

Grey Ballard

ballard@wfu.edu

www.wfu.edu/~ballard

PO Box 7311 • Computer Science Department • Wake Forest University • Winston Salem, NC 27106

Professional

- Assistant Professor** 2016 – present
Wake Forest University Department of Computer Science, Winston Salem NC
- Harry S. Truman Postdoctoral Fellow** 2013 – 2016
Sandia National Laboratories, Livermore CA

Education

- Ph.D. in Computer Science** Fall 2008 – Spring 2013
University of California Berkeley, with a Designated Emphasis in Computational Science and Engineering
Advisor: James Demmel, Thesis: Avoiding Communication in Dense Linear Algebra
- M.A. in Mathematics** Fall 2006 – Spring 2008
Wake Forest University, Advisor: John Baxley
- B.S. in Mathematics and Computer Science** Fall 2002 – Spring 2006
Wake Forest University, *summa cum laude* with honors in mathematics and honors in computer science

Honors and Awards

- ICDM Best Paper Award** 2015
Awarded by the program committee, with coauthors Tamara Kolda, Ali Pinar, and C. Seshadri
- ACM Doctoral Dissertation Award - Honorable Mention** 2014
Presented annually to the authors of the best doctoral dissertations in computer science and engineering
- Harry S. Truman Fellowship in National Security Science and Engineering** 2013
Three year fellowship at Sandia National Laboratories providing the opportunity for recipients to pursue independent research in the national interest
- IPDPS Best Paper Award in Algorithms Track** 2013
Awarded by the program committee, with coauthors Dulceneia Becker, James Demmel, Jack Dongarra, Alex Druinsky, Inon Peled, Oded Schwartz, Sivan Toledo, and Ichitaro Yamazaki
- C.V. Ramamoorthy Distinguished Research Award** 2012
Awarded by the UC Berkeley EECS Student Awards Committee, based on outstanding contributions by a computer science graduate student to a new research area in computer science and engineering
- SIAM SIAG/Linear Algebra Prize** 2012
Awarded triennially by prize committee, with co-authors James Demmel, Olga Holtz, and Oded Schwartz
- SPAA Best Paper Award** 2011
Awarded by program committee, with co-authors James Demmel, Olga Holtz, and Oded Schwartz
- William C. and Ruth N. Archie Award** 2006
Awarded to outstanding senior demonstrating commitment to liberal learning, scholarship, and ideals of WFU
- John Y. Phillips Prize in Mathematics** 2006
Awarded by WFU mathematics department to the outstanding graduating senior
- Walt Chyzowych Award** 2006
Awarded by the WFU men's soccer coaching staff to the player who most embodies the ideals of the program
- Edwin G. Wilson Male Student Athlete of the Year** 2006

Publications

Journal Papers

1. Exploiting Multiple Levels of Parallelism in Sparse Matrix-Matrix Multiplication. Ariful Azad, Grey Ballard, Aydin Buluc, James Demmel, Laura Grigori, Oded Schwartz, Sivan Toledo, Samuel Williams. *SIAM Journal on Scientific Computing*, Volume 38, Number 6, pp. C624-C651. 2016.
2. Improving the Numerical Stability of Fast Matrix Multiplication Algorithms. Grey Ballard, Austin Benson, Alex Druinsky, Benjamin Lipshitz, and Oded Schwartz. *SIAM Journal on Matrix Analysis and Applications*, Volume 37, Number 4, pp. 1382-1418. 2016.
3. Reducing Communication Costs for Sparse Matrix Multiplication within Algebraic Multigrid. Grey Ballard, Christopher Siefert, and Jonathan Hu. *SIAM Journal on Scientific Computing*. Volume 32, Issue 3, pp. C203-C231. 2016.
4. Reconstructing Householder Vectors from Tall-Skinny QR. Grey Ballard, James Demmel, Laura Grigori, Mathias Jacquelin, Nicholas Knight, and Hong Diep Nguyen. *Journal of Parallel and Distributed Computing*. Volume 85, pp. 3-31. 2015.
5. Avoiding Communication in Successive Band Reduction. Grey Ballard, James Demmel, and Nicholas Knight. *ACM Transactions on Parallel Computing*. Volume 1, Issue 2, pp. 11:1-11:37. 2015.
6. Communication-Avoiding Symmetric-Indefinite Factorization. Grey Ballard, Dulceneia Becker, James Demmel, Jack Dongarra, Alex Druinsky, Inon Peled, Oded Schwartz, Sivan Toledo and Ichitaro Yamazaki. *SIAM Journal on Matrix Analysis and Applications*. Volume 35, Issue 4, pp. 1364-1406. 2014.
7. Communication Lower Bounds and Optimal Algorithms for Numerical Linear Algebra. Grey Ballard, Erin Carson, James Demmel, Mark Hoemmen, Nicholas Knight, Oded Schwartz. *Acta Numerica*. Volume 23, pp. 1-155. 2014.
8. Communication Costs of Strassen's Matrix Multiplication. Grey Ballard, James Demmel, Olga Holtz, and Oded Schwartz. *Communications of the ACM*. Volume 57, Number 2, pp. 107-113. 2014.
9. Asymptotic Behavior of the Eigenvalues of Toeplitz Integral Operators Associated with the Hankel Transform. Grey Ballard and John Baxley. *Dynamic Systems and Applications*, Volume 23, pp. 505-530, 2014.
10. Graph Expansion and Communication Costs of Fast Matrix Multiplication. Grey Ballard, James Demmel, Olga Holtz, and Oded Schwartz. *Journal of the ACM*. Volume 59, Issue 6, Article 32. 2012.
11. Minimizing Communication in Linear Algebra. Grey Ballard, James Demmel, Olga Holtz, and Oded Schwartz. *SIAM Journal on Matrix Analysis and Applications*, Volume 32, Issue 3, pp. 866-901. 2011.
12. Communication-optimal parallel and sequential Cholesky decomposition. Grey Ballard, James Demmel, Olga Holtz, and Oded Schwartz. *SIAM Journal on Scientific Computing*. Volume 32, Issue 6, pp. 3495-3523. 2010.
13. Existence of Solutions for a Class of Singular Nonlinear Third Order Autonomous Boundary Value Problems. Grey Ballard and John Baxley. *Communications in Applied Analysis*. Volume 15, No. 2-4, pp. 195-202. 2011.
14. The Friedrichs extension of certain singular differential operators. Grey Ballard and John Baxley. *Electronic Journal of Qualitative Theory of Differential Equations*. Special Edition I, No. 5, pp. 1-11. 2009.
15. Qualitative behavior and computation of multiple solutions of nonlinear boundary value problems. Grey Ballard, John Baxley, and Nisrine Libbus. *Communications on Pure and Applied Analysis*. Volume 5, No. 2, pg. 251-259. 2006.

Conference Proceedings

1. Network Topologies and Inevitable Contention. Grey Ballard, James Demmel, Andrew Gearhart, Benjamin Lipshitz, Yishai Oltchik, Oded Schwartz and Sivan Toledo. *Proceedings of the First Workshop on Optimization of Communication in HPC*. IEEE Press, Piscataway, NJ, USA, 39-52. 2016.
2. Parallel Tensor Compression for Large-Scale Scientific Data. Woody Austin, Grey Ballard, and Tamara Kolda. *Proceedings of the 30th IEEE International Parallel and Distributed Processing Symposium*. IEEE Computer Society, Washington, DC, USA, 912-922. 2016.
3. A High-Performance Parallel Algorithm for Nonnegative Matrix Factorization. Ramakrishnan Kannan, Grey Ballard, and Haesun Park. *Proceedings of the 21st ACM Symposium on Principles and Practice of Parallel Programming*. ACM, New York, NY, USA, 9:1-9:11. 2016.
4. Diamond Sampling for Approximate Maximum All-pairs Dot-product (MAD) Search. Grey Ballard, Tamara Kolda, Ali Pinar, C. Seshadri. *Proceedings of the 2015 IEEE International Conference on Data Mining*. IEEE Computer Society, Washington, DC, USA, 11-20. 2015.
5. Brief Announcement: Hypergraph Partitioning for Parallel Sparse Matrix-Matrix Multiplication. Grey Ballard, Alex Druinsky, Nicholas Knight, and Oded Schwartz. *Proceedings of the 27th Annual ACM Symposium on Parallelism in Algorithms and Architectures*. ACM, New York, NY, USA, 86-88. 2015.
6. A Framework for Practical Parallel Fast Matrix Multiplication. Austin Benson and Grey Ballard. *Proceedings of the 20th ACM Symposium on Principles and Practice of Parallel Programming*. ACM, New York, NY, USA, 42-53. 2015.
7. Reconstructing Householder Vectors from TSQR. Grey Ballard, James Demmel, Laura Grigori, Mathias Jacquelin, Hong Diep Nguyen, and Edgar Solomonik. *Proceedings of the 28th IEEE International Parallel and Distributed Processing Symposium*. IEEE Computer Society, Washington, DC, USA, 1159-1170. 2014.
8. Communication Optimal Parallel Multiplication of Sparse Random Matrices. Grey Ballard, Aydin Buluc, James Demmel, Laura Grigori, Benjamin Lipshitz, Oded Schwartz and Sivan Toledo. *Proceedings of the 25th Annual ACM Symposium on Parallelism in Algorithms and Architectures*. ACM, New York, NY, USA, 222-231. 2013.
9. Communication Efficient Gaussian Elimination with Partial Pivoting using a Shape Morphing Data Layout. Grey Ballard, James Demmel, Benjamin Lipshitz, Oded Schwartz and Sivan Toledo. *Proceedings of the 25th Annual ACM Symposium on Parallelism in Algorithms and Architectures*. ACM, New York, NY, USA, 232-240. 2013.
10. Implementing a Blocked Aasen's Algorithm with a Dynamic Scheduler on Multicore Architectures. Grey Ballard, Dulceneia Becker, James Demmel, Jack Dongarra, Alex Druinsky, Inon Peled, Oded Schwartz, Sivan Toledo and Ichitaro Yamazaki. *Proceedings of the 27th IEEE International Parallel and Distributed Processing Symposium*. IEEE Computer Society, Washington, DC, USA, 895-907. 2013.
11. Communication-Avoiding Parallel Strassen: Implementation and Performance. Benjamin Lipshitz, Grey Ballard, Oded Schwartz, James Demmel. *Proceedings of the International Conference on High Performance Computing, Networking, Storage and Analysis*. IEEE Computer Society Press, Los Alamitos, CA, USA, 101:1-101:11. 2012.
12. Communication-Optimal Parallel Algorithm for Strassen's Matrix Multiplication. Grey Ballard, James Demmel, Olga Holtz, Benjamin Lipshitz, Oded Schwartz. *Proceedings of the 24th Annual ACM Symposium on Parallelism in Algorithms and Architectures*. ACM, New York, NY, USA, 193-204. 2012.
13. Brief Announcement: Strong Scaling of Matrix Multiplication Algorithms and Memory-Independent Communication Lower Bounds. Grey Ballard, James Demmel, Olga Holtz, Benjamin Lipshitz, Oded Schwartz. *Proceedings of the 24th Annual ACM Symposium on Parallelism in Algorithms and Architectures*. ACM, New York, NY, USA, 77-79. 2012.

14. Graph Expansion Analysis for Communication Costs of Fast Rectangular Matrix Multiplication. Grey Ballard, James Demmel, Olga Holtz, Benjamin Lipshitz, Oded Schwartz. *Proceedings of the 1st Mediterranean Conference on Algorithms*. Springer, Berlin, Germany. Lecture Notes in Computer Science, Vol. 7659, 13–36. 2012.
15. Communication Avoiding Successive Band Reduction. Grey Ballard, James Demmel, Nicholas Knight. *Proceedings of the 17th ACM Symposium on Principles and Practice of Parallel Programming*. ACM, New York, NY, USA, 35-44. 2012.
16. Graph Expansion and Communication Costs of Fast Matrix Multiplication. Grey Ballard, James Demmel, Olga Holtz, and Oded Schwartz. *Proceedings of the 23rd Annual ACM Symposium on Parallelism in Algorithms and Architectures*. ACM, New York, NY, USA, 1-12. 2011.
17. Brief Announcement: Communication Bounds for Heterogeneous Architectures. Grey Ballard, James Demmel, and Andrew Gearhart. *Proceedings of the 23rd Annual ACM Symposium on Parallelism in Algorithms and Architectures*. ACM, New York, NY, USA, 257-258. 2011.
18. Communication-Avoiding QR Decomposition for GPUs. Michael Anderson, Grey Ballard, James Demmel, and Kurt Keutzer. *Proceedings of the 25th IEEE International Parallel and Distributed Processing Symposium*. IEEE Computer Society, Washington, DC, USA, 48-58. 2011.
19. Efficiently Computing Tensor Eigenvalues on a GPU. Grey Ballard, Tamara Kolda, and Todd Plantenga. *Proceedings of the 25th IEEE International Parallel and Distributed Processing Symposium Workshops and PhD Forum*. IEEE Computer Society, Washington, DC, USA, 1340-1348. 2011.
20. Communication-optimal parallel and sequential Cholesky decomposition. Grey Ballard, James Demmel, Olga Holtz and Oded Schwartz. *Proceedings of the 22nd Symposium on Parallelism in Algorithms and Architectures*. ACM, New York, NY, USA, 245-252. 2009.

Student Journals

1. Qualitative behavior and computation of multiple solutions of singular nonlinear boundary value problems. Grey Ballard and John Baxley. *Involve, a Journal of Mathematics*. Volume 1, No. 1, pp. 21-31. 2008.
2. Modeling protein dependency networks using CoCoA. Grey Ballard. *ACM Crossroads*. Issue 13.1. 2006.

Technical Reports

1. MPI-FAUN: An MPI-Based Framework for Alternating-Updating Nonnegative Matrix Factorization. Ramakrishnan Kannan, Grey Ballard, Haesun Park. arXiv:1609.09154. 2016.
2. A Communication-Avoiding Parallel Algorithm for the Symmetric Eigenvalue Problem. Edgar Solomonik, Grey Ballard, James Demmel, Torsten Hoefler. arXiv:1604.03703. 2016.
3. Hypergraph Partitioning for Sparse Matrix-Matrix Multiplication. Grey Ballard, Alex Druinsky, Nicholas Knight, Oded Schwartz. arXiv:1603.05627. 2016.
4. Sequential Communication Bounds for Fast Linear Algebra. Grey Ballard, James Demmel, Olga Holtz and Oded Schwartz. UC Berkeley Technical Report EECS-2012-36. 2012.
5. Minimizing Communication for Eigenproblems and the Singular Value Decomposition. Grey Ballard, James Demmel, Ioana Dumitriu. UC Berkeley Technical Report EECS-2011-14. 2011.

Theses

1. Avoiding Communication in Dense Linear Algebra. Grey Ballard. PhD Thesis. University of California Berkeley. 2013.
2. Asymptotic behavior of the eigenvalues of Toeplitz integral operators associated with the Hankel transform. Grey Ballard. Master's Thesis. Wake Forest University. 2008.

Talks

- Reducing Communication and Computation in Scientific Computing. Presented at Sandia National Laboratories in June 2016 in Livermore, CA.
- Diamond Sampling for Approximate Maximum All-Pairs Dot-Product Search. Presented at ICDM in November 2015 in Atlantic City, NJ.
- Hypergraph Partitioning for Parallel Sparse Matrix-Matrix Multiplication. Presented at SIAM Conference on Applied Linear Algebra in October 2015 in Atlanta, GA.
- Parallel Tensor Compression for Large-Scale Scientific Data. Presented at the Development of Modern Methods for Linear Algebra (DMML) Workshop in October 2015 in Berkeley, CA and at the SIAM Conference on Parallel Processing for Scientific Computing in April 2016 in Paris, France.
- Algorithmic Improvements for Dense Symmetric Tridiagonalization. Invited talk at the International Workshop on Eigenvalue Problems: Algorithms, Software, and Applications in September 2015 in Tsukuba, Japan.
- Hypergraph Partitioning for Sparse Matrix-Matrix Multiplication. Presented at SPAA in June 2015 in Portland, OR.
- Reducing Communication Costs for Sparse Matrix Multiplication in Algebraic Multigrid. Presented at SIAM Conference on Computational Science and Engineering in March 2015 in Salt Lake City, UT and at Copper Mountain Conference on Multigrid Methods in March 2015 in Copper Mountain, CO.
- Reducing Computation and Communication in Scientific Computing. Presented at Wake Forest University in January 2015 in Winston-Salem, NC, at the College of William & Mary in February 2015 in Williamsburg, VA, and at Georgia Tech in February 2015 in Atlanta, GA.
- How Practical is Fast Matrix Multiplication?. Presented at the Matrix Computations Seminar (UC Berkeley) in October 2014 in Berkeley, CA and at the Simons Institute in December 2014 in Berkeley, CA.
- Communication-Avoiding Algorithms and Fast Matrix Multiplication. Presented at Microsoft Research in September 2014 in Redmond, WA.
- Algorithms with Provably Minimal Communication: Algorithmic Improvements for QR Decomposition. Presented at Duke University in July 2014 in Durham, NC.
- Avoiding Communication in Linear Algebra. Invited talk at the Microsoft Research Faculty Summit in July 2014 in Redmond, WA.
- Reconstructing Householder Vectors from TSQR. Presented at SIAM Conference on Parallel Processing for Scientific Computing in February 2014 in Portland, OR, at the Matrix Computations Seminar (UC Berkeley) in February 2014 in Berkeley, CA, at the University of Texas in March 2014 in Austin, TX, at International Parallel and Distributed Processing Symposium in May 2014 in Phoenix, AZ, at Householder Symposium XIX in June 2014 in Spa, Belgium, and at the Linear Algebra and Optimization Seminar (Stanford) in January 2015 in Stanford, CA.
- Searching for Fast Matrix Multiplication Algorithms. Presented at the Dean Seminar (Sandia National Labs) in November 2013 in Livermore, CA.
- Communication-Optimal Parallel Algorithm for Strassen's Matrix Multiplication. Presented at the Simons Institute in October 2013 in Berkeley, CA.
- Communication Efficient Gaussian Elimination with Partial Pivoting using a Shape Morphing Data Layout. Presented at SPAA in July 2013 in Montreal, Canada.
- Communication-Avoiding Algorithms and Autotuning. Presented at the Par Lab End-of-Project Celebration in May 2013 in Berkeley, CA.
- Avoiding Communication in Linear Algebra. Presented at the University of Virginia in April 2013 in Charlottesville, VA.

- Avoiding Communication in Dense Linear Algebra. Dissertation talk presented at UC Berkeley in April 2013 in Berkeley, CA.
- Avoiding Communication in Parallel Bidiagonalization of Band Matrices. Presented at SIAM Conference on Computational Science and Engineering in March 2013 in Boston, MA.
- Reducing Computation and Communication in Scientific Computing. Presented at Sandia National Laboratories in January 2013 in Livermore, CA and Albuquerque, NM.
- Avoiding Communication in Linear Algebra. Presented at Lawrence Berkeley National Laboratory in January 2013 in Berkeley, CA.
- Communication-Avoiding Parallel Strassen: Implementation and Performance. Presented at SC in November 2012 in Salt Lake City, UT and Bay Area Scientific Computing Day in December 2012 in Palo Alto, CA.
- Communication-Optimal Parallel Algorithm for Strassen's Matrix Multiplication. Presented at Sandia National Labs in August 2012 in Livermore, CA.
- Communication-Avoiding Successive Band Reduction. Presented at Householder Symposium XVIII on Numerical Linear Algebra in June 2011 in Tahoe City, CA and PPOPP in February 2012 in New Orleans, LA.
- Communication-Avoiding Nonsymmetric Eigensolver using Spectral Divide & Conquer. Presented at SIAM Conference on Parallel Processing for Scientific Computing in February 2012 in Savannah, GA and at IWASEP 9 in June 2012 in Napa, CA.
- Lower Bounds for Communication in Linear Algebra. Presented at Workshop on Synchronization-reducing and Communication-reducing Algorithms and Programming Models for Large-scale Simulations in January 2012 in Providence, RI.
- Graph Expansion and Communication Costs of Fast Matrix Multiplication. Presented at SPAA in June 2011 in San Jose, CA.
- Communication Bounds for Heterogeneous Architectures. Presented at SPAA in June 2011 in San Jose, CA.
- Efficiently Computing Tensor Eigenvalues on a GPU. Presented at Sandia National Labs Student Intern Symposium in August 2010 in Livermore, CA and PDSEC Workshop in conjunction with IPDPS in May 2011 in Anchorage, AK.
- Communication-Avoiding Dense Linear Algebra. Presented at CScADS Autotuning Workshop in August 2010 in Snowbird, UT.
- Mapping Communication-Avoiding QR Decomposition to Various Architectures. Presented at SIAM Annual Meeting in July 2010 in Pittsburgh, PA.
- Communication Bounds for Sequential and Parallel Eigenvalue Problems. Presented at SIAM Conference on Parallel Processing for Scientific Computing in February 2010 in Seattle, WA and at AMS Western Section Meeting and at Sandia National Labs in April 2010 in Albuquerque, NM.
- Minimizing Communication in Linear Algebra. Presented at Par Lab Summer Retreat in June 2009 in Santa Cruz, CA and at SIAM Workshop on Combinatorial and Scientific Computing in October 2009 in Monterey, CA.
- Communication-Optimal Parallel and Sequential Cholesky Decomposition. Presented at SPAA in August 2009 in Calgary, Canada.

Grants and Funding

High Performance Low Rank Approximation for Scalable Data Analytics	2016 – 2018
SI2-SSE, National Science Foundation, \$168K (Collaborative project with PI Haesun Park at Georgia Tech, total of \$300K)	
Linear and Multilinear Techniques for Data Analysis	2016
Subcontract with Sandia National Laboratories, \$22K	
Truman Fellowship in National Security Science and Engineering	2013 – 2016

Teaching

Instructor	Wake Forest University
CSC 222: Data Structures and Algorithms II, Spring 2017	
CSC 721: Theory of Algorithms, Spring 2017	
CSC 352/652 and MTH 326/626: Numerical Linear Algebra, Fall 2016	
Guest Lecturer	UC Berkeley
CS 270: Communication-Avoiding Algorithms, Spring 2016	
Graduate Student Instructor	UC Berkeley
CS 170: Efficient Algorithms and Intractable Problems with Satish Rao, Fall 2012	
CS 267: Applications of Parallel Computers with James Demmel and Katherine Yelick, Spring 2011	
Reader	UC Berkeley
Math 221: Matrix Computations/Numerical Linear Algebra with James Demmel, Fall 2011	
Teaching Assistant	Wake Forest University
Math 109: Probability and Statistics with Julie Connolly, Spring 2008	
Math 121: Linear Algebra with Jim Kuzmanovich, Fall 2007	
Math 112: Calculus II with Miaohua Jiang, Spring 2007	
Math 113: Vector Calculus with Stephen Robinson, Fall 2006	
Math 112: Calculus II with Hugh Howards, Summer 2006	

Mentoring

Graduate Students	Wake Forest University
Koby Hayashi, Fall 2016 – Spring 2018	
Kathryn Rouse, Fall 2016 – Spring 2018	
Graduate Student Interns	Sandia National Laboratories
Austin Benson (Stanford University), Summer 2014	
Woody Austin (University of Texas), Summer 2015	
Casey Battaglino (Georgia Tech), Summer 2016	
PhD Thesis Committee	
Ramakrishnan Kannan (Georgia Tech), Spring 2016	

Professional Activities

Program Committee	2016
The International Conference for High Performance Computing, Networking, Storage and Analysis (SC)	
Program Committee	2015
ACM Symposium on Principles and Practice of Parallel Programming (PPoPP)	
Program Committee	2015
ACM Symposium on Parallelism in Algorithms and Architectures (SPAA)	
Program Committee	2014, 2017
IEEE International Parallel and Distributed Processing Symposium (IPDPS)	
Program Committee	2014-2017
IEEE International Workshop on Parallel and Distributed Scientific and Engineering Computing (PDSEC)	
Program Committee	2011-2015
Euromicro International Conference on Parallel, Distributed, and Network-Based Processing (PDP)	
Minisymposium Organizer	

SIAM Annual Meeting 2017: “High Performance Tensor Computations”

SIAM Conference on Computational Science and Engineering 2017: “Tensor Decompositions: Applications and Efficient Algorithms”

SIAM Conference on Parallel Processing for Scientific Computing 2016: “Parallel Algorithms for Tensor Computations”

SIAM Conference on Applied Linear Algebra 2015: “Sparse Matrix-Matrix Multiplication: Applications, Algorithms, and Implementations”

SIAM Conference on Parallel Processing for Scientific Computing 2014: “Minimizing Communication in Linear Algebra”

Workshop Organizer

WFU Computational and Applied Math Retreat, 10 attendees, Winston Salem, NC, 2016

Workshop on Fast Matrix Multiplication, 12 attendees, Berkeley, CA, 2014

Guest Editor

ACM Transactions on Parallel Computing (TOPC) Special Issue: Invited papers from PPOPP 2016

Reviewer

SIAM Journal on Matrix Analysis and Applications (SIMAX)

SIAM Journal on Scientific Computing (SISC)

ACM Transactions on Mathematical Software (TOMS)

ACM Transactions on Parallel Computing (TOPC)

ACM Symposium on Parallelism in Algorithms and Architectures (SPAA)

IEEE International Parallel and Distributed Processing Symposium (IPDPS)

ACM/IEEE International Conference for High Performance Computing, Networks, Storage, and Analysis (SC)

ACM Symposium on Principles and Practice of Parallel Programming (PPOPP)

International European Conference on Parallel Processing (Euro-Par)

Parallel Computing

IEEE Transactions on Parallel and Distributed Computing (TPDS)

Journal of Computational Science

Algorithmica

ACM Symposium on Principles of Programming Languages (POPL)

European Symposium on Algorithms (ESA)

Symposium on Theoretical Aspects of Computer Science (STACS)

International Symposium on Algorithms and Computation (ISAAC)

IEEE Transactions on Mobile Computing (TOMC)

IEEE International Conference on High Performance Computing (HiPC)

International Conference on Parallel Processing

AMS Mathematical Reviews

Proposal Reviewer

U.S. Army Research Office

Book Reviewer

SIAM Review (SIREV)

Member

SIAM, ACM, IEEE