## Ted Hill Curriculum Vitae

May 2023

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## EDUCATION

| Ph.D. in Mathematics | University of California, Berkeley | 1977 | [Diploma] |
| :--- | :--- | :--- | :--- |
| Ph.C. in Mathematics | University of California, Berkeley | 1977 | [Diploma] |
| M.A. in Mathematics | University of California, Berkeley | 1974 | [Diploma] |
| Fulbright Scholar in Mathematics | University of Göttingen | 1972 |  |
| Ranger Tab | U.S. Army Infantry School | 1968 | [Diploma] |
| M.S. in Operations Research | Stanford University | 1968 | [Diploma] |
| B.S. in Engineering | U.S. Military Academy, West Point | 1966 | [Diploma] |

## PROFESSI ONAL EXPERI ENCE

Professor Emeritus, Mathematics, Georgia Institute of Technology (since 2003)
Research Scholar in Residence, California Polytechnic State University (since 2005)
Visiting Professor, Dept. of Economics \& Business, LUISS Guido Carli U., Rome (10/10-11/10)
Professor, Mathematics, Georgia Institute of Technology (4/90-12/03)
Guest Professor, Econometrics, Free University of Amsterdam (10/02-11/02)
Visiting Professor, Institute for Mathematical Stochastics, Göttingen (9/00-12/00)
Guest Professor, Dept. Math and Computer Sci., Vrije Universiteit, Amsterdam (4/97-8/97)
Visiting Professor, Centro de Investigación en Matemáticas A.C, Guanajuato Mexico (1/97-3/97)
Guest Professor, Dept. Math and Computer Sci., Vrije Universiteit, Amsterdam (3-7/94, 7-12/96)
Visiting Scholar, Mathematics, University of Costa Rica(11/93-2/94)
Guest Professor, Mathematics, Vrije Universiteit, Amsterdam (6/93-11/93)
Visiting Professor, Mathematics, University of Tel Aviv (3/89)
Guest Professor, Mathematics, University of Göttingen (9/88-5/89)
Visiting Scholar, Mathematics, University of California, Berkeley (7/86-9/86)
Associate Professor, Mathematics, Georgia Institute of Technology (7/84-4/90)
Associate Professor, Mathematics, University of Hawaii (8/84-6/85)
Postdoctoral Fellow, Mathematics, University of Leiden (7/82-7/83)
Assistant Professor, Mathematics, Georgia Institute of Technology(9/77-6/84)
Lecturer, Applied Mathematics, Washington University (9/70-6/71)
Captain, U.S. Army (Vietnam; Company Commander; Research and Development) (6/68-9/70)
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## CURRENT RESEARCH I NTERESTS

Probability and measure theory, optimal stopping theory, fair-division problems, limit laws, and Benford's law.

Article selected for publication in The Best Writing on Mathematics, Princeton University Press (2019)
Quillette Top Ten most popular articles of 2018 (\# 4 of about 400)
American Scientist Most Popular Articles (2016) - see \#7
Article selected for publication in The Best Writing on Mathematics, Princeton University Press (2010)
Hal's Pick of the Month Selection for March (2007)
Weird Science Awardee \# 2, "A Weightier Matter" Science Matters by Tom Siegfried, December (2006)
Gauss Professor, Göttingen Academy of Sciences (2000)
Elected Fellow, Institute of Mathematical Sciences (1999)
Elected Member, International Statistical Institute (1993)
SCITREK Scholar Lecturer, Atlanta (1992)
Best Teaching Award Mathematics (from Faculty of 50) (1990)
Fulbright Professor, Mathematics, University of Göttingen (1988-89)
Sigma Xi Best Research Paper in Science, Georgia Institute of Technology (1984)
NSF-NATO Postdoctoral Fellow, Mathematics, University of Leiden (1982-83)
Fulbright Scholar, Mathematics, University of Göttingen (1971-72)
U.S. Army Graduate Scholarship, Stanford University (1966-68)

Distinguished Graduate, West Point (1966)
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## RESEARCH GRANTS

Dutch National Science Foundation (NWO) Travel Grant, Free University of Amsterdam (2009)
Dutch National Science Foundation (NWO) Travel Grant, Free University of Amsterdam (2008)
Dutch National Science Foundation (NWO) Travel Grant, Univ. of Utrecht (2007)
National Security Agency Grant H98230-05-1-0297 (2005-2006)
National Science Foundation Grant DMS 99-71146 (1999-2003)
Göttingen Academy of Sciences (2000)
NSF Group Infrastructure Grant (with Bunimovich, Hale) (1996-2001)
Dutch National Science Foundation (NWO) Grant, Dossier B-61-355 (1996-97)
National Science Foundation Grant 95-03375 (1995-97)
Dutch National Science Foundation (NWO) Grant, Dossier B-61-281 (1993)
National Science Foundation Grants DMS-92-09586 (1992-94)
Israel-U.S. Binational Science Foundation Grant 88-00005 (with D. Gilat) (1991-93)
National Science Foundation Grant DMS-89-01267 (1989-91)
Fulbright Senior Researcher Award (1988-89)
National Science Foundation Grants DMS-84-01604, DMS-86-01608, DMS-87-01691 (1984-88)
NSF-NATO Postdoctoral Grant 7289 (1982-83)
Air Force Office of Scientific Research Grant F4962079C0123 (1979-80)
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## PROFESSI ONAL SOCIETIES MEMBERSHI P

American Association of University Professors
American Civil Liberties Union
American Mathematical Society
Bernoulli Society
Fulbright Association Life Member
Institute of Mathematical Statistics
Mathematical Association of America
National Writers Union
New York Academy of Sciences
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## PhD STUDENTS

David Sitton, (Mathematician, Planning Systems, Inc.) PhD Dec. 2001
Lisa Bloomer Green, (Assistant Professor, Middle Tennessee State University) PhD 2000
Pieter Allaart, (Assistant Professor, University of North Texas) PhD 1998
Zuzana Kuhn, (Mathematician, Karlsruhe Software) PhD 1998
Josephine Gouweleeuw, (Mathematician, Dutch Bureau of Statistics) PhD 1994
Frans Boshuizen, (Full Professor, Free Univ. Amsterdam; Mathematician, ING) PhD 1991
Martin Jones, (Associate Professor, College of Charleston) PhD 1989
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## I NVI TED CONFERENCE LECTURES

| European Commission Conference on Benford's Law, Keynote speaker, Stresa, Italy | Jul 2019 |
| :--- | :--- |
| Game Theory Workshop Lecture, CIMAT | Feb 2016 |
| Semi-Plenary Lecture, SIMMAC XVIII, University of Costa Rica | Feb 2012 |
| Prob. \& Statistics Conf., Mexican Math. Res. Center (CIMAT), 3 lectures (in Spanish) | Feb/Mar 2012 |
| SIMMAC XVII, University of Costa Rica | Feb 2010 |
| Bunimovich Conference, Banff International Research Station, Banff, Canada | Jan 2009 |

Dec 2007
Dec 2006
Feb 2006
Mar 2005
Feb 2004
Aug 2002
Feb 2002
J an 2002
Dec 2000
Apr 2000
Oct 1999
Feb 1999
Feb 1997
J an 1996
Jun 1995
Jan 1995
Feb 1994
Jun 1993
Mar 1993
Jun 1992
Jul 1991
Jun 1990
May 1990
Jun 1986
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## CONTRI BUTED CONFERENCE LECTURES

International Congress of Mathematics 2002 Beijing
Aug 2002
Bernoulli World Congress 2000, Guanajuato, Mexico
May 2000
Mar 2000
Feb 2000
Valdosta State Math Technology Conference, Valdosta
Biannual Centralamerican Appl. Math. Conference (in Spanish), Costa Rica
Jun 2000
Feb 1998
International Symposium on Mathematics, Costa Rica (in Spanish)
$\begin{array}{lr}\text { American Mathematical Society Annual Meeting, Orlando } & \text { Jan } 1996 \\ \text { Southeast Probability Days Annual Meeting, Atlanta } & \text { Sep } 1995\end{array}$
American Mathematical Society Annual Meeting, San Antonio Jan 1993
American Mathematical Society Annual Meeting, San Francisco Jan 1991
Second World Congress of the Bernoulli Society, Uppsala
American Mathematical Society Annual Meeting, Louisville
American Mathematical Society Meeting, Tacoma
American Mathematical Society Annual Meeting, San Antonio
International Congress of Mathematicians, Berkeley
American Mathematical Society Annual Meeting, Anaheim
American Mathematical Society Annual Meeting, Louisville
Markov Decision Processes Conference, University of Eindhoven
Fifteenth European Conference on Probability and Statistics, Palermo
Institute of Mathematical Statistics Regional Meeting, Tallahassee
American Mathematical Society Annual Meeting, Cincinnati
Georgia Mathematics Conference, Atlanta
American Mathematical Society Annual Meeting, San Francisco
American Mathematical Society Annual Meeting, Biloxi
International Congress of Mathematicians, Helsinki
American Mathematical Society Annual Meeting, Atlanta
American Mathematical Society Annual Meeting, St. Louis
Aug 1990
J an 1990
Jun 1987
Jan 1987
Aug 1986
Jan 1985
Jan 1984
Apr 1983
Sep 1982
May 1982
Jan 1982
Oct 1981
J an 1981
Jan 1979
Aug 1978
Jan 1978
J an 1977

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## I NVI TED RESEARCH LECTURES

Game Theory Seminar, CIMAT, Guanajuato, MX
Apr 2015
Invited lecture, 35th Anniversary of CIMAT, Guanajuato, MX Apr 2015
Penn Mathematics Colloquium, U. of Pennsylvania Apr 2015
Combinatorics \& Probability Seminar, U. of Pennsylvania
Mar 2015
Invited lecture, Analytics Group, Software San Diego
Colloquium, Dept. of Mathematics \& Statistics, San Diego State University
Millican Colloquium, U. of North Texas, Denton
RTG Undergrad Math Research Colloquium, U. of North Texas, Denton
Apr 2014
Oct 2013
Oct 2013
Oct 2013
Tinbergen Institute, Amsterdam
Tinbergen Institute, Amsterdam
Mathematics Colloquium, California Polytechnic State University
Mathematics Colloquium, Mexican Mathematical Research Center (CIMAT)
ID Analytics, San Diego, CA
Dept. of Mathematics, US Military Academy, West Point, NY
Tinbergen Institute, Amsterdam
Dept. of Statistics \& Geoeconomics Seminar, University of Rome - La Sapienza
Dept. of Economics \& Business Seminar , LUISS Guido Carli Univ.
Tinbergen Institute, Amsterdam
Mathematics Colloquium, San Jose State University
Bay Area Mathematics Adventures Lecture, San Jose State University
Mathematics Colloquium, University of Nevada, Reno
Tinbergen Institute, Amsterdam
Jun 2013
Jun 2012
May 2012
Feb 2012
Oct 2011
Sep 2011
Jun 2011
Nov 2010
Oct 2010
Jun 2010
Mar 2010
Mar 2010
Feb 2010
Millican Lecture, University of North Texas
Econometrics Seminar, Free University Amsterdam
GAME Lecture, University of Alberta
Mathematics Colloquium, University of Alberta
Colloquium, J oint Science Dept. of the Claremont Colleges, CA, Mar 2008
Jun 2009
Oct 2008
Jun 2008
Apr 2008
Apr 2008
Mathematics Colloquium, California Polytechnic State University
Mar 2008
Computer Science Department, Sonoma State University
Mathematics Department, College of Charleston
Tinbergen Institute, Amsterdam
Mathematics Department, Univ. of Utrecht
Mathematics Department, International University, HoChiMinh City
May 2007
Nov 2007
Sep 2007
Jun 2007
Jun 2007
Mar 2007
Mathematics Department, Univ of Natural Sciences, HoChiMinh City Mar 2007
Mathematics Department, Univ. of Canterbury, Christchurch Feb 2007
Industrial Engineering/Operations Research Colloquium, U.C. Berkeley Oct 2006
Mathematics Colloquium, U.S. Military Academy
Joint ECE, Math, and Statistics Colloq. (2 lectures), U. New Mexico
Joint Mathematics and Statistics Colloquium, California Polytechnic State University
Department of Applied Mathematics, University of Bonn
Department of Science, University of Pescara
Sep 2006
Jun 2006
Nov 2005
Mar 2005
Feb 2005
Mathematics Department, University of Naples
J an 2005
Mathematics Department, Faculty of Economics, Univ of Rome
Ergodic Theory and Probability Seminar, Ohio State University
Jan 2005
Dec 2004
Oct 2004
Sep 2003
Nov 2002
Nov 2002
Nov 2002
Nov 2002
Oct 2002
Oct-Nov 2002
Oct 2002
Jul 2002
Nov 2001
Oct 2001
Apr 2001
Apr 2001
Apr 2001
Dec 2000
Nov 2000
Nov 2000
Oct 2000
Aug 2000
Aug 2000
Mathematics Department, University of Tennessee at Martin Nov 1999
Mathematics Department, Dyersburg State, TN Nov 1999
Mathematics Department, Georgia Perimeter College Oct 1999
Mathematics Department, Atlanta Metropolitan College Oct 1999
Mathematics Department, Tri-County Technical College, SC Oct 1999
Session on Stochastic Processes, AMS Meeting, Charlotte Oct 1999
Mathematics Department, University of North Carolina, Charlotte Oct 1999
Mathematics Department, Clemson University Oct 1999
Mathematics Department, East Tennessee State University Sep 1999
Mathematics Department, Milligan College, TN Sep 1999
Mathematics Department, Tennessee Tech Sep 1999
Statistics Department, University of Tennessee-Knoxville Sep 1999
Mathematics Department, University of Tennessee-Knoxville Sep 1999
Mathematics Department, Free University of Amsterdam Sep 1999
Mathematics Department, Clark Atlanta University Dec 1998
Mathematics Department, University of Pittsburgh Dec 1998
Mathematics Department, U.S. Naval Academy, Annapolis Nov 1998
Mathematics Department, University of Miami Nov 1998
Mathematics Department, University of Southern Mississippi Oct 1998
Mathematics Department, University of North Texas
Accounting Department, Business School, Southern Methodist University
Mathematics Department, Dekalb College
Mathematics Department, Columbus State University
Gambling Theory Seminar, Mathematics Department, U.C. Berkeley Sep 1998
Mathematics Department, University of Augsburg Jun 1998
Mathematics Department, California Polytechnic State University, San Luis Obispo Mar 1998
Institute of Mathematical Sciences, California State University-Monterey Bay Mar 1998
Mathematics Department, University of Tennessee-Knoxville Mar 1998
Mathematics Department, Morris Brown College, Atlanta Mar 1998
Mathematics Department, University of Alabama-Huntsville Feb 1998
Mathematics Department, University of Tennessee-Chattanooga Feb 1998
Mathematics Department, University of Alabama-Birmingham Feb 1998
Mathematics Department, Dekalb College
J an 1998
F. Lane Hardy Lecture, Columbus State University
Mexican Mathematical Research Center (CIMAT), Guanajuato, Mexico Jan 1998
Jan 1998
Mathematical Psychology Seminar, University of Düsseldorf Jul 1997
Special Krengel Colloquium, University of Göttingen Jun 1997
Mathematics Colloquium, University of Kiel May 1997
Probability Seminar, National University of Mexico Mar 1997
Probability Seminar, CIMAT Mexico (in Spanish) Jan 1997
Stochastics Seminar, University of Utrecht Nov 1996
Dynamics Colloquium, University of Amsterdam Nov 1996
Stochastics Colloquium, Math Centrum, Amsterdam Nov 1996
Mark Kac Lecture, Physics Laboratory, Utrecht Nov 1996
Dutch National PhD Lectures, Utrecht Fall 1996
Mathematics Department, University of Delft Oct 1996
Mathematics Department, Chalmers University Sep 1996
Sigma Xi College of Sciences Lecture, West Georgia College May 1996
Mathematics Department, University of Charleston
Mar 1996
Mathematics Department, University of North Texas (Colloquium and Millican Lecture) Nov 1995
Mathematics Department, University of Tennessee, Chattanooga
Nov 1995

| Mathematics and Computer Science Department, Free University, Amsterdam | Aug 1995 |
| :---: | :---: |
| College of Sciences Special Lecture, Georgia Tech | May 1995 |
| Mathematics Department, University of Costa Rica, San Pedro (3 lectures, in Spanish) | J an 1994 |
| Mathematical Stochastics Department, University of Göttingen (in German) | Oct 1993 |
| Mathematics Department, University of Groningen | Sep 1993 |
| Mathematical Statistics Department, University of Münster | J un 1993 |
| Mathematics Department, Delft University of Technology | Sep 1992 |
| Mathematical Stochastics Department, University of Göttingen | Aug 1992 |
| Mathematics Department, Tel-Aviv University | Jul 1992 |
| Mathematics Department, U. S. Military Academy, West Point | Sep 1991 |
| Statistics Department, University of California, Berkeley | Aug 1991 |
| Mathematics Department, Technical University of Eindhoven | Mar 1991 |
| Mathematics Department, University of Amsterdam | Mar 1991 |
| Mathematics Department, Technical University of Delft | Mar 1991 |
| Mathematics Department, Sonoma State University | Feb 1991 |
| Mathematics Department, College of Charleston | Nov 1990 |
| Statistics Department, Purdue University | Nov 1990 |
| Mathematical Stochastics Department, University of Göttingen | Aug 1990 |
| Mathematics Department, University of Kiel (in German) | May 1989 |
| Mathematics Department, University of Leiden | Apr 1989 |
| Mathematics Department, Free University of Amsterdam | Apr 1989 |
| Mathematics Department, Tel Aviv University | Mar 1989 |
| Mathematics Department, University of Wuppertal (in German) | Nov 1988 |
| Mathematical Stochastics Department, University of Göttingen (in German) | Nov 1988 |
| Mathematics Department, Auburn University | May 1988 |
| Mathematics Department, University of Queensland | Aug 1987 |
| Mathematics Department, University of Melbourne | Jul 1987 |
| Mathematics Department, Australian National University | Jul 1987 |
| Mathematics Department, University of New South Wales | Jul 1987 |
| Mathematics Department, University of Sydney | Jul 1987 |
| Mathematics Department, Columbus College, Columbus | Feb 1987 |
| Mathematics Department, U. S. Military Academy, West Point | Oct 1986 |
| Applied Mathematics Department, University of Bonn (In German) | Jun 1986 |
| Mathematical Stochastics Department, University of Göttingen | Jun 1986 |
| Mathematics and Statistics Departments, Ohio State University | Apr 1986 |
| Mathematics Department, University of Miami | Apr 1986 |
| Faculty of Commerce, University of British Columbia | Dec 1984 |
| Mathematics Department, University of Hawaii | Sep 1984 |
| Mathematics Department, University of Nijmegen (In Dutch) | May 1983 |
| Statistics Department, University of Tel-Aviv | Apr 1983 |
| Mathematical Stochastics Department, University of Göttingen | Feb 1983 |
| Mathematics Department, University of Eindhoven (In Dutch) | Dec 1982 |
| Mathematics Department, University of Delft (In Dutch) | Dec 1982 |
| Applied Mathematics Department, University of Bonn | Nov 1982 |
| Stochastic Dynamic Programming Conference, University of Leiden | Nov 1982 |
| Mathematics Department, Free University of Amsterdam | Aug 1982 |
| Mathematics Department, University of Miami | Apr 1982 |
| Mathematics Department, University of Hawaii | Apr 1980 |
| Statistics Department, University of California, Berkeley | Oct 1979 |
| Applied Mathematics Department, University of Bonn (In German) | Jul 1978 |

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## OTHER RESEARCH \& ACADEMI C VISITS

Modern Mathematics - Int. Summer School for Students, Jacobs U., Bremen, Germany University of Alberta
Free University of Amsterdam
Free University of Amsterdam
Free University of Amsterdam
Invited guest, Nomenclature Committee, Amer. Chemical Soc. meeting, Boston, MA
Free University of Amsterdam
Free University of Amsterdam
Free University of Amsterdam
Free University Amsterdam
University of Utrecht

Jul 1-11, 2017
Jul 2014
Jun 2013
Jun 2012
Jun 2011
Aug 2010
Jun 2010
May/Jun 2009
Jun/Jul 2008
Jun 2007
Jun 2007
University of Bonn
J awaharlal Nehru University
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GENERAL LECTURES

| Cal Poly Research Scholars in Residence Lecture, SLO | Feb 2019 |
| :--- | :--- |
| Cal Poly Research Scholars in Residence Lecture, SLO | Feb 2016 |
| Cal Poly Women's Club Lecture, SLO | Jan 2016 |
| Dept. of History Lecture, Cal Poly, SLO | Nov 2013 |
| Two Honors Program Lectures, San Jose State Univ. | May 2012 |
| Cal Poly Evening Research Scholars in Residence Lecture, SLO | Apr 2010 |
| RAMS Lecture, SLO | May 2009 |
| Science Forum Lecture, Cuesta College, SLO | Mar 2008 |
| Cal Poly Evening Research Scholars in Residence Lecture, SLO | Jan 2008 |
| Introduction of General Wesley Clark, Lefferson-Jackson Dinner, Santa Barbara | Oct 2006 |
| Cal Poly Evening Research Scholars in Residence Lecture, San Luis Obispo (SLO) | May 2006 |
| College of Science Special Lecture, Georgia Tech | May 1995 |
| Northside Senior Citizen (PALS) Lecture, Sandy Springs | May 1995 |
| Boy Scout Science Lecture, Atlanta | Apr 1992 |
| SCITREK Scholar Lecture, Atlanta | Jan 1992 |
| Mathematics Recruitment Lecture, North Springs High School, Atlanta | 1992 |
| Futurescape Mathematics Lecture, Georgia Tech | 1990 |
| Mathematics Lecture, Georgia Tech Super Student Day | 1989 |
| Keynote Speaker, Graduate Student Recruitment Day, Georgia Tech | Mar 1988 |
| Mathematics Showcase Speaker, Georgia Tech | 1982 |

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## PUBLICATIONS

## Books

PUSHING LIMITS: Memoir of a Maverick from Soldier to Scholar (paperback), Wise Ink Creative Publishing, August 2020.
PUSHING LIMITS: From West Point to Berkeley and Beyond (hardcover), American Mathematical Society (AMS) and Mathematical Association of America (MAA), April 2017.

An Introduction to Benford's Law (with A. Berger). Princeton University Press, 2015.
Advances in Stochastic Inequalities: AMS Special Session on Stochastic Inequalities and Their Applications (Ed. with C. Houdré). American Mathematical Society, 1999.

## Articles

(Note that many of these articles are freely available through the Cal Poly Digital Commons website.)

## Benford's Law

1. A Widespread Error in the Use of Benford's Law to Detect Election and Other Fraud, math arXiv:2011.13015 [math.PR]. Last revised November 25 (2020). [ARXIV-PDF]
2. The mathematics of Benford's law: a primer (with A. Berger), Statistical Methods \& Applications (2020). [PDF]
3. What is ... Benford's Law? (with A. Berger), Notices of the AMS 64(2), pp. 132-134 (2017).
4. Hubble's Law Implies Benford's Law for Distances to Galaxies (with R. Fox), Journal of Astrophysics and Astronomy 37(1), pp. 1-8 (2016). [PDF] For an earlier version, see Hubble's Law Implies Benford's Law for Distances to Stars (with R. Fox), Physics arXiv, posted December 4(2014). [ARXIV-PDF]
5. Benford's Law: A curious statistical phenomenon that keeps getting curiouser, Princeton University Press Blog, Oct 6 (2015).
6. Benford's Law, in The Princeton Companion to Applied Mathematics, ed. N. J. Higham, Princeton University Press, pp. 135136 (2015).
7. A Short Introduction to the Mathematical Theory of Benford's Law (with A. Berger), in Benford's Law - Theory and Applications, ed. S. J. Miller, Princeton University Press, pp. 23-55 (2015).
8. A basic theory of Benford's Law (with A. Berger), Probability Surveys 8:1-126 (2011). [PDF]
9. Benford's Law Blunders, Letter to the Editor, The American Statistician 65(2):141, 2011. [PDF]
10. Benford's Law Strikes Back: No Simple Explanation in Sight for Mathematical Gem (with A. Berger), The Mathematical Intelligencer 33(1):85-91 (2011). [PDF]
11. Finite-state Markov Chains obey Benford's Law (with B. Kaynar, A. Berger, and A. Ridder), SIAM J. Matrix. Anal. Appl.

32(3):665-684 (2011). [PDF]
12. Fundamental Flaws in Feller's Classical Derivation of Benford's Law (with A. Berger), Mathematics arXiv, posted May 14, 2010. [ARXIV-PDF]
13. Scale distortion inequalities for mantissas of finite data sets (with A. Berger and K. Morrison), Journal of Theoretical Probability 21:97-117 (2008). [PDF]
14. Your Number's Up, Response to Letters to the Editor, American Scientist Online, May-J une (2007) (Online link is incorrect).
15. Newton's method obeys Benford's law (with A. Berger), American Mathematical Monthly 114:588-601 (2007). [PDF]
16. One-dimensional dynamical systems and Benford's Law (with A. Berger and L.A. Bunimovich), Transactions of the American Mathematical Society 357:197-219 (2005). [PDF]
17. Response to "Benfords Gesetz", Brief an die Herausgeber, Deutsche Mathematische Verein, Mitteilungen 3:4 (2001).
18. The difficulty of faking data, Chance 26:8-13 (1999). [PDF]
19. The first-digit phenomenon, American Scientist 86:358-363 (1998). [PDF]
20. Benford's Law, Encyclopedia of Mathematics Supplement 1:102, Kluwer (1997). [PDF]
21. A note on distributions of true versus fabricated data, Perceptual and Motor Skills 83:776-778 (1996). [PDF]
22. A statistical derivation of the significant-digit law, Statistical Science 10:354-363 (1995). [PDF]
23. The significant-digit phenomenon, The American Mathematical Monthly 102:322-327 (1995). [PDF]
24. Base invariance implies Benford's Law, Proceedings of the American Mathematical Society 123:887-895 (1995). [PDF]
25. Random-number guessing and the first-digit phenomenon, Psychological Reports 62:967-971 (1988). [PDF]

Fair Division
26. Slicing Sandwiches, States, and Solar Systems, published in The Best Writing on Mathematics 2019, Princeton University Press (2019).
27. Slicing Sandwiches, States, and Solar Systems, American Scientist 106(1):42-49(2018). [WEB]
28. A Stronger Conclusion to the Classical Ham Sandwich Theorem (with J.H. Elton), European Journal of Combinatorics 32:657661 (2011). [PDF]
29. Cutting Cakes Carefully (with K.E. Morrison), The College Mathematics Journal 41(4):281-288, September (2010). [PDF]
30. Counterexamples in the theory of fair division (with K.E. Morrison), Mathematics arXiv, posted Jan 15 (2009). [ARXIV-PDF]
31. Maximin-share and minimax-envy in fair-division problems (with M. Dall'Aglio), Journal of Mathematical Analysis and Applications 281:346-361 (2003). [PDF]
32. Mathematical devices for getting a fair share, American Scientist 88:325-331 (2000). [PDF]
33. Fair-Division Problems, Panem \& Circenses 10:16-27 University of Göttingen Stochastics Newsletter (1998). [PDF]
34. Partitioning inequalities in probability and statistics, Stochastic Inequalities, IMS Lecture Notes 22:116-132 (1993). [PDF]
35. A proportionality principle for partitioning problems, Proceedings of the American Mathematical Society 103:288-293 (1988). [PDE]
36. Common hyperplane medians for random vectors, American Mathematical Monthly 95:437-441 (1988). [PDF]
37. Equitable distribution of indivisible objects (with S. Demko), Mathematical Social Sciences 16:1-14 (1988). [PDF]
38. Partitioning general probability measures, Annals of Probability 15:804-813 (1987). [PDF]
39. Optimal-partitioning inequalities for non-atomic probability measures (with J. Elton and R. Kertz), Transactions of the American Mathematical Society 296:703-725 (1986). [PDF]
40. Equipartitioning common domains of non-atomic measures, Mathematische Zeitschrift 189:415-419 (1985). [PDF]
41. Determining a fair border, American Mathematical Monthly 90:438-442 (1983). [PDF]

Optimal Stopping
42. Knowing When to Stop, American Scientist 97:126-133 (2009). [PDF] See also French translation in Pour la Science, No. 381, July (2009).
43. Goal problems in gambling theory, Revista de Matemática 6(2):125-132 (1999). [PDF]
44. Minimax-optimal strategies for the best-choice problem when a bound is known for the expected number of objects (with D . Kennedy), SIAM Journal on Control and Optimization 32:937-951 (1994). [PDF]
45. Moment-based minimax stopping functions for sequences of random variables (with F. Boshuizen), Stochastic Processes and Applications 43:303-316 (1992). [PDF]
46. Sharp inequalities for optimal stopping with rewards based on ranks (with D. Kennedy), Annals of Applied Probability 2:503517 (1992). [PDF]
47. A prophet inequality related to the secretary problem (with U. Krengel), Contemporary Mathematics 125:209-215 (1992). [PDF]
48. A survey of prophet inequalities in optimal stopping theory (with R. Kertz), Contemporary Mathematics 125:191-207 (1992). [PDF]
49. Minimax-optimal stop rules and distributions in secretary problems (with U. Krengel), Annals of Probability 19:342-353 (1991). [PDF]
50. Optimal stopping problems with generalized objective functions (with D. Kennedy), Journal of Applied Probability 28:828-838
(1990). [JSTOR-PDF]
51. Prophet inequalities for parallel processes (with D. Kennedy), Journal of Multivariate Analysis 31:236-243 (1989). [PDF]
52. Optimal-partitioning inequalities in classification and multi-hypotheses testing (with Y. L. Tong), Annals of Statistics 17:13251334 (1989). [PDF]
53. Expectation inequalities associated with prophet inequalities, Stochastic Analysis and Applications 5:299-310 (1987). [PDF]
54. The existence of good Markov strategies in decision processes with general payoffs (with V. Pestien), Stochastic Processes and Applications 24:61-76 (1987).[PDF]
55. Prophet inequalities for averages of independent non-negative random variables, Mathematische Zeitschrift 192:427-436 (1986). [PDF]
56. Selection of order of observation in optimal stopping problems (with A. Hordijk), Journal of Applied Probability 22:177-184 (1985). [LSTOR-PDF]
57. On maximizing the average time at a goal (with S. Demko), Stochastic Processes and Applications 17:349-357 (1984). [PDF]
58. Stop rule inequalities for uniformly bounded sequences of random variables (with R. Kertz), Transactions of the American Mathematical Society 278:197-207 (1983). [PDF]
59. Prophet inequalities and order selection in optimal stopping problems, Proceedings of the American Mathematical Society 88:131-137 (1983). [PDF]
60. The advantage of using non-measurable stop rules (with V. Pestien), Annals of Probability 11:442-450 (1983). [PDF]
61. Comparisons of stop rule and supremum expectations of i.i.d. random variables (with R. Kertz), Annals of Probability 10:336345 (1982). [PDF]
62. Additive comparisons of stop rule and supremum expectations of uniformly bounded independent random variables (with R. Kertz), Proceedings of the American Mathematical Society 83:582-585 (1981). [PDF]
63. Ratio comparisons of supremum and stop rule expectations (with R. Kertz), Zeitschriftfür Wahrscheinlichkeitstheorie 56:283285 (1981). [PDF]
64. On the existence of good Markov strategies, Transactions of the American Mathematical Society 247:157-176 (1979). [PDF]

General Probability \& Analysis
65. Extreme Tail Ratios and Overrepresentation among Subpopulations with Normal Distributions (with R. Fox), Stats 5(4):977984 (2022) [PDF]
66. A Note on Over- and Under-Representation Among Populations with Normally-Distributed Traits (with R. Fox), math arXiv: 2103.09324 [math.PR]. Last revised March 16 (2021). [ARXIV-PDF]
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Coca Cola International (1998): Statistical Testing
Scientific Games Inc. (1995-96): Probability Games
Eleven-Alive TV Channel 11 News (1996): Lottery schemes
Carnation Foods, Inc. (1991, 1993): Determination of sample risks
WAGA TV Channel 5 News (1990): Analysis of Florida lottery strategies
Nestle's Inc.(1988): Determination of "forward" and "backward" mixtures of bicomponent solutions
Atlanta Inquirer (1988): Explanation of "airplane" pyramid schemes (1988)
Tillinghast, Nelson and Warren (Atlanta) (1987): Analysis of statistics of Pepsico pension plan lawsuit
WAGA TV Channel 5 News and CBS National News (Dan Rather Show 1987): Analysis of "system" to beat national Beatrix lottery
Sutherland, Asbill and Brennan (Atlanta) (1980): Landmark cross-district busing case involving analysis of indices of segregation

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## PROFESSI ONAL SERVICE

## Referee for:

[^0]Journal of Applied Probability
Journal of Astrophysics and Astronomy
Journal of Australian Mathematical Society
Journal of Difference Equations and Applications
Journal of Mathematical Analysis and Applications
Journal of Multivariate Analysis
Journal of Statistical Computation and Simulation
Journal of Theoretical Probability
Kodai Mathematical Journal
Lecture Notes on Stochastic Inequalities
Lingua
Mathematica Japonica
Mathematical Social Sciences
Mathematischen Annalen
Mathematische Nachrichten
Mathematics of Operations Research
Notices of the American Mathematical Society
Operations Research Perceptual and Motor Skills
Physica D
Physics Letters A
PLos ONE
Probability in Engineering and Information Sciences
Probability Theory and Related Fields
Proceedings of the American Mathematical Society
Proceedings of the AMS-IMS-SIAM Conference on Sequential Search
Proceedings of Mexican Mathematical Society Conference
Proceedings of the National Academy of Science
Psychological Reports
Revista de Matematica
Scandinavian Journal of Statistics
Sequential Analysis
SIAM Review
SN Social Sciences
Statistics and Probability Letters
Social Choice and Welfare
Statistica Neerlandia
Stochastic Analysis and Applications
Stochastic Processes and Applications
South African Statistical Journal
The American Statistician
The Mathematical Intelligencer

## Reviewer for:

U.S. National Science Foundation

Israel-U.S. Binational Science Foundation
Mathematical Reviews
NATO Scientific Exchange Program
Zentralblatt für Mathematik
Civilian Research and Development Foundation (CRDF)
Israel Science Foundation

## External Review Committees

Accreditation Committee, University of Sharjah and Amer. U. of Sharjah
Feb 2007
Jan 2000-2004

## Science Panels

NSF Graduate Research Fellowship Program Panel, Washington, DC
NSF POWRE Screening Panel, Washington, DC
NSF Minority Screening Panel, Washington, DC
NSF Probability Screening Panel, Washington, DC
Fulbright Selection Committee, Bonn, Germany

## Scientific Organizing Committees

Scientific Organizing Committee SIMMAC XVIII, Costa Rica 2012
Scientific Organizing Committee SIMMAC XVII, Costa Rica 2010
Scientific Organizing Committee SIMMAC XVI, Costa Rica 2008
Scientific Organizing Committee SIMMAC XV, Costa Rica 2006
Scientific Organizing Committee, ICM 2002 Hanoi Satellite Conference 2001-02
Scientific Organizing Committee, Centralamerican Math. Conf.
Co-organizer, AMS Special Session on Stochastic Inequalities, Atlanta
Steering Committee, Southeast Applied Analysis Center
1997
Oct 1997
1996-2001
Jun 1995
Jun 1993
1992-93

Organizer, Miniconference on Martingales and Optimal Stopping, Atlanta Co-organizer, Special Session, AMS Annual Meeting

## Chaired Sessions in Scientific Meetings

Sessions I and II, Differential Equations, SIMMAC XVIII, Costa Rica Session on Optimal Control, SIMMAC XV, Costa Rica
Probability Session, ICM 2002, Beijing
Probability Session, ICAAA 2002, Hanoi
Session on Partitioning, SPA '93, Amsterdam
Probability Session, AMS Annual Meeting, San Antonio
Analysis Session, International Congress of Mathematicians, Berkeley
Analysis Session, Annual AMS Meeting

## Miscellaneous

Co-Director, Georgia Tech, Center for Applied Probability
1995-96
Fulbright Faculty Associate (for Boshuizen/Gouweleeuw)
1993
President of Faculty Assembly, School of Mathematics, Georgia Tech
Visiting Professors Program, Georgia Tech
1992-93
ASSET Faculty Friend Program, Georgia Tech
Georgia Tech Whitewater Canoe Instructor
Faculty Advisor, Psi Upsilon Fraternity
Faculty Advisor, Georgia Tech Scuba Club
Organizer/Co-organizer Georgia Tech Probability Seminar
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    Canadian Journal of Information and Library Science
    Canadian Journal of Physics
    Chaos
    Cognitive Science
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    Contemporary Mathematics
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    Electronic Communications in Probability
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    Group Decision and Negotiation
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