

**Curriculum Vitae for Harriet Pollatsek**  
Professor Emerita of Mathematics  
Mount Holyoke College, South Hadley, MA 01075  
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**Education:**

B.A. (1963), MA (1964), Ph.D. (1967), Mathematics, University of Michigan

**Professional Experience:**

Mount Holyoke College	1970–2012 (Dean of Studies 1977–80)
University of Oregon (Visitor)	1976–77, 1984–85, 1992–93
University of Cambridge (Visitor)	1998–1999
Queen Mary/Westfield, U. London (Visitor)	1998–1999, 2002–2003, spring 2008
University of Sussex (Visitor)	2002–2003

**Selected Publications—Curriculum and Teaching:**

- “The Math Hatter: Mathematics and milinery” (with E. Shura Pollatsek), *Teaching Theatre*, Summer 2017, pp. 16–21.
- *Mathematics Education: A Spectrum of Work in Mathematical Sciences Departments* (edited with Jacqueline M. Dewar and Pao-sheng Hsu), Association for Women in Mathematics Series, Springer, 2016.
- *Difference Sets: Connecting algebra, combinatorics and geometry* (with Emily Moore), Student Mathematical Library **67**, the American Mathematical Society, 2013.
- *Lie Groups: A Problem-Oriented Introduction via Matrix Groups*, Textbook Series, Mathematical Association of America (MAA), 2009.
- *Undergraduate Programs and Courses in the Mathematical Sciences: CUPM Curriculum Guide 2004* (with William Barker, David Bressoud, Susanna Epp, Susan Ganter, and Bill Haver), MAA, 2004.
- “Do we need prerequisites?” (with Donal O’Shea), *Notices of the American Mathematical Society*, May, 1997.
- *Laboratories in Mathematical Experimentation: A Bridge to Higher Mathematics*, (with J. William Bruce, et al), Springer Verlag NY, 1997.
- *Calculus in Context* (with James Callahan, et al), W.H. Freeman, 1995.
- *Rates of Change: Modelling Population and Resources*, (with Eva Paus) in the Sloan New Liberal Arts Monograph series, 1992.
- *Case Studies in Quantitative Reasoning*, (with Robert Schwartz) in the Sloan New Liberal Arts *Extended Syllabus* series, 1990.

**Selected publications and papers—Research:**

- “Permutationally invariant codes for quantum error correction,” (with Mary Beth Ruskai), *Linear Algebra and its Applications*, **392** (2004), pp.255-288.
- “Looking for difference sets in groups with dihedral images,” (with Emily Moore), *Designs, Codes, Cryptography*, **28** (2003), pp. 45-50.
- “Quantum error correction: classic group theory meets a quantum challenge,” *Am. Math. Monthly*, **108** (2001), pp. 932-962.
- “Ruling out (160, 54, 18) difference sets in some nonabelian groups,” (with [undergraduate authors] J. Alexander, R. Balasubramanian, J. Martin, K. Monahan and R. Sen), *J. of Comb. Designs*, **8** (2000), pp. 221-231.
- “Difference sets in groups of order  $4p^4$ ,” in *Groups, Difference Sets, and the Monster*, K.T. Arasu et al editors, de Gruyter (1996), pp. 175–193.

### Selected Grants and Awards:

- Association for Women in Mathematics' Louise Hay Award for contributions to mathematics education, January 2008.
- Mount Holyoke College Teaching Award, April 2007.
- National Science Foundation, A National Agenda for Advancing the Undergraduate Mathematics Curriculum (grant to the Mathematical Association of America), Project Director, 2002-2004.
- National Science Foundation, Multiple Entry Points to the Mathematics Major and Minor, Undergraduate Faculty Enhancement, co-Project Director, 1998–2000.
- National Endowment for the Humanities, Mathematics Across the Curriculum, participant and co-Evaluator, 1996–98.
- National Science Foundation, Mount Holyoke's Laboratory in Mathematical Experimentation, Undergraduate Faculty Enhancement, co-Project Director, 1995–98.
- National Science Foundation, Entry Level Mathematics: Outreach for the New Decade, co-Project Director, 1992–96.
- National Science Foundation, Disseminating Calculus in Context, co-Project Director, 1991–94.
- Fund for the Improvement of Post Secondary Education, Increasing Access to Advanced Mathematics, co-Project Director, 1990–92.

### Selected Professional Activities:

- Member of the Committee on Education of the Association of Women in Mathematics, 2009–2018.
- Associate editor of the *Notices of the American Mathematical Society*, 2016–2018.
- Chair of the editorial board of the Dolciani Mathematical Expositions book series of the Mathematical Association of America (MAA), 2014– 2020.
- Member of the Nominating Committee of the MAA, 2013–2016.
- Member of the planning group for the Western Mass Mathematics Partnership (WMMP), 2013–present. Co-facilitator of a WMMP professional learning community for K-16 mathematics teachers, fall 2014 and spring 2015.
- Participant, co-convener of the Working Group on Professional Development, and member of the Advisory Committee for the NSF-supported WMMP project; member of senior personnel in proposals submitted December 2012 and March 2013 to the NSF MSP program.
- Invited speaker at the special session on the Klein Project at Mathfest 2010. (The Klein project celebrates the centenary of Felix Klein's *Elementary Mathematics from an Advanced Standpoint*.)
- Chair of the Council on Programs and Students of the MAA and *ex officio* member of the MAA Committee on Committees, 2008–2013.
- MAA representative to the Committee on Education of the American Mathematical Society, 2008 – 2013.
- Member of the editorial board for the online *Illustrative Resources* for CUPM *Curriculum Guide 2004*, MAA, 2004–2007.
- Member of the Committee on the Undergraduate Program in Mathematics, MAA, 1996 –2004, chair 2001–2004.
- Member of Advisory Committee for the NSF-supported *Vector Calculus Bridge Project* of Tevian Dray and Corinne Manogue, Oregon State University, 2001–2012.

- Member of Advisory Board for *Investigations* (materials for teachers of K-6 mathematics) at TERC, 2002–present.
- Member of Advisory Board for PBS program *FETCH*, 2008–2011.
- Invited participant in MAA working conference June 15-18, 2005, to collect and write materials to assist mathematics faculty serving as outside consultants and for departments and programs preparing for outside review.
- Program reviews at University of Michigan, Dearborn (through Project Kaleidoscope), 1995; Gettysburg College, 1997; Colgate University, 1998; Dickinson College, 2001; Roanoke College, 2005; Simmons College and Washington and Lee University, 2007; Macalester College, Saint Louis University, Salem State College, 2009; Fairfield University, 2011; Franklin and Marshall College, 2013; Westfield State University, 2016.
- Discrete Math Day, day-long regional conference on research in discrete mathematics, Mount Holyoke College, April 2005, co-organizer (with Jillian McLeod).
- Special Session on Quantum Computation and Error Correction, regional AMS Meeting, Hoboken, NJ, April 2001, co-organizer (with Mary Beth Ruskai).

**Undergraduate Courses Taught:** Precalculus, Calculus I, II, III, Topology of the Real Line, Real Analysis, Linear Algebra, Abstract Algebra I and II, Projective Geometry, Lie Groups, Algebraic Coding Theory, Introductory Statistics, Discrete Mathematics, Case Studies in Quantitative Reasoning, Laboratory in Mathematical Experimentation, Explorations in Algebra, Mathematical Models of Confrontation and Competition.

**Selected College Activities:** chair of Advisory Committee on Engineering (until 2012), Advisory Committee on SummerMath and SummerMath for Teachers (until 2010), Committee on (faculty) Fellowships (2005-2008), Advisory Committee on Appointments, Reappointments and Promotion (1999–2003), Educational Priorities Committee (1996–97), EPC Task Force on Admissions and Financial Aid (1996–97), Presidential Search Committee (1994–95).