
CURRICULUM VITAE 2018

Lillian B. Pierce

CONTACT INFORMATION

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PROFESSIONAL APPOINTMENTS

Duke University, Nicholas J. and Theresa M. Leonardy Associate Professor 2018 – present

Duke University, Associate Professor 2017 – 2018

Institute for Advanced Study, von Neumann Fellow 2017–2018

Duke University, Assistant Professor 2014 – 2017

Hausdorff Center for Mathematics, Bonn Junior Fellow 2013 – 2015 (on leave 2014 – 2015)

Duke University, Research Scholar 2013 – 2014

University of Oxford 2010 – 2013

NSF Mathematical Sciences Postdoctoral Research Fellow, Jan 2013 – Jun 2013

Marie Curie Incoming International Fellow, Aug 2010 – Jan 2013

Wolfson College, University of Oxford, Research Fellow Jul 2010 – Jun 2013

Institute for Advanced Study, Princeton, Member Jul 2009 – Jul 2010

NSF Mathematical Sciences Postdoctoral Research Fellow, Simonyi Fund

EDUCATION

Princeton University Ph.D. in Mathematics 2009

University of Oxford M.Sc. by Research in Mathematics 2004

Princeton University B.A. in Mathematics *summa cum laude*, valedictorian 2002

RESEARCH INTERESTS

Number theory and harmonic analysis

PUBLICATIONS

20. An effective Chebotarev density theorem for families of number fields, with an application to ℓ -torsion in class groups
with C. Turnage-Butterbaugh and M. M. Wood (arXiv:1709.09637).
19. The Vinogradov Mean Value Theorem (after Wooley, and Bourgain, Demeter and Guth),
Bourbaki Seminar, *Astérisque*, to appear (2017).
18. Endpoint Sobolev and BV continuity for maximal operators
with E. Carneiro, J. Madrid, *J. Functional Analysis*, **273** (2017) 3262–3294.
17. Polynomial Carleson operators along monomial curves in the plane
with S. Guo, J. Roos, and P.-L. Yung, *J. Geometric Analysis*, (2017)
<https://doi.org/10.1007/s12220-017-9790-7> (1–36).
16. On ℓ -torsion in class groups of number fields
with J. Ellenberg and M. Matchett Wood, *Algebra and Number Theory*, **11** (8) Jan (2017) 1739–1778.
15. A polynomial Carleson operator along the paraboloid
with P.-L. Yung, *Revista Mat. Ibero.*, to appear.
14. Averages and moments associated to class numbers of imaginary quadratic fields
with D.R. Heath-Brown, *Compositio Math.*, **153** (2017) 2287–2309.

13. Simultaneous integer values of pairs of quadratic forms
with D.R. Heath-Brown, *J. Reine Angew. Math. (Crelle)*, **727** (2017) 85–143.
12. Burgess bounds for multi-dimensional short mixed character sums
Journal of Number Theory, **163** (2016) 172–210.
11. Lower bounds for the truncated Hilbert transform
with R. Alaifari and S. Steinerberger, *Revista Matemática Iberoamericana.*, **32** no. 1 (2016) 23–56.
10. Representations of integers by systems of three quadratic forms
with D. Schindler and M. Matchett Wood, *Proc. London Math. Soc.* (3) **113** (2016) 289–344.
9. Burgess bounds for short mixed character sums
with D.R. Heath-Brown, *J. London Math. Soc.*, **91** no. 3 (2015) 693–708.
8. Counting rational points on smooth cyclic covers
with D.R. Heath-Brown, *Journal of Number Theory*, **132** (2012) 1741–1757.
7. Discrete fractional Radon transforms and quadratic forms
Duke Math. Journal **161** no. 1 (2012) 69–106. Correction, **162** (2013) 1203–1204.
6. On a discrete version of Tanaka’s theorem for maximal functions
with J. Bober, E. Carneiro, K. Hughes, *Proceedings of the Amer. Math. Soc.* **140** (2012) 1669–1680.
5. A note on discrete fractional integral operators on the Heisenberg group
Internat. Math. Res. Not. **2012** no. 1 (2012) 17–33.
4. On discrete fractional integral operators and mean values of Weyl sums
Bull. London Math. Soc. **43** (2011) 597–612.
3. A note on discrete twisted singular Radon transforms
Mathematical Research Letters **17** no. 4 (2010) 701–720.
2. A Bound for the 3-part of class numbers of quadratic fields by means of the square sieve
Forum Math. **18** (2006) 677–698.
1. The 3-part of class numbers of quadratic fields
J. London Math. Soc. (2) **71** (2005) 579–598.

RESEARCH FUNDING

2018 – 2020 Sloan Research Fellow

2017 – 2022 NSF DMS-1652173 CAREER Grant

2018 – 2021 AIM SQuaRE grant, research in harmonic analysis

2014 – 2017 NSF DMS-1402121 equally funded by Algebra & Number Theory and Analysis panels

2010 – 2013 Marie Curie Incoming International Fellowship, European Commission

2012 – 2013 EPSRC Developing Leaders Award held by Oxford (for returning carers)

2009 – 2013 NSF Mathematical Sciences Postdoctoral Research Fellowship

2008 – 2009 Fund for Innovation in Undergraduate Education, Princeton 250th Anniversary Fund

2004 – 2008 Centennial Fellowship, Princeton University Graduate School

2007 – 2008 Princeton University Assistant in Research

2004 – 2007 NSF Graduate Research Fellowship

VISITING POSITIONS

2017 - 2018 von Neumann Fellow, IAS

2017 - 2021 Bonn Research Fellow, Hausdorff Center for Mathematics, Bonn

2017 (May) MSRI, Research Member, Analytic Number Theory and Harmonic Analysis Programs

2016 (August) Max Planck Institute, Bonn

FELLOWSHIPS AND AWARDS

- 2018 Sloan Research Fellow
2018 Bass Society of Fellows (Bass Chair), Duke University
2018 Langford Lecture (honorific), Duke University
2018 AWM-Sadosky Research Prize in Analysis
2017 – 2021 Bonn Research Fellowship, Hausdorff Center for Mathematics
2017 – 2018 von Neumann Fellowship, IAS
2010 – 2013 Marie Curie Incoming International Fellowship
2009 – 2013 NSF Mathematical Sciences Postdoctoral Research Fellowship
2009 – 2010 Support at the IAS from the Simonyi Fund
2004 – 2008 Centennial Fellowship, Princeton University
2004 – 2007 NSF Graduate Research Fellowship
2002 Rhodes Scholar
2002 Recipient of Marshall Scholarship (declined)
2002 Valedictorian, Princeton University (highest academic achievement)
2002 M. Taylor Pyne Honor Prize co-winner, Princeton University (highest undergraduate distinction)
2002 Miller Prize, Princeton University (excellence in mathematical research)
2001 Class of 1939 Princeton Scholar Award co-winner, Princeton University (best 3rd year student)
2001 Barry M. Goldwater Scholar (national academic merit fellowship for outstanding research)
2001 USA Today All-USA College Academic First Team (top 20 college students in the USA)
2001 One of Glamour Magazine's Top Ten College Women
1999 & 2000 President's Award for Academic Achievement, Princeton University
1999 Freshman First Honor Prize, Princeton University (best 1st year student)

PLENARY TALKS

131. Mar 2019 (upcoming) Wake Forest University AWM Spring Conference
130. Mar 2019 (upcoming) goMATH plenary lecture, ETH
129. Jan 2019 (upcoming) AMS Invited Address, Joint Math Meetings 2019, Baltimore
128. Jun 2017 Nicolas Bourbaki seminar, Paris
127. Jan 2017 MAA Invited Address at the Joint Math Meetings 2017, Atlanta
126. Jun 2016 Canadian Number Theory Association XIV, University of Calgary
125. Oct 2015 Southeastern Conference for Undergraduate Women in Mathematics, Duke University
124. Sep 2015 Heilbronn Institute for Mathematical Research, Annual Conference
123. Mar 2015 Southeast Analysis Meeting, UGA
122. Dec 2014 Palmetto Number Theory Series (PANTS XXIII) USC Columbia

COLLOQUIA

121. December 2018 (upcoming) UT Austin Colloquium
120. October 2018 ETH Zürich, Special Lecture
119. May 2018 University of Maryland Colloquium
118. April 2018 Bryn Mawr Colloquium
117. Dec 2017 Rutgers Colloquium
116. May 2017 UCLA Distinguished Women in Math Colloquium
115. Mar 2017 IU Colloquium
114. Mar 2017 UW Madison Colloquium
113. Jan 2017 Brown University Colloquium
112. Dec 2016 Stony Brook University Colloquium
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111. Oct 2015 UC Boulder Kempner Colloquium
110. May 2015 UT Austin Colloquium, Distinguished Women in Math series
109. Jan 2014 Berlin Mathematical School Kovalevskaya Colloquium
108. Jan 2014 University of Göttingen Colloquium
107. Jan 2013 Caltech Colloquium
106. Jan 2013 UIUC Colloquium
105. Jan 2013 UW Madison Colloquium
104. Dec 2012 UC Berkeley Colloquium
103. Nov 2012 Indiana University at Bloomington Colloquium
102. Apr 2010 Dartmouth Colloquium
101. Jan 2010 UCSB Colloquium

INVITED CONFERENCES AND PRESENTATIONS

100. Jul 2019 (upcoming) Analytic Number Theory, Cetraro, Italy
 99. May 2018 (upcoming) CBMS conference, U. Miss
 98. May 2018 (upcoming) Madison Lectures in Fourier Analysis
 97. May 2017 MSRI Recent Developments in Analytic Number Theory
 96. Nov 2016 Oberwolfach, Analytic Number Theory
 95. Jun 2015 Quantitative Arithmetic Geometry, Institut Mittag-Leffler
 94. Apr 2015 AWM Research Symposium, Special Section in Number Theory, U Maryland
 93. Dec 2014 CRM Montreal: New Approaches in Probabilistic and Multiplicative Number Theory
 92. Oct 2014 Clay Math Institute Workshop at Oxford: Analytic Number Theory
 91. Jul 2014 Oberwolfach: Real Analysis, Harmonic Analysis, and Applications
 90. Jun 2014 Bateman Number Theory Conference, Illinois
 89. May 2014 Humboldt University Berlin: Moduli and Automorphic Forms
 88. Mar 2014 Lausanne/Zürich Number Theory Days, ETH
 87. Nov 2013 Max Planck Institute Bonn/B-IT Workshop on Number Theory and Cryptography
 86. Oct 2013 Oberwolfach Workshop on Analytic Number Theory
 85. Jun 2013 FOUVRY60 Analytic Number Theory, Luminy, France
 84. Apr 2013 Denmark Mathematical Society 140th Anniversary
 83. Jan 2013 Number Theory Seminar, AWM Workshop, Joint Mathematics Meetings, San Diego
 82. Jun 2012 Analytic Methods for Diophantine Problems, Mathematisches Institut, Göttingen
 81. Jun 2011 Workshop on Oscillatory Integrals, Edinburgh
 80. Feb 2011 Harmonic Analysis Workshop, Edinburgh
 79. Nov 2010 Exponential Sums over Finite Fields and Applications, ETH Zürich
 78. Oct 2008 American Mathematical Society Sectional Conference, Vancouver BC
 77. Feb 2008 New Trends in Harmonic Analysis Conference, Fields Institute, Toronto, Canada
 76. Apr 2007 American Mathematical Society Sectional Conference, New Jersey
 75. Jun 2005 Gauss-Dirichlet Conference, Mathematisches Institut, Göttingen (contributed talk)
 74. May 2002 Program for Women in Mathematics, Institute for Advanced Study, Princeton
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INVITED RESEARCH SEMINARS

73. May 2018 Princeton Number Theory Seminar
 72. Apr 2018 Princeton Analysis Seminar
 71. Mar 2018 IAS Analysis Seminar
 70. Jan 2018 IAS Members Seminar
 69. Mar 2017 U Michigan Number Theory Seminar
 68. Feb 2017 BC-MIT Number Theory Seminar
 67. Jan 2017 Emory Number Theory Seminar
 66. Jan 2017 UGA Discrete Analysis Seminar
 65. Dec 2016 Rutgers Seminar
 64. Dec 2016 Montreal Number Theory Seminar
 63. Dec 2016 Stanford Number Theory Seminar
 62. Oct 2016 UIC Number Theory Seminar
 61. Jul 2016 Max Planck Institute Number Theory Seminar, Bonn
 60. May 2016 IAS/Princeton Number Theory Seminar
 59. Jan 2016 Caltech/UCLA Analysis Seminar
 58. Jan 2016 Caltech Number Theory Seminar
 57. Oct 2015 UC Boulder Number Theory Seminar
 56. May 2015 Princeton University Analysis Seminar
 55. May 2015 UT Austin Analysis Seminar
 54. Feb 2015 UNC Chapel Hill Analysis Seminar
 53. Jan 2015 UW Madison Number Theory Seminar
 52. Feb 2014 Duke University Number Theory Seminar
 51. Dec 2013 Max Planck Institute, Bonn, Number Theory Seminar
 50. Dec 2013 University of Cologne Number Theory Seminar
 49. May 2013 Cambridge Discrete Analysis Seminar
 48. Jan 2013 UMinn Special Lecture
 47. Jan 2013 MIT Analysis Seminar
 46. Jan 2013 MIT Number Theory Seminar
 45. Jan 2013 McGill Special Lecture
 44. Dec 2012 Hausdorff Center for Mathematics, Bonn, Seminar
 43. Dec 2012 Rutgers University Seminar
 42. Dec 2012 UC Berkeley Number Theory Seminar
 41. Dec 2012 Washington University in St. Louis Seminar
 40. Nov 2012 UCSD Analysis Seminar
 39. Nov 2012 UCSD Number Theory Seminar
 38. Nov 2012 Georgia Tech Analysis Seminar
 37. Nov 2012 Warwick University Number Theory Seminar
 36. Oct 2012 Duke University Special Seminar
 35. Oct 2012 Reading University Analysis Seminar
 34. Jun 2012 University of Cologne Number Theory Seminar
 33. Jun 2011 Oxford OxpDE Analysis Seminar
 32. Apr 2011 UCLA Analysis Seminar
 31. Apr 2011 UCSD Analysis Seminar
 30. Apr 2011 Caltech Number Theory Seminar
 29. Mar 2011 University of Birmingham (England) Analysis Seminar
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28. Jan 2011 University of Bristol Analysis Seminar
27. Dec 2010 University of Bristol Heilbronn Number Theory Seminar
26. Dec 2010 University of Cardiff Analysis Seminar
25. Nov 2010 UCL Pure Mathematics Seminar
24. Apr 2010 Dartmouth Number Theory Seminar
23. Apr 2010 MIT Number Theory Seminar
22. Mar 2010 IAS Members Seminar, Institute for Advanced Study
21. Oct 2009 IAS Short Talks by New Members, Institute for Advanced Study
20. Nov 2008 Brown University Analysis Seminar
19. Jun 2008 Oxford University Number Theory Seminar
18. May 2008 University of Wisconsin at Madison, Analysis Seminar
17. Apr 2008 Stony Brook University Analysis Seminar
16. Jan 2007 University of Bordeaux Number Theory Seminar
15. Apr 2006 Brown University Number Theory Seminar
14. Mar 2006 Ohio State University Number Theory Seminar
13. Jun 2005 Columbia University Number Theory Seminar
12. Apr 2005 UCLA Number Theory Seminar
11. Mar 2005 Caltech Number Theory Seminar
10. Mar 2005 University of Indiana at Bloomington Algebra Seminar
9. Mar 2005 University of Wisconsin at Madison Algebra and Number Theory Seminar
8. Feb 2005 Princeton University Seminar Course in Analysis
7. Dec 2004 Courant Institute Number Theory Seminar
6. Nov 2004 Royal Holloway College Pure Mathematics Seminar
5. Nov 2004 University of Michigan Number Theory Seminar
4. Jun 2004 Oxford University Number Theory Seminar

MINICOURSES

3. Jan 2019 (upcoming) Trace Functions and their Applications, ETH Zürich in Monte Verità
2. Jul 2011 Discrete Operators, Princeton Summer RTG Program in Analysis and Geometry (1 week)
1. Jun 2010 Binary Quadratic Forms, Princeton SWIM Summer Workshop in Mathematics (1 week)

EXPOSITORY TALKS

9. May 2019 (upcoming) National Math Festival featured speaker, Washington DC
8. Feb 2018 Mathematical Conversations, IAS
7. Feb 2016 Keynote speaker at FEMMES, Duke (240 girls in STEM, grades 4-6)
6. Aug 2015 guest speaker at Wake Forest University REU
5. Oct 2014 Grad/Faculty Seminar, Duke University
4. Jun 2013 Junior Number Theory Seminar, Oxford University
3. Mar 2013 Junior Number Theory Seminar, Oxford University
2. Oct 2012 Junior Number Theory Seminar, Oxford University
1. Jan 2011 Junior Number Theory Seminar, Oxford University

PARTICIPATORY INVITED WORKSHOPS

- May 2015 AIM Workshop: Carleson Theorems and Multilinear Operators (co-organizer)
- Nov 2014 AIM Workshop: Bounded Gaps between Primes
- Apr 2014 WIN3 Workshop on Number Theory, Banff (project co-leader)
- Oct 2006 AIM Workshop: Subconvexity bounds for L -functions
- Nov 2005 AIM Workshop: Gaps between primes
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POSTDOCTORAL RESEARCH ADVISING

2018 – 2021 Duke University: Postdoctoral mentor to Dr. J. Wang, Foerster-Bernstein Fellow

2015 – 2018 Duke University: Postdoctoral mentor to Dr. C. Turnage-Butterbaugh
(subsequent post: tenure-track faculty at Carleton College)

2013 – 2015 University of Bonn: Postdoctoral mentor to Dr. D. Schindler
(subsequent posts: Member at IAS, tenure-track faculty at the University of Utrecht)

GRADUATE RESEARCH ADVISING

2017– present: Chen An (grad student, Duke University)

UNDERGRADUATE RESEARCH ADVISING

2015 Duke University Summer Undergraduate Research: Runliang (Oscar) Li

PhD THESIS COMMITTEES

2018 Thesis committee, K. McKeon, student of A. Kontorovich, Rutgers University

2016 Thesis committee, D. Milovic, student of E. Fouvry and P. Stevenhagen, Orsay and Leiden

2014 Thesis committee, R. Alaifari, student of I. Daubechies and M. Defrise, Vrije Universiteit Brussel

PhD ORAL EXAM COMMITTEES

2016 Zhe Wang Oral Preliminary Exam, Duke University (Real Analysis)

2016 Kevin Stubbs Oral Preliminary Exam, Duke University (Real Analysis)

2016 Huong Tran Oral Preliminary Exam, Duke University (Real Analysis)

CONFERENCE FUNDING

2016 & 2017 NSA Conference Grants (c. 27,000 USD, PI)

2015 AIM Workshop funding (“Carleson Theorems and Multilinear Operators”)

2014 NSF Conference Grant DMS-1400237 (27,204 USD, Senior Personnel)

2014 Clay Mathematics Institute Conference Grant (20,120 USD, PI)

2014 Hausdorff Center for Mathematics Conference Grant (50,000 EUR, PI)

Additional funding from Number Theory Foundation, Microsoft Research, and Duke University

ORGANIZATION: CONFERENCES

Jan 2019 (upcoming) Co-organizer of special session “Counting methods in number theory,” JMM 2019

Jun 2017 Co-organizer of re:boot Number Theory 2017, Duke University

National number theory research retreat for female faculty, funded by NSA-MSP, NSF,
Number Theory Foundation, Duke University

Feb 2017 Co-organizer of Connections for Women (Analytic Number Theory), MSRI

Mar 2016 Co-organizer of re:boot Number Theory 2016, Duke University

National number theory research retreat for female faculty, funded by NSF,
Number Theory Foundation, NSA-MSP, Microsoft Research, Duke University

May 2015 Co-organizer of AIM Workshop: Carleson Theorems and Multilinear Operators

Jul 2014 Co-organizer of ELEFANT workshop, Hausdorff Center for Mathematics, Bonn

Weeklong workshop with 23 speakers on cutting edge number theory research.

Funded by HCM and DFG, with additional funding from Number Theory Foundation

Jul 2014 Co-organizer of ENFANT workshop, Hausdorff Center for Mathematics, Bonn

Two day workshop with short talks by 42 early-career researchers.

Oct 2012 Founder and organizer of Oxford Number Theory Day (research retreat), Oxford University

ORGANIZATION: SEMINARS AND SUMMER SCHOOLS

Jun 2018 Bonn Hausdorff Summer School on L -functions

Jun 2018 AMS-MRC summer school in analysis,

Harmonic Analysis: New Developments in Oscillatory Integrals

Jun 2014 Co-organizer of 6th EWM/EMS Summer School on Apollonian Circle Packings

Hosted by the Institut-Mittag-Leffler in Stockholm in partnership with the Clay Mathematics

Institute, with additional funding from the EWM, EMS, NSF, CMI, and NTF

May 2014 Co-organizer of Analysis Summer School at University of Bonn

A Thiele summer school on Carleson Theorems and Radon-type behavior

2009 – 2010 Co-organizer of Postdoc Learning Group, Institute for Advanced Study

Founder and co-organizer of seminar series focusing on expository presentations of classical methods.

2008 & 2009 Scientific Coordinator for Princeton Summer Program in Analysis and Geometry

2008 Advising Committee for SWIM Summer Workshop in Mathematics, Princeton

ORGANIZATION: COMMITTEES

2018 – present, Diversity Committee, Institute for Advanced Study

2014 – present, Program Committee, Women and Math, Institute for Advanced Study

2016 – 2019 Committee on Women in Mathematics at the national level, American Mathematical Society

Oct 2016 National Summit Meeting on Women in Mathematics, Northwestern University

2011 – 2013, Good Practices Steering Group, Mathematical Institute, Oxford

Overhauling department structure to qualify for national good practices award (Athena SWAN).

2008 – 2009 Advisory Committee, McGraw Center for Teaching and Learning, Princeton

Member of steering committee for the support and guidance of the Princeton pedagogical center.

TEACHING RECOGNITION

2018 Bass Society of Fellows, Duke University (excellence in research and undergraduate teaching)

2009 Princeton University Award (APGA) for Teaching by a Graduate Student

TEACHING

2017 spring Duke University: Math 636: Analytic Number Theory (newly developed course)

2016 fall Duke University: Math 165FS Cryptography and Society (newly developed course)

2016 spring Duke University: Math 304 Introduction to Cryptography (newly developed course)

2016 spring Duke University (co-instructor, newly developed course):

Baldwin Scholars Seminar: Sociology 180S, Self, Society, and the Natural World

2015 fall Duke University: Math 631 Real Analysis

2015 spring Duke University: Math 221 Linear Algebra and Applications

2014 fall Duke University: Math 221 Linear Algebra and Applications

2013 fall University of Bonn: Graduate Course in Harmonic Analysis

2010 fall University of Oxford: Class Leader, Analytic Number Theory

2008 fall Princeton University: Lecturer and course designer, MAT 218 (Intro. Real Analysis)

awarded Princeton 250th Anniversary Fund for Innovation in Undergraduate Education

Course designer and co-instructor for newly developed required core real analysis course.

2008 – 2009 Princeton University: Teaching Transcript Program Certificate

2006 Princeton University: Graduate Instructor, Princeton RTG Program in Analysis and Geometry

Graduate Instructor for advanced course on Fourier analysis, with E. M. Stein.

2005 – 2007 Princeton University: Teaching Assistant, MAT 330 series of advanced analysis courses

Although not required to teach due to fellowship funding, volunteered to teach

popular weekly problem sessions for advanced courses:

MAT 330 Fourier Analysis (Spring 2005, Spring 2007);

MAT 331 Complex Analysis (Fall 2005, Fall 2006, Fall 2007).

2003 University of Oxford College Tutor (Oxbridge tutorial system) for Lady Margaret Hall College

2003 University of Oxford: Teaching Assistant in Number Theory

SERVICE TO DUKE UNIVERSITY

2014 – 2017 Faculty in Residence (living full-time in dorm with 180 freshmen) Duke University

2014 – 2017 Academic Advisor to pre-major students, Duke University

2016 – 2017 Faculty Advisory Committee, Duke Performance

2015 – 2017 Faculty committee for “Women in the Quantitative Sciences” initiative program, Duke

2014 – 2017 Steering committee for colloquium series “Natural Sciences in the 21st Century,” Duke

Feb 2017 – Faculty speaker at ASCEND leadership program dinner

2016 Faculty instructor for a Duke FOCUS program (“What if?” Fall 2016) for freshmen

Nov 2016 pre-interview of Rhodes candidate

Sep 2016 Faculty host for Chautauqua lecture by Anita Layton, Blackwell Hall

2016 Faculty organizer for “The Liberated Mathematician,” dinner discussion with Piper Harron

2016 Instructor for Baldwin Scholars seminar (9 lectures, Spring 2016)

Oct 2015 Invited speaker at Duke Colloquium dinner discussion, Blackwell Hall

Oct 2015 Faculty host for Chautauqua lecture by Anita Layton, Blackwell Hall

Jan 2015 Invited panel member, “Inhabiting the Frontier,” Duke University Alice M. Baldwin Scholars

Mar 2015 Host of Professor Chat with incoming AB Duke candidates

Mar 2015 Invited speaker at Duke Colloquium dinner discussion, Blackwell Hall

Oct 2014 Faculty host for Chautauqua lecture by Anita Layton, Blackwell Hall

SERVICE TO DUKE MATH

2017 – present, Faculty committee for Duke Mathematical Sciences Sabbatical Fellows

2016 – 2017 Elliott Assistant Research Professor hiring committee

2015 Faculty committee for SWIM Summer Workshop in Mathematics, Duke

2015 – 2016 Quantitative Initiative hiring committee

2014 – 2015 Elliott Assistant Research Professor hiring committee

SERVICE: GRANT AND FELLOWSHIP PANELS

Rhodes Scholarship Selection Committee, District VIII USA (2006, 2007, 2008, 2014)

National Science Foundation

National Security Agency Mathematical Sciences Program

ETH Zürich fellowship review

BIRS Conference Proposals

EPSRC

NSERC

SERVICE: REFEREEING

Referee book manuscripts for publishers:

Cambridge University Press

Princeton University Press

Birkhäuser/Springer

Referee for journals including:

American Journal of Mathematics

Bulletin of the London Mathematical Society

Compositio Mathematica
Duke Mathematical Journal
Functiones et Approximatio
IMRN
Journal of Mathematical Analysis and Applications
Journal of Number Theory
J. Reine Angew. Math. (Crelle)
Math. Annalen
Math. Proc. Cam. Phil. Soc.
Mathematical Research Letters
Mathematika
Michigan Mathematical Journal
Oxford Quarterly Journal of Mathematics
Proceedings of the AMS
Proceedings of the London Mathematical Society
Reviewer: MathSciNet and Zentralblatt (2011–2014)

SERVICE: MENTORING

2015 – 2017 Founder, WIMsical Women in Math, initiative program, Duke University
2013 Mathematrix, Founder and Organizer, University of Oxford
Lunchtime discussion group on social psychology and the math community
2006 – 2009 Mentoring Möbius, Founder and Organizer, Princeton University
Mentoring network pairing female math undergraduates with student mentors.
2007 – 2009 The Many Faces of Science at Princeton, Founder and Organizer
Panel series with stellar faculty role models aiming to inspire female and minority students.
2006 – 2009 Noetherian Ring, Princeton University, Co-organizer of networking group
Enhancing the community of female mathematicians with mathematical, mentoring, and social events.
2005 – 2009 Graduate Fellow, Rockefeller College, Princeton University
Organizer and participant in discussion dinners engaging undergraduates of all disciplines.
2006 – 2009 Major Choices Dinners, Princeton University, Organizer
Host of a series of dinners encouraging discussion of mathematics and the math major at Princeton.
2001 – 2002 Noetherian Ring, Princeton University, undergraduate math mentor
2000 – 2001 Peer Instructor for Princeton University in math, general and organic chemistry

OUTREACH: SPEAKING

Oct 2016 GROW at Northwestern: Panel discussion on mathematical research
2016 Numbers Clubs for local children (Pentagons and Heptagons)
Jun 2016 Lunch discussion with high school girls at SWIM program, Duke
May 2016 “Mentoring in mathematics,” Women and Math Program at the IAS
Mar 2016 “Codes and Secrets!” at Watts Montessori Public School, Durham (grades 1–3)
Jan 2016 “One grain of rice: exponential growth” at Watts Montessori Public School, Durham
May 2015 “The math culture and social psychology,” Women and Math Program at the IAS
Nov 2012 Welcome event for female graduate students, University of Oxford
Apr 2012 Invited speaker, Rhodes Scholars Women’s Group, University of Oxford
May 2011 Conference in Honor of Eli Stein’s 80th Birthday, Princeton, (panel discussion co-moderator)
May 2010 Program for Women in Mathematics, Institute for Advanced Study (panel discussion)
May 2008 Guest speaker, Princeton High School, Princeton, New Jersey
2002 Guest lecturer, Robert Moses Algebra Project for inner-city youth, Cambridge Massachusetts.

OUTREACH: WRITING

2017 *Notices of the AMS* Graduate Student Section, Lillian Pierce Interview, **64** (10) (2017) 1170–1172.

2013 – 2014, Author/editor of six interview profiles on mathematics and motherhood

Newsletter of the Association for Women in Mathematics

2013 Mathematics+Motherhood, *Fine Letters*, Princeton University Math Department newsletter

May 2012 “Princeton Lectures in Analysis, by Elias M. Stein and Rami Shakarchi — A Book Review”

Reviewed by Charles Fefferman and Robert Fefferman, *Notices of the AMS*, May 2012

with contributions from Paul Hagelstein, Nataša Pavlović, and Lillian Pierce

2012 “Mentoring, collaborating, and writing books: A discussion on the inspirational role of Eli Stein”

Fine Letters, Princeton University Math Department newsletter, Spring 2012

2010 Interview for *Girls’ Angle Bulletin* (August & October 2010 issues)

ADDITIONAL RESEARCH EXPERIENCE

2003 – 2008 Consultant, Center for Communications Research, La Jolla/Princeton

2003 SCAMP Summer Research, Center for Communications Research, La Jolla

2002 Graduate Mathematics Program, National Security Agency

2000 Director’s Summer Program, National Security Agency
