

*Department of Mathematics  
Houghton College  
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Houghton, NY 14744  
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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**  
Associate Professor, 2016–present  
Mathematics Department Chair, 2015–May 2022  
Assistant Professor, 2009–2016  
*Courses Taught:* Calculus with Precalculus, 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, Actuarial Independent Study, Mathematics Research Seminar, Reason and Abstraction: The Infinite, Senior Seminar, Category Theory  
*Honors Projects Supervised*  
Numerical Ranges over Finite Fields (Timothy Lund, in progress)  
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/Predocutorial 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., Rault, P. X., Spitkovsky, I. M., and Yates, R. B. J. *The Gau–Wu Number for  $4 \times 4$  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.

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.

PUBLICATIONS  
CONTINUED

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

*All Natural  $\pi$*

Calvin College Mathematics Colloquium, April 29, 2021.

*Oh the Books You Can Read!*

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

*Making Stuff Up: A Model for Undergraduate Research in Mathematics*,

Association of Christians in the Mathematical Sciences Conference, Indiana Wesleyan University, May 30, 2019.

*All Natural  $\pi$*

MAA Seaway Section Banquet Address, St. John Fisher College, April 5, 2019.

*A Century at Home on the (Numerical) Range*

Houghton College Science and Math Colloquium, February 26, 2019.

*Taxis, Trains, and Teleportation: Circling the Value of  $\pi$* ,

Math and Science Day interactive session, Houghton College, February 6, 2019.

*Infinity and Transcendence*

Nickel City Forum, Buffalo, NY, November 29, 2018.

*Taxis, Trains, and Teleportation: Circling the Value of  $\pi$*

Juniata College Mathematics Colloquium, November 1, 2018.

*A Century at Home on the (Numerical) Range: Historical Highlights and Current Research*

University of Nebraska at Omaha Mathematics Colloquium, October 26, 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*

Association of Christians in the Mathematical Sciences Conference, Charleston Southern University, June 2, 2017.

*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.

*On Beyond Calculus*

Joint Mathematics Meetings, Seattle, January 9, 2016.

TALKS  
CONTINUED

- 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*  
Association of Christian in the Mathematical Sciences 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*  
Association of Christians in the Mathematical Sciences 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.
- Introduction to L<sup>A</sup>T<sub>E</sub>X*  
Houghton College Math Club, November 15, 2011.
- The Mathematics of Voting*  
Houghton College Math Club, November 1, 2011.
- Classical Results from a Functional Analysis Perspective*  
SUNY Potsdam/Clarkson University REU Colloquium invited talk, June 10, 2010.

PROFESSIONAL  
ACTIVITIES

- 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*  
June 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.

## REBEKAH B. JOHNSON YATES

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### HONORS AND AWARDS

*2010–2011 Project NExT Fellow*  
MAA and Houghton College.

*Summer Graduate Research Scholarship*  
University of Montana Department of Mathematical Sciences, 2008.

*Outstanding Presentation*  
Graduate Student and Faculty Research Conference, University of Montana, April 5, 2008.

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

### HOUGHTON SERVICE

*Rank and Tenure Committee*  
Fall 2021–present.

*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).

*Co-PI for application for NSF Robert Noyce Teacher Scholarship*  
February 2014. Application was not funded.

*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.

### GRANTS

*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.

CONFERENCES  
ATTENDED

*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.

*AMS/MAA Joint Mathematics Meetings*  
Denver 2020, Seattle 2016, San Antonio 2015, Baltimore 2014 & 2019, San Diego 2018, 2013  
& 2008, Boston 2012, New Orleans 2011, Washington, D.C. 2009.

*Association of Christians in the Mathematical Sciences Biennial Meeting*  
Indiana Wesleyan University 2019, Charleston Southern University 2017, Redeemer University  
College 2015, Bethel University 2013, Westmont College 2011, Wheaton College 2009.

*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.