

**CURRICULUM VITAE**

**Home Address:** 156 Mount Vernon Street  
Boston, MA 02108  
tel: (857) 753-4703

**Office Address:** Microsoft Research New England  
1 Memorial Drive  
Cambridge, MA 02142  
tel: (857) 453-6308  
e-mail: jchayes@microsoft.com

**Education:**

1979 B.A., Physics and Biology, Wesleyan University  
1983 Ph.D., Mathematical Physics, Princeton University

**Positions:**

1983–1985 Postdoctoral Fellow in Mathematical Physics, Departments of  
Mathematics and Physics, Harvard University  
1985–1987 Postdoctoral Fellow, Laboratory of Atomic and Solid State  
Physics and Mathematical Sciences Institute, Cornell University  
1987–1990 Associate Professor, Department of Mathematics, UCLA  
1990–2001 Professor, Department of Mathematics, UCLA  
1997–2005 Senior Researcher and Head, Theory Group, Microsoft Research  
1997–2008 Affiliate Professor, Dept. of Physics, U. Washington  
1999–2008 Affiliate Professor, Dept. of Mathematics, U. Washington  
2005–2008 Principal Researcher and Research Area Manager for Mathematics,  
Theoretical Computer Science and Cryptography, Microsoft Research  
2008– Managing Director, Microsoft Research New England  
2010–2018 Distinguished Scientist, Microsoft Corporation  
2012– Managing Director, Microsoft Research New York City  
2018– Technical Fellow, Microsoft Corporation  
2018– Managing Director, Microsoft Research Montreal

**Long-Term Visiting Positions:**

1994-95, 1997 Member, Institute for Advanced Study, Princeton  
1995, May–July ETH, Zürich  
1996, Sept.–Dec. AT&T Research, New Jersey

**Awards and Honors:**

- 1977 Johnston Prize in Physics, Wesleyan University
- 1979 Graham Prize in Natural Sciences & Mathematics, Wesleyan University
- 1979 Graduated 1<sup>st</sup> in Class, Summa Cum Laude, Wesleyan University
- 1984 National Science Foundation Postdoctoral Research Fellowship
- 1989 Alfred P. Sloan Foundation Research Fellowship
- 1993 Mortar Board Honor Society Teaching Award, UCLA
- 1994 Distinguished Teaching Award, Department of Mathematics, UCLA
- 2003 National Associate, The National Academies
- 2006 Fellow, American Association for the Advancement of Science
- 2008 Fellow, Fields Institute
- 2011 Fellow, Association of Computing Machinery
- 2011 Leadership Award, Women Entrepreneurs in Science and Technology
- 2011 Leading Women Award, Girl Scouts of Eastern Massachusetts
- 2012 Women to Watch Award, Boston Business Journal
- 2012 Women of Vision Leadership Award, Anita Borg Institute
- 2012 Women Leader in STEM, STEM Connector
- 2012 Diversity Champion, Boston Globe
- 2013 Fellow (Inaugural Class), American Mathematical Society
- 2013 Top Woman Engineer in Tech, Business Insider
- 2013 Woman We Admire, Ad Club of Boston
- 2013 Distinguished Alumnus Award, Wesleyan University
- 2013 Catalyst Award, Science Club for Girls
- 2014 Elected Member, American Academy of Arts and Sciences
- 2015 John von Neumann Lecture Prize, Society for Industrial and Applied Mathematics (SIAM) (highest honor of SIAM)
- 2016 Honorary Doctorate, Leiden University
- 2016 Information Week's Twelve Inspiring Women in Data Science
- 2016 GirlStart 2016 Women in STEM Award
- 2017 Wheaton Inaugural Women in STEM Award
- 2018 Massachusetts Technical Leadership Council Distinguished Leader Award

**Selected Science and Engineering Community Positions:**

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|----------------|--|
| Member         | National Security Agency Panel of the American Mathematical Society, 1992–1994   |
| Member         | Western Section Program Committee, American Mathematical Society, 1996–1997  |
| Chair          | Western Section Program Committee, American Mathematical Society, 1997   |
| Member         | External Advisory Board, Center for Discrete Mathematics and Computer Science (DIMACS), 1997–2013                          |
| Member         | Board of Governors, Institute for Mathematics and its Applications (IMA), 1997–2000  |
| Member         | Congressional Science Policy Study Panel (advisory panel to House of Representatives Science Committee), 1997              |
| Member         | Committee of Visitors, National Science Foundation (review committee for Division of Mathematical Sciences), 1998 and 2001 |
| Vice President | American Mathematical Society (AMS), 1998–2001   |
| Member         | Board of Mathematical Sciences, National Research Council, 1998–2002   |
| Member         | International Union of Pure and Applied Physics (IUPAP) Commission on Statistical Physics, 1998–2006                       |
| Member         | IUPAP Commission on Mathematical Physics, 1999–2002  |
| Member         | Advisory Committee, Office of the Public Understanding of Science (OPUS) of the National Academy of Sciences, 2000–2003    |
| Chair          | Mathematics Section of the American Association for the Advancement of Science (AAAS), 2002–2005                           |
| Member         | Scientific Advisory Board, Banff International Research Station, 2002–2005   |
| Member         | United States Delegation, International Mathematics Union, 2002 and 2006   |
| Member         | U.S. National Committee on Mathematics of the National Academy of Sciences, 2003–2008                                      |
| Member         | Scientific Advisory Panel, Fields Institute, 2003–2007   |
| Member         | National Academies (NAS, NAE and IM) Committee on Facilitating Interdisciplinary Research, 2003–2004                       |
| Member         | National Research Council Governing Board Review Committee on Communications Strategy, 2003–2005                           |
| Member         | Board of Trustees, Mathematical Sciences Research Institute, 2004–2015   |
| Member         | Advisory Committee on Women in Computing, Association for Computing Machinery (ACM), 2004–2007                             |
| Member         | Leadership Advisory Panel, Anita Borg Institute, 2004–2007   |
| Member         | International Mathematics Union Nominating Committee, 2005   |
| Member         | Advisory Board, Miller Institute for Basic Research in Science, 2006–2009  |

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| Member   | Prize Committee, Anita Borg Technical Leadership Award, 2006–2010   |
| Member   | Review Committee, National Research Council Review Committee for the Board of Mathematical Sciences and its Applications 2006 |
| Member   | Advisory Cabinet, Olympus Center, Carnegie Mellon University, 2006–2008   |
| Member   | National Academies (NAS, NAE and IM) Committee on Insuring the Integrity of Scientific Data in the Digital Age, 2007–2009     |
| Member   | ACM Turing Award Committee, 2007–2013   |
| Chair    | ACM Turing Award Committee, 2011  |
| Member   | Advisory Committee, Howard Hughes Medical Institute Janelia Research Campus, 2009 –   |
| Member   | Science Advisory Committee, Radcliffe Institute for Advanced Study, 2009–2011   |
| Chair    | National Academy of Sciences Review Panel for the Kavli Frontiers of Science Symposia, 2010                                   |
| Member   | Nomination Committee, Anita Borg Technical Leadership Award, 2011–  |
| Member   | Board of Trustees, Institute for Computational and Experimental Mathematics, 2011–  |
| Member   | Advisory Board, Women Entrepreneurs in Science and Technology, 2011–2013  |
| Member   | Advisory Board, Institute for Computational Science and Engineering, Harvard University, 2011–                                |
| Chair    | Association of Computing Machinery (ACM) Heidelberg Laureate Selection Committee, 2013–                                       |
| Member   | Heidelberg Laureate Scientific Advisory Committee, 2013–  |
| Member   | Corporation Visiting Committee for Sponsored Research, MIT, 2013–   |
| Member   | Advisory Board, WomenLead, 2013–2015  |
| Member   | Board of Trustees, Center for Discrete Mathematics and Computer Science (DIMACS), Rutgers University, 2013–                   |
| Member   | Advisory Board, American Women in Mathematics (AWM), 2013–2017  |
| Member   | Director Selection Committee for the Simons Data Science Institute, 2013  |
| Member   | New York Steering Committee, Anita Borg Institute (ABI), 2013–2015  |
| Member   | Technical Leadership Award Nomination Committee, Anita Borg Institute (ABI), 2013–2017  |
| Member   | Committee on Women in Science, Engineering and Medicine (CWSEM) National Research Council, 2014–2017                          |
| Member   | Secretary of Energy Advisory Board (SEAB) National Laboratory Task Force, 2014–2016   |
| Co-Chair | Scientific Advisory Board, Simons Institute for the Theory of Computing, 2014–2017  |
| Member   | Board of Directors, Center for Minorities and People with Disabilities (CMD-IT), 2015–  |

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| Member | Advisory Committee, Mathematical and Physical Sciences, National Science Foundation, 2015–2018 |
| Member | Corporation Visiting Committee for Institute for Data, Systems and Society, MIT, 2015–         |
| Member | Prize Selection Committee for INFOSYS Prize in Mathematics, 2015–                              |
| Member | Corporation Visiting Committee for Institute for Data, Systems and Society, MIT, 2015–         |
| Member | Scientific Advisory Board, Gordon and Betty Moore Foundation, 2016–                            |
| Member | Advisory Board for Institute for Data, Systems and Society, MIT, 2016–                         |
| Member | International Advisory Board, International Centre for Theoretical Sciences, Bangalore, 2017–  |
| Member | MIT Press Management Board, 2017–  |
| Member | Steering Committee for SysML (Systems and Machine Learning), 2017–                             |
| Member | Steering Committee for APoCS (Algorithmic Principles of Computer Science), 2018–               |
| Member | International Scientific Advisory Committee, CIFAR Pan-Canadian AI Strategy, 2018–             |

**Editorial Positions:**

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|---------------|--|
| Assoc. Editor | Journal of Statistical Physics, 1991–1993                              |
| Assoc. Editor | Annales Henri Poincaré, 2001–2007                                      |
| Assoc. Editor | Combinatorics, Probability and Computing, 2001–                        |
| Assoc. Editor | Journal of Mathematical Physics, 2002–2006                             |
| Assoc. Editor | Random Structures and Algorithms, 2002–                                |
| Assoc. Editor | Journal of Statistical Mechanics: Theory and Experiment, 2004–2007     |
| Assoc. Editor | Research Notes in Applied Mathematics, AK Peters Publishing, 2009–2012 |
| Assoc. Editor | Internet Mathematics, 2010–2014  |
| Sect. Editor  | SIAM Review, 2012–2014   |
| Assoc. Editor | Notices of the American Mathematical Society, 2013–2016                |
| Assoc. Editor | SIAM Journal on Mathematics of Data Science (SIMODS), 2017–            |

## Selected Invited Talks

I have given over 500 invited addresses, colloquia and seminars including:

- 1986, July           Invited Address, 8th International Congress on Mathematical Physics  
(Marseille, France)
- 1990, Nov.           Plenary Address, AMS Regional Meeting (UC Irvine)
- 1993, June           Plenary Address, 22nd International Conference on Stochastic Processes  
and their Applications (Vrije University, Amsterdam)
- 1993, Aug.           Invited Course, IMA Probability Summer School (Ohio State University)
- 1995, May-July      The Mark Kac Lectures (Utrecht, Holland)
- 1996, June-July     Invited Course, IAS/Park City Math Institute (IAS, Princeton)
- 1996, July           Plenary Talk, SIAM Annual Meeting (Kansas City, MI)
- 1996, Oct.           DIMACS Distinguished Lecture (Rutgers University)
- 1998, Feb.           Noether Colloquium (University of California, Berkeley)
- 1998, March         Class of 1927 Lectures (Rensselaer Polytech)
- 1998, March         Invited Course, School on Phase Transitions  
(Charles University, Prague)
- 1998, March         32nd KAM (Katedra Aplikovane Matematiky) Lecture  
(Charles University, Prague)
- 1998, April         Plenary Talk, Conference on Algebraic Combinatorics  
and Applications (Oakland University, Rochester, Michigan)
- 1998, May           Interface Council Seminar (National Science Foundation, D.C.)
- 1998, Aug.           Invited Address, International Congress of Mathematics  
(Berlin, Germany)
- 1999, Jan.           Plenary Address, AMS Annual Meeting (San Antonio, Texas)
- 1999, June           Plenary Address, Institute for Mathematical Statistics Regional Meeting  
(Seattle, WA)
- 1999, July           Public Lecture, Singapore Mathematical Society (Singapore)
- 1999, July           Plenary Address, Joint American-Australian Math Society Meeting  
(Melbourne)
- 1999, Aug.           Invited Course, ICTP International School: Statistical Physics and  
Probabilistic Methods in Theoretical Computer Science (Trieste, Italy)
- 1999, Dec.           Public Lecture, Canadian Mathematical Society Annual Meeting  
(Montreal)
- 2000, Feb.           Topical Lecture, AAAS Annual Meeting (Washington D.C.)
- 2000, May           Commencement Address in Mathematics, UC Berkeley
- 2000, Dec.           Plenary Talk, Hua Memorial Conference (Beijing, China)
- 2001, Feb.           Fifth Annual Paul Erdős Lecture (University of Memphis)
- 2001, Aug.           Plenary Talk, Vth Brazilian School of Probability (Ubatuba, Brazil)
- 2002, April          Plenary Talk, Latin 2002 (Cancun)
- 2002, Aug.           Invited Course, ICTP School on Statistical Physics, Probability

- Theory and Computational Complexity (Trieste, Italy)
- 2003, Feb. Mary Cartwright Lecture of the London Mathematical Society (Edinburgh, Scotland)
- 2003, March Public Discussion with Sergey Brin and Donald Knuth, Commonwealth Club (Palo Alto)
- 2003, July Plenary Talk, 5th International Congress of Industrial and Applied Mathematics (Sydney, Australia)
- 2003, Nov. Annual Women in Computer Science Distinguished Lecture, (Carnegie-Mellon University)
- 2004, Feb. Invited Talk, AAAS Annual Meeting (Seattle)
- 2004, June Miller Institute Annual Interdisciplinary Symposium, Marconi Center (Marin County, CA)
- 2004, June Plenary Talk, Annual SIAM Discrete Mathematics Conference (Nashville, TN)
- 2005, Jan. Plenary Talk, MSRI Special Program Opening Day (Berkeley)
- 2005, June Invited Talk, Einstein Centenary Conference: Physics in the 21st Century (ETH, Zurich)
- 2005, June Invited Talk, J.T. Lewis Memorial Conference (Dublin)
- 2006, March Plenary Address, Dutch Mathematical Society Meeting (Delft)
- 2006, May Public Lecture, Institute for Mathematical Sciences (Singapore)
- 2007, April Public Lecture, Institute for Mathematics and its Applications (Minneapolis)
- 2007, Aug. Earle Raymond Hedrick Lectures, Mathematical Association of America (San Jose)
- 2007, Oct. Keynote Address, OurCS Conference for Undergraduate Women in CS (CMU)
- 2008, Aug. Invited Talk, Building Bridges Conference (Renyi Institute, Budapest)
- 2009, March University Distinguished Lecture (Northeastern University)
- 2009, June Distinguished Lecture, National Science Foundation
- 2009, Oct. University Distinguished University (Boston University)
- 2010, April Distinguished Lecture (Brown University)
- 2010, April Annenberg Lecture (Harvey Mudd College, Claremont, CA)
- 2010, April Plenary Lecture, WebSci Conference (Charlotte, NC)
- 2010, May Bertman Memorial Lecture (Wesleyan University)
- 2010, May Invited Lecture, NetSci Conference (MIT)
- 2010, Sept. Invited Lecture, Web Science: A New Frontier (350<sup>th</sup> Anniversary of the Royal Society, London)
- 2010, Nov. The Lewis Lectures (Rutgers University)
- 2010, Dec. Plenary Talk, Workshop on Internet Economics (Stanford University)

- 2011, May Plenary Talk, Random Structures and Algorithms Workshop (Georgia Tech)
- 2011, Nov. The Plueker Lectures (University of Bonn)
- 2011, Nov.–Dec. The Eisenbud Lectures (Brandeis University)
- 2012, Jan. Plenary Talk, Symposium on Discrete Algorithms (Kyoto)
- 2012, Feb. Distinguished Lecture in Computer Science (University of Southern California)
- 2012, May Acceptance Speech, Women of Vision Leadership Award (San Jose)
- 2012, Nov. Cheriton School of Computer Science Distinguished Lecture (Waterloo)
- 2012, Dec. Plenary Talk, Social Networks Workshop (Lake Tahoe)
- 2013, Feb. Dialogue of Discovery Public Lecture, (Howard Hughes Janelia Farm Institute)
- 2013, April ADVANCE Campus-Wide Lecture (University of Maryland)
- 2013, Nov. School of Computer Science Distinguished Lecture (Carnegie-Mellon University)
- 2013, Nov. Alumnus Public Lecture (Institute for Advanced Study, Princeton)
- 2013, Dec. Plenary Talk, Neural Information Processing Systems (NIPS) Conference
- 2014, April Math Encounters Public Lecture, Museum of Mathematics (New York City)
- 2014, May Keynote Talk, Women Think Next 2014 (Herzliya, Israel)
- 2014, July Plenary Talk, Annual SIAM Meeting (Chicago)
- 2014, Oct. Computer Science Distinguished Lecture (University of Massachusetts, Amherst)
- 2015, March Moshe Flato Lecture (Ben Gurion University, Israel)
- 2015, July Plenary Lecture, International Congress of Mathematical Physics, Santiago, Chile
- 2015, Aug. Centennial Lecture, MathFest, Washington D.C.
- 2015, Aug. John von Neumann Prize Lecture, International Congress of Industrial and Applied Mathematics, Beijing, China
- 2015, Sept. Invited Lecture, Strata and Hadoop Conference, New York, NY
- 2015, Nov. Keynote Speaker, First Stanford Women in Data Science Conference, Stanford University
- 2016, Jan. MAA-AMS-SIAM Gerald and Judith Porter Public Lecture, 2016 Joint Mathematics Meeting, Seattle, WA
- 2016, May Keynote Lecture, The Digital Future: 75 years Zuse and The Digital Revolution, Berlin, Germany
- 2016, Aug. Keynote Lecture, Knowledge, Discovery and Data Mining Conference (KDD) San Francisco
- 2016, Oct.-Nov. Amick Lectures in Applied Mathematics, University of Chicago
- 2016, Dec. Keynote Lecture, Women in Machine Learning, Barcelona
- 2017, Feb. Keynote, Women in Data Science, Cambridge, MA
- 2017, Apr. Invited Lecture, The Governors Conference: New Technologies in Cancer Research, Institute for Advanced Study, Princeton
- 2017, Apr. Keynote, Inaugural Wheaton Summit for Women in STEM, Wheaton College, MA
- 2017, May Invited Lecture, The 117th Statistical Mechanics Meeting,



- Rutgers University
- 2017, May      Keynote, Women in Science and Engineering Lunch, Museum of Science, Boston
- 2017, June      Plenary Lecture, ISC High Performance Computing Conference, Frankfurt, Germany
- 2017, June      Plenary Lecture, ACM Conference on Economics and Computation, Cambridge, MA
- 2017, Nov.      Plenary Lecture, Friends of IHES Gala: Challenges of AI, New York City
- 2017, Dec.      Invited Lecture, NIPS Workshop on Machine Learning for Healthcare, Long Beach, CA
- 2018, Jan.      Invited Lecture, 10th Anniversary Celebration of the International Centre for Theoretical Sciences, Bangalore
- 2018, Jan.      Keynote, Stand Up to Cancer Annual Summit, Santa Monica, CA
- 2018, March     Invited Lecture, Scaled ML Conference, Stanford University
- 2018, May      Plenary Lecture, 15th Annual Workshop on Algorithms and Models for the Web Graph (WAW'18), Moscow
- 2018, July      Invited Lecture, Building Bridges II: Celebration of the 70th Birthday of Laci Lovasz, Budapest
- 2018, Aug.      Invited Lecture, Advances in Statistical Mechanics: Celebration of the 60th Birthday of Anton Bovier, CIRM, Luminy, France

**Conference Organization:**

- Coorganizer      AMS Workshop: The Mathematics and Physics of Order and Disorder (Bowdoin College, Maine), June 1988
- Coorganizer      Disordered Systems Session, 9th International Congress of Mathematical Physics, (Swansea, Wales), July 1988
- Coorganizer      Special Session at Regional AMS Meeting (UC Irvine), Nov. 1990
- Member            Advisory Committee, 10th International Congress of Mathematical Physics (Leipzig, Germany), Aug. 1991
- Organizer        Phase Transitions Session, Annual AAAS Meeting (San Francisco), Feb. 1994
- Coorganizer      IAS/DIMACS Workshop: Statistical Physics Methods in Discrete Probability, Combinatorics and Theoretical Computer Science (Institute for Advanced Study, Princeton and DIMACS), March 1997
- Member            Organizing Committee, NAS 9th Frontiers of Science Symposium (Irvine, CA), Nov. 1997
- Member            Organizing Committee, Workshop on Interfaces between Statistical Physics and Computer Science (Turin, Italy), Oct. 1998
- Chair             Organizing Committee, NAS 10th Frontiers of Science Symposium (Irvine, CA), Nov. 1998
- Coorganizer      ICTP School: Statistical Physics and Probabilistic Methods in Computer Science (Trieste, Italy), Aug.-Sept. 1999
- Coorganizer      ICTP Workshop: NP-Hardness and Phase Transitions (Trieste, Italy), Sept. 1999
- Coorganizer      NRC Workshop: The Interface between Three Areas of Computer Science with the Mathematical Sciences (Washington D.C), April 2000
- Coorganizer      NRC Workshop: Homeland Defense and the Mathematical Sciences, (Washington D.C), April 2002
- Coorganizer      ICTP School: Statistical Physics, Probability Theory and Computational Complexity, (Trieste, Italy), Aug.-Sept. 2002
- Coorganizer      ICTP Workshop: Typical-Case Complexity, Randomness and Analysis of Search Algorithms, (Trieste, Italy), Sept. 2002
- Coorganizer      AAAS Symposium: Graph Theory and Scaling for the Internet and the WWW (Denver), Feb. 2003
- Coorganizer      AAAS Symposium: Community Structure of the Internet and WWW: Mathematical Analysis, (Seattle), Feb. 2004
- Coorganizer      Workshop on Critical Scaling in Polymers and Percolation (Banff, Canada), May 2005
- Coorganizer      Senior Leadership Workshop for Women in Technology (Redmond), Nov. 2005
- Coorganizer      Random and Dynamic Graphs and Networks (Institute for Pure and Applied Mathematics, UCLA), May 2007
- Coorganizer      Stochastic Processes and Algorithms (Hausdorff Institute of Mathematics,

- University of Bonn, Germany), Sept. 2007
- Coorganizer OurCS Conference for Undergraduate Women in CS (CMU) Oct. 2007
- Coorganizer Computational Aspects of Biological Information (CABI) I (Microsoft Research, Redmond), Dec. 2007
- Coorganizer Phase Transitions, Hard Combinatorial Problems and Message-Passing Algorithms, (Banff International Research Station, Banff, Canada), June 2008
- Coorganizer Building Bridges, (Renyi Institute, Budapest, Hungary), Aug. 2008
- Coorganizer Microsoft Research New England Opening Symposium, Sept. 2008
- Coorganizer Foo East, (Microsoft, Cambridge, MA), March 2009
- Coorganizer Foo East, (Microsoft, Cambridge, MA), April 2010
- CoChair Local Organizing Committee, Symposium on the Theory of Computing (STOC), (Cambridge, MA) June 2010
- Coorganizer ACLU-Microsoft Research Technology Liberty Breakfasts (Microsoft, Cambridge, MA), 2010 – 2014
- Coorganizer Computational Aspects of Biological Information (CABI) II, (Microsoft Research New England), Dec. 2010
- Coorganizer Carnegie-Mellon University - Microsoft Research Mindswap in Economics (CMU), May 2012
- Coorganizer Computational Aspects of Biological Information (CABI) III, (Microsoft Research New England), Dec. 2013
- Member Organizing Committee, SIAM Annual Meeting, (Boston, MA), July 2016
- Member Organizing Committee, SIAM Discrete Mathematics Meeting, (Denver, CO), June 2018
- Coorganizer Minisymposium on Foundations of Data Science, SIAM Discrete Mathematics Meeting, (Denver, CO), June 2018

**Special Volumes Edited:**

- Special Issue Statistical Physics Methods in Discrete Probability, Combinatorics and Theoretical Computer Science, co-edited with D. Randall, *Random Structures and Algorithms* **15**, 209–470 (1999).
- Special Issue Probabilistic Techniques in Equilibrium and Nonequilibrium Statistical Physics, co-edited with C. Borgs, *Journal of Mathematical Physics* **41**, 1033–1615 (2000).

**Patents Filed:**

1. *Method and system of testing software, and the methods and systems of modeling user behavior*, D. Achlioptas, C. Borgs, J.T.C., H. Robinson, J. Tierney (2001).
2. *Method and system for identifying lossy links in a computer network*, C. Borgs, J.T.C., D. Heckerman, C.A. Meek, V.N. Pabmanabhan, L. Qui, J. Wang, D.B. Wilson (2003).
3. *Newsgroup clustering based on the cross-post graph*, C. Borgs, J.T.C., M. Mahdian, A. Saberi (2003).
4. *Systems and methods that facilitate maximizing revenue for multi-unit auctions with private budgets*, C. Borgs, J.T.C., N. Immorlica, M. Mahdian, A. Saberi (2004).
5. *Generating models for directed scale-free object relationships*, B. Bollobás, C. Borgs, J.T.C., O. Riordan (2005).
6. *Evaluation and pricing of user interactions with online advertisements*, C. Borgs, J.T.C., U. Feige, J. Goodman, N. Immorlica, M. Mahdian (2005).
7. *Mechanism for allocating advertisements of varying intervals*, C. Borgs, J.T.C., U. Feige, N. Immorlica, M. Mahdian (2005).
8. *Posted price market for online search and content advertisements*, C. Borgs, J.T.C., U. Feige, J. Goodman, M. Mahdian, A. Saberi (2005).
9. *Price determination for items of low demand*, C. Borgs, J.T.C., M. Chickering, U. Feige, M. Mahdian, C. Meek, A. Saberi (2005).
10. *Keyword ad campaign optimization*, C. Borgs, J.T.C., M. Chickering, O. Etesami, N. Immorlica, K. Jain, M. Mahdian, C. Meek (2005).
11. *Automatically generating content for presenting in a preview pane for ads*, J. Biggs, C. Borgs, J.T.C., U. Feige, J. Goodman, N. Immorlica, K. Jain, Y. Li, M. Mahdian, C. Meek (2005).
12. *Pay percentage of impressions*, C. Borgs, J.T.C., M. Chickering, O. Etesami, N. Immorlica, K. Jain, M. Mahdian, C. Meek (2006).
13. *User-associated interacting advertising monetization*, C. Borgs, J.T.C., N. Immorlica, K. Jain, M. Mahdian (2006).
14. *Designing hyperlink structures*, C. Borgs, J.T.C., G. Flake, N. Immorlica, K. Jain, (2006).
15. *A unified platform for reputation and secure transactions*, C. Borgs, J.T.C., N. Immorlica, K. Jain (2007).
16. *Graph structures and web spam detection*, C. Borgs, J.T.C., K. Gade, J. Hopcroft, V. Mirrokni, A. Prakash, T. Tao (2007).
17. *Local partitioning and web spam detection*, C. Borgs, J.T.C., K. Gade, J. Hopcroft, V. Mirrokni, A. Prakash, T. Tao (2007).
18. *Score propagation and web spam detection*, C. Borgs, J.T.C., K. Gade, J. Hopcroft, V. Mirrokni, A. Prakash, T. Tao (2007).
19. *Local computation of Pagerank contributions*, R. Andersen, C. Borgs, J.T.C., J. Hopcroft, V. Mirrokni, S. Teng (2007).
20. *Robust Pagerank and locally computable spam detection features*, R. Andersen, C. Borgs, J.T.C., J. Hopcroft, K. Jain, V. Mirrokni, S. Teng (2007).
21. *Trust-based recommendation systems*, R. Andersen, C. Borgs, J.T.C., U. Feige, A. Flaxman, A. Kalai, V. Mirrokni, M. Tennenholtz (2007).
22. *Monetizing a social network platform*, R. Andersen, C. Borgs, J.T.C., K. Jain, V. Mirrokni (2007).

23. *Optimization of network solutions*, M. Bayati, C. Borgs, A. Braunstein, J.T.C., R. Zecchina (2008).
24. *Generating recommendations through a trusted network*, C. Borgs, d. boyd, J.T.C., A. Kalai, M. Tennholtz (2009).
25. *Recommendation ranking system with distrust*, C. Borgs, J.T.C., A. Kalai, A. Malekian, M. Tennholtz (2010).
25. *Pricing mechanisms for perishable time-varying resources*, C. Borgs, U. Candogan, J.T.C., I. Lobel, H. Nazerzadeh (2010).
27. *Data center that accommodates episodic computation*, C. Belady, C. Borgs, J.T.C., N. Jain, J. Larus, I. Lobel, H. Nazerzadeh, I. Menache, D. Reed (2010).
28. *Detecting overlapping clusters*, N. Balcan, C. Borgs, M. Braverman J.T.C., S-H. Teng (2012).
29. *Efficient electronic document ranking for internet resources in sublinear time*, M. Brautbar, C. Borgs, J.T.C., S-H. Teng (2012).
30. *Determining influence in a network*, C. Borgs, M. Brautbar, J.T.C., B. Lucier (2012).

## PUBLICATIONS

1. **On a sharp transition from area law to perimeter law in a system of random surfaces** (M. Aizenman, J.T.C., L. Chayes, J. Fröhlich and L. Russo) *Commun. Math. Phys.* **92**, 19–69 (1983).
2. **The inverse problem in classical statistical mechanics** (J.T.C., L. Chayes and E. H. Lieb) *Commun. Math. Phys.* **93**, 57–121 (1984).
3. **The correct extension of the Fortuin-Kasteleyn result to plaquette percolation** (J.T.C. and L. Chayes) *Nucl. Phys. B* **235** [FS11], 19–23 (1984).
4. **On the validity of the inverse conjecture in classical density functional theory** (J.T.C. and L. Chayes) *J. Stat. Phys.* **36**, 471–488 (1984).
5. **Statistical mechanics of lattice tubes** (D. B. Abraham, J.T.C. and L. Chayes) *Phys. Rev. D* **30**, 841–843 (1984).
6. **Random surface correlation functions** (D. B. Abraham, J.T.C. and L. Chayes) *Commun. Math. Phys.* **96**, 439–471 (1984).
7. **Density functional approach to quantum lattice systems** (J.T.C., L. Chayes and M. B. Ruskai) *J. Stat. Phys.* **38**, 497–518 (1985).
8. **Nonperturbative analysis of a model of random surfaces** (D. B. Abraham, J.T.C. and L. Chayes) *Nucl. Phys. B* **251** [FS13], 553–563 (1985).
9. **The low-temperature behavior of disordered magnets** (J.T.C., L. Chayes and J. Fröhlich) *Commun. Math. Phys.* **100**, 399–437 (1985).
10. **The stochastic geometry of invasion percolation** (J.T.C., L. Chayes and C. M. Newman) *Commun. Math. Phys.* **101**, 383–407 (1985).
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