

Curriculum Vitae Jenny McNulty

College of Humanities and Sciences
University of Montana
Missoula, MT 59812-1032

Phone: 406-243-2632
Web: hs.umt.edu/hs
E-mail: mcnulty@mso.umt.edu

Education

- Ph.D., Mathematics, University of North Carolina at Chapel Hill, 1993
- M.A., Mathematics, State University of New York at Stony Brook, 1987
- B.A., Chemistry and Mathematics, Providence College, 1985

Employment

- College of Humanities and Sciences, University of Montana, Interim Dean 2018 –present; Associate Dean 2010 – 2018; Acting Dean December 1, 2015 – March 31, 2016
- Department of Mathematical Sciences, University of Montana, Associate Chair - Graduate Program 2006 - 2008; Full Professor 2004 – present; Associate Professor 1997 – 2004; Assistant Professor 1993 – 1997
- Lecturer, Schwanke Institute, University of Montana, summers 2009, 2012, 2014, 2016; Young Scholars Program, Rutgers University, summers 1994, 2000–2005, 2009

Honors and Awards

- MT Space Grant PI *Student Support for Success in Science*, \$18,085, 2018–2019
- NSF AGEP Willow Alliance Advisory Board Member, 2017–2021
- Fulbright Specialist - Mathematics Education, U. Gondar, Ethiopia, 2018
- NSF S-STEM Co-PI *Montana Supports the Mathematicians of Tomorrow*, \$610,000, 2014–2019
- MAA Certificate for Meritorious Service - Pacific Northwest Section, 2011
- MAA Dolciani Enrichment Grants \$6,000, 2010; \$6,000, 2011; \$6,000, 2013
- CURM Grant *UG Research in Matroid Theory*, \$20,000, 2010–2011
- The University of Montana Outstanding Faculty Advising Award, 2005
- NSF Grant *The Big Sky Conference on Discrete Mathematics*, \$37,355 total, 1998 – 2004
- MT NSF-EPSCoR Conference Grants, Big Sky \$13,552 total, 2002–2004
- MAA Section NExT Grant, \$3060, 2000; \$1940, 2003; \$2000, 2010
- UM Faculty Development Grants, \$12,770 total, 1994 – 2010

- MONTS/NSF *An Investigation of Random Matroids*, \$30,000, 1995
- MAA Project NExT Fellow, 1994–95
- The University Award for Excellence in Teaching, SUNY Stony Brook, 1987
- Pi Mu Epsilon Member

Publications

- A. Alvarez, et. al, The PCMI Workshop for Mentors: A Weeklong Workshop on Diversity? (Opinion Piece), *AMS Notices*, **65** (2018), no. 5, 585–591.
- G. Gordon, J. McNulty, N. Neudauer, Fixing Numbers for Matroids, *Graphs and Combinatorics*, **32** (2016), no. 1, 133–146.
- T. Lewis, J. McNulty, N. Neudauer, T. Reid, L. Sheppardson, Bicircular matroid designs, *Ars Combinatoria*, **110** (2013), 513–523.
- G. Gordon, J. McNulty, **Matroids: A Geometric Introduction**, *Cambridge University Press*, (2012).
- G. Gordon, J. McNulty, Thomas H. Brylawski (1944–2007), *European Journal of Combinatorics*, **32** (2011), 712–721.
- P.M. Kayll, J. McNulty, J. Mihalisin, Magic squares and antimagic graphs, *Bulletin of the ICS* **58** (2010), 83–93.
- J. McNulty, N. Neudauer, On cocircuit covers of bicircular matroids, *Discrete Math*, **308** (2008), no 17, 4008–4012.
- F. Lutscher, J. McNulty, J. Morris, K. Seyffarth, Stitching images back together, *Congresses Numerantium*, **165** (2003), 161–168.
- J. McNulty et. al., Stitching IC Images, *Proceedings of the Sixth Annual PIMS Industrial Problem Solving Workshop 2002*.
- M. Edmonds, J. McNulty, On the circular flow number of rank 3 orientable matroids, preprint.
- T. Al-Hawary, J. McNulty, On closure matroids, *Congresses Numerantium*, **148** (2001), 93–95.
- J. McNulty, H. Wu, Connected hyperplanes in binary matroids, *Journal of Combinatorial Theory, Series B*, **79** (2000), 87–97.
- J. Corp, J. McNulty, On a characterization of balanced matroids, *Ars Combinatoria*, **58** (2001), 111–112.
- J. Corp, J. McNulty, On amalgams and density of uniform matroids, *Congressus Numerantium*, **136** (1999), 193–199.
- J. Bonin, J. McNulty, T.J. Reid, The ramsey number $n(6,6)$, *Combinatorics, Probability, and Computing*, **8** (1999), 229–235.
- J. McNulty, Two new classes of non-orientable matroids, preprint.

- J. McNulty, Generalized affine matroids, *Congressus Numerantium*, **101** (1994), 243–254.
- J. McNulty, *Hyperplane Arrangements and Oriented Matroids*, Ph.D. Dissertation, The University of North Carolina, 1993.
- J. McNulty, Ports and oriented matroids, *Congressus Numerantium* **96** (1993), 11–20.

Selected Presentations

- *General Matroids*
 - Invited Lecture, "Introduction to Matroids", University of Gondar, Gondar, Ethiopia, 2015
 - Co-presenter, MAA Mini-course, "Introducing Matroids to Undergraduates", Joint Mathematics Meetings, San Antonio, TX, 2015
 - Invited Speaker, Matroid Cryptomorphisms, MAA Short Course: "What is a matroid? Theory and Applications, from the ground up", Joint Mathematics Meetings, New Orleans, LA, 2011
 - Introductory Session on Matroids, Montana Matroids Workshop, The University of Montana, Missoula, MT, 2006
 - Instructional Seminar, Simon Fraser University, Vancouver, BC, May, 2001
 - Instructional Seminar, Simon Fraser University, Vancouver, BC, 2001
 - Colloquium, The University of Calgary, Calgary, AB, 2000
 - Colloquium, The University of Idaho, Moscow, ID, 2000
- *Fixing and Distinguishing Numbers*
 - Invited Speaker, AWM Anniversary Conference ICERM, Providence, RI, 2011
 - Colloquium Speaker, Providence College, Providence, RI, 2011
 - Invited Speaker, Special Session on Matroids, AMS Section Meeting, Lexington, KY, 2010
 - Colloquium, University of Montana, Missoula, MT, 2009
 - Invited Speaker, Special Session on Matroids, Mathfest, Mathematics Association of America, Portland, OR, 2009
 - Colloquium Speaker, Lehigh University, Bethlehem, PA, 2009
 - Invited Speaker, Brylawski Memorial Conference, Univ. of North Carolina, Chapel Hill, NC, 2008
- *Teaching Linear Algebra*
 - Mini-course "Teaching Linear Algebra with Technology", PNW MAA meeting, University of Puget Sound, 2005
 - Invited Workshop Leader, Project NExT, Albuquerque, NM, 2005
 - Invited Workshop Leader, Project NExT, Boulder, CO, 2003
 - Contributed Lecture, AMS-MAA Joint Meetings, San Diego, CA, 1997
 - Invited Lecture, Conference on Improving Undergraduate Education, Bozeman, MT, 1997
 - Colloquium Talk, The University of Montana, Missoula, MT, 1996
- *Magic and Antimagic Graphs*

- Invited Lecture, Lafayette College, Easton, PA, 2007
- Invited Lecture, 2004 Prairie Conference, Lethbridge, AB, 2004
- *Oriented Flow Number*
 - Contributed Lecture, 2003 Big Sky Conference, Missoula, MT, 2003
 - Contributed Lecture Graph Theory of Brian Alspach, Vancouver, BC, 2003
- *Stitching Images*
 - Contributed Lecture, 2002 Big Sky Conference, Missoula, MT, 2002
 - Invited Lecture, Pacific University, Forest Grove, OR, 2002
- *Bicircular Matroids*
 - Invited Lecture, AMS-MAA Western Regional Meeting, Portland, OR, 2002
 - Invited Lecture, AMS-MAA SE Regional Meeting, Atlanta, GA, 2002
- *Million Dollar Math*
 - Invited Lecture, The University of Montana, Missoula, MT, 2002
 - Invited Lecture, Lafayette College, Easton, PA, 2001
 - Invited Lecture, Pacific Lutheran University, Tacoma, WA, 2001
 - Invited Lecture, Davidson College, Davidson, NC, 2001
 - Invited Lecture, Carroll College, Helena, MT, 2000
- *Connected Hyperplanes in Binary Matroids*
 - Invited Lecture, 1998 Big Sky Conference on Discrete Mathematics, Missoula, MT, 1998
 - Contributed Lecture, International Congress of Mathematicians, Berlin, Germany, 1998
 - Invited Lecture, Mini-symposium, University of Köln, 1998
- *The Matroid Ramsey Number $n(6,6)$*
 - Colloquium Talk, Washington State University, Pullman, WA, 1999
 - Contributed Poster, Project NExT/Young Mathematician's Network Poster Session, AMS-MAA Joint Mathematics Meetings, Baltimore, MD, 1998
 - Contributed Lecture, Big Sky Conference, Missoula, mt, 1997
- *Random Matroids*
 - Contributed Lecture, 27th International Southeastern Conference on Combinatorics, Graph Theory, and Computing, Baton Rouge, LA, 1996
- *Classifying Symmetry*
 - On The Rocks Seminar, UM - Western Montana College, Dillon, mt, 1999
 - Math Awareness Colloquium Talk, The University of Montana, Missoula, MT, 1995
 - Colloquium Talk, Eastern Washington University, Cheney, WA, 1995
 - Colloquium Talk, Eastern Oregon State College, LaGrange, OR, 1996
- *Nonorientable Matroids*
 - Invited Talk, CMS Meeting, Vancouver, BC, 2003

- Colloquium Talk, Southern University, Baton Rouge, LA, 1996
- Colloquium Talk, The University of Mississippi, Oxford, MS, 1996
- Invited Lecture, Cumberland Conference, Oxford, MS, 1996
- Invited Lecture, Conference on Combinatorics, Optimization and Geometry, Missoula, MT, 1995
- Colloquium Talk, The University of Montana, Missoula, MT, 1994
- Contributed Lecture, Seventh SIAM Conference on Discrete Math, Albuquerque, NM, 1994
- *Non-separating Vertices and Cocircuits*
 - Contributed Lecture, Big Sky Conference, Missoula, MT, 1996
- *Generalized Affine Matroids*
 - Contributed Lecture, 25th International Southeastern Conference on Combinatorics, Graph Theory and Computing, Boca Raton, FL, 1994
 - Contributed Lecture, The Montana Academy of Sciences 54th Meeting, Butte, MT, 1994
- *Ports and Oriented Matroids*
 - Contributed Lecture, 24th International Southeastern Conference on Combinatorics, Graph Theory and Computing, Boca Raton, FL, 1993

Professional Society Memberships

- Association for Women in Mathematics
- Mathematical Association of America

Graduate Students

- Roger MadPlume, M.A., 2016, “*Examining Matroids with Unique Addresses*”
- Scott Davis, M.A., 2016, “*Tic-Tac-Toe and Combinatorial Configurations*”
- Gerald Todd, M.A., 2016, “*Properties of Dowling Geometries*”
- Mary Riegel, Ph.D., 2012, “*Nontraditional Positional Games: New methods and boards for playing Tic-Tac-Toe*”
- Joe Oldenberg, M.A., 2009, “*Hyperplane Arrangements and Matroid Invariants*”
- Joseph Mousel, M.A. 2008, “*Selected Problems in Matroid Theory*”
- Chris Clouse, Ph.D. , 2004, “*Greedoid invariants and the greedoid Tutte polynomial*”
- Matthew Edmonds, M.A., 2003, “*Oriented flow of rank 3 matroids*”
- Hillary VanSpronsen, M.A., 2003, “*Grid graphs and maximum leaf spanning trees*”
- Robert Barlow, M.A., 2003, “*Course scheduling solution*”
- Scott Jones, M.A., 2002, “*Operations on graphs and matroids*”
- John McGowan, M.A., 2002, “*Orientability of matroids*”

- Talal Al-Hawary , Ph.D., 1997, “*Toward an Elementary Axiomatic Theory of the Category of Loopless Pointed Matroids and Pointed Strong Maps*”, co-advisor
- Jenifer Corp, M.A., 1996, “*Balanced Graphs and Balanced Matroids*”

Professional Activities

- Organizer, Gondar–Montana Mentorship program for Women, 2018–present Invited Participant, ANSEP Dissemination Conference (NSF), Anchorage, AK, 2018
- Member, MAA Polya Selection Committee, 2017–2019
- Participant, ACAD Deans’ Institute, 2017
- Reviewer, National Science Foundation DUE, 2014, 2016, 2017, 2018
- Participant, PNW-COSMOS Indigenous Mentoring Program (NSF), 2016
- Elected Member, MAA Board of Governors, 2012 – 2015
- Member, MAA Project NExT Search Committee, 2014
- Member, MAA Invited Speakers for JMM 2016 Committee, 2014
- Elected Member, MAA Audit Committee, 2013 – 2015
- Invited Participant, Mathematicians in Math Education Workshop, Tucson, AZ, 2013
- Member, MAA Committee on Early Career Mathematicians, 2012 – 2018
- Workshop Leader, MCPS-UM Middle School Student Conference, Missoula, MT, 2012, 2013, 2014
- Invited Participant, AIMMS Workshop: Preparing and Keeping Students, Palo Alto, CA, 2012
- Invited Participant, IWiN Workshop, Irvine, CA, 2012
- Co-Organizer/Lecturer, Math Day and Missoula Math Circle, 2010 – present
- Director, Pacific Northwest Section NExT, 2000 – 2018
- Chair, Mathematics Association of America Pacific Northwest Section, 1998–2002
- Consultant, Project NExT, 2004, 2006
- Member, MAA Committee on MAA/Dept. Liaisons, 2004– 2010
- Member, MAA Committee on Sections, 2005– 2011
- Member, PNW MAA Service Award Nomination Committee, 2005
- Conference Organizer, UM Graduate Student and Faculty Research Conference, 2001 – 2008
- Conference Organizer, Montana Connections, 2006 - 2007
- Conference Organizer, Matroids in Montana, 2006
- Conference Organizer, The Big Sky Conference on Discrete Mathematics, 1995–2004

- Special Session Organizer: Matroid Theory, AMS-MAA Western Regional Meeting, Portland, OR, 2002
- MAA Panel Discussion Organizer: Successful Activities for a Math Club, AMS-MAA Joint Meeting, Phoenix, AZ, 2004
- Associate Director, NSF Math Modeling Workshop, 1998–1999
- Reviewer of Research Proposals, National Science Foundation DMS
- Reviewer of Research Articles: Discrete Mathematics, Ars Combinatoria, Computers and Mathematics with Application
- Reviewer of Textbooks, Prentice Hall, W.H. Freeman, Franklin Beedle, Addison-Wesley
- Invited Participant, Connections Workshop, Tucson, AZ, 2006
- Selected Participant, Association for Women in Mathematics Leadership Workshop, College Park, MD, 2004
- Invited Participant, To Augment the Teaching of Linear Algebra through the Use of Software Tools (ATLAST) Developers Workshop, 1995, 1996
- Invited Participant, NSF/CBMS Conference, “Probability, Algorithms, and Combinatorial Optimization,” 1995
- Invited Participant, AMS–IMS–SIAM Summer Research Conference, “Matroid Theory,” 1995

University Activities

- Chair, UM’s Community Giving Campaign, (2017)
- Representative, University International Travel: Ethiopia (2015), China (2015)
- Organizer, New Graduate Student Teaching Assistant Orientation, 2012–2016
- University Representative, SACNAS, Seattle, WA 2012
- Coordinator, NEH Summer Stipend University Nominee Selection Committee, 2011–2016
- Co-organizer, College Research Faculty Development Series, 2010–2012
- Chair of Various College Committees including Student Scholarships, Faculty Awards, Technology, 2010 – 2018
- Coordinator, Social and Behavioral Sciences Research Group, 2011–2012
- Organizer, College Diversity Training, 2011–2013
- Member, Center for Teaching Excellence Advisory Board, 2005–2008
- Faculty Senator, 2002–2009
- General Studies Advisor, 1997–2009
- Member of Various Department Committees including Hiring, Graduate and Policy

- Chair of Various University Committees including Hiring for Director of Rural Institute; Chair of the Registrar Operations Oversight Committee
- Member of Various University Committees including Summer Planning Committee, Co-req Task Force, Professional Education Council, Academic Alignment, Strategic Budget Planning, Research, Graduate Council, Student Computer Fee, Task Force on Advising, Hiring for Vice President of Research, Hiring for Provost, Hiring for CIO
- Faculty Advisor, UM Math Club, 2002–2006
- Faculty Advisor, UM Women’s Hockey Club, 2000–2009

Community Activities

- Volunteer, Math Counts Chapter Competition, Speed Round Announcer, 2005–present
- Outreach to local K-12 schools 2002– 2014
- Youth Coach, Soccer and Ice Hockey, 2005– 2014
- Participant, “Job Shadowing Day”, 1999
- Presenter, “Expanding Your Horizons” Career Conference, 1994, 1995, 1997, 1999
- Judge, Montana State Science Fair, 1994, 2012
- Referee, Junior Academy of Sciences, 1994

References Available upon request.