

## Curriculum Vitae for TAYLOR, JEAN E.

### Current Institutional Affiliations:

- Visitor, Courant Institute of Mathematical Sciences, New York University, 251 Mercer Street, New York, NY 10012
- Professor Emerita, Mathematics Department, Rutgers University, 110 Frelinghuysen Rd, Piscataway, NJ 08854-8019

### Education:

- A.B., Mount Holyoke College, 1966 (summa cum laude, first in class)
- M.S. (in Physical Chemistry), University of California, Berkeley, 1968
- M.S. (in Mathematics), University of Warwick, England, 1971
- Ph.D., Princeton University, 1973

### Employment History:

- Instructor, MIT, 1972-73
- Rutgers University: Assistant Professor, 1973/77; Associate Professor, 1977/82 (granted tenure 1977); Professor I, 1982/87; Professor II, 1987 - 2002; Professor Emerita, 2002 – present

### Honors:

- D.Sc., Honoris Causa, Mount Holyoke College, 2001.
- Fellow, American Academy of Arts and Sciences (elected 1999)
- Fellow of the American Association for the Advancement of Science
- Fellow, Association for Women in Science (elected 1999)
- Alfred P. Sloan Fellow, 1976/78
- Phi Beta Kappa Visiting Scholar, 2006-2007
- Rutgers College Class of 1962 Presidential Public Service Award, 1999
- Noether Lecturer, Assoc. for Women in Math., Joint Mathematics Meeting, 2003
- Earle Raymond Hedrick Lecturer, Math Assoc. Amer., 1998
- NSF Graduate Fellow, 1966/72

### Professional Society Service, past 5 years:

- American Mathematical Society: Board of Trustees, 2003-2008 including Chair, 2006-2007, Chair of ECBT Nominating Committee, 2005; Member, Audit Committee; Member, Agenda and Budget Committee; Member, AMS Committee on the Profession, 2006-2008; Member, AMS Committee on Meetings and Conferences, 2003-2006);

- American Association for the Advancement of Science: Chair, Section A (Mathematics), 2004-05; retiring Chair, 2005-06; chair-elect, 2003-04
- American Institute of Mathematics: Scientific Research Board
- Association for Women in Mathematics: Noether Lecture Committee
- Society for Industrial and Applied Mathematics: Polya Prize committee
- Mathematical Association of America: Committee on the Earle Raymond Hedrick Lectures
- AMS-AAAS Liaison Committee (chair, about 2004)
- New York Academy of Sciences: Human Rights Committee
- Black Rock Forest Consortium: Member-at-Large, Board of Directors, 2001-2007

**University Service, past 5 years:**

- Courant Institute: organized and ran seminar series, 2002-2003
- Visiting Committee, Oregon State University Mathematics Department, 2003
- Site visit team for NSF's ADVANCE program, 2006

**Other National or International Professional Experience:**

- Association for Women in Mathematics: President, 1999-2001; Past President 2001-02; President-elect 1998-1999
- American Association for the Advancement of Science: Member, Board of Directors, 1995-1999; Member, Program Committee for AAAS annual meetings, 1999-2002; Nominating Committee, Section A, American Association for the Advancement of Science, 1991-1994 (chair 1993-1994)
- American Mathematical Society, Vice President, 1994-1997; Executive Committee of the Council of the AMS, 1985-89; Member-at-Large, Council of the AMS, 1984-89; Nominating Committee, AMS, 1977-78 (all elected posts); Selected additional committees: Science Policy Committee, 1994-1995; National Program Committee, 1989-90 (chair, 1990 and 1991); Program Committee, Joint SMM-AMS meeting in Guanajuato, Mexico, 1995; Steele Prize Committee, 1991-1995; Selection Committee for Arnold Ross Lectures, 1993-1995; Ad Hoc Committee on NCTM Standards, AMS, 1988-89
- National Research Council: Materials Science and Mathematical Sciences Project Planning Group, 1990-91; Committee on Applied Mathematics Training, National Research Council, 1977-78; Chair, Connections Task Force, Mathematical Sciences Education Board, 1992; organized workshop on Resources for Women in Mathematics at the Chairs Colloquium of the Board on Mathematical Sciences, 1998
- Conference Board of the Mathematical Sciences: Executive Committee, , 2000-2002; Member, 1999-2002; Committee to select regional conferences, 1980-83
- Mathematical Association of America: Committee on Calculus Reform and the First Two Years, 1991-1994; Committee on the Earle Raymond Hedrick Lectures, 1999- 2002 and 2005-present
- Member, Board of Directors, IMO 2001 USA (International Math Olympiad)

- American Academy of Arts and Sciences: Member, Membership Committee, Section I.1, 2000-2002
- Member, Joint Policy Board for Mathematics, 1994-1995
- Board of Governors, National Science and Technology Center for Computation and Visualization of Geometric Structures (a.k.a. The Geometry Center), 1994-95  
Prior to its reorganization, the 19 members of the Geometry Computing Group, of which I was a member since 1989, constituted the "permanent faculty" of The Geometry Center.
- Edited two books (one with Vladimir Scheffer), plus the proceedings of two conferences that I'd organized, each of which consisted of a booklet and a videotape of computer simulations
- Editorial Boards: Experimental Mathematics, Interfaces and Free Boundaries Journal
- Visiting Committees for mathematics departments of Lehigh University and SUNY Stony Brook
- Chautauqua Advisory committee, 1989-1993
- Organized 11 meetings or special sessions within meetings
- Board of Advisors, The Geometry Forum (electronic forum, from high school through universities and research; now The Mathematics Forum) 1980's-90's
- Mentoring: 4 Ph.D. students, 4 M.Sc. students, numerous undergraduates. MAA's Project NExT consultant and frequent panel member; panelist in AWM workshop on mid-career; Young Mathematicians Network postings and publications; Noetherian Ring lecture and discussion at Princeton University Math Dept; ; Bunting-Cobb (Douglass College dormitory) discussions
- Seven talks aimed at undergraduates at conferences or other universities
- High School math involvement: Fifteenth USA Mathematical Olympiad Address, 1986; Mathcamp, 1998; Science-By-Mail (Liberty Science Center), 1994; DIMACS, 1991-94; many talks in New Jersey high schools. Also, I receive many email requests from students for information about my career as a woman in mathematics; they often have quite detailed questions and I answer nearly all.
- Education-related meetings: National Academy of Sciences Undergraduate Convocation on From Analysis to Action 1995; Canadian Math Education Study Group 2005; After School workshop (Educational Equity Concepts), Washington DC 2002; Forum for School Science, AAAS annual meeting, 1999. (The discussion session with me the day after I gave my talk at the CMESG meeting was proclaimed by many to be the best one they'd ever had.)
- Phi Beta Kappa Visiting Scholar 2006-2007 (3-8 talks at each of Wake Forest University, Hobart and William Smith Colleges, Illinois College, DePauw University, St Joseph University, Washington and Jefferson College, Case Western University, University of North Dakota)
- International meetings: Australia (1980, 1990, 1991(3), 2002), Brazil (1988), Canada (1978, 1988, 2001, 2005(3)), China (1986), Curacao (1995), France (1984, 1986, 1989, 1996), Germany (1972, 1983, 1986, 1994, 1995(2), 1996, 1998, 2003), Great Britain (2002), Greece (1983), Israel (1998), Italy (1972,

- 1973, 1977, 1983, 1992, 2004), Japan (1978, 1999), Mexico (1993, 2003(2)), Portugal (1999), Scotland (1978, 1999), South Africa (2000)
- 3 or more talks at international institutions: Tata Research Institute and Indian Institute of Science, Bangalore (2005, 2006); Beijing University (1986), Melbourne University and ANU, 1980.
  - Numerous talks at national meetings, including TMS (The Mining, Minerals, and Metallurgical Society) (1988, 1991, 1998, 2006), the Materials Research Society (1991, 1998 (2), 2006), the American Ceramics Society (1995), AMS Summer Research Institutes (1973, 1984, 1990), Special Sessions at AMS meetings (1977, 1980, 1983, 1985(2), 1987(2), 1989, 1991(3), 1994, 1995, 1999, 2001(2), 2002), SIAM meetings (1997, 2000, 2004), New Jersey Section of Mathematical Association of America (1973, 1982, 1989), and many other domestic conferences, including IMA (1982, 1986, 1988, 1990), MSRI (1989, 1991, 1992, 1995), The Geometry Center (1992, 1994), AAAS Annual Meeting (1983, 1996, 1999, 2003), DIMACS 1996 (in Princeton), Statistical Mechanics (1998), several Gordon Conferences. Also numerous colloquia and seminars at various universities.
  - At Rutgers, some of my University committees were: Appointments and Promotion Committee (to tenure), 1986-88; Appointments and Promotion Committee (Professor II), 1989-1991; Committee on Educational Policy of the Faculty Council, 1992-1995. At Douglass College, an all-female undergraduate college that is part of Rutgers University, I was a Faculty Fellow, on the Admissions Committee (Chair, 1981-82), and participated in the Douglass Project for Rutgers Women in Math, Science, and Engineering. My innovations in teaching included some of the earliest introductions of graphing calculators and computers, culminating in the implementation of WeBWork in the first semester calculus for biology and business majors, which enrolls 3000 students per year.

### **Public Education:**

- Advisor for Life by the Numbers, a TV series on mathematics produced by WQED
- Guest Editor, Odyssey (a children's science magazine) for September 2001 issue
- Guest expert, 3-2-1 Contact (produced by the Childrens' Television Workshop, rebroadcast many times on the PBS Network).
- Symposium on the play "Proof," New York University, 2000
- Articles about me and my work have appeared in Science News (Sept. 20, 1975, January 1987, August 1988 and December 1989), Ivars Peterson's books "The Mathematical Tourist" and "Islands of Truth," Cray Channels, MAA Focus, Science (April 3, 1992), Scientific American (October and November 1993), The Scientist (1993), Math Horizons (Sept. 1994), The College Mathematics Journal (Still Questioning Authority: An Interview with Jean Taylor, by Donald J. Albers, The College Mathematics Journal vol 27 No. 4 (Sept. 1996), 250-266), Mathematical People volume 3, Notable Women (book by Morrow and Pehl, 1998), the web site <http://www.agnesscott.edu/lriddle/women/jtaylor.htm>, and elsewhere. I am the subject of the poster "Asking the Right Questions," poster

number 30 (of 36) in the Poster Project concerning women in science, created by the artist Pam Davis and available at <http://www.physics.ucla.edu/scienceandart/pdavisposters> and with additional material at <http://www.math.sunysb.edu/posterproject/www>.

- Appeared in the film "Soap Bubbles" (part of Mathematics and Art Series), directed by Michele Emmer (shown on National Television in Italy and Japan and at 1986 Venice Biennale).
- Representative of the American Association for the Advancement of Science to the United Nations Conference on Women, Beijing (June 1995) and its associated NGO Forum; representative of the Association for Women in Mathematics to the United Nations conference Beijing Plus 5, United Nations Building, New York (June 2000)
- Many public lectures, such as a Royal Canadian Institute public lecture Fall 2005 (video on the web); a public lecture on Computing Soap Bubbles and Crystals, Australian National University, 1991; public lecture at Indian Academy of Science, Bangalore, 2005; public discussion on women in science sponsored by CCS, Bangalore 2005
- Princeton University reunions-APGA forum on women in science 2000
- Article in *Resonance*, an Indian journal of science education vol. 11 no. 6 (2006), pp. 26-30 (Cyril Smith issue)
- Wrote the entries for the Calculus of Variations in the McGraw-Hill Encyclopedia of Science and Technology, 7<sup>th</sup> and 8<sup>th</sup> editions

### **Personal notes:**

- In 2001, after the death several years earlier of my husband Fred Almgren, I married William T. Golden and moved to New York City. One consequence was an extraordinary education in science and public policy, both national and international; this education is almost impossible to fit into a standard CV. Another consequence was that after a year of trying to combine his activities with my professional activities, including a commute to Rutgers that often took 2 hours each way, I retired from Rutgers. (Bill and I were divorced in 2005 and he died in 2007.)
- I'm a backpacker (have hiked entire John Muir Trail and all Catskill 3500 peaks) and scuba diver, as well as a former mountain climber, rock climber, white-water canoer, kayaker, skier (downhill and mountaineering), and Cessna pilot. I've seen tigers in India, penguins in Antarctica and the Galapagos, ibexes in Pakistan, and cheetahs in Tanzania.
- I'm the proud mother and step-mother of three Almgrens, all mathematicians