### CURRICULUM VITAE 2025 Lillian B. Pierce

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# PROFESSIONAL APPOINTMENTS

Duke University, Professor, 2020 –
Duke University, Nicholas J. and Theresa M. Leonardy Professor 2020 – June 2023
Duke University, Nicholas J. and Theresa M. Leonardy Associate Professor 2018 – 2020
Duke University, Associate Professor 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

# INVITED VISITING POSITIONS

2022 - 2027 Bonn Research Chair, Hausdorff Center for Mathematics, Bonn
2017 - 2022 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

# EDUCATION

Princeton University, Ph.D. in Mathematics 2009 (and M.A. in Mathematics)University of Oxford, M.Sc. by Research in Mathematics 2004Princeton University, B.A. in Mathematics summa cum laude, valedictorian 2002

# **RESEARCH INTERESTS**

Number theory and harmonic analysis

# EDITORIAL BOARDS

Essential Number Theory, Founding Editor-in-Chief Annals of Math. Studies, Princeton University Press Duke Mathematical Journal Journal of the AMS (Associate Editor) Discrete Analysis Previously: Transactions of the AMS (2019 – 2023), Memoirs of the AMS (2019 – 2023), Experimental Mathematics (2019 – 2022), Journal of Geometric Analysis (2020 – 2022)

# FELLOWSHIPS AND AWARDS

2024 AWM Fellow 2023 Guggenheim Fellow (Fellowship period: 2024)

### Lillian B. Pierce

- 2023 Simons Fellow in Mathematics, Simons Foundation (Fellowship period: 2024)
- 2021 Fellow of the AMS
- 2019 Presidential Early Career Award for Scientists and Engineers (PECASE)
- 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
- 2017-2018von 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)

### **RESEARCH FUNDING**

- 2023 2028 NSF DMS-2231514, Research Training Group, co-PI (2,500,000 USD)
- 2022 2025 NSF DMS-2200470
- 2018-2023 AIM SQuaRE grant, research in harmonic analysis
- 2018 2020 Sloan Research Fellow
- 2018-2020 Foerster-Bernstein funding to support a postdoc
- 2017 2022 NSF DMS-1652173 CAREER Grant
- 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
- 2007-2008Princeton University Assistant in Research
- 2004-2007 NSF Graduate Research Fellowship

# DISTINGUISHED LECTURES

- 208. Apr 2025 National Science Foundation Distinguished Lecture (cancelled/postponed)
- 207. Jul 2022 Invited Lecture at ICM 2022 (Section 3 Number Theory and Section 8 Analysis)
- 206. Jan 2019 AMS Invited Address, Joint Math Meetings 2019, Baltimore
- 205. Jun 2017 Nicolas Bourbaki seminar, Paris
- 204. Jan 2017 MAA Invited Address at the Joint Math Meetings 2017, Atlanta

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#### PLENARY LECTURES

- 203. Mar 2025 Mid Atlantic Seminar On Numbers, Plenary Lecture
- 202. Sep 2024 Palmetto Number Theory Series XXXVIII (PANTS), Wake Forest, plenary lecture
- 201. Aug 2024 Grandes conférences publiques du CRM, Montreal
- 200. Aug 2024 Hedrick Lecturer, MathFest (2 lecture series)
- 199. Sep 2023 Plenary Lecture, AWM Research Symposium
- 198. Apr 2023 Chesley Lecturer, Carleton College
- 197. Apr 2022 AWM Distinguished Lecture, UMD
- 196. Apr 2021 McDougal Lecture, Lawrence University
- 195. Mar 2021 Sulski Lecture, Holy Cross
- 194. Feb 2021 Dressler Lecture, Kansas State
- 193. Jan 2021 IMA Plenary Lecture
- 192. Nov 2020 Number Theory Down Under
- 191. Apr 2019 Langford Lecture, Duke University
- 190. Apr 2019 Triangle Area Graduate Mathematics Conference
- 189. Mar 2019 Wake Forest University AWM Spring Conference
- 188. Mar 2019 goMATH plenary lecture, ETH
- 187. Jun 2016 Canadian Number Theory Association XIV, University of Calgary
- 186. Oct 2015 Southeastern Conference for Undergraduate Women in Mathematics, Duke University
- 185. Sep 2015 Heilbronn Institute for Mathematical Research, Annual Conference
- 184. Mar 2015 Southeast Analysis Meeting, UGA
- 183. Dec 2014 Palmetto Number Theory Series (PANTS XXIII) USC Columbia

#### COLLOQUIA

- 182. Mar 2025 Virginia Tech Colloquium
- 181. Jun 2024 Heilbronn Colloquium, London (hosted by Imperial)
- 180. Oct 2023 Helen Barton Lecture, UNC-G
- 179. Oct 2021 UNC Colloquium
- 178. Oct 2021 Claremont Colleges Colloquium
- 177. Oct 2021 IST Colloquium (science-wide)
- 176. May 2021 U. Oregon Colloquium
- 175. Apr 2021 Berkeley Colloquium
- 174. Feb 2021 Vanderbilt Colloquium
- 173. Dec 2020 University of Chicago Colloquium
- 172. July 2020 Göttingen Colloquium
- 171. Jan 2020 UW Madison Colloquium
- 170. Feb 2019 UW Madison Colloquium
- 169. Feb 2019 Brown University Special Colloquium
- 168. Dec 2018 UT Austin Colloquium
- 167. Oct 2018 ETH Zürich, Special Lecture
- 166. May 2018 University of Maryland Colloquium
- 165. April 2018 Bryn Mawr Colloquium
- 164. Dec 2017 Rutgers Colloquium
- 163. May 2017 UCLA Distinguished Women in Math Colloquium
- 162. Mar 2017 IU Colloquium
- 161. Mar 2017 UW Madison Colloquium

- 160. Jan 2017 Brown University Colloquium
- 159. Dec 2016 Stony Brook University Colloquium
- 158. Oct 2015 UC Boulder Kempner Colloquium
- 157. May 2015 UT Austin Colloquium, Distinguished Women in Math series
- 156. Jan 2014 Berlin Mathematical School Kovalevskaya Colloquium
- 155. Jan 2014 University of Göttingen Colloquium
- 154. Jan 2013 Caltech Colloquium
- 153. Jan 2013 UIUC Colloquium
- 152. Jan 2013 UW Madison Colloquium
- 151. Dec 2012 UC Berkeley Colloquium
- 150. Nov 2012 Indiana University at Bloomington Colloquium
- 149. Apr 2010 Dartmouth Colloquium
- 148. Jan 2010 UCSB Colloquium

### INVITED CONFERENCES AND PRESENTATIONS

- 147. May 2025 Conference on Asymptotic Counting and L-Functions, MPIM Bonn
- 146. Aug 2024 CRM Montreal "Analytic Number Theory and Arithmetic Statistics"
- 145. Mar 2024 Institut Mittag-Leffler
- 144. Dec 2023 Katz80 Monodromy and Its Applications, Princeton University
- 143. Sep 2023 Excelsior Lectures, Northeast Analysis Network
- 142. Jul 2023 RHB70 Conference, Oxford
- 141. May 2023 Oberwolfach, Group Actions and Harmonic Analysis in Number Theory
- 140. Apr 2023 Algebra and Number Theory Day, Johns Hopkins
- 139. Apr 2023 Algebra, Arithmetic, Algorithms, ICMS Edinburgh
- 138. Sep 2022 Uhlenbeck Conference, IAS
- 137. Jul 2022 Oberwolfach: Real Analysis, Harmonic Analysis, and Applications
- 136. Jun 2022 Fourier 200, ICMS Edinburgh
- 135. Jun 2022 Harmonic Analysis and Related Topics, Centre de Recerca Matematica, Barcelona (remote)
- 134. Jun 2022 CTNT
- 133. Mar 2022 ETH GoMath
- 132. Jan 2021 JMM AWM Research Symposium (WoAN)
- 131. Nov 2020 AIM Delta Methods
- 130. Oct 2020 AMS Eastern Sectional Number Theory
- 129. Sep 2020 Oberwolfach, Automorphic Forms and Arithmetic
- 128. Nov 2019 Oberwolfach, Analytic Number Theory
- 127. Jul 2019 Analytic Number Theory, Cetraro, Italy
- 126. May 2017 MSRI Recent Developments in Analytic Number Theory
- 125. Nov 2016 Oberwolfach, Analytic Number Theory
- 124. Jun 2015 Quantitative Arithmetic Geometry, Institut Mittag-Leffler
- 123. Apr 2015 AWM Research Symposium, Special Section in Number Theory, U Maryland
- 122. Dec 2014 CRM Montreal: New Approaches in Probabilistic and Multiplicative Number Theory
- 121. Oct 2014 Clay Math Institute Workshop at Oxford: Analytic Number Theory
- 120. Jul 2014 Oberwolfach: Real Analysis, Harmonic Analysis, and Applications
- 119. Jun 2014 Bateman Number Theory Conference, Illinois
- 118. May 2014 Humboldt University Berlin: Moduli and Automorphic Forms
- 117. Mar 2014 Lausanne/Zürich Number Theory Days, ETH

- 116. Nov 2013 Max Planck Institute Bonn/B-IT Workshop on Number Theory and Cryptography
- 115. Oct 2013 Oberwolfach Workshop on Analytic Number Theory
- 114. Jun 2013 FOUVRY60 Analytic Number Theory, Luminy, France
- 113. Apr 2013 Denmark Mathematical Society 140th Anniversary
- 112. Jan 2013 Number Theory Seminar, AWM Workshop, Joint Mathematics Meetings, San Diego
- 111. Jun 2012 Analytic Methods for Diophantine Problems, Mathematisches Institut, Göttingen
- 110. Jun 2011 Workshop on Oscillatory Integrals, Edinburgh
- 109. Feb 2011 Harmonic Analysis Workshop, Edinburgh
- 108. Nov 2010 Exponential Sums over Finite Fields and Applications, ETH Zürich
- 107. Oct 2008 American Mathematical Society Sectional Conference, Vancouver BC
- 106. Feb 2008 New Trends in Harmonic Analysis Conference, Fields Institute, Toronto, Canada
- 105. Apr 2007 American Mathematical Society Sectional Conference, New Jersey
- 104. Jun 2005 Gauss-Dirichlet Conference, Mathematisches Institut, Göttingen (contributed talk)
- 103. May 2002 Program for Women in Mathematics, Institute for Advanced Study, Princeton

#### INVITED RESEARCH SEMINARS

- 102. Mar 2025 FiRST Seminar, Helsinki (Finnish Center of Excellence, Randomness and Structures)
- 101. Mar 2025 Turku Number Theory Seminar
- 100. May 2024 Analysis Seminar, Bonn
- 99. Aug 2023 MPIM Number Theory Seminar
- 98. Mar 2023 Harvard Number Theory seminar
- 97. Apr 2022 ANU Analysis Seminar
- 96. Dec 2021 UIUC Number Theory Seminar
- 95. Jun 2021 Orsay Number Theory Seminar
- 94. May 2021 UCL Number Theory Seminar
- 93. May 2021 MIT Analysis Seminar
- 92. Apr 2021 Berkeley-Caltech-Stanford Number Theory Seminar
- 91. Apr 2021 NYU Number Theory Seminar
- 90. Mar 2021 UCLA Analysis Seminar
- 89. Feb 2021 Penn State Number Theory Seminar
- 88. Feb 2021 University of Rochester Analysis Seminar
- 87. Dec 2020 MIT Number Theory Seminar
- 86. Dec 2020 UK Harmonic Analysis Seminar
- 85. Jul 2020 Number Theory Web Seminar
- 84. Jun 2020 U. Virgina Number Theory REU
- 83. May 2020 CANTA opening celebration
- 82. Jan 2020 VANTAGE Number Theory Seminar
- 81. Dec 2019 Berkeley Number Theory Seminar
- 80. Apr 2019 Boston University Number Theory Seminar
- 79. Feb 2019 Harvard Number Theory Seminar
- 78. May 2018 Princeton Number Theory Seminar
- 77. Apr 2018 Princeton Analysis Seminar
- 76. Mar 2018 IAS Analysis Seminar
- 75. Jan 2018 IAS Members Seminar
- 74. Mar 2017 U Michigan Number Theory Seminar
- 73. Feb 2017 BC-MIT Number Theory Seminar

Page 6 of 12

- 72. Jan 2017 Emory Number Theory Seminar
- 71. Jan 2017 UGA Discrete Analysis Seminar
- 70. Dec 2016 Rutgers Seminar
- 69. Dec 2016 Montreal Number Theory Seminar
- 68. Dec 2016 Stanford Number Theory Seminar
- 67. Oct 2016 UIC Number Theory Seminar
- 66. Jul 2016 Max Planck Institute Number Theory Seminar, Bonn
- 65. May 2016 IAS/Princeton Number Theory Seminar
- 64. Jan 2016 Caltech/UCLA Analysis Seminar
- 63. Jan 2016 Caltech Number Theory Seminar
- 62. Oct 2015 UC Boulder Number Theory Seminar
- 61. May 2015 Princeton University Analysis Seminar
- 60. May 2015 UT Austin Analysis Seminar
- 59. Feb 2015 UNC Chapel Hill Analysis Seminar
- 58. Jan 2015 UW Madison Number Theory Seminar
- 57. Feb 2014 Duke University Number Theory Seminar
- 56. Dec 2013 Max Planck Institute, Bonn, Number Theory Seminar
- 55. Dec 2013 University of Cologne Number Theory Seminar
- 54. May 2013 Cambridge Discrete Analysis Seminar
- 53. Jan 2013 UMinn Special Lecture
- 52. Jan 2013 MIT Analysis Seminar
- 51. Jan 2013 MIT Number Theory Seminar
- 50. Jan 2013 McGill Special Lecture
- 49. Dec 2012 Hausdorff Center for Mathematics, Bonn, Seminar
- 48. Dec 2012 Rutgers University Seminar
- 47. Dec 2012 UC Berkeley Number Theory Seminar
- 46. Dec 2012 Washington University in St. Louis Seminar
- 45. Nov 2012 UCSD Analysis Seminar
- 44. Nov 2012 UCSD Number Theory Seminar
- 43. Nov 2012 Georgia Tech Analysis Seminar
- 42. Nov 2012 Warwick University Number Theory Seminar
- 41. Oct 2012 Duke University Special Seminar
- 40. Oct 2012 Reading University Analysis Seminar
- 39. Jun 2012 University of Cologne Number Theory Seminar
- 38. Jun 2011 Oxford OxPDE Analysis Seminar
- 37. Apr 2011 UCLA Analysis Seminar
- 36. Apr 2011 UCSD Analysis Seminar
- 35. Apr 2011 Caltech Number Theory Seminar
- 34. Mar 2011 University of Birmingham (England) Analysis Seminar
- 33. Jan 2011 University of Bristol Analysis Seminar
- 32. Dec 2010 University of Bristol Heilbronn Number Theory Seminar
- 31. Dec 2010 University of Cardiff Analysis Seminar
- 30. Nov 2010 UCL Pure Mathematics Seminar
- 29. Apr 2010 Dartmouth Number Theory Seminar
- 28. Apr 2010 MIT Number Theory Seminar
- 27. Mar 2010 IAS Members Seminar, Institute for Advanced Study

- 26. Oct 2009 IAS Short Talks by New Members, Institute for Advanced Study
- 25. Nov 2008 Brown University Analysis Seminar
- 24. Jun 2008 Oxford University Number Theory Seminar
- 23. May 2008 University of Wisconsin at Madison, Analysis Seminar
- 22. Apr 2008 Stony Brook University Analysis Seminar
- 21. Jan 2007 University of Bordeaux Number Theory Seminar
- 20. Apr 2006 BrownUniversity Number Theory Seminar
- 19. Mar 2006 Ohio State University Number Theory Seminar
- 18. Jun 2005 Columbia University Number Theory Seminar
- 17. Apr 2005 UCLA Number Theory Seminar
- 16. Mar 2005 Caltech Number Theory Seminar
- 15. Mar 2005 University of Indiana at Bloomington Algebra Seminar
- 14. Mar 2005 University of Wisconsin at Madison Algebra and Number Theory Seminar
- 13. Feb 2005 Princeton University Seminar Course in Analysis
- 12. Dec 2004 Courant Institute Number Theory Seminar
- 11. Nov 2004 Royal Holloway College Pure Mathematics Seminar
- 10. Nov 2004 University of Michigan Number Theory Seminar
- 9. Jun 2004 Oxford University Number Theory Seminar

# INVITED MINICOURSES

- 8. May 2026 New Directions in Modern Harmonic Analysis and Applications, Erdos Center of the Renyi Institute, Budapest (1 week) (upcoming)
- 7. May 2025 Advanced Course on Modern Aspects of Fourier Analysis, CRM Barcelona (1 week)
- 6. May 2023 Terng Lecture Course "The Circle Method," Women and Mathematics, IAS (1 week)
- 5. May 2021 Applications of the circle method in harmonic analysis, HCM Bonn (1 week)
- 4. Jul 2019 Character sums, HCM Bonn (3 lectures)
- 3. Jan 2019 Trace Functions and their Applications, ETH Zürich in Monte Verità (1 week)
- 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)

# 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

# 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

### Lillian B. Pierce

### **ORGANIZATION: CONFERENCES**

July 2025 Oberwolfach: Real Analysis, Harmonic Analysis, and Applications May 2025 The Next Horizon, Hausdorff Institute for Mathematics Dec 2023 Monodromy and Applications, Princeton University Oct 2023 GROW (Graduate Research Opportunities Workshop), Duke University Jun 2023 Elias M. Stein Memorial Conference, Princeton University Oct 2022 GROW (Graduate Research Opportunities Workshop), Duke University Mav–Aug 2021 HIM Trimester (Bonn): Harmonic Analysis and Analytic Number Theory 2020 "A room of one's own" writing intensive 2019 Special session "Counting methods in number theory," JMM 2019 2017 re:boot Number Theory 2017, Duke University 2017 Connections Workshop (Analytic Number Theory), MSRI 2016 re:boot Number Theory 2016, Duke University 2015 AIM Workshop: Carleson Theorems and Multilinear Operators 2014 ELEFANT workshop, Hausdorff Center for Mathematics, Bonn 2014 ENFANT workshop, Hausdorff Center for Mathematics, Bonn 2012 Oxford Number Theory Day (research retreat), Oxford University

# ORGANIZATION: SEMINARS AND SUMMER SCHOOLS

2024 Bonn Hausdorff Summer School: Maximal Operators and Applications
2024 Bonn Hausdorff Summer School: Stability and Uniformity of Oscillatory Integral Estimates
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 School/Block Course at University of Bonn (with Thiele)
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

# SERVICE: NATIONAL AND INSTITUTE COMMITTEES (selected)

- 2023 present, Scientific Advisory Council, SLMath (formerly MSRI)
- 2022 2029, Scientific Advisory Board, FiRST Center for Excellence, Finland
- 2020 present, Number Theory Foundation
- 2014 present, Program Committee, Women and Math, Institute for Advanced Study
- 2018 2025, Diversity Committee, Institute for Advanced Study
- 2020 2022, Scientific Advisory Board, BIRS
- 2019 2022 AMS Southeastern Section Program Committee
- 2018 2021 Current Events Bulletin Committee (associated to MSRI)
- 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 application)

# SERVICE: GRANT, PRIZE AND FELLOWSHIP PANELS (selected)

Other advisory and evaluative roles, anonymous at present Rhodes Scholarship Selection Committee Elias M. Stein Prizes, AMS AWM-Microsoft Prize, AWM 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: TO DUKE MATH (selected)

- 2019 present, Distinguished Lecture organizer
- 2019 2023, Society for Women in Science, Duke University (founded lunchtime seminar series)
- 2022 present, ORCID Scholars organizer
- 2022 2023 WiMsical lunch time series organizer
- 2020 2021, Centennial Task Force, Duke University
- 2017 2018, 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

- 2014 2017 Steering committee for colloquium series "Natural Sciences in the 21st Century," Duke
- 2015 2016 Quantitative Initiative hiring committee
- 2014-2015Elliott Assistant Research Professor hiring committee

### SERVICE: REFEREEING (selected)

#### Referee book manuscripts for publishers:

Cambridge University Press, Princeton University Press, Birkhäuser/Springer

#### Referee for journals including:

Inventiones, 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

# 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

# TEACHING RECOGNITION

2018 - present, Bass Society of Fellows, Duke University

(selective fellowship awarded for excellence in research and undergraduate teaching) 2018 - 2023, Bass Chair

(one of a set of honorific positions; specifically the Nicholas J. and Theresa M. Leonardy chair, awarded for excellence in research and undergraduate teaching)

2009 Princeton University APGA Award

(university-wide award for teaching by a Graduate Student)

#### POSTDOCTORAL RESEARCH ADVISING

2023 – 2025, Duke University, D. Bonolis (currently: TU Graz)
2022 – 2024, Duke University, E. Jones (currently: Tulane)
2018 – 2019 Duke University: J. Wang, Foerster-Bernstein Fellow (currently: U. Georgia)
2015 – 2018 Duke University: C. Turnage-Butterbaugh (currently: Carleton College)
2013 – 2015 University of Bonn: D. Schindler (currently: Göttingen)

# GRADUATE RESEARCH ADVISING (PhD advisor)

beginning student: Alina Zhu 2025 PhD: Rena Chu (Duke University), first position: Göttingen 2021 PhD Chen An (Duke University), first position: JP Morgan

### UNDERGRADUATE RESEARCH ADVISING (Independent study courses)

2023 Marie-Hélène Tome (1 independent study course, Goldwater Scholar, Marshall Scholar)
2023 Hiba Benjeddou (1 independent study course)
2022–2023 Alex Burgin (senior thesis, 2 independent study courses)
2022 Rebecca Bell (1 independent study course)
2021 Craig Chen (1 independent study course)
2015 Runliang (Oscar) Li (summer research fellowship)

### PhD THESIS COMMITTEES

2023 I. Viglino, student of E. Kowalski, ETH
2020 H. T. 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 PRELIM EXAM COMMITTEES

2023 Kairie Black, Duke University 2023 Rena Chu, Duke University 2019 Chen An, Duke University

# PhD ORAL QUALIFYING EXAM COMMITTEES

2020 Chun-Hsien Hsu, Oral Quals Exam, Duke University

2016 Zhe Wang, Oral Quals Exam, Duke University

2016 Kevin Stubbs, Oral Quals Exam, Duke University

2016 Huong (Thomas) Tran, Oral Quals Duke University

#### SERVICE TO DUKE UNIVERSITY (related to undergraduate education)

2022 - 2024 university-wide Trinity Curriculum Development Committee

(2 year committee to redesign the required undergraduate curriculum, university-wide)

2021 – 2023, Faculty Director, AB Duke Scholars

(director of most selective merit scholarship at Duke)

2020 Director of Focus program "What If?"

(a selective living-learning community for first-year university students)

2014 – 2017 Faculty in Residence

(living full-time in dorm with 180 freshmen, for 3 years)

- 2014 2017 Academic Advisor to pre-major students, Duke University
- 2016 Faculty instructor for a Duke FOCUS living-learning program for freshmen

#### SERVICE: MENTORING

- 2019 2023 Faculty advisor, local AWM student chapter, Duke University
- 2015 2017 WIMs ical math community initiative program, Duke University
- 2013 Mathematrix (discussion group), 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: EXPOSITORY TALKS TO MATH AUDIENCES

- 20. Jun 2025: Public Lecture "Invisible cities", HCM Bonn
- 19. May 2025: Public Lecture "What we talk about when we talk about math", HCM Bonn
- 18. Apr 2025 Duke Math "What is...." Seminar series
- 17. Jun 2023 REU Seminar, UVA
- 16. Apr 2023 Undergraduate Colloquium, Carleton College
- 15. Apr 2023 Duke University Music Department, Ou-X-Po Seminar
- 14. Jul 2022 PRIMES REU research seminar
- 13. Jun 2022 Small REU research seminar
- 12. Jun 2022 UVA REU research seminar
- 11. Aug 2021 Young Mathematicians Conference
- 10. May 2021 Women in Math in the time of COVID, UC Davis
- 9. Mar 2021 Women in Math in the time of COVID, CMS Montreal
- 8. May 2019 National Math Festival featured speaker, Washington DC
- 7. Feb 2018 Mathematical Conversations, IAS
- 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

#### **OUTREACH: SPEAKING**

Jun 2024 Invited Panel Moderator, Sarnak70, Princeton/IAS

Nov 2023 Meet a Mathematician, MoMath

Mar 2021 Meet a mathematician, MoMath

Oct 2016 GROW at Northwestern: Panel discussion on mathematical research

Jun 2016 Faculty guest, discussion with high school girls at SWIM program, Duke

May 2016 "Mentoring in mathematics," Women and Math Program at the IAS

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)

# **OUTREACH: EARLY EDUCATION**

2022–2025: Leader of small math clubs (over 40 events) for select elementary students (Numbers Club), middle school students (math e, math  $\pi$ ), high school students (math c)

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

2018 "Codes and Secrets!" 4th grade math event at Chapel Hill public school

2016 Keynote speaker at FEMMES, Duke (240 school children in STEM, grades 4-6)

2016 Numbers Club meetings for small groups of children aged 5 or 7 (Pentagons and Heptagons)

2016 "Codes and Secrets!" math event at Watts Montessori Public School, Durham (grades 1–3)

2016 "One grain of rice: exponential growth" math event at Watts Montessori Public School, Durham