CURRICULUM VITAE 2021
Lillian B. Pierce

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PROFESSIONAL APPOINTMENTS

Duke University, Nicholas J. and Theresa M. Leonardy Professor 2020 – present
Duke University, Nicholas J. and Theresa M. Leonardy Associate Professor 2018 – 2020
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
    Research Fellow, Wolfson College, 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

32. On the strict majorant property in arbitrary dimensions
     with P. Gressman, S. Guo, J. Roos and P.-L. Yung, arXiv.2106.12538
31. Counterexamples for high-degree generalizations of the Schrodinger maximal operator
     with C. An and R. Chu, arXiv.2103.15003
30. Elias M. Stein (1931-2018), *Notices of the AMS*, vol. 68 no. 4 April 2021, 546–563. with contributions by Beckner, Dafni, Fefferman, Ionescu, Kearn, Kenig, Knapp, Krantz, Lanzani, Nagel, Phong, Ricci, Rothschild, Shakarchi, Sogge, Stein, Stein, Tao, Wainger, and Widom.
29. On superorthogonality. *Journal of Geometric Analysis*, to appear. With an appendix by Emmanuel Kowalski.
28. Burgess bounds for short character sums evaluated at forms II: the mixed case. *Rivista di Matematica della Università di Parma*, to appear.
27. Reversing a philosophy: from counting to decoupling and square functions
     with P. Gressman, S. Guo, J. Roos and P.-L. Yung, *Journal of Geometric Analysis*, to appear.
26. On a conjecture for ℓ-torsion in class groups of number fields: from the perspective of moments
     with C. Turnage-Butterbaugh and M. M. Wood, *Math. Res. Lett.* 28 no. 2 (2021) 575-621.
25. Burgess bounds for short character sums evaluated at forms
     with J. Xu, *Algebra and Number Theory* 14 no. 7 (2020) 1911–1951.
24. On Bourgain's counterexample for the Schrödinger maximal function.
     Quarterly Journal of Mathematics 71 (2020) 1309-1344.

23. On matrix rearrangement inequalities
    with R. Alaifari, X. Cheng, S. Steinerberger, *Proceedings of the AMS* **148** (5) (2020) 1835–1848.

22. Analysis and applications: The mathematical work of Elias Stein,
    by C. Fefferman, A. Ionescu, T. Tao and S. Wainger; with contributions from L. Lanzani, A. Magyar, M. Mirek, A. Nagel, D. H. Phong, L. Pierce, F. Ricci, C. Sogge, B. Street. Bull. Amer. Math. Soc., published electronically March 3, 2020.

21. 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, *Inventiones* **219** (2) (2020) 701–778.

20. "On torsion subgroups in class groups of number fields," JMM 2019 Lecture Sampler, *Notices of the AMS*, **66** no. 1, January 2019 p. 97.

19. A polynomial Carleson operator along the paraboloid.
    with P.-L. Yung, *Revista Mat. Ibero.*, **35** (2) (2019) 339–422.

18. The Vinogradov Mean Value Theorem (after Wooley, and Bourgain, Demeter and Guth).
    Séminaire Bourbaki (volume 69, 2016/2017, exposé 1134), *Astérisque*, (2019) volume 407.

17. Endpoint Sobolev and BV continuity for maximal operators
    with E. Carneiro, J. Madrid, *J. Functional Analysis*, **273** (2017) 3262–3294.

16. 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).

15. 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.

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.

EDITORIAL BOARDS

Essential Number Theory, Founding Editor-in-Chief
Journal of the AMS, Associate Editor
Transactions of the AMS
Memoirs of the AMS
Journal of Geometric Analysis
Experimental Mathematics
Annals of Math. Studies, Princeton University Press

FELLOWSHIPS AND AWARDS

2021 Fellow of the AMS
2019 PECASE award
2019 Joan and Joseph Birman Fellow, AMS
2018 Sloan Research Fellow
2018 Bass Society of Fellows, Duke University
2018 AWM-Sadosky Research Prize in Analysis
2017 – 2018 von Neumann Fellowship, IAS
2010 – 2013 Marie Curie Incoming International Fellowship
2009 – 2013 NSF Mathematical Sciences Postdoctoral Research Fellowship
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)

VISITING POSITIONS

2017 - 2023 Bonn Research Fellow, Hausdorff Center for Mathematics, Bonn
2017 - 2018 von Neumann Fellow, IAS
2017 (May) MSRI, Research Member, Analytic Number Theory and Harmonic Analysis Programs
2016 (August) Max Planck Institute, Bonn

RESEARCH FUNDING

2018 – 2020 Sloan Research Fellow
2018 – 2020 Foerster-Bernstein funding to support a postdoc
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 – 2010 Support at the IAS from the Simonyi Fund
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

DISTINGUISHED LECTURES
169. Jul 2022 Invited Lecture at ICM 2022, St. Petersburg (upcoming)
168. Jan 2019 AMS Invited Address, Joint Math Meetings 2019, Baltimore
167. Jun 2017 Nicolas Bourbaki seminar, Paris
166. Jan 2017 MAA Invited Address at the Joint Math Meetings 2017, Atlanta

PLENARY LECTURES
165. Apr 2021 McDougal Lecture, Lawrence University
164. Mar 2021 Sulski Lecture, Holy Cross
163. Feb 2021 Dressler Lecture, Kansas State
162. Jan 2021 IMA Plenary Lecture
161. Nov 2020 Number Theory Down Under
160. Apr 2019 Langford Lecture, Duke University
159. Apr 2019 Triangle Area Graduate Mathematics Conference
158. Mar 2019 Wake Forest University AWM Spring Conference
157. Mar 2019 goMATH plenary lecture, ETH
156. Jun 2016 Canadian Number Theory Association XIV, University of Calgary
155. Oct 2015 Southeastern Conference for Undergraduate Women in Mathematics, Duke University
154. Sep 2015 Heilbronn Institute for Mathematical Research, Annual Conference
153. Mar 2015 Southeast Analysis Meeting, UGA
152. Dec 2014 Palmetto Number Theory Series (PANTS XXIII) USC Columbia

COLLOQUIA
151. May 2021 U. Oregon Colloquium
150. Apr 2021 Berkeley Colloquium
149. Feb 2021 Vanderbilt Colloquium
148. Dec 2020 University of Chicago Colloquium
147. July 2020 Göttingen Colloquium
146. Jan 2020 UW Madison Colloquium
145. Feb 2019 UW Madison Colloquium
144. Feb 2019 Brown University Special Colloquium
143. Dec 2018 UT Austin Colloquium
142. Oct 2018 ETH Zürich, Special Lecture
141. May 2018 University of Maryland Colloquium
140. April 2018 Bryn Mawr Colloquium

139. Dec 2017 Rutgers Colloquium
138. May 2017 UCLA Distinguished Women in Math Colloquium
137. Mar 2017 IU Colloquium
136. Mar 2017 UW Madison Colloquium
135. Jan 2017 Brown University Colloquium
134. Dec 2016 Stony Brook University Colloquium
133. Oct 2015 UC Boulder Kempner Colloquium
132. May 2015 UT Austin Colloquium, Distinguished Women in Math series
131. Jan 2014 Berlin Mathematical School Kovalevskaya Colloquium
130. Jan 2014 University of Göttingen Colloquium
129. Jan 2013 Caltech Colloquium
128. Jan 2013 UIUC Colloquium
127. Jan 2013 UW Madison Colloquium
126. Dec 2012 UC Berkeley Colloquium
125. Nov 2012 Indiana University at Bloomington Colloquium
124. Apr 2010 Dartmouth Colloquium
123. Jan 2010 UCSB Colloquium

INVITED CONFERENCES AND PRESENTATIONS

122. Jan 2021 JMM AWM Research Symposium (WoAN)
121. Nov 2020 AIM Delta Methods
120. Oct 2020 AMS Eastern Sectional Number Theory
119. Sep 2020 Oberwolfach, Automorphic Forms and Arithmetic
118. Nov 2019 Oberwolfach, Analytic Number Theory
117. Jul 2019 Analytic Number Theory, Cetraro, Italy
116. May 2017 MSRI Recent Developments in Analytic Number Theory
115. Nov 2016 Oberwolfach, Analytic Number Theory
114. Jun 2015 Quantitative Arithmetic Geometry, Institut Mittag-Leffler
113. Apr 2015 AWM Research Symposium, Special Section in Number Theory, U Maryland
112. Dec 2014 CRM Montreal: New Approaches in Probabilistic and Multiplicative Number Theory
111. Oct 2014 Clay Math Institute Workshop at Oxford: Analytic Number Theory
110. Jul 2014 Oberwolfach: Real Analysis, Harmonic Analysis, and Applications
109. Jun 2014 Bateman Number Theory Conference, Illinois
108. May 2014 Humboldt University Berlin: Moduli and Automorphic Forms
107. Mar 2014 Lausanne/Zürich Number Theory Days, ETH
106. Nov 2013 Max Planck Institute Bonn/B-IT Workshop on Number Theory and Cryptography
105. Oct 2013 Oberwolfach Workshop on Analytic Number Theory
104. Jun 2013 FOUVRY60 Analytic Number Theory, Luminy, France
103. Apr 2013 Denmark Mathematical Society 140th Anniversary
102. Jan 2013 Number Theory Seminar, AWM Workshop, Joint Mathematics Meetings, San Diego
101. Jun 2012 Analytic Methods for Diophantine Problems, Mathematisches Institut, Göttingen
100. Jun 2011 Workshop on Oscillatory Integrals, Edinburgh
99. Feb 2011 Harmonic Analysis Workshop, Edinburgh
98. Nov 2010 Exponential Sums over Finite Fields and Applications, ETH Zürich
97. Oct 2008 American Mathematical Society Sectional Conference, Vancouver BC
96. Feb 2008 New Trends in Harmonic Analysis Conference, Fields Institute, Toronto, Canada
95. Apr 2007 American Mathematical Society Sectional Conference, New Jersey
94. Jun 2005 Gauss-Dirichlet Conference, Mathematisches Institut, Göttingen (contributed talk)
93. May 2002 Program for Women in Mathematics, Institute for Advanced Study, Princeton

INVITED RESEARCH SEMINARS

92. Jun 2021 Orsay Number Theory Seminar
91. May 2021 UCL Number Theory Seminar
90. May 2021 MIT Analysis Seminar
89. Apr 2021 Berkeley-Caltech-Stanford Number Theory Seminar
88. Apr 2021 NYU Number Theory Seminar
87. Mar 2021 UCLA Analysis Seminar
86. Feb 2021 Penn State Number Theory Seminar
85. Feb 2021 University of Rochester Analysis Seminar
84. Dec 2020 MIT Number Theory Seminar
83. Dec 2020 UK Harmonic Analysis Seminar
82. Jul 2020 Number Theory Web Seminar
81. Jun 2020 U. Virgina Number Theory REU
80. May 2020 CANTA opening celebration
79. Jan 2020 VANTAGE Number Theory Seminar
78. Dec 2019 Berkeley Number Theory Seminar
77. Apr 2019 Boston University Number Theory Seminar
76. Feb 2019 Harvard Number Theory Seminar
75. May 2018 Princeton Number Theory Seminar
74. Apr 2018 Princeton Analysis Seminar
73. Mar 2018 IAS Analysis Seminar
72. Jan 2018 IAS Members Seminar
71. Mar 2017 U Michigan Number Theory Seminar
70. Feb 2017 BC-MIT Number Theory Seminar
69. Jan 2017 Emory Number Theory Seminar
68. Jan 2017 UGA Discrete Analysis Seminar
67. Dec 2016 Rutgers Seminar
66. Dec 2016 Montreal Number Theory Seminar
65. Dec 2016 Stanford Number Theory Seminar
64. Oct 2016 UIC Number Theory Seminar
63. Jul 2016 Max Planck Institute Number Theory Seminar, Bonn
62. May 2016 IAS/Princeton Number Theory Seminar
61. Jan 2016 Caltech/UCLA Analysis Seminar
60. Jan 2016 Caltech Number Theory Seminar
59. Oct 2015 UC Boulder Number Theory Seminar
58. May 2015 Princeton University Analysis Seminar
57. May 2015 UT Austin Analysis Seminar
56. Feb 2015 UNC Chapel Hill Analysis Seminar
55. Jan 2015 UW Madison Number Theory Seminar
54. Feb 2014 Duke University Number Theory Seminar
53. Dec 2013 Max Planck Institute, Bonn, Number Theory Seminar
52. Dec 2013 University of Cologne Number Theory Seminar
51. May 2013 Cambridge Discrete Analysis Seminar
50. Jan 2013 UMinn Special Lecture
49. Jan 2013 MIT Analysis Seminar
48. Jan 2013 MIT Number Theory Seminar

47. Jan 2013 McGill Special Lecture
46. Dec 2012 Hausdorff Center for Mathematics, Bonn, Seminar
45. Dec 2012 Rutgers University Seminar
44. Dec 2012 UC Berkeley Number Theory Seminar
43. Dec 2012 Washington University in St. Louis Seminar
42. Nov 2012 UCSD Analysis Seminar
41. Nov 2012 UCSD Number Theory Seminar
40. Nov 2012 Georgia Tech Analysis Seminar
39. Nov 2012 Warwick University Number Theory Seminar
38. Oct 2012 Duke University Special Seminar
37. Oct 2012 Reading University Analysis Seminar
36. Jun 2012 University of Cologne Number Theory Seminar
35. Jun 2011 Oxford OxPDE Analysis Seminar
34. Apr 2011 UCLA Analysis Seminar
33. Apr 2011 UCSD Analysis Seminar
32. Apr 2011 Caltech Number Theory Seminar
31. Mar 2011 University of Birmingham (England) Analysis Seminar
30. Jan 2011 University of Bristol Analysis Seminar
29. Dec 2010 University of Bristol Heilbronn Number Theory Seminar
28. Dec 2010 University of Cardiff Analysis Seminar
27. Nov 2010 UCL Pure Mathematics Seminar
26. Apr 2010 Dartmouth Number Theory Seminar
25. Apr 2010 MIT Number Theory Seminar
24. Mar 2010 IAS Members Seminar, Institute for Advanced Study
23. Oct 2009 IAS Short Talks by New Members, Institute for Advanced Study
22. Nov 2008 Brown University Analysis Seminar
21. Jun 2008 Oxford University Number Theory Seminar
20. May 2008 University of Wisconsin at Madison, Analysis Seminar
19. Apr 2008 Stony Brook University Analysis Seminar
18. Jan 2007 University of Bordeaux Number Theory Seminar
17. Apr 2006 BrownUniversity Number Theory Seminar
16. Mar 2006 Ohio State University Number Theory Seminar
15. Jun 2005 Columbia University Number Theory Seminar
14. Apr 2005 UCLA Number Theory Seminar
13. Mar 2005 Caltech Number Theory Seminar
12. Mar 2005 University of Indiana at Bloomington Algebra Seminar
11. Mar 2005 University of Wisconsin at Madison Algebra and Number Theory Seminar
10. Feb 2005 Princeton University Seminar Course in Analysis
 9. Dec 2004 Courant Institute Number Theory Seminar
 8. Nov 2004 Royal Holloway College Pure Mathematics Seminar
 7. Nov 2004 University of Michigan Number Theory Seminar
 6. Jun 2004 Oxford University Number Theory Seminar

MINICOURSES

5. May 2021 Applications of the circle method in harmonic analysis, HCM Bonn
4. Jul 2019 Character sums, HCM Bonn
3. Jan 2019 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

12. May 2021 Women in Math in the time of COVID, UC Davis
11. Mar 2021 MoMath meet a mathematician
10. Mar 2021 Women in Math in the time of COVID, CMS Montreal
9. May 2019 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

Feb 2021 AIM Workshop: Arithmetic statistics, discrete restriction, and Fourier analysis
Nov 2020 AIM Workshop: Delta Methods
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

OTHER PUBLICATIONS

5. "On superorthogonality," L. B. Pierce, Oberwolfach Report No. 26/2020 DOI 10.4171/OWR/2020/26, 29–31.
4. "On ℓ-torsion in class groups of number fields of arbitrary degree," L. B. Pierce (joint work with C. Turnage-Butterbaugh and M.M. Wood) Oberwolfach Report No. 53/2016 DOI 10.4171/OWR/2016/53 (2016) 3017.
3. "Novel bounds for exponential sums arising in number theory," L. B. Pierce (joint work with D.R. Heath-Brown) Oberwolfach Report No. 34/2014 DOI 10.4171/OWR/2014/34 (2014) 1902–1904.
2. "Burgess bounds for short mixed character sums," L. B. Pierce (joint work with D.R. Heath-Brown) Oberwolfach Report No. 51/2013 DOI 10.4171/OWR/2013/51 (2013) 3013–3014.
1. "Princeton Lectures in Analysis, by Elias M. Stein and Rami Shakarchi — A Book Review" Reviewed by Charles Fefferman and Robert Fefferman, with contributions from Paul Hagelstein, Nataśa Pavlović, and Lillian Pierce *Notices of the AMS*, May 2012.

POSTDOCTORAL RESEARCH ADVISING

2018 – 2019 Duke University: J. Wang, Foerster-Bernstein Fellow (U. Georgia)
2015 – 2018 Duke University: C. Turnage-Butterbaugh (Carleton College)
2013 – 2015 University of Bonn: D. Schindler (Göttingen)

GRADUATE RESEARCH ADVISING

2017– present: Chen An (Duke University)

UNDERGRADUATE RESEARCH ADVISING

2021 Craig Chen
2015 Runliang (Oscar) Li

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

May–Aug 2021 HIM Trimester (Bonn): Harmonic Analysis and Analytic Number Theory
2020 Co-organizer of "A room of one's own"
2020 Co-organizer of SouthEastern Regional Meeting on Numbers, Duke University (postponed)
2019 Co-organizer of special session "Counting methods in number theory," JMM 2019
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
2017 Co-organizer of Connections for Women (Analytic Number Theory), MSRI
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
2015 Co-organizer of AIM Workshop: Carleson Theorems and Multilinear Operators
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
2014 Co-organizer of ENFANT workshop, Hausdorff Center for Mathematics, Bonn
    Two day workshop with short talks by 42 early-career researchers.
2012 Founder and organizer of Oxford Number Theory Day (research retreat), Oxford University

ORGANIZATION: SEMINARS AND SUMMER SCHOOLS

2021 Bonn Hausdorff Summer School: Polynomial Methods
2021 Bonn Hausdorff Summer School: The Circle Method, entering its second century
2018 Bonn Hausdorff Summer School on L-functions
2018 AMS-MRC Harmonic Analysis: New Developments in Oscillatory Integrals
2014 Co-organizer of 6th EWM/EMS Summer School on Apollonian Circle Packings
2014 Co-organizer of Analysis Summer School at University of Bonn
2009 – 2010 Co-organizer of Postdoc Learning Group, Institute for Advanced Study

2008 & 2009 Scientific Coordinator for Princeton Summer Program in Analysis and Geometry
2008 Advising Committee for SWIM Summer Workshop in Mathematics, Princeton

PhD THESIS COMMITTEES

2020 Huong (Thomas) Tran, student of Jacye Getz, Duke University
2018 K. McKeon, student of A. Kontorovich, Rutgers University
2016 D. Milovic, student of E. Fouvry and P. Stevenhagen, Orsay and Leiden
2014 R. Alaifari, student of I. Daubechies and M.Defrise, Vrije Universiteit Brussel

PhD ORAL QUALIFYING EXAM COMMITTEES

2020 Chun-Hsien Hsu, Oral Preliminary Exam, Duke University
2016 Zhe Wang, Oral Preliminary Exam, Duke University
2016 Kevin Stubbs, Oral Preliminary Exam, Duke University
2016 Huong (Thomas) Tran, Oral Preliminary Exam, Duke University

PhD PRELIM EXAM COMMITTEES

2019 Chen An, Duke University

TEACHING RECOGNITION AND LEADERSHIP

2020 Director of Focus program "What If?"
2018 Bass Society of Fellows, Duke University (excellence in research and undergraduate teaching)
2009 Princeton University Award (APGA) for Teaching by a Graduate Student

SERVICE: TO DUKE UNIVERSITY (selected)

2021 – present, Faculty Director, AB Duke Scholars
2020 – present, Anti-Racism Committee, Duke University
2020 – 2021, Centennial Task Force, Duke University
2019 – 2021, co-convener, Senior Women in Science, 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
2016 Faculty instructor for a Duke FOCUS program ("What if?" Fall 2016) for freshmen
2014 – present Faculty host and guest speaker for many student events

SERVICE: NATIONAL AND INSTITUTE COMMITTEES

2020 – present, Scientific Advisory Board, BIRS
2020 – present, Number Theory Foundation
2018 – present, Current Events Bulletin Committee (associated to MSRI)
2019 – 2022 AMS Southeastern Section Program Committee
2018 – present, Diversity Committee, Institute for Advanced Study
2014 – present, Program Committee, Women and Math, Institute for Advanced Study
2016 – 2019 AMS Committee on Women in Mathematics
2016 National Summit Meeting on Women in Mathematics, Northwestern University
2011 – 2013, Good Practices Steering Group, Mathematical Institute, Oxford (Athena SWAN)

SERVICE: GRANT AND FELLOWSHIP PANELS

Rhodes Scholarship Selection Committee
Schmidt Science Fellows
Karen EDGE Fellowship Program
National Science Foundation
National Security Agency Mathematical Sciences Program
ETH Zürich fellowship review (Switzerland)
BIRS Conference Proposals (Canada)
EPSRC (EU)
NSERC (Canada)
DFG (Germany) U.S.-Israel Binational Science Foundation

SERVICE: REFEREEING

Referee book manuscripts for publishers:
Cambridge University Press
Princeton University Press
Birkhäuser/Springer
Referee for journals including:
American Journal of Mathematics, Compositio Mathematica, Duke Mathematical Journal, IMRN, Mathematical Research Letters, J. Reine Angew. Math. (Crelle), Proceedings of the AMS, Proceedings of the London Mathematical Society, Bulletin of the London Mathematical Society, Journal of Number Theory, Math. Annalen, Math. Proc. Cam. Phil. Soc., Mathematika, Michigan Mathematical Journal, Oxford Quarterly Journal of Mathematics, Acta Arithmetica, Research in Number Theory, Functiones et Approximatio, Journal of Mathematical Analysis and Applications

SERVICE: MENTORING

2019 – present Faculty advisor, local AWM student chapter, Duke University
2015 – 2017 Founder, WIMsical Women in Math, initiative program, Duke University
2013 Mathematrix, Founder and Organizer, University of Oxford
2006 – 2009 Mentoring Möbius, Founder and Organizer, Princeton University
2007 – 2009 The Many Faces of Science at Princeton, Founder and Organizer
2006 – 2009 Noetherian Ring, Princeton University, Co-organizer of networking group
2005 – 2009 Graduate Fellow, Rockefeller College, Princeton University
2006 – 2009 Major Choices Dinners, Princeton University, Organizer
2001 – 2002 Noetherian Ring, Princeton University, undergraduate math mentor
2000 – 2001 Peer Instructor for Princeton University in math, general and organic chemistry

OUTREACH: SPEAKING

Dec 2019 "Math and music," 5th grade enrichment in Chapel Hill public school
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

2020 *Paths* project `https://services.math.duke.edu/~pierce/graphics/Paths_2020_Pierce.pdf`

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

2014–2020 Mathematics + Motherhood interviews in *Newsletter* of the AWM

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

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