

## CURRICULUM VITAE

BONNIE JEAN SHULMAN  
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**AREA OF CONCENTRATION:** Mathematical Physics

### EDUCATION:

University of Colorado	1988-1991	Ph.D.	May, 1991
Boulder, CO	1985-1988	MA	May, 1988
	1981-1985	BA	May, 1985 magna cum laude

### ACADEMIC SPECIALIZATION:

Undergraduate	Major:	Mathematics
	Minor:	Physics
Graduate	Primary field:	Mathematical Physics
	Other advanced study:	Physics, Astrophysics
Thesis Subject:	Master's:	Continuous and Discrete Spectra in MHD
	Doctor's:	Wave Propagation in Inhomogeneous Media

### PROFESSIONAL EXPERIENCE:

Bates College, Lewiston, ME	Assoc. Professor, Mathematics, 1999-present
Bates College, Lewiston, ME	Asst. Professor, Mathematics, 1991-1999
University of Colorado, Boulder	Lecturer, Astrophysics, Summer, 1991
University of Colorado, Boulder	Research Asst., Astrophysics, 1987-91
University of Colorado, Boulder	Teaching Asst., Mathematics, 1988-89
Metropolitan State College, Denver	Instructor, Mathematics, Fall 1986
University of Colorado, Boulder	Teaching Asst., Astrophysics, 1986
University of Colorado, Boulder	Teaching Asst., Astronomy, 1984-85

### GRANTS AWARDED:

*Hughes Faculty Development Grant 2007* (\$1000) To support visit by Dr. Raina Robeva, Sweet Briar College, seminar in Mathematical Biology "Interdisciplinary Collaborations in Biomathematics: Rewards and Challenges" and "Modeling of Hormone Feedback Networks: Understanding Endocrine Oscillations"

*Hughes Curriculum Development Grant 2006* (\$1500) To support a Faculty Seminar in Mathematical Biology featuring Dr. Laurie Heyer from Davidson College (Oct. 27-28 2006).

*Hughes Faculty Development Grant 2005* (\$3000) To support faculty development for Mathematics department seminar in the Fall on computing sciences.

*Hughes Curriculum Development Grant 2004* (\$9000) To support development of Liberal Arts Mathematics course over the summer (Great Ideas in Mathematics) with Eric Towne, Assistant in Instruction. Stipends for Shulman and Towne, and money for books and materials.

*Hughes Faculty Development Grant 2004* (\$4000) To support workshop on Writing in the Sciences, facilitated by Julian Tyson (University of Massachusetts at Amherst) and Holly Davis (Smith College). Full day workshop May 21, 2004, 10 participants.

*Sigma Xi National Lectureship Subsidy.* 2002-3. (\$300)

*Mellon Learning Associates Program in the Humanities.* 2002-3. Co-facilitated interdisciplinary lecture series "Science, Power and

Difference," with Rebecca Herzig. Mellon awarded \$2500 to help sponsor series.

*Hewlett Grant for Thesis Enhancement.* 1999-2000. Awarded to Department of Mathematics, \$12,000 grant to support replacement for two course released time to pilot Group Thesis Project in the department.

*Hughes Teacher-Researcher Grant* for the summer of 1998 (with Carnie Burns) to develop a new course integrating mathematics and science in grade 5, at Hebron Academy, Hebron ME. (\$5000, including summer stipend of \$3000 for Ms. Burns, and \$2000 for book purchases and travel for Burns and Shulman.)

*Hughes Teacher-Researcher Grant* for the summer of 1997 (with Tobin White, '94) to develop a new course in precalculus at Hebron Academy, Hebron ME. (\$5000, including summer stipend of \$3000 for Mr. White, and \$2000 for book purchases and travel for White and Shulman.)

*Association of American Colleges and Universities (AAC&U) Women and Scientific Literacy: Building Two-Way Streets* (\$20,000 over two years, matched by Bates College--for a total of \$40,000 over two years. \$4000 additional funds for assessment in year three.) 1997-2000. Team leader of the 6-member team that received the grant.

*Project Kaleidoscope (PKAL) Keck Consultancy.* Part of the 4-member team that applied for and received the consultancy. April, 1997.

*Sigma Xi National Lectureship Subsidy.* 1993-98 (6 years) (\$400 each)

*Hughes Council Grant* to run a Faculty Development Seminar to integrate mathematics across the curriculum. November, 1994. (\$5000)

*Mellon Professional Leave Grant.* April, 1994. (\$2500)

*NECUSE grant* to offer summer short course on "Discrete and Continuous Fourier Analysis in the Undergraduate Curriculum." March, 1994. (\$4500)

*Hughes Council Grant* to support released time for two mathematics faculty to develop new interdisciplinary course, "Biomathematics." March, 1993. (\$17,500)

*NSF ICME-7 Participation Grant* for attendance at International Congress on Mathematics Education August, 1992. (\$1000)

**PROFESSIONAL SOCIETIES MEMBERSHIP:**

PHI BETA KAPPA  
 SIGMA XI: Scientific Research Society  
 AAAS: American Association for the Advancement of Science  
 MAA: Mathematical Association of America  
 NCTM: National Council of Teachers of Mathematics  
 WME: Women in Mathematics Education  
 AWIS: Association for Women in Science  
 AAUW: American Association of University Women  
 SLS: Society for Literature and Science  
 HSS: History of Science Society  
 HPM: International Study Group on the Relations Between History and Pedagogy of Mathematics  
 4S: Society for Social Studies of Science  
 PSA: Philosophy of Science Association  
 BSHM: British Society for the History of Mathematics  
 CSHPM: Canadian Society for History and Philosophy of Mathematics  
 CSHPS: Canadian Society for History and Philosophy of Science  
 NASTS: National Association for Science, Technology, and Society  
 NWSA: National Women's Studies Association  
 ISGEm: International Study Group on Ethnomathematics

## OFFICES HELD:

Board of Advisors, Maine Mathematics and Science Alliance 1997-2000.  
Electorate Nominating Committee of the Section on Mathematics, AAAS (elected by ballot) 1996-1999.  
President, Southern Maine Chapter, Sigma Xi 1993-present.  
Co-director, Maine Calculus Consortium 1991-1998

## PUBLICATIONS:

Shulman, Bonnie. "WISE Women: Women in Science and Engineering," in *Diversity Across the Curriculum: A Guide for Faculty in Higher Education*, Branche, Mullenix, and Cohn, editors. Anker Publishing Company, Inc.: 2007, pp. 308-313.

Shulman, Bonnie. "Women and Scientific Literacy Seminars: Five Years Later," *On Campus with Women*, 34:4 (Summer, 2005) online at [http://www.aacu.org/ocww/volume34\\_4/fromwhereisit.cfm?section=1](http://www.aacu.org/ocww/volume34_4/fromwhereisit.cfm?section=1)

Shulman, Bonnie. "Is There Enough Poison Gas to Kill the City?: The Teaching of Ethics in Mathematics Classes," *The College Mathematics Journal*, 33:2 (March 2002) pp. 118-125.

Shulman, B.J. "Implications of Feminist Critiques of Science for the Teaching of Mathematics and Science," reprinted from *JWMSE* (see below) in *The Gender and Science Reader*, Muriel Lederman and Ingrid Bartsch, eds. Routledge, 2001.

Shulman, Baker and Tobin. "Difficult Crossings: Stories of Building Two-Way Streets," in *Feminist Science Studies: A New Generation*, Mayberry, Subramaniam and Weasel, editors. Routledge, 2001.

Shulman, Bonnie. "Commentary on 'Transforming Science Curricula in Higher Education: Feminist contributions' (B. Spanier)," *Science and Engineering Ethics*, 2000, 6:481-484.

Shulman, Bonnie. "Using Original Sources to Teach the Logistic Equation," *The UMAP Journal, The Journal of Undergraduate Mathematics and Its Applications*, 1997, (18)4:376-402.

Shulman, Bonnie. "Math-Alive! Using Original Sources to Teach Mathematics in Social Context," *PRIMUS, Problems, Resources, and Issues in Mathematics Undergraduate Studies*, 1998, (8)1:1-14.

Shulman, Bonnie. What If We Change Our Axioms? A Feminist Inquiry into the Foundations of Mathematics, *Configurations*, 1996, 3:427-451.

Shulman, Bonnie. Not Just a Spice: The Historical Perspective as an Essential Ingredient in Every Math Class. *Proceedings, Third International History, Philosophy, and Science Teaching Conference*, Minneapolis, Minnesota, 1995, edited by Fred Finley, Douglas Allchin, David Rhees, and Steve Fifield. Volume 2, 1042-1050.

Shulman, B.J. Implications of Feminist Critiques of Science for the Teaching of Mathematics and Science. *Journal of Women and Minorities in Science and Engineering*. Vol. 1 No. 1, Jan.-March, 1994, 1-15.

Shulman and Zweibel. Magnetohydrodynamic Waves in Sharply and Smoothly Bounded Cylinders. *Astrophysical Journal* 389, April 10, 1992, 428-439.

## PUBLISHED BOOK REVIEWS:

Shulman, Bonnie. Review of *The Good Life in the Scientific Revolution: Descartes, Pascal, Leibniz, and the Cultivation of Virtue* by Matthew L. Jones. MAA Online Book Review column, June, 2007.

<http://mathdl.maa.org/mathDL/19/?pa=reviews&sa=viewBook&bookId=67166>

Shulman, Bonnie. Review of *Philosophical Perspectives on Infinity* by

- Graham Oppy. MAA Online Book Review column, August, 2006.  
<http://mathdl.maa.org/mathDL/19/?pa=reviews&sa=viewBook&bookId=66759>
- Shulman, Bonnie. Review of *Mystic, Geometer, and Intuitionist: The Life of L. E. J. Brouwer, Vol. 2: Hope and Disillusion*, by Dirk van Dalen. MAA Online Book Review column, July, 2006.  
<http://www.maa.org/reviews/Mystic2.html>
- Shulman, Bonnie. Review of *Essays in Constructive Mathematics*, by Harold M. Edwards. MAA Online Book Review Column, February, 2005.  
<http://www.maa.org/reviews/constructiveessays.html>
- Shulman, Bonnie. Review of *Gnomes in the Fog*, by Dennis E. Hesselning. MAA Online Book Review Column, November, 2004.  
<http://www.maa.org/reviews/gnomesfog.html>
- Shulman, Bonnie. Review of *Exploring, Investigating and Discovering in Mathematics*, by Vasile Berinde. MAA Online Book Review Column, July, 2004. <http://www.maa.org/reviews/exploringinvestigating.html>
- Shulman, Bonnie. Review of *When Least is Best: How Mathematicians Discovered Many Clever Ways to Make Things as Small (or as Large) as Possible*, by Paul Nahin. MAA Online Book Review Column, May, 2004. <http://www.maa.org/reviews/leastbest.html>
- Shulman, Bonnie. Review of *The Application of Mathematics to the Sciences of Nature: Critical Moments and Aspects*, ed. by Paola Cerrei, Paolo Freguglia, and Claudio Pellegrini. MAA Online Book Review, December, 2003.  
<http://www.maa.org/reviews/applicationsnature.html>
- Shulman, Bonnie. Review of *Mathematics Experiments*, by Shangzhi Li, Falai Chen, Yaohua Wu, and Yunhua Zhang. MAA Online Book Review column, December, 2003.  
<http://www.maa.org/reviews/mathexperiments.html>
- Shulman, Bonnie. Review of *Feminism in Twentieth-Century Science, Technology, and Medicine*, edited by Angela Creager, Elizabeth Lunbeck, and Londa Schiebinger. *Technology and Culture*, October 2002, pp. 282-4.
- Shulman, Bonnie. Review of *Mathematics for Human Survival*, by Patricia Clark Kenschaft MAA Online Book Review column, August, 2002  
<http://www.maa.org/reviews/humansurvival.html>
- Shulman, Bonnie. "Feminist Science Education," book review of *Feminist Science Education* by Angela Calabrese Barton. *AWIS (Association for Women in Science) Magazine*, Vol. 30, No. 1, Winter 2001, pp. 25-26.
- Shulman, Bonnie. Review of *Mystic, Geometer, and Intuitionist: The Life of L.E.J. Brouwer, Volume 1*, by Dirk van Dalen. MAA Online Book Review column, October, 1999  
<http://www.maa.org/reviews/mystic1.html>
- Shulman, Bonnie. Review of *Im/Partial Science*, by Bonnie Spanier, *The Feminist Teacher*, 1997, (11)1:64-66.
- Calculus* by William Boyce and Richard DiPrima. Vol. 25 No. 1, September/October, 1989.

All the following reviews appeared in *Science Books and Films*, American Association for the Advancement of Science (AAAS).

- The Fourth Discontinuity: The Co-Evolution of Humans and Machines*, by Bruce Mazlish. Vol. 29 No. 9, December, 1993.
- The Adventures in Space Series*, by Mark Dudley and Susan Dudley Gold. Vol. 29 No. 3, April, 1993.
- The Advisers: Scientists in the Policy Process*, by Bruce L.R. Smith. Vol. 28 No. 8, November, 1992.
- The Unexpected Hanging and Other Problems*, by Martin Gardner. Vol. 28 No. 1, January/February, 1992.

*Black Holes in Spacetime*, by Kitty Ferguson. Vol. 27 No. 4, May, 1991.  
*More Mathematical Byways*, by Hugh ApSimon. Vol. 27 No. 2, March, 1991.  
*Galileo's Children: Science, Sakharov, and the Power of the State*, by George Bailey. Vol. 26 No. 2, November/December, 1990.  
*The Information Society: Economic, Social, and Structural Issues*, edited by Jerry L. Salvaggio. Vol. 25 No. 5, May/June, 1990.

#### **OTHER PUBLISHED WRITTEN WORK:**

**Interview with Abe Sklar.** August, 2006. Tape transcribed and deposited in Duke University archives, Karl Menger folder, June 2007.

**in fin ity** (a poem). *SONUS, a Journal of Investigations into Global Musical Possibilities*. Spring, 2005, Vol. 25, No. 2.

**Three Activities from Exponential Growth and Decay Lab** (with Edward Rosen and Bronislava Sokol). *Newsletter for the Consortium for Ordinary Differential Equations Experiments*. Summer-Fall, 1995, 3-5.

**The Floating World** (a poem). *Decodings, Newsletter of the Society for Literature and Science*, Vol. 4, No. 4, Summer, 1995.

**Who Speaks for Science?** Letter to the Editor, *The Sciences*, March/April, 1995, 7-8.

**Selected Poems** in *Epiphanies in P Major*, Portland, ME poetry journal, January, 1995; May, 1995.

**Epsilon and Delta: A Little Love Story** (a poem). *Humanistic Mathematics Network Journal*, No. 10, August, 1994.

**Poster Sessions: A Reflection of Work in Progress.** *American Perspectives on the Seventh International Congress on Mathematical Education*. National Council of Teachers of Mathematics (NCTM), 1993.

**In fin ity** (a poem). *Humanistic Mathematics Network Journal*, No. 8, July, 1993.

#### **REFEREEING:**

Referred manuscript "Toward Thinking Feminism and Mathematics Together" for *Signs*, January, 2007.

Refereed manuscript "Mathematical Marriages: Intercourse Between Mathematics and Semiotics" for *Social Studies of Science*, January, 2007.

Outside examiner on sixth year Performance Review (comparable to tenure review) for Glen Van Brummelen, Department of Mathematics, Bennington College, March 2004.

Refereed manuscript "Improving the Graduate School Experience for Women in Mathematics: The EDGE Program," for *Journal of Women and Minorities in Science and Engineering*, March 2004.

Refereed manuscript "Mathematical Models of Continuous and Partial Batch Homogenizers" for *The College Mathematics Journal*, September, 2003.

Refereed manuscript "The Teaching and Learning of Basic Mathematics at Several Southern California Community Colleges" for *The College Mathematics Journal*, June, 2003.

Refereed manuscript "A Mentoring Program for Women and Minority Faculty Members in the Sciences and Engineering: Effectiveness and Status after Nine Years" for *Journal of Women and Minorities in Science and Engineering*, March, 2003.

Refereed two manuscripts for special issue of *NWSA Journal*. "I Didn't Really See I Had a Place in the Old White Guy's Club: How Can Women and Students of Color Come to Belong in Graduate Mathematics?" and "Life on the Front Lines: One Woman's Evolution from War to Peace." January, 2003.

Refereed "Opening Spaces and Bridging Gaps: Intervening Discourse about Feminist Physical Sciences and Mathematics" for *Hypatia's* Special Issue on Feminist Science Studies, July, 2002.

Refereed "Evaluating Alternative Strategies for Teaching Mathematics" for *Journal of Women and Minorities in Science and Engineering*, September, 2001.

Reader of Final Proposals for FIPSE (Fund for Instruction in Post-Secondary Education) Comprehensive Proposals (reviewed 3 proposals), May 7-9, 2001.

Refereed three manuscripts for *Changing the Faces of Mathematics*, NCTM series, forthcoming.

Refereed manuscript "Women in Mathematics: An Historic Prospective" for *Journal of Women and Minorities in Science and Engineering*, July, 1995.

Refereed manuscript "Proportions of Women Faculty and Students in the Mathematical Science" for *Journal of Women and Minorities in Science and Engineering*, May, 1998.

Reviewed manuscript "Multivariable Calculus: A Collaborative Review" for Brooks/Cole Publishing Co. First draft and second draft.

Reviewed textbook *Modern Differential Equations, Theory, Applications, Technology* by Abell and Braselton, for Saunders College Publishing.

Outside Examiner for tenure review of faculty member at Hobarth and William Smith College.

Critical Studies Peer Review Committee member, Massachusetts College of Art, March 4-5, 1998, Boston, MA.

Member, Advisory Board, NSF project "From Academic Integrity to Ethics in Science and Engineering."

Refereed manuscript "Interdisciplinary population projects in a first semester calculus course," for PRIMUS (Problems, Resources, and issues in Mathematics Undergraduate Studies), September, 1998.

Refereed manuscript "Transforming the Science Curriculum in Higher Education: A First Step," for *Science and Engineering Ethics*, September, 1999.

Refereed manuscript "Voices of Women Mathematicians: Understanding Their Success Using a Narrative Approach to Inquiry," for *Journal of Women and Minorities in Science and Engineering*, February, 2000.

**PAPERS READ:**

"What Is 'White' Mathematics?" November 10, 2006, 20<sup>th</sup> Annual Conference Society for Literature, Science and the Arts: Evolution, Biological, Cultural and Cosmic, New York, NY, Nov. 9-12, 2006.

"Teaching a Course on Women and/or Minorities in Mathematics" January 13, 2006, Joint Mathematics Meetings, AMS, MAA, San Antonio, TX January 12-15, 2006.

"Mathematics and War: A First Year Seminar," November 23, 2002, Northeastern Section of the Mathematical Association of America (NESMAA), Framingham State College, Framingham, MA, November 22-23, 2002.

"Mathematics and the Moral Sciences," October 14, 2002, keynote speaker, Fall Open House, Women's Studies Program, University of Southern Colorado, Pueblo, CO.

"The Value of Value-Free Mathematics," June 22, 2002, Fourth Congress of the International Working Group in History of Philosophy of Science (HOPOS), Concordia University, Montreal, Canada, June 21-23, 2002

- "All I Ever Needed to Know About Ethics, I Learned in Math Class," April 20, 2002, Women in Science, Technology and Religion, Graduate Theological Union, Berkeley, CA, April 19-21, 2002.
- "Mathematics and the Moral Sciences" April 11, 2002, University of Washington, Seattle, WA, Women's Studies and Mathematics joint colloquium.
- "Feminism and Science" May 25, 2001, Canadian Society for the History and Philosophy of Science, Annual Meeting, Laval University, Quebec, May 24-26, 2001.
- "Collaboration Within and Across Disciplinary Divides" March 27, 2000, Session on Women Working With Women. Shaping a National Agenda for Women in Higher Education, National Conference for Women In Higher Education (WIHE), March 27-29, 2000, University of Minnesota.
- "The Group Thesis: A Collaborative Environment of Foster Individual Research." February 26, 2000. Conference on Models for Integrating Research into the Undergraduate Experience, Feb. 24-26, 2000, Tucson, Arizona.
- "Feminists and Scientists: Can We Talk?" October 2, 1999. The Petten-gill Hall Inaugural Symposium, Bates College, Lewiston, Maine.
- "Your Critique, My Content: The Difficulties of Crossing Academic Boundaries" with Pamela Baker, Elizabeth Tobin and Sharon Kinsman. June 18, 1999. National Women's Studies Association, 20<sup>th</sup> Annual Conference, June 17-20, 1999, Albuquerque, New Mexico.
- "Teaching Ethics in the Mathematics Classroom: How and Why." January 13-17, 1999. Joint Mathematics Meetings, AMS, MAA, special session on Humanistic Mathematics. San Antonio, TX.
- "White Mathematics." October 9, 1998. Bates College T.G.I.F. Series, "White is a Race." Lewiston, ME.
- "Framing New Paradigms: Feminist Perspectives in the Sciences." October 2, 1998. Plenary Panel. The National Council for Research on Women Annual Conference: *Transformation Through Research, Action, and Knowledge*. Washington, DC.
- "Bridging Disciplinary Divides: Hidden Assumptions and Rules of Evidence." May 2, 1998. Plenary Panel, Women and Scientific Literacy: Building Two-Way Streets. Newport, RI.
- "Implications of Feminist Critiques of Science for the Teaching of Mathematics and Science." April 19, 1998. 69<sup>th</sup> Annual Meeting of the Pacific Sociological Association, San Francisco, CA.
- "Florence Nightingale: Passionate Statistician." November 14, 1997. Trinity College, Hartford, CT. Math Colloquium.
- "Florence Nightingale: Passionate Statistician." The Fourth Annual Hudson River Undergraduate Mathematics Conference, Session on Statistics and the History of Statistics, Williams College, Williamstown, MA, April 12, 1997.
- "Using Original Sources to Teach the Logistic Equation: A Module." Joint Meetings, AMS, MAA, Special session Using History to Teach Mathematics. San Diego, CA, January 8-11, 1997.
- "Implications of Feminist Critiques of Science for the Teaching of Mathematics and Science." Tenth Annual Maine Women's Studies Conference, Women, Education: The Difference It Makes. University of Southern Maine, Portland, ME. December 1-2, 1995.
- "Not Just a Spice: The Historical Perspective as an Essential Ingredient in Every Math Class." Third International History, Philosophy, and Science Teaching Conference. University of Minnesota, Minneapolis, MN. October 29-November 1, 1995.
- "What If We Change Our Axioms?: A Feminist Inquiry into the Foundations of Mathematics." The Women, Gender and Science Question. University of Minnesota, St. Paul, MN, May 12-14, 1995.

- "Writing Across the Curriculum with Original Sources." Joint Meetings, AMS, MAA, Special session Teaching With Original Sources. San Francisco, CA, January 3-5, 1995.
- "From the Writing Center to the Math Class: Fostering Connections for Writing Across the Curriculum." (with Joyce Seligman) National Writing Centers Association Conference, New Orleans, Louisiana: April 13-16, 1994.
- "Experiences from a 'Short Term' Course on Inverse Problems." MAA Ohio Section Fall meeting, Special Session on Inverse Problems in the Undergraduate Curriculum. Ohio Northern University, Ada, Ohio: October 22-23, 1993.
- "MHD Waves in Sharply and Smoothly Bounded Cylinders." Gordon Research Conference on Solar Plasma and MHD Processes. Plymouth State College, Plymouth, New Hampshire: August 9-13, 1993.
- "Of Keg Saunters and Snowballs: Group Projects and the Harvard Calculus Consortium Materials." Second Conference on the Teaching of Calculus. Harvard University, Cambridge, Massachusetts: June 25-26, 1993.
- "Using the TI-81 Calculator with the Harvard Consortium Calculus Materials." The Fifth Annual International Conference on Technology in Collegiate Mathematics (ICTCM). Chicago, Illinois: November 12-15, 1992.
- "Calculus for the Queasy, A First Year Writing Seminar." Poster presentation at the International Congress of Mathematics Education (ICME-7). Université Laval, Quebec City, Montreal Canada: August 16-23, 1992.
- "Calculus for the Queasy: Using the History of the Calculus in Writing Seminars." Contributed Paper at Allegheny Mountain Section of the Mathematical Association of America (MAA) summer short course on History of the Calculus. Meadville, Pennsylvania: June 22-26, 1992.
- "New Results Concerning Alfven Wave Modes of a Cylindrical Loop." Invited talk at Georgia Tech-UAB International Conference on Differential Equations and Mathematical Physics. Atlanta, Georgia: March 22-28, 1992.

#### **WORKSHOPS GIVEN:**

- "Teaching Ethics in Mathematics Classes," April 28, 2007, Creating Balance in an Unjust World: Conference on Math Education and Social Justice, Long Island University, Brooklyn, NY, April 27-29, 2007.
- "Actively Blending Your Course: The ABC's of Math and Biology," October 7, 2006, part of Project Kaleidoscope PKAL F21 National Assembly, October 6-8, 2006, Chicago, IL. Served as facilitator ("floater") for mathematics in the workshop session.
- "STEM as a Branch of Democracy: Civic Responsibility in Science, Technology, Engineering and Mathematics Education," May 22-24, 2006, Portland, ME, an Institute sponsored by Campus Compact Maine, New Hampshire, Vermont.
- "The Future of Gender Studies at Mt. Holyoke," February 23, 2005, Mt. Holyoke College, South Hadley, MA.
- "What's Sex Got to Do With It?: Feminism and Mathematics, a Conversation with Bonnie Shulman," February 22, 2005, Hampshire College, ISIS (Institute of Interdisciplinary Studies) Symposium, Amherst, MA.
- "What's Math Got to Do With It?: How to Talk About War and Peace in a Mathematics Class," December 6, 2003, National Conference on Empowering Teachers in Times of War, San Francisco, CA.
- "Feminists and Scientists: An Interdisciplinary Workshop," October 15, 2002, University of Southern Colorado, Pueblo, CO.
- "Race and Gender in Science," February 21, 2002, Ford Foundation Seminar, University of Washington, Seattle, WA.



"Mathematical Modeling for Everyone," November 21, 2001, Union 51 Workshop for in-service teachers, Palermo School, Maine.

"Feminists and Scientists: Can We Talk?" November 1, 2001, workshop for Gender Studies at St. Joseph's University, Philadelphia, PA.

"Bridging Cultures: Women's Studies, Mathematics and Natural Sciences," October 29, 2001, All-day seminar/workshops, Allegheny College, Meadville, PA.

"What's Math got to do with It?" January 15, 2001. Martin Luther King Day Workshop on Ethnomathematics, Bates College.

Ethics and Mathematics, Where Do They Meet? June 7, 2000. Workshop for REU (Research Experiences for Undergraduates) students, NSF-sponsored summer research project. Mt. Holyoke College.

Writing Across the Curriculum. Bates Science and Math Academy, Morning workshop for K-12 teachers. April 12, 1999.

Working in Groups. Roundtable discussion on New Pedagogies in the Sciences, Bates College, Lewiston, ME. February 26, 1997.

An Introduction to Standards-Based Mathematics Programs: Calculus Reform. Middle/High School PRISM (Problem Solving In Science and Mathematics) Conference, Rockport, ME. December 9-10, 1996.

Biology and Mathematics, an Integrated Approach for K-12 Teachers, with Prof. Joe Pelliccia. Bates Science and Mathematics Academy, July 8-12, 1996.

Mathematical Modelling to Integrate Mathematics and Science in K-12 Curricula, with Prof. Joe Pelliccia. Bates Science and Mathematics Academy, July 11-17, 1995.

Multicultural Mathematics. Workshop given as part of Women's Studies Faculty Development Seminar, July 6, 1995.

Integrating Biology and Mathematics in K-12 Curricula, with Prof. Joe Pelliccia. Bates Science and Mathematics Academy, July 11-15, 1994.

Writing Across the Curriculum in Mathematics and the Sciences: A Workshop for Teachers. Third Annual Conference of the Institute for the Study of Postsecondary Pedagogy, Interdisciplinary Curricula, General Education and Liberal Learning. Mohonk Mountain House, Lake Mohonk, New York: November 10, 1993.

Vignettes from the Harvard Consortium Program. Afternoon workshop as part of Maine Calculus Consortium (MCC) Conference: Interdisciplinary View of Calculus Reform. University of Southern Maine, Portland, Maine: October 16, 1993.

Why are two Math faculty teaching Introductory Biology? (with John Rhodes). NECUSE (New England Consortium of Undergraduate Science Education) Workshop in Innovative Approaches to Teaching Introductory Biology. Bates College, Lewiston, Maine: August 22-23, 1993.

Writing Across the Curriculum for Math and Science Teachers K-16. Science and Mathematics Academy. Bates College, Lewiston, Maine: July 12, 1993.

Writing Across the Curriculum in the Sciences: How to get started. Full day seminar for faculty from Bates, Bowdoin and Colby Colleges and high school mathematics and science teachers from Lewiston and Auburn communities. Bates College, Lewiston, Maine: February 27, 1993.

Gender and Science. Facilitated and organized Faculty Development Seminar, sponsored by Women's Studies Program, Bates College: Fall semester, 1992.

#### **TALKS DELIVERED:**

"Mathematics in Farey Land" Talk at Mathematics Seminar, Mt. Holyoke College, South Hadley, MA, February 23, 2005.

- "What is Feminist Theory, and What Does It Have To Do With Mathematics?" Lecture sponsored by The School of Cognitive Science, Hampshire College, Amherst, MA, April 12, 2004.
- "Building Bridges Between Women's Studies and the Natural, Applied and Health Sciences" a panel discussion at the 12<sup>th</sup> International Conference of Women Engineers and Scientists (ICWES12), Ottawa Congress Center, Ottawa, Ontario, Canada, July 27-July 31, 2002.
- "What If We Change Our Axioms? A Feminist Critique of Mathematics," October 29, 2001, Allegheny College, Meadville, PA.
- "What Feminism Can Contribute to SMET Education," February 22, 2001. Opening Panel for "Balancing Science, Math, Engineering and Technology Education: A System Priority," symposium hosted by State System Faculty Professional Development Council of Pennsylvania, February 22-23, 2001, Dixon University Center, Harrisburg, PA.
- "Is There Enough Poison Gas To Kill the City?" February 21, 2001. Seminar Series: "Contemporary Issues in Ethics, Science and Technology," Bucknell University, Lewisburg, PA.
- "Feminists and Scientists: Can We Talk?" October 12, 2000. 19<sup>th</sup> Annual Women's Studies Colloquia, Colby College, Waterville, ME. Co-sponsored by Colby Women in Science.
- "The Hypergeometric Function: An 'Urelement' of Mathematical Analysis." November 13, 1998. Bates-Bowdoin Seminar, Bowdoin College, Brunswick, ME.
- "Using Original Sources to understand the Logistic Equation." November 9, 1998. Colby College Mathematics Colloquium. Waterville, ME.
- "Curricular Transformations: What Works." One-day colloquium, Toward an Effective Undergraduate Major in Mathematics. Hunter College: New York, NY. April 2, 1997.
- "Re-Forming the Calculus: The Shape We're In." Beacon College, Strengthening Higher Education Math and Science Instruction. University of Maine at Orono: May 19, 1995.
- "Ethics Across the Curriculum: Teaching Ethics in Science and Math Classes." Science, Technology and Ethics Series, Bates College: March 31, 1995.
- "What's New in Teaching: A Field Report." University of Colorado, Boulder, CO: October 6, 1994.
- "The Calculus Program at Bates." Bowdoin College, Brunswick, Maine: March 12, 1993.
- "Dimensional Analysis Can Make Physics Easy." SUNY-Purchase, Purchase, New York: February 19, 1992.
- "What's So Special About Special Functions?" Vassar College, Poughkeepsie, New York: October 29, 1991.

#### **LEADERSHIP RESPONSIBILITIES IN PROFESSIONAL PROGRAMS:**

- Judge for Undergraduate Student Poster Session, January 7, 2007, Joint Mathematics Meetings, New Orleans, LA, Jan. 5-8, 2007.
- Judge in Mathematics Division for 2005 Sigma Xi Student Research Conference, Seattle, WA, November 3-6, 2005.
- Chair, Number Theory Session IA, Eleventh Annual Hudson River Undergraduate Mathematics Conference (HRUMC), Mount Holyoke College, South Hadley, MA, April 3, 2004.
- Panel member, Nominating Members Workshop, Sigma Xi Meeting, Los Angeles, CA, November 15, 2003.
- Moderator for Student Conference Roundtable, Non-traditional Students, Sigma Xi Annual Meeting, Los Angeles, CA, November 15, 2003.
- Judge in Mathematics Division for 2003 Sigma Xi Student Research Conference, Los Angeles, CA, November 14-15, 2003.
- Chair, Mathematics and Biology Session I, Tenth Annual Hudson River Undergraduate Mathematics Conference (HRUMC), Union College, Schenectady, NY, April 12, 2003.

Chair, Applied Mathematics Session II, Fourth Annual Hudson River Undergraduate Mathematics Conference, Williams College, Williams town, MA, April 12, 1997.

Co-facilitated session on "Courses in Math and the Physical Sciences" (with Dr. Karan Barad, Physics), Women and Scientific Literacy Conference, Tempe, AZ, February 29, 1997.

Chair, Analysis Section, Third annual Hudson River Undergraduate Mathematics Conference, Skidmore College, Saratoga Springs, NY, April 20, 1996.

Co-organizer (with William Barker, Bowdoin College) and Panel Discussion Leader (afternoon session) "Truths and Consequences of Calculus Reform" at Bowdoin College, November 11, 1995.

Commentator and Group Discussion Leader, session on "Cognitive Recapitulation," at Third International History, Philosophy, and Science Teaching Conference, October 29-November 1, 1995.

Chair and moderator, Session B Contributed Papers. Second Annual Conference on the Teaching of Calculus, Harvard University, Cambridge, Massachusetts: June 25, 1993.

Workshop leader, "Why Reform Calculus?" Maine Calculus Consortium, Portland, Maine: December 5, 1992.

Roundtable discussion leader, "Writing and Mathematics." ICME-7, Montreal, Canada: August 18, 1992.

#### **ATTENDANCE AT PROFESSIONAL MEETINGS AND WORKSHOPS:**

In addition to meetings listed above.

MIT Women in Mathematics: A Celebration, April 12-13, 2008, Massachusetts Institute of Technology, Cambridge, MA.

Society for Literature, Science and the Arts, SLSA, November 1-4, 2007, Portland, ME.

Conference for African-American Researchers in Mathematical Sciences, June 19-22, 2007, Northeastern University, University of Massachusetts, Boston, MA.

Curriculum Interactions between Biology and Mathematics, Faculty Workshop June 11-12, 2007, Bowdoin College, Brunswick, ME,.

Boston University Philosophy of Science Colloquium: Re-Assessing the Science Wars: Where are Science Studies Now, and Where are they Going Tomorrow? February 2, 2007, Boston College.

Some Deterministic Models in Mathematical Biology and Their Simulations, Minicourse, January 5-7, 2007, Joint Mathematics Meetings, New Orleans, LA.

Experimental Economics, NSF Chautauqua Short Course for College Teachers, Harvard University, August 18, 2006.

SIAM Annual Meeting, July 10-14, 2006, Boston, MA.

Sigma Xi Annual Meeting, November 3-6, 2005, Seattle, WA.

HOPE (History of Political Economy) Conference on the History of Demand Theory, April 22-24, 2005, Durham, NC.

Hudson River Undergraduate Mathematics Conference XI, April 3, 2004, Mount Holyoke College, South Hadley, MA.

Joint Meetings of the Mathematical Association of America and the American Mathematical Society, January 7-10, 2004, Phoenix, AZ.

Sigma Xi Annual Meeting, November 13-16, 2003, Los Angeles, CA.

Fourth National Forum on First-Year Assessment, 3 pre-conference workshops, National Resource Center for the First-Year Experience, Atlanta, GA, February 21-22, 2003.

Game Theory, Short Course of the Ohio Section, Mathematical Association of America (MAA) Presented by Philip Straffin, University of Dayton, Dayton, OH, June 27-29, 2002.

Mathfest, Annual Summer Meeting of the Mathematical Association of America, August 2-4, 2001, Madison, WI.

Canadian Society for History and Philosophy of Mathematics, Annual Meeting, Laval University, Quebec. May 25-27, 2001.

Sigma Xi Annual Meeting and Forum, November 9-10, 2000. New Ethical Challenges in Science and Technology. Albuquerque, NM.

Northeastern Section of the MAA, Fall Meeting: November 19-20, 1999, Bradford College, Haverhill, MA. Theme: Mathematics in Biology and the Environment.

14<sup>th</sup> Annual Maine Women's Studies Conference. Gender, Science, and Technology: Issues for a Multicultural and Postcolonial World. November 13, 1999. University of Maine at Augusta.

Sigma Xi Annual Meeting and Forum, November 4-7, 1999. Reshaping Undergraduate Science and Engineering Education, Tools for Better Learning. Minneapolis, MN.

Northeastern Section of the MAA (Mathematical Association of America), Spring Meeting: June 11-12, 1999, Colby College, Waterville, Maine. Theme: Mathematics Education.

The CHANCE Lectures. Workshop on teaching college statistics. Sponsored by the National Science Foundation. December 11-12, 1998, Dartmouth College.

The Legacy of R.L. Moore Conference. April 7-9, 1999. University of Texas, Austin, TX.

National Council of Teachers of Mathematics. 77<sup>th</sup> Annual Meeting. April 22-24, 1999. San Francisco, CA.

Northeastern Section of the Mathematical Association of America, Fall Meeting: Western New England College, November 21-22, 1997.

38<sup>th</sup> Triennial Council, Phi Beta Kappa Society, delegate for Bates College Chapter, September 25-28, 1997, Chicago, IL.

Quantitative Literacy Workshop. Trinity College Mathematics Center, Hartford, CT: April 25, 1997.

Assessment in Statistics Courses. Simmons College, Boston, MA: April 19, 1997.

The World Counts! Ethnomathematics in the Curriculum. Teacher's College, Columbia University, NY: April 5, 1997.

Annual Meeting of Sigma Xi, The Scientific Research Society. New Orleans, LA: March 6-9, 1997.

Women and Scientific Literacy: Building Two-Way Streets. Tempe, AZ: February 27 - March 2, 1997.

Northeastern Section of the Mathematical Association of America, Fall Meeting. University of Massachusetts at Boston, Boston, MA: November 22-23, 1996.

Women's Words, 11th Annual Maine Women's Studies Conference. College of Bangor, Bangor, ME: November 16, 1996.

Interdisciplinary Approaches to Teaching Undergraduate Science and Mathematics, Project Kaleidoscope Workshop. Colby College, Waterville, ME: October 25-27, 1996.

Chaos, Fractals, and Dynamics: Computer Experiments in Mathematics. Boston University, Boston, MA: June 10-12, 1996.

Hudson River Undergraduate Mathematics Conference III. Skidmore College, Saratoga Springs, NY: April 20, 1996.

Diversity and Scientific Questions: From Campus Climate to Curricular Change. Working conference sponsored by Association of American Colleges and Universities (AAC&U), Charleston, SC: April 11-13, 1996.

Teaching Introductory Statistics. Framingham State College, Framingham, MA: March 23, 1996.

Northeastern Section of the Mathematical Association of America (MAA). Salem State College, Salem, MA: November 17-18, 1995

Workshop on Teaching Differential Equations Using Technology. University of Hartford, Hartford, CT: June 25-30, 1995.

Northeastern Section, Mathematical Association of America (MAA). Bates College, Lewiston, ME: June 9-10, 1995.

Sigma Xi Annual Meeting. Research Triangle Park, NC: March 3-5, 1995.

Gödel's Philosophical Significance. Boston Colloquium for the Philosophy of Science. Boston, MA: Feb. 6-7, 1995.

Northeastern Section Mathematical Association of America (MAA). University of Hartford, Hartford, CT: Nov. 18-19, 1994.

Project Kaleidoscope Invitational Symposium: Faculty for the 21st Century. Atlanta, GA: Oct. 28-30, 1994.

NECUSE Workshop on Innovative Methods in the Teaching of Mathematics. College of the Holy Cross, Worcester, MA: Sept. 23-25, 1994.

Short Course on Discrete and Continuous Fourier Analysis. Bates College, Lewiston, ME: July 18-22, 1994.

Workshop on Ethics Across the Curriculum. Illinois Institute of Technology, Chicago, IL: June 20-25, 1994.

Chautauqua Short Course: What It Means to Solve a Differential Equation: Henri Poincare and the Origins of Chaos Theory. Harvard University, Cambridge, MA: June 16-18, 1994.

New England Section Mathematical Association of America (MAA). (Workshop: Linear Algebra with MATLAB) Salve Regina University, Newport, RI: June 3-4, 1994.

Project Kaleidoscope Invitational Symposium. Trinity University, San Antonio, Texas: February 11-13, 1994.

Joint Mathematics Meetings (MAA, AMS). Cincinnati, Ohio: January 12-15, 1994.

Conference of the Society for Literature and Science. Cambridge, Massachusetts: November 18-21, 1993.

Mathematica Workshop. Bowdoin College, Brunswick, Maine: August 25-26, 1993.

Annual meeting of AAAS, Science and Education for the Future. Boston, Massachusetts: February 11-16, 1993.

NSF Faculty Enhancement Workshop in Inverse Problems in the Mathematical Sciences. University of Cincinnati, Cincinnati, Ohio: June 15-17, 1992.

New England Section of American Physical Society (APS). Bates College, Lewiston, Maine: October 4-5, 1991.