

Glenn Stevens

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Education

Ph.D., Mathematics, Harvard University; 1975-1980.

Georg August Universität, Göttingen, West Germany; 1974-75.

B.A., University of California, Santa Barbara, California; 1971-74.

Current Position

Professor of Mathematics; Boston University, Boston, MA; 1993-present.

Associate Professor of Mathematics; Boston University, Boston, MA; 1988-1993.

Assistant Professor of Mathematics; Boston University, Boston, MA; 1984-1987.

The PROMYS Program

Founder (in 1989, w. David Fried) and director of the PROMYS program (Program in Mathematics for Young Scientists) at Boston University. This is a six week program for high school students with exceptionally strong mathematical interest.

The Focus on Math Partnership

Principal Investigator of the Focus on Math Partnership (FoM), a partnership of mathematicians, teachers, and education professionals to enhance student achievement. Inspired by the PROMYS for Teachers program, FoM is a collaboration led by Boston University and the Education Development Center, and joined by five school districts, and three other universities.

Other Teaching Experience

Brown University, Providence, Rhode Island; Visiting Associate Professor of Mathematics; Spring 1989.

Rutgers University, New Brunswick, NJ; Hill Assistant Professor of Mathematics; 1981-84.

Brandeis University, Waltham, MA; Visiting Assistant Professor of Mathematics; 1980-81.

Other Professional Experience

Invited Professor at the University of Paris VII, May, 2003.

Invited Professor at the University of Paris XIII, June, 2003.

Research Professor, Institut Henre Poincaré, Paris. May, 2000.

Research Professor, Mathematical Sciences Research Institute, Berkeley, CA. 1995-96.

Mathematical Sciences Research Institute, Berkeley, CA. Spring, 1991.

Mathematical Sciences Research Institute, Berkeley, CA. January and March, 1987.

Harvard University, Cambridge, MA. Visitor. February and April-August, 1987.

Harvard University, Cambridge, MA. Visitor. 1985-86.

Institute for Advanced Study, Princeton, NJ. Spring, 1985.

Major Fields of Research

Number theory, Automorphic forms, Arithmetic algebraic geometry

Awards

U.S. Presidential Scholars, Teacher Recognition Award (2005).

Research Professorship at MSRI (1995-96).

National Science Foundation Postdoctoral Fellow (1985-89).

National Science Foundation Graduate Fellow (1975-78).

Deutscher Akademischer Austauschdienst Stipendiat (1974-75), Georg August Universität, Göttingen.

Westinghouse Science Talent Search Finalist (1971).

Professional Societies

American Mathematical Society

Mathematical Association of America

National Council of Teachers of Mathematics

Board Memberships

President, Math for America Boston: 2009–present.

Advisory Board, Institute for Mathematics and Education, Tucson, AZ: 2006–present.

Advisory Board, Center for Mathematics Education Mathematical Practices Study: 2009–present.

Advisory Board, NSF DR-K12: Community for Advancing Research in Education (CADRE): 2009–2011.

Advisory Board, Center for Mathematics Education: 2006–present.

Advisory Board, Arizona Teacher Institute MSP (Daniel Madden, PI): 2006–present.

Advisory Board, Linear Algebra Project (Al Cuoco, PI): 2007–present.

Agencies Consulted by

National Science Foundation – Division of Mathematical Sciences

National Science Foundation – Statewide Systemic Initiatives

National Security Agency

National Sciences and Engineering Research Council of Canada (NSERC)

Journals Refereed

American Journal of Mathematics, Annales de l'École Normale Supérieure, Annales de l'Institut Fourier, Asterisque, Commentare Helvetica, Compositio Mathematica, Duke Mathematics Journal, Inventiones Mathematicae, Israeli Math Journal, Journal für die Reine und Angewandte Mathematik, Journal of Algebraic Geometry, Journal of the American Mathematical Society, Journal of Experimental Mathematics, Journal of Number Theory, Journal of the London Mathematical Society, Manuscripta Mathematica, Mathematische Annalen, Mathematische Zeitschrift, Proceedings of the Royal Canadian Mathematical Society, Rocky Mountain Journal of Mathematics, Transactions of the American Mathematical Society

Research Grants

2000–04; NSF Mathematical Sciences: Arithmetic of L -values.
1997–00: NSF Mathematical Sciences: Arithmetic of L -values.
1995–96: NSF Special Projects: Conference on Fermat's Last Theorem.
1995–96: NSA Special Projects: Conference on Fermat's Last Theorem.
1995–96: Vaughn Foundation: Conference on Fermat's Last Theorem.
1994–97: NSF Mathematical Sciences: Arithmetic of L -values.
1991–94: NSF Mathematical Sciences: Arithmetic of L -values.
1991–92: NSF Special Projects: p -Adic Monodromy and the Birch-Swinnerton-Dyer conjecture.
1991–92: Mathematics Trust: p -Adic Monodromy and the Birch-Swinnerton-Dyer conjecture.
1989–91: NSF Mathematical Sciences: Arithmetic of L -values.
1985–89: NSF Postdoctoral Fellowship.
1982–84: NSF Mathematical Sciences: Congruences for special values of L -functions.

Mathematics and Education Grants

2009–15: NSF DUE: Math for America Boston, Scholars (co-PI).
2009–12: NSF MSP: Focus on Mathematics, Phase II.
2008–12: Massachusetts Title IIB, Mathematical Experiences.
2008–11: Mass Regents, Inquiring Minds – Immersion in Green Energy.
2007–12: NSF DUE, BU's Noyce Scholars Program (co-PI).
2007–11: Stephen Bechtel, Immersion Institute in Physics (co-PI).
1999–09: Park City Math Institute: PROMYS for Teachers.
1999–12: Clay Mathematics Institute: Program in Mathematics for Young Scientists.
2003–12: NSF MSP: Focus on Mathematics.
1999–12: NSA Special Projects: Program in Mathematics for Young Scientists.
1999–12: AMS Epsilon Fund: Program in Mathematics for Young Scientists.
1999–03: NSF Teacher Enhancement: PROMYS for Teachers.
1989–97: NSF Young Scholars Program: Program in Mathematics for Young Scientists.

Research

Publications

Books

1. *Modular Forms and Fermat's Last Theorem* (edited with Gary Cornell and Joe Silverman). Springer-Verlag New York, Inc., New York, 1997, xix + 582 pp.
2. *p-Adic Monodromy and the Birch-Swinnerton-Dyer Conjecture* (edited with B. Mazur). Proceedings of the 1991 workshop held at Boston University. *Contemporary Mathematics* **165**, American Mathematical Society, Providence, Rhode Island, 1994.
3. *Arithmetic on Modular Curves*, Progress in Mathematics **20**. Boston: Birkhäuser 1982.

Published Papers

4. Overconvergent modular symbols and p -adic L -functions, (with R. Pollack). *Ann. Scient. Éc. Norm. Sup.* 4^e série, t. 44, 2011, p. 1 à 42.
5. Coleman's $\mathcal{L}$ -invariant and families of modular forms, *Astérisque* **331** (2010), p.1-12.
6. Building a community of mathematicians and teachers. In *MER Forum*. (with A. Cuoco).
7. Rigidity of p -adic cohomology classes of congruence subgroups of $GL(N, \mathbf{Z})$. (with A. Ash, and D. Pollack). *Proc. London Math. Soc.* 2007.
8. Overview of the proof of Fermat's Last Theorem. In *Modular Forms and Fermat's Last Theorem* (eds. Glenn Stevens, Gary Cornell and Joe Silverman). Springer-Verlag New York, Inc., New York, 1997.
9. p -Adic deformations of cohomology classes of subgroups of $GL(n, \mathbf{Z})$. (with Avner Ash). *Collect. Math.* **48** (1997), 1-30.
10. Numerical experiments on families of p -adic modular forms. (with R. Coleman, and J. Teitelbaum). Computational perspectives on number theory (Chicago, IL, 1995), 143–158, *AMS/IP Stud. Adv. Math.* **7**, Amer. Math. Soc., Providence, RI, 1998.
11. Λ -adic modular forms of half-integral weight and a p -adic Shintani lifting. *AMS Contemporary Mathematics* **174** (1994), 129-152.
12. p -adic L -functions and p -adic periods of modular forms (with Ralph Greenberg). *Invent. Math.* **111**, 407-447 (1993).
13. On the conjecture of Mazur, Tate, and Teitelbaum (with Ralph Greenberg). In *P-adic Monodromy and the Birch-Swinnerton-Dyer Conjecture*. (edited with B. Mazur). Proceedings of the 1991 workshop held at Boston University. *Contemporary Mathematics* **165**, 183-211 (1994).
14. Stickelberger elements and modular parametrizations of elliptic curves. *Invent. Math.* **98**, 75-106 (1989).
15. The Eisenstein measure and real quadratic fields. in *Proceedings of the International Conference on Number Theory*, Université Laval, Quebec, 1987. Walter de Gruyter, Berlin, 1989.
16. Modular elliptic curves and values of L -functions. *C. R. Math. Rep. Acad. Sci. Canada* **X**, No. 4, 181-185 (1988).
17. On the periods of modular elliptic curves. *C. R. Math. Rep. Acad. Sci. Canada* **X**, No. 5, 211-215 (1988).
18. Poincaré series on $GL(r)$ and Kloostermann sums. *Math. Ann.* **277**, 25-51 (1987).

19. Cohomology of arithmetic groups and congruences between systems of Hecke eigenvalues. (With A. Ash), *J. Reine Angew. Math.* **365**, 192-220 (1986).
20. Modular forms in characteristic ℓ and special values of their L-functions. (With A. Ash). *Duke Math. Journal* **53**, No. 3, 849-868 (1986).
21. The cuspidal group and special values of L-functions. *Trans. A.M.S.* **291**, 519-550 (1985).
22. Terminal quotient singularities in dimensions three and four. (With D.R. Morrison), *Proc. AMS* **90**, No.1, 15-20 (1984).
23. Special values of L-functions attached to $X_1(N)$. (With S. Kamienny), *Compositio Math.* **49**, 121-142 (1983).
24. Learning in the Spirit of Exploration: PROMYS for Teachers. *MER Forum*, **13** No. 3 (2001), 7-10.

Preprints and Works in Progress

25. On overconvergent modular forms for $GL(2)/F$, (with F. Andreatta, and A. Iovita). Submitted for publication. (See <http://www.mathstat.concordia.ca/faculty/iovita/research.html>)
26. Critical Slope p -Adic L -Functions, (w. R. Pollack), Submitted for publication. (See <http://math.bu.edu/people/rpollack/>).
27. p -Adic Deformations of Cohomology Classes of subgroups of $GL(N, \mathbf{Z})$: The Non-ordinary Case. 2005 preprint (w. A. Ash).
28. A Geometric Jacquet-Langlands correspondence. Preprint (w. M. Harris and A. Iovita).
29. Lower bounds for dimensions of eigenvarieties for reductive groups. 2008 preprint.
30. p -Adic Slope Decompositions. Preprint (w. A. Ash)
31. Overconvergent modular symbols. 1998 preprint.
32. Analytic Families of Overconvergent Modular Symbols. In preparation.
33. Milnor Rings and Eisenstein Cohomology. In preparation.

Book Review

34. *Elementary theory of L-functions and Eisenstein series*, by Haruzo Hida, London Mathematical Society Student Texts **26**, Cambridge University Press, Cambridge, 1993, x + 386 pp., ISBN 0-521-43411-4 (hardback), ISBN 0-521-43569-2 (paperback). (Reviewed in the Bulletin of the AMS)

Invited Lectures and Presentations

1. November 16, 2011: University of Chicago Number Theory seminar Chicago, IL. *Vanishing Cycles and the Jacquet-Langlands correspondence over the eigencurve*.
2. November 14, 2011: Northwestern University Number Theory Seminar in Evanston, IL. *A cohomological eigenvariety machine and a conjecture of Urban*.
3. November 3, 2011: Banff International Research Station (BIRS): 5-day workshop on Cycles on Modular Varieties. Video recording of *Vanishing Cycles and the Jacquet-Langlands correspondence over the eigencurve*: <http://www.birs.ca/events/2011/5-day-workshops/11w5125/videos>
4. November 3, 2011: Banff International Research Station (BIRS): 5-day workshop on Cycles on Modular Varieties. *Vanishing Cycles and the Jacquet-Langlands correspondence over the eigencurve*

5. September 18, 2011: Boston-Keio Summer Workshop, at Boston University. *p-Adic eigenvarieties and a conjecture of Urban*.
6. September 16, 2011: Boston-Keio Summer Workshop, at Boston University. *p-Adic overconvergent cohomology and p-adic L-functions*.
7. September 15, 2011: Boston-Keio Summer Workshop, at Boston University. *p-Adic variation of Automorphic Forms*.
8. April 12, 2011: Research pre-session of the Annual Meeting of the NCTM in Indianapolis, IN: 90 minute work session. *Mathematical Habits of Mind for Teaching* (with Sarah Sword, Ryota Matsuura, Al Cuoco, and Russell Faux).
9. April 11, 2011: Annual Meeting of the NCSM in Indianapolis, IN: 90 minute symposium for school district administrators. *Assessing Mathematical Habits of Mind in Teachers* (with Sarah Sword, Ryota Matsuura, Al Cuoco, and Russell Faux).
10. March 25, 2011: Institute for Mathematics and Education, University of AZ, Tucson: Panel on Knowledge of Mathematics for Teaching: some thoughts from mathematicians. *On Mathematical Experience*.
11. March 12-16, 2011: Arizona Winter School 2011 on Stark Heegner Points, University of AZ, Tucson. *Overconvergent Modular Symbols* (with R. Pollack and Jay Pottharst).
For video and slides, see <http://swc.math.arizona.edu/aws/2011/index.html>.
12. January 8, 2011: Joint Mathematics Meetings in New Orleans: AMS Panel Discussion: Inquiry-Proof instructional techniques. *Mathematical Habits of Mind and Teacher Preparation*
13. October 4, 2011: Conference Board of the Mathematical Sciences on "Teaching Teachers in the Era of the Common Core" in Reston, VA: 90 minute session. *Communities of Mathematical Practice*.
14. May, 2010: Bowdoin College: 2010 Christie Lectures: *Analysis in Arithmetic*.
15. April, 2010: Harvard University: Number Theory Seminar: *Eigenvarieties for Reductive Algebraic Groups*.
16. February, 2010: Université de Montreal, Montreal, Canada: *Magma Conference on p-adic L-functions*.
17. January, 2010: Joint Meetings in New Orleans: *MAA Panel on Inquiry-Proof Instructional Strategies*
18. December, 2009: Centre de Recerca Matemàtica, Barcelona, Spain: *Cycles and special values of L-series*.
19. November, 2009: Quebec Vermont Number Theory Seminar: McGill University, Montreal: *On a Conjecture of Urban*
20. November, 2009: Quebec Vermont Number Theory Seminar: Concordia University, Montreal. *p-Adic Variation of the Jacquet-Langlands Correspondence: a Geometric Approach*
21. October, 2009: Colloque de mathématiques de Montréal; University of Quebec. *p-Adic Variation in the Theory of Automorphic Forms*.
22. October, 2009: BIRS, Banff: Dedekind Sums in Geometry, Topology, and Arithmetic. *Milnor Algebras, Modular Symbols, and Values of L-functions*. (Videotaped)
23. October, 2009: Conference Board of the Mathematical Sciences (CBMS): Plenary Panel. *Common Core Standards and Improving Teacher Education*
24. May, 2009: Boston University Department of Mathematics and Statistics. *Address to the Class of 2009*
25. April, 2009: Massachusetts Math and Science Partnerships; Holy Cross College, Worcester. *Mathematical Experiences*

26. March, 2009: Undergraduate Mathematics Seminar, University of Connecticut, Storrs. *Connecting the Dots: the Art of Interpolation*
27. December, 2008: Boston University, Boston, MA. *Number Theory Seminar*
28. May, 2008: Mathematical Sciences Research Institute, Berkeley, CA. *Critical Issues in Mathematics Education*.
29. April, 2008: Brandeis University, Waltham, MA. *Modular Symbols and Special Values of L-functions*.
30. March, 2008: University of California, Los Angeles. *Selmer Groups L-functions, and Galois deformations* (2 lectures)
31. March, 2008: University of Arizona, Tucson, AZ. *School-based intellectual leadership in mathematics*
32. January, 2008: NSF Learning Network Conference, Washington D.C. *Deep experience of Mathematics: Impact on Teachers*.
33. November, 2007: Massachusetts DOE Symposium on Algebra 2, Tyngsboro, MA. Panelist: What I wish my students knew about mathematics.
34. September, 2007: Boston University. Number Theory seminar.
35. September, 2007: NSF Discovery Research K-12 meeting, Washington, D.C. Panelist: Preparing and Supporting Effective STEM Teachers: Discipline-Based Professional Societies Respond.
36. July, 2007: Ohio State University, Columbus, OH. Centennial Conference in Honor of Arnold Ross.
37. June, 2007: Banff, International Research Station. Conference on Modular Forms: Arithmetic and Computation.
38. May, 2007: Mathematical Sciences Research Institute, Berkeley, CA. Critical Issues in Mathematics Education: Teaching Teachers Mathematics.
39. May, 2007: Pennsylvania State University, University Park, PA. Math Knowledge for Secondary Mathematics Teaching: Experts' Conference.
40. March, 2007: University of Arizona, Tucson, AZ. Workshop on mathematics courses for teacher preparation.
41. January, 2007: National Science Foundation. MSP Learning Network Conference.
42. January, 2007: National meeting of the American Mathematical Society, New Orleans, LA. Special Session on Mathematicians and Educators.
43. November, 2006: McGill University, Montreal Canada. Number Theory Colloquium.
44. October, 2006: AMS Committee on Education, Washington, DC. Panel on *Productive collaborations of mathematicians and educators*.
45. October, 2006: AMS Special Session on Undergraduate Mathematics Education, Storrs, CT. A Masters Degree in Mathematics for Teaching.
46. July, 2006: Centre International de Rencontres Mathématiques, Luminy. *p*-Adic Modular Forms and Applications (2 lectures).
47. April, 2006: AMS Special Session on Arithmetic Geometry and Modular Forms, Durham, NH. Sheaves of overconvergent *p*-adic modular forms.
48. April, 2006: National Council of Supervisors of Mathematics, National Meeting, St. Louis, MS. Special Session on School Mathematical Communities.

49. January, 2006: National Science Foundation, Washington, D.C. MSP Learning Network Conference.
50. September, 2005: University of Montreal, Montreal. Conference on p -adic representation theory.
51. June, 2005: Boston University, Boston. Iwasawa Theory Conference, Open Questions and Recent Developments.
52. June, 2005: Mathematisches Forschungsinstitut Oberwolfach, Germany. Workshop on Algebraische Zahlentheorie.
53. May, 2005: Brandeis University, Waltham. Retirement conference for Paul Monsky.
54. May, 2005: Columbia University, New York. Workshop on p -adic methods in automorphic representation theory.
55. January, 2005: National Science Foundation, Washington, D.C. MSP Learning Network Conference.
56. January, 2005: American Mathematical Society National Meeting, Atlanta. Special Session on Arithmetic Algebraic Geometry.
57. January, 2005: American Mathematical Society National Meeting, Atlanta. Special Session on the Work of Mathematicians in Mathematics Education.
58. Spring, 2004: University of Massachusetts, Amherst. Five Colleges Undergraduate Colloquium.
59. Spring, 2004: Amherst College. Five Colleges Number Theory Seminar.
60. December, 2003: Banff Conference Center. Conference on p -adic Variation of Motives.
61. Fall, 2003: Math Science Partnerships Conference. Developing Teacher Leadership.
62. Spring, 2003: CIRM at Luminy, France. Conference on p -adic automorphic Representation Theory.
63. Spring, 2003: University of Orsay, France. Arithmetic Geometry Seminar.
64. Spring, 2003: Conference on p -adic methods in Automorphic Representation Theory. Two lectures.
65. Spring, 2003: University of Paris XIII. Arithmetic Geometry Seminar.
66. Spring, 2003: University of Paris VII. Arithmetic Geometry Seminar.
67. Spring, 2003: University of Paris VI. Automorphic Representation Theory Seminar.
68. March, 2003: Brown University. Number Theory Seminar.
69. March, 2003: Boston University. Number Theory Seminar.
70. Fall, 2002: University of Illinois, Chicago. Number Theory Seminar.
71. Fall, 2002: Brandeis University. Brandeis, Harvard, MIT Colloquium.
72. Fall, 2001: Boston College. Number Theory Seminar.
73. Fall, 2001: University of Washington. Number Theory Seminar.
74. Spring, 2001: Boston University. Number Theory Seminar.
75. Spring, 2001: Harvard University. Number Theory Seminar.
76. Spring, 2001: New Orleans, LA. Special Session on Mathematics Education Reform, AMS meeting.
77. March, 2000: CUNY Graduate Center. Number Theory Seminar.
78. Fall, 2000: Münster, Germany. Workshop on p -adic Methods in Automorphic Representation Theory.

79. Spring, 2000: Hebrew University; Jerusalem, Israel. Number Theory Seminar.
80. Spring, 2000: Paris, France. Semestre Hecke. Course on p -adic Methods in Automorphic Representation Theory.
81. Spring, 2000: Ohio State University, Columbus. Number Theory Seminar.
82. October, 1999: Middlebury, VT. Mathematics Honors Seminar.
83. June, 1999: Winnipeg, Canada. Plenary address at CMS Meeting on Number Theory.
84. May, 1999: Brown University. Number Theory Seminar.
85. April, 1999: Columbia University. Number Theory Seminar.
86. March, 1999: University of California at Berkeley. Number Theory Seminar.
87. February, 1999: Boston University. Number Theory Seminar.
88. January, 1999: San Antonio, Texas. MER Special Session at the National AMS Meeting.
89. October, 1998: Brown University. Colloquium.
90. August, 1998: Tegernsee, Schloss Ringberg. Max Planck Gesellschaft Conference on polylogarithms.
91. March, 1998: Boston University: MAA Symposium (organized by Emma Previato). Presentation on the nature of Creativity in Mathematics.
92. February, 1998: Jerusalem, Israel. Conference on p -adic methods in automorphic representation theory.
93. October, 1997: Boston University. Mathematics Field Days for New England High School Students (2 lectures).
94. August, 1997: Trieste, Italy. Summer School on Elliptic Curves (2 lectures).
95. June, 1997: Hebrew University. Arithmetic Geometry Seminar.
96. May, 1997: MIT. Rigid Geometry Seminar.
97. April, 1997: Colby College, Maine. Colloquium.
98. April, 1997: McGill University and Concordia University, Montreal. Number Theory Seminars (2 lectures).
99. April, 1997: McGill University. Canadian Mathematical Society Special Session.
100. March, 1997: Johns Hopkins University, Baltimore, Maryland. Japan America Mathematics Institute (JAMI) Conference in Number Theory.
101. March, 1997: Smith College, Massachusetts. Five Colleges Undergraduate Colloquium.
102. March, 1997: Amherst College, Massachusetts. Five Colleges Number Theory Seminar.
103. February, 1997: Southwest Texas State University, San Marcos, Texas. Conference on Programs for Ambitious High School Mathematics Students.
104. November, 1996: Bryn Mawr College, Pennsylvania. Colloquium.
105. November, 1996: Brown University. Colloquium.
106. October, 1996: Boston University. Mathematics Field Days for New England High School Students (2 lectures).
107. October, 1996: Harvard University. Number Theory Seminar.

108. September, 1996: Platja d'Aro, Spain. International Conference on p -Adic Theories.
109. August, 1996: Ohio State University. 20 minute talk at the Arnold Ross Conference.
110. May, 1996: MSRI, Berkeley. Area III seminar.
111. April, 1996: California Institute of Technology, Pasadena. Number Theory Seminar.
112. April, 1996: University of California, Los Angeles. Number Theory Seminar.
113. April, 1996: Pennsylvania State University, State College. 2 lectures: Number Theory Seminar and Colloquium.
114. March, 1996: University of California, Berkeley. Number Theory Seminar.
115. January, 1996: University of California, Santa Cruz. Number Theory Seminar.
116. January, 1996: Orlando, Florida. Special Session of the national meeting.
117. December, 1995: University of Washington, Seattle. Number Theory Seminar.
118. November, 1995: Stanford University, Palo Alto. Colloquium.
119. October, 1995: University of California and MSRI, Berkeley. Colloquium.
120. October, 1995: MSRI, Berkeley. Area III seminar.
121. August, 1995: Boston University. Conference on Fermat's Last Theorem.
122. June, 1995: Hebrew University, Jerusalem, Israel. Special Session of the joint AMS/IMU meeting.
123. May, 1995: Hebrew University, Jerusalem, Israel. Visiting Professor, 3 lectures.
124. March, 1995: Mathematical Sciences Research Institute, Berkeley, CA. Workshop on New Vistas in Automorphic Forms.
125. January, 1995: University of California at Berkeley. Number Theory Seminar.
126. January, 1995: Educational Development Corporation, Newton, Massachusetts. Special Seminar.
127. November, 1994: Brown University. Number Theory Seminar.
128. November, 1994: Harvard University. Number Theory Seminar.
129. November, 1994: University of Illinois at Chicago. Midwest Number Theory Conference.
130. October, 1994: Oklahoma State University, Stillwater. A.M.S. Regional Meeting.
131. October, 1994: Boston University. Mathematics Field Days for New England High School Students (2 lectures).
132. February, 1994: Educational Development Corporation, Newton, Massachusetts. *Connected Geometry* Seminar.
133. February, 1994: Amherst College, Amherst, Massachusetts. Five Colleges Number Theory Seminar.
134. November, 1993: Boston University, Undergraduate Mathematics Association. Special lecture on *Fermat's Last Theorem*.
135. June, 1993: Brown University. Number Theory Seminar.
136. April, 1993: St. Paul's School, Concord, NH. Lecture at the New Hampshire Regional Meeting of the MAA.

137. March, 1993: Arizona State University, Tempe. Conference on Iwasawa Theory.
138. February, 1993: McGill University, Montreal, Canada. Algebra Colloquium.
139. January, 1993: San Antonio, Texas. AMS Special Session: *Changing the Culture*.
140. November, 1992: Boston University. Mathematics Field Day for New England High School Students.
141. November, 1992: Amherst College, Amherst, Massachusetts. Five Colleges Number Theory Seminar.
142. October, 1992: French River School District Conference, Fall River, Massachusetts. Exploring Mathematics with High School Students.
143. October, 1992: Harvard University, Cambridge. Number Theory Seminar.
144. April, 1992: University of Arizona, Tucson. 3 lectures: Mathematics Department Colloquium, Number Theory Seminar, and Mathematics Education Colloquium about the PROMYS Program.
145. March, 1992: Columbia University, New York. Mathematics Colloquium.
146. November, 1991: St. Paul's School, Concord, NH. Mathematics Society.
147. November, 1991: Ohio State University, Columbus, OH. Algebra Seminar.
148. October, 1991: Harvard University, Cambridge. Number Theory Seminar.
149. October, 1991: Temple University, Philadelphia. AMS Special Session on Modular Forms and Arithmetic Geometry.
150. October, 1991: University of Pennsylvania, Philadelphia. Algebra Seminar.
151. January, 1991: University of California, Berkeley. Number Theory Seminar.
152. January, 1991: San Francisco, California. AMS Special Session on Arithmetic Geometry.
153. November, 1990: Brown University, Providence, Rhode Island. Number Theory Seminar.
154. June, 1990: Max Planck Institut, Bonn, West Germany. Special Seminar.
155. June, 1990: Die Katholische Universität, Eichstätt, West Germany. Sonderforschungsbereich Seminar in Cohomology of Arithmetic Groups.
156. May, 1990: University of Bielefeld, Bielefeld, West Germany. Number Theory Seminar.
157. May, 1990: University of Köln, Köln, West Germany. Oberseminar.
158. March, 1990: Rutgers University, New Brunswick, New Jersey. Colloquium.
159. December, 1989: Amherst College, Amherst, Massachusetts. Five Colleges Number Theory Seminar.
160. May, 1989: Centre International de Rencontres Mathématiques. Marseilles/Luminy, France. Conference on *Cohomology of Arithmetic Groups*.
161. April, 1989: College of the Holy Cross, Worcester, Massachusetts. American Mathematical Society Conference, Co-organizer (with K. Rubin) of Special Session on *L-functions and arithmetic*.
162. March, 1989: Princeton University, Princeton, New Jersey. Algebra Colloquium.
163. February, 1989: Brown University, Providence, Rhode Island. Colloquium.
164. January, 1989: University of Arizona, Tucson. Conference on *Arithmetic of Algebraic Curves*.
165. November, 1988: Boston College, Boston, Massachusetts. Colloquium.

166. August, 1988: Brown University, Providence, Rhode Island. Number Theory Seminar.
167. July, 1988: Georg August Universität, Göttingen, West Germany. Sonderforschungsbereich Seminar.
168. May, 1988: The Institute for Advanced Studies, Jerusalem, Israel. Special year in Representation Theory.
169. March, 1988: University of California at Santa Barbara (6 lectures). Symposium in honor of the 20th anniversary of the College of Creative Studies. Colloquium for the mathematics faculty, plus 4 workshops for students.
170. February, 1988: University of California, San Diego. Colloquium.
171. February, 1988: University of Arizona, Tucson. Colloquium.
172. January, 1988: McGill University, Montreal, Canada. Number Theory Seminar.
173. January, 1988: University of Oklahoma, Norman, Oklahoma. Colloquium.
174. December, 1987: University of Massachusetts, Amherst. Colloquium.
175. December, 1987: Brown University, Providence, Rhode Island. Colloquium.
176. December, 1987: Rutgers University, New Brunswick, New Jersey. Special Seminar.
177. November, 1987: Rutgers University, Newark, New Jersey. Colloquium.
178. November, 1987: Brown University, Providence, Rhode Island. Number Theory Seminar.
179. August, 1987: Middlebury College, Middlebury, Vermont. 4 lectures on modern methods in the theory of modular forms.
180. August, 1987: University of Vermont, Burlington, Vermont. Number Theory Seminar.
181. August, 1987: Ohio State University, Columbus, Ohio. Number Theory Seminar.
182. July, 1987: International Conference on Number Theory. Université Laval, Quebec, Canada.
183. April, 1987: Clark University, Worcester, Massachusetts. Colloquium.
184. April, 1987: University of Massachusetts, Amherst. Number Theory Colloquium.
185. April, 1987: Yale University, New Haven, Connecticut. Lie Groups Seminar.
186. January, 1987: Mathematical Sciences Research Institute, Berkeley. 75 minute lecture.
187. July, 1986: Harvard University, Cambridge, Massachusetts. Number Theory Seminar.
188. May, 1986: Conference on Number Theory. Ohio State University–Denison University, Denison, Ohio.
189. February, 1986: Columbia University, New York. Representation Theory Seminar.
190. April, 1985: University of Pennsylvania, Philadelphia. Algebra Seminar.
191. March, 1985: Rutgers University, New Brunswick, New Jersey. Number Theory Seminar.
192. November, 1984: Massachusetts Institute of Technology. Number Theory Seminar.
193. May, 1984: Conference on Number Theory. Ohio State University–Denison University, Denison, Ohio.
194. February, 1984: University of Michigan, Ann Arbor. Colloquium.
195. February, 1984: Boston University, Boston, Massachusetts. Colloquium.
196. February, 1984: University of Georgia, Athens. Colloquium.

197. February, 1984: University of Texas, Austin. Colloquium.
198. December, 1983: Ohio State University, Columbus, Ohio. Number Theory Seminar.
199. October, 1983: University of Maryland. Number Theory Seminar.
200. July, 1983: Harvard University. Number Theory Seminar.
201. May, 1983: Institute for Advanced Study, Princeton, New Jersey. Number Theory Seminar.
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