

Kevin J. Mitchell

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Employment:

1992–	Professor of Mathematics and Computer Science Hobart and William Smith Colleges, Geneva, NY
1988–1991, 2003–2006	Chair of Mathematics and Computer Science Hobart and William Smith Colleges, Geneva, NY
7–11, 1998;	Visiting Lecturer
7–12, 1996; 1–6, 1994	University of Queensland, Brisbane, Australia
1986–1992	Associate Professor of Mathematics and Computer Science Hobart and William Smith Colleges, Geneva, NY
1980–1986	Assistant Professor of Mathematics and Computer Science Hobart and William Smith Colleges, Geneva, NY
1975–1980	Graduate student and teaching assistant in Mathematics Brown University, Providence, RI

Education:

Ph.D. Mathematics	1980	Brown University, Providence, RI
B.A. Mathematics (Highest Honors) and Philosophy (<i>summa cum laude</i>)	1975	Bowdoin College, Brunswick, ME

Thesis:

Foldings and Crimpings of Algebraic Varieties. Advisor: Alan Landman.

Publications:

- An Introduction to Biostatistics, Third Edition*, with Thomas Glover. 2015. Waveland Press. (First edition: 2001. McGraw-Hill. Second Edition by Waveland Press, 2008.)
- An Introduction to Biostatistics Using R*, with Thomas Glover. 2015. 147 pages.
<http://waveland.com/Glover-Mitchell/r-guide.pdf>.
- “Quantitative Analysis by the Point-Centered Quarter Method.” (Version 2)
<http://arxiv.org/abs/1010.3303>. 2015. 56 pages. (Version 1: 2007. 34 pages.)
- Foundations of Analysis, Second Edition* with David Belding. 2008. Dover. (First edition: 1991. Prentice-Hall.)
- “Game Theory Models of Animal Behavior,” with James Ryan. *UMAP ILAP Modules 2002–03: Tools for Teaching*. 1–48.
- “The Species-Area Relation,” with James Ryan. *UMAP Journal*, Vol. 19, No. 2, 1998, 139–170. Also published as UMAP Module 768 and *UMAP Modules: Tools for Teaching 1998*. 23–54.
- “Optimal Foraging,” with Steven Kolmes and James Ryan. *UMAP Journal*, Vol. 18, No. 1, 1997, 43–86. Also published as UMAP Module 762 and *UMAP Modules: Tools for Teaching 1997*. 97–140.
- “Modeling Stream Discharge: A Precalculus Field Exercise,” with Steven Kolmes and D. Brooks McKinney. *UMAP Journal*, Vol. 15, No. 2, 1994, 137–160. Also published as UMAP Module 739 and *UMAP Modules: Tools for Teaching 1995*. 21–44.
- Review of *Mathematical Modeling in the Life Sciences* by Paul Doucet and Peter B. Sloep. *UMAP Journal*, Vol. 15, No. 2, 1994, 175–176.

- “The Hardy-Weinberg Equilibrium,” with Steven Kolmes. *UMAP Modules: Tools for Teaching 1993*. 171–208. Also published as UMAP Module 738.
- “Computers in Introductory Math Classes: Teaching Concepts, Not Computer Use,” with David Eck. *Fourth Annual Problem Solving Across the Curriculum Conference Proceedings*, 1993, 17–26.
- “Calculus in a Movie Theatre.” *UMAP Journal*, Vol. 14, No. 2, 1993, 113–135. Also published as: *UMAP Modules: Tools for Teaching 1993*. 69–92, and as UMAP Module 729.
- “Information Theory and Biological Systems.” with Steven Kolmes. *UMAP Journal*, Vol. 11, No. 1, 1990, 25–62. Also published as: *UMAP Modules: Tools for Teaching 1990*. 43–78. UMAP Module 705.
- “Time Resources in Animals,” with Steven Kolmes. *UMAP Modules: Tools for Teaching 1988*, 81–143. Also published as UMAP Module 688.
- “Symmetries for Sums of the Legendre Symbol,” with Wells Johnson. *Pacific Journal of Mathematics*. Vol. 69, No. 2, 1977. 117–124.

Unpublished Manuscripts:

- Field Data Analysis*, with Thomas Glover. 1998. 217 pages.
- Mathematical Models of Biological Systems*, with James Ryan. 1998. 177 pages.
- “Island Biogeography,” with James Ryan. 1997. 15 pages.
- “Markov Chains and Time Resources.” 1997. 25 pages.
- “Second-Order Information Theory and Biological Diversity,” with James Ryan and Steven Kolmes. 1997. 26 pages.
- “Low Valency Tilings of the Hyperbolic Plane,” with Elaine Bruno. 1991. 10 pages.
- “Determinants and Geometry.” 1985. 32 pages
- “Foldings of Algebraic Varieties.” 1985. 25 pages.

Professional Activities and Awards:

- Reviewer: E. N. Barron, *Game Theory: An Introduction*, Wiley. December, 2006.
- Guest faculty: *Young Scholars Program: Explorations in Mathematics and Biology*, July, 1999; July, 1998, College Misericordia, Dallas, PA.
- Hobart and William Smith Colleges’ Faculty Teaching Prize, June, 1999.
- NSF CCLI Grant (with David Eck and James Ryan): “Math Beans: Mathematical Software Components for Web-based Instructional Materials.” \$59,578 grant received in May 1999.
- Provided notes, editorial assistance, and typesetting for *Game Theory* by Kenneth Prestwich, March 1999. Available on-line at: http://www.hws.edu/~mitchell/hanley/bd219_99.html#Games and <http://science.holycross.edu/departments/biology/kprestwi/behavior/ESS>.
- Reviewer: *The Journal of Undergraduate Mathematics and Its Applications Project*. 1997.
- Paper presentation: “Constructing Semi-Regular Tilings” given at the Mathematical Association of America, Seaway Section Meeting, April 22, 1995.
- Workshop and Colloquium: “Using xFunctions in Undergraduate Math Classes” and “Teaching Calculus: Not Computer Use” with David Eck at Syracuse University, December 9, 1993.
- Workshop presentation: “Computers in Introductory Math Classes: Teaching Concepts, Not Computer Use” with David Eck at the *Fourth Annual Problem Solving Across the Curriculum Conference*, June 25, 1993.

NSF ILI Grant (with David Eck): “Macintosh Lab on Wheels.” \$15,496 matching grant received in September 1991.

NSF ILI Grant (with David Eck): “Microcomputers for lab work in introductory computer science and mathematics.” \$68,502 matching grant received in May, 1990.

Organized local arrangements for MAA Seaway Section Meeting at Hobart and William Smith Colleges, Spring 1987.

Invited talk: “Addition on a Cubic Curve: A Problem in Elementary Algebraic Geometry,” King’s College, Wilkes-Barre, PA. March 1981.

Participant, NSF Short Course, “Calculus for Non-Science Majors” Fall 1980, Spring 1981.

American Mathematical Society, Mathematical Association of America, Consortium for Mathematics and Its Applications.

Departmental Courses Taught:

Cpsc 100	<i>Introduction to Computer Science</i>
Math 100	<i>Elementary Functions</i>
Math 110	<i>Discovering in Mathematics</i>
Math 112	<i>Intuitive Calculus</i>
Math 128	<i>Applied Calculus</i>
Math 130	<i>Calculus I</i>
Math 131	<i>Calculus II</i>
Math 132/232	<i>Calculus III</i>
Math 135	<i>First Steps in Advanced Mathematics</i>
Math 204	<i>Linear Algebra</i>
Math 214	<i>Applied Linear Algebra</i>
Math 251	<i>Applied Statistics</i>
Math 291/331	<i>Fundamentals of Analysis I</i>
Math 292/332	<i>Fundamentals of Analysis II</i>
Biol 312	<i>Biostatistics II</i>
Math 356	<i>Combinatorics (Cpsc 371 Topics in Computer Science)</i>
Math 360	<i>Foundations of Geometry</i>
Math 361	<i>Foundations of Geometry II</i>
Math 361	<i>Transformation Geometry</i>
Math 375	<i>Abstract Algebra I</i>
Math 376	<i>Abstract Algebra II</i>
Math 436	<i>Topology</i>
Math 446	<i>Real Analysis</i>
Math 448	<i>Complex Analysis</i>

General Curriculum Courses Taught:

Bids 219 *Mathematical Models and Biological Systems*, 1987–

Bids 233 *Australian Society and Culture*, 1998

SAOP Combined Mathematics and Science Summer Program, 1993–1995

Darwinism, 1985

MOSAIC, 1983, 1981

Origins of Civilization, 1982

Honors and Independent Study Projects

Independent Study in Statistics with Kelcie O’Neil, Spring 2014.

Independent Study in Complex Analysis with Adam Giambrone, Fall 2007.

Independent Study in Geometry and Algebra with Mike Fazio, Fall 2003.

Independent Study in Combinatorics with Josh Cukerstein, Fall 2000.

Independent Study in Game Theory with Amy Norvell, Spring 1998.
 Environmental Studies Senior Integrated Experience with Jennifer Goodell, Spring 1997. *Economics and Social Benefits of the Guardian Glass Project Versus the Environmental Cost.*
 Independent Study in Abstract Algebra with Stoyan Radov, Spring 1993.
 Independent Study in Computer Applications to Abstract Algebra with Marc Boegner, Spring 1992.
 Honors Advisor for Elaine Bruno, 1991. Honors thesis: *Euclidean and Hyperbolic Tessellations.*
 Science Student Summer Research Project with Elaine Bruno (1990) on tilings of the hyperbolic plane.
 Independent Study in Euclidean and Non-Euclidean Geometry with Elaine Bruno, Winter, 1990.
 Honors Advisor for Judith Gregg, 1988–89. Honors thesis: *Tilings of the Plane—From Periodic to Aperiodic.*
 Honors Advisor for Ihsan Essaid, 1988–89. Honors thesis: *Hyperbolic and Non-Hyperbolic Tessellations.*
 Independent Study in Topology with Joseph Wickham, Spring 1985.
 Independent Study in Advanced Topics in Complex Analysis with Tasos Grigoriados, Fall 1984.
 Independent Study in Multi-Linear Algebra with Martin Baruch, Spring 1983.
 Independent Study in Complex Analysis with Michael LaPan, Winter 1983.
 Independent Study in Differential Geometry with Robert Roseen, 1981–82.

Committee Service

Committee on Committees 2015–, 2008–2011 (Chair 2008–2010).
 Grievance Committee 2013, 2008, 1999 (Chair), 1997, 1988–1991.
 Faculty Salary Subcommittee 2008.
 Grievance Committee 2008, 1999 (Chair), 1997, 1988–1991.
 Chair, Department of Mathematics and Computer Science, 1988–1991 and 2003–2006.
 Committee on Tenure and Promotion, 2002–2005
 Pre-Medical Advisory Committee, 1998–2003.
 New “New” Curriculum Subcommittee, 2002.
 Off-Campus and International Programs Review Committee, 2002.
 Member, HWS 2005 Admissions and Financial Aid Study Group, 2000–2001.
 Member, Executive Committee Union College/Hobart and William Smith Colleges Mellon Consortium for Off-Campus Study, 1999–2001.
 Off-Campus Study Committee 1994–2000.
 Diversity Task Force (Chair of Subcommittee on Staff) 1995–1996.
 Alternate for Sexual Harrasment Committee 1994–1996.
 Planning and Budget Committee 1992–1993.
 Faculty Budget Committee 1991–1992.
 Honors Committee 1991–1993.
 Sexual Harrasment Grievance Committee 1984–1986.
 Committee on the Faculty 1982–1985.
 Middle States Review: Committee on Faculty and Instruction, 1983–1984.

Miscellaneous Local Activities:

Director, Queensland, Australia Term Abroad Program, Fall 2001, 1998, and 1996, and Spring 1994.
 Member of the Environmental Studies Committee, 1994–2001.

Member Board of Trustees, Geneva Concerts, 1994–. President 1999–2003, Chair of Programming Committee, 1996–1999.

Faculty Representative to Board of Trustees Admissions and Financial Aid Committee 1996–2001.

Participant in “This Place” orientation activity, 1997.

Participant, Gender Studies and Feminist Pedagogy Workshop, Summer 1991.

Atkinson Fund Grant for Curriculum Development, Summer 1989.

Participant, Mellon Summer Workshop on Writing, Summer 1989.

Faculty Committee on Research and Curriculum Development Grants, Summer 1987, 1986, 1985, 1982.

Participant, Mellon Summer Workshop on Student Writing, Summer 1982.

Participant, Mellon Summer Workshop on Teaching, Summer 1981.

Photography:

Emydura signata, Brisbane short-necked turtle. 2010. Used in online guidebook by testudines.org at www.testudines.org/Articulos/Ficha-de-Especie/Emydura-signata-AHL,-1932.aspx

Porphyrio porphyrio, Purple swamp hen (Purple gallinule). 2009. Used in park signage for Murray Lagoon in Rockhampton, Qld., Australia. Fitzroy River & Coastal Catchments Inc.

Ardea intermedia, Intermediate egret (heron). 2008. *Guide to Birds of North America*, Thayer Birding Software.

Porphyrio porphyrio, Purple swamp hen (Purple gallinule). 2008. Angola National Museum of Natural History.

Bufo marinus, Cane toad. In: Berec, Michal. 2006. Ropuchy agy straší už i ornitology. *Akva-tera fórum*, **7/2006**: 77–80.

Rallus philippensis, Buff-Banded rail. 2003. Pacific Worlds Palau-Airai website, Pacific Worlds & Associates. www.pacificworlds.com/palau/arrival/setting.cfm.

Geneva Concerts Service

Board of Trustees 1994–2004, 2006–.

President 1999–2003.

Chair of Programming Committee, 1996–1999.

Pennsylvania Performing Arts Grant for Presenting Activities, 2013 (\$7,900).

Pennsylvania Performing Arts Grant for Presenting Activities, 2012 (\$6,540).

Mid-Atlantic Arts Foundation Presenters Grant Fall, 2011 (\$4,200).

Pennsylvania Performing Arts Grant for Presenting Activities, 2010 (\$8,840).

Snow Foundation Grant: Support for Paul Taylor Concert and Taylor 2 Three-Week Residency Fall, 2008 (\$11,000).

National Endowment for the Arts Access to Artistic Excellence Grant, 2008 (\$10,000).

Geneva Rotary Club Grant, Support for Outreach Activities, 2008 (\$1,000), 2009, (\$650), 2010 (\$850), 2011 (\$1000), 2012 (\$900), 2013 (\$950), 2014 (\$900), 2015 (\$950).

Pennsylvania Performing Arts Grant for Presenting Activities, 2007 (\$10,240).

Wyckoff Family Foundation Grants for Outreach to Geneva’s Youth, 2003-04 (\$7,650), 2004–05 (\$5,150), 2005–06 (\$11,500), 2006–07 (\$8,500), 2007–08 (\$10,500) 2008–09 (\$7,500), 2009–2010 (\$3,400), 2010–2011 (\$8,237), 2012–2013 (\$7,770), 2013–2014 (\$6,840), 2014–2015 (\$7,000), 2015–2016 (\$9,950).

Williams Family Foundation Grants for Outreach and Operating Support, 2002–03 (\$7,000) and 2004–05 (\$10,000).

Pennsylvania Performing Arts Grant for Presenting Activities, 2004 (\$4,500) with Susan Horvath and Paul Grebinger.

New York State Council on the Arts Grant: Multi-Year Operating Support Funding: 2001–2002 through 2003–2004 (\$10,000 per year).

Snow Foundation Grant: Support for Taylor 2 Three-Week Residency Fall, 2001 (\$10,000).

Citigroup Foundation Grant: Support for Paul Taylor Dance Concert (2001) (\$5,000).