathematical Association of America, 27 December 2025, pp. 43–44.

Camenga, K. A., Rault, P. X., Spitkovsky, I. M., and Yates, R. B. J. *The Gau–Wu Number for 4×4 and Select Arrowhead Matrices*, Linear Algebra and Its Applications, Volume 644, Elsevier, 1 July 2022, pp. 192–218.

Camenga, K. A., Collins, B., Hoefer, G., Quezada, J., Rault, P. X., Willson, J., and Yates, R. B. J. *On the geometry of numerical ranges over finite fields*, Linear Algebra and Its Applications, Volume 628, Elsevier, 1 November 2021, pp. 182–201.

PUBLICATIONS
CONTINUED

Camenga, K. A., Deaett, L., Rault, P. X., Sendova, T., Spitkovsky, I. M., and Yates, R. B. J. *Singularities of Base Polynomials and Gau–Wu Numbers*, Linear Algebra and Its Applications, Volume 581, Elsevier, 15 November 2019, pp. 112–127.

Camenga, K. A., and Yates, R. B. J. *The Real Numbers: Not All Decimals Are Fractions*, Frontiers for Young Minds, 8:4.

Camenga, K., and Yates, R. *Connecting the dots: rediscovering continuity*, Mathematics Teacher, Volume 108, Number 3, National Council of Teachers of Mathematics, October 2014, pp. 213–217.
Deaett, L., Lafuente-Rodriguez, R., Marin, J., Martin, E., Patton, L., Rasmussen, K., and Yates, R. *Trace conditions for symmetry of the numerical range*, Electronic Journal of Linear Algebra, Volume 26, International Linear Algebra Society, September 2013, pp. 591–603.

Hatori, O., Lambert, S., Luttmann, A., Miura, T., Tonev, T., and Yates, R. *Spectral Preservers in Commutative Banach Algebras*, in Function Spaces in Modern Analysis, Contemporary Mathematics, vol. 547, American Mathematical Society, Providence, RI, 2011, pp. 103–123.

Tonev, T. and Yates, R. *Norm–Linear and Norm–Additive Operators Between Uniform Algebras*, Journal of Mathematical Analysis and Applications, Volume 357, Issue 1, 1 September 2009, pp. 45–53.

Yates, R. *Classifying Quadratic Forms*, Professional Project for M.A. degree, published in the University of Montana Department of Mathematical Sciences, 2006.

Hruska, S., Johnson, R., and Yates, R. *An Alternating Series Expansion for $(\ln 2)^2$* , Pi Mu Epsilon Journal, 11:10(2004), 545–548.

TALKS

Summing it up: integrating mathematics with faith, learning, and life in a senior seminar course
Association of Christians in the Mathematical Sciences (ACMS) Conference, Calvin University, May 28, 2026

Étude in $\mathbb{F}_p$
Idaho State Department of Mathematics and Statistics Colloquium, April 22, 2026.

Two Person Games Not Worth Playing (and Some That Might Be)
Juniata College InfoMaCS Colloquium, February 10, 2026.
& Fall Meeting of the Math Division of the Associated Colleges of the Chicago Area, November 7, 2023 (invited plenary speaker)

Research Early and Research Often: A Low Floor Early Introduction to Mathematics Research
with Kristin Camenga, Joint Mathematics Meetings, Washington, D. C., January 6, 2026.

Derivative or Integral? Connecting Mathematics with Faith, Learning, and Life in a Senior Seminar Course
The Kuyers Institute/International Network for Christian Higher Education/De Vries Institute 2024 Conference on Integrated Education in a Reductionist Age, Calvin University, October 11, 2024

Every valley shall be raised up, and every mountain made low, and the rough places...a crane?
ACMS Conference, Dordt University, May 30, 2024

The Dot and the Line: A Romance in Finite Field Numerical Ranges
with Kristin Camenga and Doug Knowles, Joint Mathematics Meetings, San Francisco, CA, January 3, 2024

Integrating Math and Faith: Highlights
Wheaton College Mathematics and Computer Science Department Chapel, November 8, 2023

The Dot and the Line: A Romance in Finite Field Numerical Ranges
Fall Meeting of the Math Division of the Associated Colleges of the Chicago Area
November 7, 2023 (invited plenary speaker)

Math at the Ballot Box
Houghton University Math Day interactive session, October 26, 2023

Infinite Snowflakes
Houghton University Math Day interactive session, October 27, 2022

TALKS

CONTINUED

All Natural π

Calvin College Mathematics Colloquium, April 29, 2021.
& MAA Seaway Section Banquet Address, St. John Fisher College, April 5, 2019.

Oh the Books You Can Read!

Joint Mathematics Meetings, Denver, CO, January 16, 2020.

Making Stuff Up: A Model for Undergraduate Research in Mathematics

ACMS Conference, Indiana Wesleyan University, May 30, 2019.

A Century at Home on the (Numerical) Range

Houghton College Science and Math Colloquium, February 26, 2019.
& University of Nebraska at Omaha Mathematics Colloquium, October 26, 2018.

Taxis, Trains, and Teleportation: Circling the Value of π ,

Math and Science Day interactive session, Houghton College, February 6, 2019.
& Juniata College Mathematics Colloquium, November 1, 2018.

Incarnate in the Ordinary

Houghton College Baccalaureate, May 11, 2018.

Knowing What You Know

Joint Mathematics Meetings, San Diego, January 12, 2018.

On Beyond Calculus: A Day for Community Outreach

ACMS Conference, Charleston Southern University, June 2, 2017.
& Joint Mathematics Meetings, Seattle, January 9, 2016.

There Are 10 Kinds of People: Those Who Come to This Session and Those Who Don't

Math and Science Day interactive session, Houghton College, February 7, 2017.

The Mathematics of Voting

Math Discovery Day interactive session, Houghton College, April 9, 2016.

As the Crow Flies and the Taxi Drives

Math and Science Day interactive session, Houghton College, February 2, 2016.

The Road Best Traveled: The Mathematics of Getting There and Back Again

Math and Science Day interactive session, Houghton College, February 2015 & 2018.

The Subspace Game

Joint Mathematics Meetings, San Antonio, January 10, 2015.

To Infinity and Beyond

Math and Science Day interactive session, Houghton College, February 2011 & 2014.

Helping Students Overcome Discouragement in Real Analysis

Joint Mathematics Meetings, Baltimore, January 13, 2014.

Integrating Faith through Writing in Calculus I

ACMS Conference, Bethel University, May 31, 2013.

What If I Get Bored? How One Chapel Made Me a Mathematician.

Houghton Education and Life Planning Day Alternative Chapel, March 13, 2013.

Writing in Calculus I: Is It Derivative or Integral?

Joint Mathematics Meetings, San Diego, January 12, 2013.

Obama and Romney: What's Math Got to Do with It?

with Jill Jordan, Houghton College Homecoming, Fall 2012.

Numerical Range: Counting Necklaces and Searching for Symmetry

SUNY Geneseo Mathematics Colloquium, October 13, 2011.

An Infinity of Infinities

Houghton College Faculty Lecture Series, September 21, 2011.

A Second Course in Linear Algebra: Teaching Students to Read and Speak Mathematics

ACMS Conference, Westmont College, June 2, 2011.

Helping Pre-Service Teachers Recognize Continuity in the Secondary Curriculum

with Kristin Camenga, Joint Mathematics Meetings, New Orleans, January 9, 2011.

REBEKAH B. JOHNSON YATES

PROFESSIONAL ACTIVITIES

Math Alliance Facilitated Graduate Admissions Program Undergraduate Mentor
AY 2026–2027.

Mathematical Association of America Chauvenet Prize Committee member
July 2025–present.

Stand Up for Student Learning
Led Idaho State University Department of Mathematics and Statistics Community of Practice workshop, April 21, 2026.

Linear and Multilinear Algebra reviewer
August 2025–present.

Problems, Resources, and Issues in Mathematics Undergraduate Studies (PRIMUS) editorial board
August 2017–August 2020.

Proceedings of the Association of Christians in the Mathematical Sciences reviewer
August 2017–present.

Association of Christians in the Mathematical Sciences board member
2013–June 2021, secretary May 2015–May 2017.

MAA Seaway Section Department Liaison
Spring 2010–present.

Undergraduate Research Poster Session judge
Joint Math Meetings, January 2011, 2012, 2013, 2014.

Abstract Reviewer for the Young Mathematicians Conference
The Ohio State University, June 2012.

Graduate Student Talks mentor
MathFest, August 2011.

HONORS AND AWARDS

Initiative for Christ-Centered Teaching and Scholarship Fellow
Houghton University, AY 2024–2025

Excellence in Teaching Award
Houghton University, March 2024

2010–2011 Project NExT Fellow
MAA and Houghton College.

Graduate Student Distinguished Teaching Award
University of Montana Department of Mathematical Sciences, 2006–2007.

GRANTS

American Institute of Mathematics Research Experience for Undergraduate Faculty Continuation Grant
Institute for Computational and Experimental Research in Mathematics, Brown University, Providence, RI, June 2–6, 2025.

American Institute of Mathematics Research Experience for Undergraduate Faculty Continuation Grant
Houghton, NY, May 31–June 4, 2021.

American Institute of Mathematics Research Experience for Undergraduate Faculty Continuation Grant
San Jose, CA, August 7–11, 2017.

HOUGHTON
SERVICE

Academic Council

August 2026–present.

re:SET Task Force on student evaluations and evaluating teaching and service
January 2024–September 2026.

Admission Committee

Fall 2024–Spring 2025.

Peer Reviewer for mid- and post-tenure reviews

Fall 2022, Spring 2024, Fall 2024, Spring 2025, Fall 2025

Rank and Tenure Committee

Fall 2021–Spring 2024.

Faculty Concerns Committee

Fall 2017–Spring 2019.

Houghton College Science and Math Colloquium Organizer

Fall 2014–Spring 2018.

Investigative Team for Sexual Harassment Complaints

Fall 2014–Spring 2019.

Self-Study Steering Committee for reaccreditation and co-chair of a working group
2013–2015.

Faculty Search Committees, Houghton College

2011–2012 (math), 2013–2014 (math), 2014–2015 (math and applied math; chair of applied math), 2016–2017 (philosophy).

Virginia Tech Regional Math Contest local organizer

Houghton College, October 2010, 2011, 2012.

Faculty Development Committee

Houghton College, September 2010–April 2012.

Willing to Be Wiser mentoring program participant

Houghton College, September 2011–April 2012.

Math Club advisor

Houghton College, September 2010–May 2011.

CONFERENCES
ATTENDED

Joint Mathematics Meetings

San Francisco 2024, Denver 2020, Seattle 2016, San Antonio 2015, Baltimore 2014 & 2019, San Diego 2018, 2013, & 2008, Boston 2012, New Orleans 2011, Washington, D.C. 2009 & 2026.

Association of Christians in the Mathematical Sciences Biennial Meeting

Calvin University 2026, Dordt University 2024, Indiana Wesleyan University 2019, Charleston Southern University 2017, Redeemer University College 2015, Bethel University 2013, Westmont College 2011, Wheaton College 2009.

Advocating for Students of Color: There's More You Can Do
virtual, Fall 2020.

Math Chairs for Racial Justice
virtual reading group, Summer 2020.

Mastery Based Grading Conference
virtual, June 5–6, 2020.

Inquiry-Based Learning Workshop
Nazareth College, Rochester, NY, July 18–21, 2017.

MAA Seaway Section Meeting
St. John Fisher College Spring 2019, SUNY Oswego Spring 2017, Rochester Institute of Technology Fall 2016, Elmira College Fall 2012, Nazareth College Spring 2011, SUNY Fredonia Fall 2009.

Conference on Undergraduate Research in Mathematics
Pennsylvania State University, November 2011 (with six students), November 2009 (with seven students).

Project NExT Workshops and MAA MathFest
Pittsburgh, PA, August 2010 and Lexington, KY, August 2011.

American Institute of Mathematics Research Experience for Undergraduate Faculty
Palo Alto, CA, July 18–22, 2011.

St. Lawrence Valley Mathematics Symposium III
Clarkson University, November 5–6, 2010 (with six students).

6th Conference on Function Spaces
Southern Illinois University at Edwardsville, May 2010.