

# THOMAS MCKENZIE

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## EDUCATION

Ph.D., University of Oregon, Department of Mathematics, December 1992.  
Thesis Advisor: David Harrison.

M.S., University of Oregon, Department of Mathematics, June 1988.

B.A., Clark University, Department of Mathematics, June 1985.

## AREAS OF SPECIAL INTEREST

Algebraic Number Theory and Commutative Algebra.

## TEACHING EXPERIENCE

**Professor** - Gonzaga University, Department of Mathematics, 2010-Present.

**Associate Professor** - Gonzaga University, Department of Mathematics,  
2002-2009.

**Associate Professor** - Bradley University, Department of Mathematics,  
2001-2002.

**Visiting Associate Professor** - Colorado State University, Department of Mathematics,  
2000-2001.

**Associate Professor** - Bradley University, Department of Mathematics,  
1999-2000.

**Assistant Professor** - Bradley University, Department of Mathematics,  
1993-1999.

**Graduate Teaching Fellow** - University of Oregon, Department of  
Mathematics, 1986-1992.

**Teaching Assistant** - Clark University, Department of Mathematics and  
Computer Sciences, 1983-1985.

## REFEREED PUBLICATIONS

*Toward an Arithmetic of Polynomials*, Aequationes Mathematicae, Vol. 43, No. 1, pp. 21-37, 1992 (With D. K. Harrison).

*Separable Polynomials and Weak Henselizations*, Rings, Extensions, and Cohomology, Lecture Notes in Pure and Applied Mathematics, Vol. 159, pp. 165-179, 1994.

*Weakly Henselian Rings*, The Mathematical Journal of Okayama University, 38, pp. 1-5, 1997.

*The Separable Closure of a Local Ring*, The Journal of Algebra, 207, pp. 657-663, 1998.

*Strongly Etale Extensions and Weak Henselizations*, Communications in Algebra 28 (5), (2000) 2497-2506 (with Frank DeMeyer and Kim Schneider).

*The Zero Divisor Graph of a Commutative Semigroup*, Semigroup Forum 65 (2002) 206-214 (with Frank DeMeyer and Kim Schneider).

*On Generic Polynomials*, Journal of Algebra, 261 (2003), [No. 2](#), 327-333 (with Frank DeMeyer).

*Purely Periodic Second Order Linear Recurrences*, Fibonacci Quarterly, Vol. 46/47, No. 2, 160-166, May 2008/09 (with Shannon Overbay).

*Book Embeddings and Zero Divisors*, Ars Combinatoria, Vol. 95, April, 2010 (with Shannon Overbay).

*Sums of Second Order Linear Recurrences*, Fibonacci Quarterly, Vol. 48, No. 4, November 2010, pp. 335-342 (With Shannon Overbay).

*G-Sets and Linear Recurrences Modulo Primes*, Missouri Journal of Mathematical Sciences. Vol 25, Issue 1, 2013, pp, 27-36 (With Shannon Overbay and Rob Ray).

*Jordan Forms and Nth Order Linear Recurrences*, Missouri Journal of Mathematical Sciences. Vol 26, Issue 2, 2014, pp, 122-133 (With Shannon Overbay and Rob Ray).

*Book Thickness of Planar Zero Divisor Graphs*, Missouri Journal of Mathematical Sciences. Vol 27, Issue 1, 2015, pp, 2-9 (With Shannon Overbay).

*Book Thickness of Toroidal Zero Divisor Graphs*, Africa Matematika, Vol 28, Issue 5, 2017, pp, 823-830, (With Shannon Overbay).

*Subhamiltonian Toroidal Graphs*, (With Shannon Overbay), submitted.

*Deques on a Torus*, (With Shannon Overbay), submitted.

## **STUDENT TALKS AND POSTER PRESENTATIONS**

*Area and Volume of P-Orbital Overlap: Equations and Importance of IR Stretching (poster)*, Ryan Cloke, (faculty advisors: Matthew Cremeens, Shannon Overbay, Thomas McKenzie, and Robert Ray), Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Central Washington University, Ellensburg, WA, April 3-4, 2009.

*Mathematical Modeling of P-Orbital Overlap*, Ryan Cloke (faculty advisors: Matthew Cremeens, Shannon Overbay, Thomas McKenzie, and Robert Ray), Spokane Intercollegiate Research Conference (SIRC), Whitworth University, Spokane, WA, April 25, 2009.

*Zero Divisor Graphs and Inverse Systems of Abelian Groups (poster)*, Cynthia Wu (faculty advisor: Thomas McKenzie), Joint Mathematics Meetings, Boston, MA, January, 2012.

*Zero Divisor Graphs of Inverse Systems of Abelian Groups*, Cynthia Wu (faculty advisor: Thomas McKenzie), Northwest Undergraduate Mathematics Symposium, Lewis and Clark College, Portland, OR, March, 2012.

*Measuring Salary Inequality at Master's Colleges and Universities*. Joseph B Kincanon, (Faculty Advisors: Thomas McKenzie and Kevin Henrickson), Spokane Intercollegiate Research Conference, Gonzaga University, Spokane, WA, April 21-22, 2017.

*Measuring Salary Inequality at Master's Colleges and Universities (poster)*, Joseph B Kincanon, (Faculty Advisors: Thomas McKenzie and Kevin Henrickson), Spring Western Sectional Meeting of the American Mathematical Society (AMS), Washington State University, Pullman, WA, April 22-23, 2017.

*Measuring Salary Inequality Among University Professors, Joseph B Kincanon, (Faculty Advisors: Thomas McKenzie and Kevin Henrickson), Northwest Undergraduate Mathematics Symposium (NUMS), Linfield College, McMinnville, OR, April 8, 2017*

**PROFESSIONAL  
MEMBERSHIP**

Mathematical Association of America

**PROFESSIONAL  
SERVICE**

Chairman of AMS Session on Commutative Algebra II at Joint AMS and MAA Meeting, San Antonio, Texas, January, 1993.

Presided, Organized and Chaired AMS Special Session on Commutative Algebra and Probability Groups at the Western Regional Conference, Eugene, Oregon, June, 1994.

Panel Member, Job Market Panel Discussion, Pacific Northwest Section of the MAA, Eugene, Oregon, June, 1994.

Computer Resources Committee, Bradley University Mathematics Department, 1993-2000, 2001-2002.

Colloquium Committee, Bradley University Mathematics Department, 1994-2000, 2001-2002.

Bradley University Senator, 1994-97.

Chairman, Computer Resources Committee, Bradley University Mathematics Department, 1995-2000, 2001-2002.

Webmaster of Bradley University Mathematics Department Homepage, 1995-2002.

Bradley University Team Faculty Advisor for the MAA Statewide Tournament, Illinois Section, April, 1995, Placed First.

Chairman, Colloquium Committee, Bradley University Mathematics Department, 1996-1999.

Assessment Committee, Bradley University Mathematics Department, 1997-1998.

Hiring Committee, Bradley University Mathematics Department, 1998-1999.

Co-Advisor, Gonzaga University Mathematics Club, 2002-2005.

Business Mathematics Curriculum Committee, Gonzaga University Mathematics Department, 2002-2003.

Academic Advisor, Gonzaga University Department of Mathematics, 2003-Present.

Hiring Committee, Gonzaga University Department of Mathematics, 2003, 2004, 2007, 2008, 2009, and 2015.

Organized Mathematics Colloquium, Gonzaga University Department of Mathematics, 2003.

Advising Assessment Committee, Gonzaga University Department of Mathematics, 2003.

Faculty Advisor, Mathematical Contest in Modeling for the Consortium for Mathematics and its Applications, 2003.

Election Procedures Committee, Gonzaga University Department of Mathematics, 2003.

Organized Web Page Development Seminar with Jerry Roth, Gonzaga University Department of Mathematics, 2003.

Organized Gonzaga University Peer Visitation Group, 2003-2005.

Desktop Standards Committee, Gonzaga University, 2003-2004.

Panel Member, "Classroom Conundrums: Strategies for Difficult Teaching Situations," Pacific Northwest Section MAA Meeting, Whitman College, Walla Walla, Washington, June, 2003.

Webmaster of Gonzaga University Department of Mathematics Homepage, 2003-Present.

Referee, Journal of Algebra, 2004-2006.

Chair, Accreditation Committee, Gonzaga University Department of Mathematics, 2004.

Presented/Facilitated "Peer Visitation Group" breakout session for the Gonzaga University Fall Faculty Conference, 2004.

Teaching and Advising Resource Center Committee, Gonzaga University, 2005.

Mathematics Department Reappointment, Tenure, and Promotion Committee, Gonzaga University, 2005-Present.

Committee which created the Center for Teaching and Advising, Gonzaga University, 2005.

Junior Faculty Advisory Group to the AVP, Gonzaga University, 2005-2007.

Search Committee for the Director of the Center for Teaching and Advising, Gonzaga University, 2006.

Advisory Council for the Center for Teaching and Advising, Gonzaga University, 2006-2008.

Mathematics Department Outcomes Assessment Committee, Gonzaga University, 2006-Present.

Member of the Shared Classroom Initiative Working Group, Gonzaga University, 2007.

Mathematics Department Promotion Criteria Committee, Gonzaga University, 2007.

Organizer, New Faculty Mentorship Program Orientation Reception, Gonzaga University, 2007.

AP Calculus Grader, College Board 2007 AP Calculus Exam Grading, Ft. Collins, Colorado, 2007.

Discussion Facilitator, "*Faculty Evaluation in the Classroom: Making the Experience a Productive One*," The Center for Teaching and Advising, Gonzaga University, 2007.

Ratings Instrument Committee, Gonzaga University, 2007.

Outside Reviewer for a Petition for Tenure at Central Michigan University,

2007.

Co-Director of the New Faculty Mentorship Program, Gonzaga University, 2007-2008.

Student Awards Committee, Gonzaga University Department of Mathematics, 2007-2016.

Chairman, Gonzaga University Department of Mathematics, 2007-2013.

Referee, *Communications in Algebra*, 2008.

Core Curriculum Committee, Gonzaga University, 2008-2011.

AVP Core Task Force Summer, 2012.

Gonzaga University Chairs Conference, Organization Committee, 2012.

Academic Council At Large Representative, 2012-2015.

Department of Mathematics Assessment Committee, 2012-2013.

Chair of the Academic Council Assessment Committee, 2012-2015.

Organizer and Moderator, *Reaching Out to the Local Middle School*, Panel Discussion, Pacific Northwest Section of the Mathematical Association of America, Salem, OR 2013.

Outside Reviewer for a Petition for Promotion to Professor at Central Michigan University, 2013.

Taught a Pathways Class for mathematics majors, 2013.

Referee, *Algebra Colloquium*, 2013.

Referee, *Arabian Journal of Mathematics* (Springer), 2013.

Secretary and Treasurer, Pacific Northwest Section of the Mathematical Association of America, 2014-present.

Committee on College of Arts and Sciences requirements, Fall 2014.

Appointed by the Dean to serve on a Chemistry promotion committee, 2014.

Panelist, *Community College Math Major/Minor Transfer Student*, Pacific Northwest Section of the Mathematical Association of America, Missoula, MT 2014.

Chair of The Committee on College of Arts and Sciences requirements, Spring 2015.

Acting Chairman, Gonzaga University Department of Mathematics, Fall 2015.

Chair, Mathematics Search Committee, 2015-2016.

Outside Member, Economics Search Committee, 2015-2016.

Point Person for Department of Mathematics Program Review, Spring 2015-Fall 2016.

Referee, *Afrika Matematika* (Springer), 2016.

Co-organizer, Special Session on Algebra, Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Corvallis, OR 2016.

Department of Mathematics Rank, Tenure, and Promotion Committee, Alternate, Fall 2016.

Outside Member, Operations Management Search Committee, 2016-2017

Mathematics Core Curriculum Committee, Fall 2015 – Spring 2019.

University Rank, Promotion, and Tenure Committee, Fall 2016 – Spring 2019.

Referee, Electronic Journal of Graph Theory and Applications, 2017

AVP-HR Search Committee, Summer 2018.

Referee, Bulletin of the Hellenic Mathematical Society, 2018

Chair, Mathematics Search Committee, 2018-2019.

Provost and Senior Vice-President Search Committee, 2018-2019.

Gonzaga Policy and Planning Committee Spring 2018- 2020.

Faculty President Spring 2018- 2020.

Referee, Missouri Journal of Mathematical Sciences, 2109.

Referee, Ars Mathematica Contemporanea, 2019

Acting Chairman, Gonzaga University Department of Mathematics, Spring 2019.

Referee, Missouri Journal of Mathematical Sciences, 2020.

## PRESENTATIONS

*“Separable Polynomials and Weak Henselizations,”* American Mathematical Society Annual Meeting, San Antonio, Texas, 1993.

*“Weakly Henselian Rings,”* American Mathematical Society Western Regional Conference, Eugene, Oregon, 1994.

*“Strongly Etale Extensions and Weak Henselizations,”* American Mathematical Society ( Annual Meeting, San Antonio, Texas, 1999.

*“Rings with Local Separable Closure I,”* Colorado State University, Fort Collins, Colorado, September, 2000.

*“Rings with Local Separable Closure II,”* Colorado State University, Fort Collins, Colorado, October, 2000.

*“Generic Polynomials,”* Bradley University, Peoria, Illinois, September, 2001.

*“Zero-Sum Games,”* Eastern Oregon State University, LaGrande, Oregon, February, 2002.

*“Generic Polynomials Over Finite Fields,”* Pacific Northwest Section MAA Meeting, Whitman College, Walla Walla, Washington, June, 2003.

*“A Gentle Introduction to RSA,”* Inland Northwest Association for Computing Machinery meeting, SIRTI, Spokane, Washington, November, 2003.

*“Uniformly Distributed Linear Recurrences,”* Spokane Regional Mathematics Colloquium, Spokane, Washington, December, 2008.

*“Sums of Second-Order Linear Recurrences,”* 42<sup>nd</sup> Western Number Theory Conference, Ft. Collins, Colorado, December, 2008.

*“Uniformly Distributed Sequences,”* American Mathematical Society Annual Meeting, San Diego, California, 2013.

Co-Presenter (with Shannon Overbay), *Preparing for Leadership Positions*, Pacific Northwest Section of the Mathematical Association of America, Missoula, MT 2014.

*“Zero-divisor Graphs of Commutative Rings,”* 22nd Coast Combinatorics Conference, Kona, Hawaii, 2015.

Leadership Workshop (with Shannon Overbay), Mini Course, Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Tacoma, WA 2015.

*“The Book Thickness of Zero Divisor Graphs with genus at most one,”* American Mathematical Society Annual Meeting, Seattle, Washington, 2015.

*“A Matroid of Polynomials”*, Coast Combinatorics Conference, Kona, Hawaii, 2017.

*A Graph of Separable Polynomials.* Spring Western Sectional Meeting of the American Mathematical Society. Pullman, WA, 2017.

*Book Embeddings and Matroids.* American Mathematical Society Annual Meeting, San Diego, California, 2018.

## **GRANTS AND AWARDS**

Disabled Student Mentor Award Nomination, University of Oregon, 1992.

Office for Teaching Excellence and Faculty Development Instructional Improvement Grant, Mathematica Training Session, University of Illinois, December, 1994.

NSF/CMBS Grant, Conference on Division Algebras, Fort Collins, Colorado, June, 1998.

Gonzaga University Exemplary Faculty Award, 2008-2009.

## **CONFERENCES**

American Mathematical Society Annual Meeting, San Antonio, Texas, January, 1993.

Conference on Rings, Extensions, and Cohomology, Evanston, Illinois, September, 1993.

American Mathematical Society Western Regional Conference, Eugene, Oregon, June, 1994.

Mathematical Association of America, Pacific Northwest Section Meeting, Eugene, Oregon, June, 1994.

American Mathematical Society Annual Meeting of the Central Section, Iowa City, Iowa, March, 1996.

Joint Meetings of the American Mathematical Society and the Mathematical Association of America, Seattle, Washington, August, 1996.

Joint NSF and CMBS Conference on Division Algebras, Fort Collins, Colorado, June, 1998.

American Mathematical Society Annual Meeting of the Central Section, Chicago, Illinois, September, 1998.

American Mathematical Society Annual Meeting, San Antonio, Texas, January, 1999.

American Mathematical Society Annual Meeting of the Central Section, Urbana, Illinois, March, 1999.

Brauer Group Conference, Lubrecht Experimental Forest, Montana, June, 1999.

Brauer Group Conference, Pingree Park, Colorado, July, 2002.

2002 Big Sky Conference on Discrete Mathematics, University of Montana-Missoula, September, 2002.

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Walla Walla, WA, 2003.

Brauer Group Conference, Pingree Park, Colorado, July, 2004.

Howard Hughes Medical Institute Conference, Chevy Chase, Maryland, July, 2008.

Association of American Colleges and Universities Conference on Engaging Science and Advancing Learning, Providence, Rhode Island, November, 2008.

42<sup>nd</sup> Western Number Theory Conference, Ft. Collins, Colorado, December, 2008.

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Ellensburg, WA, 2009.

Association of American Colleges and Universities Greater Expectations Institute, Burlington, VT, June, 2009.

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Ellensburg, WA, 2009.

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Seattle, WA, 2010.

Joint Meetings of the American Mathematical Society and the Mathematical Association of America, New Orleans, LA, 2011.

American Mathematical Society Department Chairs Workshop, New Orleans, LA, 2011.

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Portland, OR, 2012.

Joint Meetings of the American Mathematical Society and the Mathematical Association of America, San Diego, CA 2013.

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Salem, OR 2013.

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Missoula, MT 2014.

Coast Combinatorics Conference, Hilo, Hawaii, 2015.

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Tacoma, WA 2015.

Joint Meetings of the American Mathematical Society and the Mathematical Association of America, Seattle, WA 2015.



Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Corvallis, OR 2016.

Coast Combinatorics Conference, Hilo, Hawaii, 2017.

American Mathematical Society Annual Meeting, San Diego, California, 2018.

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Portland, OR 2019.