

Curriculum Vitae

Teofilo F. Gonzalez

Professor
Department of Computer Science
University of California
Santa Barbara, CA 93106
Phone: Office (805)–893–3849, Fax: (805)–893–8553
E-mail: teo@cs.ucsb.edu, E-page: www.cs.ucsb.edu/~teo

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Education

- 1975 Ph.D. Computer Science, University of Minnesota
- 1972 B.Sc. Computer Science, Instituto Tecnológico y de Estudios Superiores de Monterrey A.C.

Experience

- 2016– Professor Emeritus, Computer Science, University of California, Santa Barbara
- 1987–2016 Professor, Computer Science, University of California, Santa Barbara
- W & S 1990 Visiting Professor, Computer Science, University of Utrecht, The Netherlands (Sabbatical)
- 1984–87 Associate Professor, Computer Science, University of California, Santa Barbara
- 1980–84 Associate Professor, Computer Science, University of Texas at Dallas
- 1979–80 Visiting Professor, Computer Science, Instituto Tecnológico y de Estudios Superiores de Monterrey A.C.
- 1976–79 Assistant Professor, Computer Science, The Pennsylvania State University
- 1975–76 Assistant Professor, Information and Computing Sciences, The University of Oklahoma

Awards

- IASTED Fellow (2009). "Inducted for his contributions to Multicasting Dissemination Algorithms for Parallel and Distributed Computing, as well as for his decade long commitment to PDCS and IASTED."
- Outstanding Faculty Member in the Computer Science Department (1987, 1994, 2001).

Areas of Research Activity

Design and Analysis of Algorithms, Approximation Algorithms, Parallel Algorithms, Message Dissemination, Multicasting, Graph Algorithms, Job Scheduling, Computational Geometry, CAD/VLSI, Placement and Routing.

Courses Taught

Analysis of Algorithms, Data Structures, Formal Languages and Parsing, Automata Theory, Graph Algorithms, Compiler Construction, VLSI Systems, Design Automation, Operating Systems, plus several introductory courses.

Professional Service

- External Reviewer
 - Computer Science, University of California, Merced, 2014
 - ABET (CAC) Program Evaluator (2003 – 2007)
 - ABET (CAC) Commissioner (2008 – 2013 and 2017 – date)
 - Computer Science Department, University of Texas at Dallas, 2000.
 - Computer Science Department, University of Arizona, Tucson, 1999.
 - Department of Computer Science, University of Nevada, Las Vegas, 1991.
- Conference Committees
 - Conference/General Chair: PDCS'01, PDCS'02 (co-chair S. Akl), PDCS'03, PDCS'04, PDCS'08, PDCS'09, PDCS'10, PDCS'11, PDCS'12, PAAP'15.

- Program Committee Chair: PDCS'01, PDCS'02, PDCS'03, PDCS'04, PDCS'08, PDCS'09, PDCS'11, PDCAT'12.
- Plenary Session Speaker: ICSEng'93.
- Keynote Speaker: PDCAT'07, PAAP'15, WACN'15, ICS'16.
- Steering Committee Member: ICSEng'96, PDCS'99, ICSEng'99, ICSEng'02.
- Advisory Committee Member: PDCS'99, PDCS'00.
- Program Committee Member: PDCS'97, IIS'98, WSDP'02, SCCC'02, IPDPS'02, PDCAT'05, ICSEng'05, ISCA PDCS'05, AICCSA-06, WDAS'06, PDCS'06, PDCAT'06, PDCS'07, PDCAT'07, ICA3pp'08, ICSEng'08, PDCAT'08, PDCN'09, ICA3pp'09, PDCAT'09, ADVCOMP'09, PDCN'10, ADVCOMP'10, ICNC'10, ISPA'10, PDCAT'11, ICDN'10, PDCN'11, ICSEng'11, IEEE iCAST'11, ADVCOMP'11, ICNC'11, Future Tech'12, ICCS'12, iCAST'12, ADVCOMP'12, PAAP'12, PDCN'12, ICNC'12, ADVCOMP'13, APDCM'13, CANDAR'13, iCAST'13, ISSPIT'13, MOBIQUITOUS'13, ISBAST'13, WEU'13, PDCN'13, ICNC'13, ADVCOMP'14, CANDAR'14, ICSEng'14, iCAST'14, ISSPIT'14, ICNC'14, ADVCOMP'15, CANDAR'15, iCAST'15, PDCAT'15, ADVCOMP'16, CANDAR'16, PDCN'16, PDCAT'17, ADVCOMP'17, CANDAR'17, ...
- Tutorial Chair: PDCS'05, PDCS'06.
- Session Chair: Irregular'96, PDCS'97, ICSEng'99, PDCS'99, PDCS'00, PDCS'01, PDCS'02, PDCS'03, PDCS'04, PDCS'05, PDCS'06, ...
- Editorships
 - Associate Editor, *ACM Computing Surveys* (2013 - 2020)
 - Senior Associate Editor, *ACM Computing Surveys* (2020 - date)
 - Associate Editor, *Journal of Parallel and Distributed Computing and Networks*, (2011 - 2016)
 - Editorial Board, *International Journal of Advanced Networking and Applications (IJANA)*, (2011 - 2016)
 - Editorial Board, *Journal of Communications and Computer Security*, (2011 - 2016)
 - Associate Editor, *International Journal of Computers and Applications*, (Aug 2003 - October 2015)
 - Guest Editor, *Journal of Supercomputing*, Special Issue: Efficient Resource Utilization in Parallel and Distributed Systems, Vol 24, 1, April 2004.
 - Guest Editorial Board, Special Issue of the *International Journal of Computer Applications and Technology* (2004-2005).
 - Editor, *IEEE Transactions on Computers* 1993 – 1997 and 2011 – 2016.
- Referee Activities

- Reviewed for NSF, ISF, NSERC (Canada), UC–MICRO, UC–MEXUS, etc., and for book publishers.
- Refereed for *Journal of the ACM*, *SIAM Journal on Computing*, *Algorithmica*, *Journal of Algorithms*, *Theoretical Computer Science*, *Journal of Computer and Systems Science*, *ACM TALG*, *IEEE TC*, *IEEE CAD*, *IEEE PDC*, *International Journal of Computational Geometry and Applications*, *International Journal of Foundations of Computer Science*, *Journal of Discrete Computational Geometry*, *Information Processing Letters*, *Parallel Processing Letters*, *Journal of Parallel and Distributed Computing*, *Journal of Symbolic Computation*, *Journal of VLSI and Computer Systems*, *Computers and Mathematics*, *Discrete Applied Mathematics*, *Journal, Parallel, Emerging and Distributed Systems*, *Naval Research Logistics*, *Operations Research*, *Mathematics of Operations Research*, *European Journal of OR*, *IIE Transactions*, *Mathematical Programming, Networks, Journal on Scheduling*, *Algorithmic Operations Research* etc., as well as for quite a few Conferences.

Publications

- Handbook on Approximation Algorithms and Metaheuristics, Volume I: Methodologies and Traditional Applications, Ed. T. F. Gonzalez, Second Edition, 43 Chapters, Chapman & Hall / CRC, March 2018. [Link](#)
- Handbook on Approximation Algorithms and Metaheuristics, Volume II: Applications, Ed. T. F. Gonzalez, Second Edition, 38 Chapters, Chapman & Hall / CRC, March 2018. [Link](#)
- Minimum Edge Length Rectangular Partitions, (with S. Q. Zheng), *Handbook of Approximation Algorithms and Metaheuristics, Volume II: Applications*, Ed. T. F. Gonzalez, Second Edition, Chapter 6, Part I, Chapman & Hall / CRC, March 2018. [Link](#)
- Complexity, Approximation Algorithms, and Heuristics for the Corridor Problems, (with A. Gonzalez), *Handbook of Approximation Algorithms and Metaheuristics, Volume II: Applications*, Ed. T. F. Gonzalez, Second Edition, Chapter 8, Part I, Chapman & Hall / CRC, March 2018. [Link](#)
- Introduction, Overview, and Definitions, *Handbook of Approximation Algorithms and Metaheuristics, Volume II: Applications*, Ed. T. F. Gonzalez, Second Edition, Chapter 1, Chapman & Hall / CRC, March 2018. [Link](#)
- Restriction, *Handbook of Approximation Algorithms and Metaheuristics, Volume I: Methodologies and Traditional Applications*, Ed. T. F. Gonzalez, Second Edition, Chapter 3, Part I, Chapman & Hall / CRC, March 2018. [Link](#)
- Basic Methodologies and Applications, *Handbook of Approximation Algorithms and Metaheuristics, Volume I: Methodologies and Traditional Applications*, Ed. T. F. Gonzalez, Second Edition, Chapter 2, Part I, Chapman & Hall / CRC, March 2018. [Link](#)

- Introduction, Overview, and Definitions, *Handbook of Approximation Algorithms and Metaheuristics, Volume I: Methodologies and Traditional Applications*, Ed. T. F. Gonzalez, Second Edition, Chapter 1, Part I, Chapman & Hall / CRC, March 2018. [Link](#)
- Online Dictionary Structures, *Handbook of Data Structures and Applications*, Eds. D. Mehta and S. Sahni, Second Edition, Chapter 24, Part IV, Chapman & Hall / CRC, (2017).
- Approximation Algorithms and Metaheuristics, Keynote Address, International Computer Symposium, ICS'16, Chiayi, Taiwan, Dec. 2016. [Link](#)
- Approximation Algorithms and Metaheuristics, Proceedings of the 2015 Int Symp on Parallel Algorithms, Architectures and Programming, PAAP-15, Nanjing, China, Dec 2015. [Link](#)
- Preemptive Scheduling on Uniform Machines to minimize Dual Objective Functions, Keynote Address, Workshop on Advanced Computing and Networking, WACN'15, GuangZhou, China, Dec. 2015. [Link](#)
- Prototipo de Sistema de Informacion para el Usuario de Transporte Publico Colective Urbano de la Zona Metropolitana de la Ciudad de Queretaro, (with A. Gonzalez, F. Gonzalez, G Diaz, E. Vazquez), Congreso Internacional de Investigacion de Academia, Journals.com Celaya, 2015. [Link](#)
- Approximation Algorithms and Metaheuristics, *ICSComputer Science and Software Engineering*, Eds. T. Gonzalez and Jorge Diaz-Herrera, as Volume I of the Third Edition of the *Computer Science Handbook*, Ed. Allen B. Tucker, Chapman & Hall / CRC, 2014. [Link](#)
- Preface for Volume I (with Jorge Diaz-Herrera), *Computer Science and Software Engineering*, Eds. T. Gonzalez and Jorge Diaz-Herrera, as Volume I of the Third Edition of the *Computer Science Handbook*, Ed. Allen B. Tucker, Chapman & Hall / CRC, 2014. [Link](#)
- *Computer Science and Software Engineering*, Vol I Eds. T. F. Gonzalez and Jorge Diaz-Herrera, in Third Edition of the *Computer Science Handbook*, Ed. Allen B. Tucker. (93 Chapters, about 2500 pages), 2014). [Link](#)
- Proceeding of the 24th IASTED International Conference on Parallel and Distributed Computing and Systems, ACTA Press, Ed. T. Gonzalez, 2012. [Link](#) [Link](#) [Link](#)
- Approximation Algorithms for SP-Multicast Trees in 2D-Grids, *Journal of Parallel and Distributed Computing and Networks (PDCN)*, Vol. 2, 2012. [Link](#)
- Scheduling Tasks to Minimize the Total Computation and Communication Makespan, *International Journal of Advanced Networking and Applications (IJANA)*, Vol. 3, No. 4, 1215 – 1228, 2012. [Link](#)

- SP-Multicasting Trees for Grids, Proceedings of the 23th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '11, (6 pages), 2011. [Link](#)
- Proceeding of the 23th IASTED International Conference on Parallel and Distributed Computing and Systems, ACTA Press, Ed. T. Gonzalez, 2011. [Link](#) [Link](#) [Link](#) [Link](#)
- Finding Optimal Geodesic Bridges Between Two Simple Polygons, (with A. Bhosle), *Proceedings of the 23rd Canadian Conference on Computational Geometry*, 2011. [Link](#)
- Proceeding of the 22th IASTED International Conference on Parallel and Distributed Computing and Systems, ACTA Press, Ed. T. Gonzalez, 2010. [Link](#) [Link](#) [Link](#)
- Multicasting in the Hypercube, Chord and Binomial Graphs (with C. C. Cipriano), *Information Processing Letters*, Vol. 110, No. 17, 774 – 777, 2010. [Link](#)
- Approximating Corridors and Tours via Restriction and Relaxation Techniques, (with A. Gonzalez), *ACM Transactions on Algorithms*, Vol. 6, Num. 3, June 2010. [Link](#)
- Improved Algorithms for Constructing Hypercube SP-Multicasting Trees (with C. C. Cipriano), Proceedings of the 21th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '09 (6 pages). [Link](#)
- Distributed Algorithms for Computing Alternate Paths Avoiding Failed Nodes and Links, (with A. Bhosle), Proceedings of the 21th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '09. [Link](#)
- Proceeding of the 21th IASTED International Conference on Parallel and Distributed Computing and Systems, ACTA Press, Ed. T. Gonzalez, 2009. [Link](#) [Link](#) [Link](#)
- Improved Communication Schedules with Buffers *Parallel Processing Letters*, Vol 19, No. 1, 129 – 139, 2009. [Link](#)
- Interconnecting Rectangular Areas by Corridors and Tours (with A. Gonzalez), Proceedings of the SIEEEM, Monterrey, Oct. 2008. [Link](#)
- Efficient Distributed Algorithms and Protocols for Handling Transient Single Node Failures, (with A. Bhosle), Proceedings of the 20th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '08. [Link](#)
- Scheduling Independent Tasks to Minimize Computation and Communication Makespan in Distributed Systems, Proceedings of the 20th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '08. [Link](#)
- Proceeding of the 20th IASTED International Conference on Parallel and Distributed Computing and Systems, ACTA Press, Ed. T. Gonzalez, 2008. [Link](#) [Link](#) [Link](#)
- Continuous Delivery Message Dissemination Problems Under the Multicasting Communication Mode, *IEEE Transactions on Parallel and Distributed Systems*, Vol. 19, No. 8, pp. 1034 – 1043, 2008. [Link](#)

- Message Dissemination Using Modern Communication Primitives, *Handbook of Parallel Computing: Models, Algorithms, and Applications*, Eds. J. Reif and S. Rajasekaran, Chapman & Hall / CRC, Jan. 2008. [Link](#)
- Message Dissemination Under the Multicasting Communication Mode, Keynote Address, 8th International Conference on Parallel and Distributed Computing, Applications and Technologies, PDCAT'08, pp. 3 – 4, 2007. [Link](#)
- Approximation Algorithms for the Minimum-Length Corridor and Related Problems, (with A. Gonzalez), *Proceedings of the 19th Canadian Conference on Computational Geometry*, pp. 253-256, 2007. [Link](#)
- Complexity of the Minimum-Length Corridor Problem, (with A. Gonzalez), *Journal of Computational Geometry: Theory and Applications*, Vol. 37, No. 2, pp. 72 – 103, 2007. [Link](#)
- Handbook on Approximation Algorithms and Metaheuristics, Ed. T. F. Gonzalez, 86 Chapters, Chapman & Hall / CRC, May 2007. [Link](#)
- Minimum Edge Length Rectangular Partitions, (with S. Q. Zheng), *Handbook of Approximation Algorithms and Metaheuristics*, Ed. T. F. Gonzalez, Chapter 54, Part V, Chapman & Hall / CRC, May 2007. [Link](#)
- Restriction, *Handbook of Approximation Algorithms and Metaheuristics*, Ed. T. F. Gonzalez, Chapter 3, Part I, Chapman & Hall / CRC, May 2007. [Link](#)
- Basic Methodologies and Applications, *Handbook of Approximation Algorithms and Metaheuristics*, Ed. T. F. Gonzalez, Chapter 2, Part I, Chapman & Hall / CRC, May 2007. [Link](#)
- Introduction, Overview, and Definitions, *Handbook of Approximation Algorithms and Metaheuristics*, Ed. T. F. Gonzalez, Chapter 1, Part I, Chapman & Hall / CRC, May 2007. [Link](#)
- Minimizing Total Completion Time on Uniform Processor Systems with Deadline Constraints, (with J. Leung and M. Pinedo), *Transactions on Algorithms*, Vol. 2, No. 1, pp. 95 - 115, 2006. [Link](#)
- Continuous Delivery Message Dissemination Problems under the Multicasting Communication Mode, Proceedings of the 18th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '06, Dallas, Tx. [Link](#)
- Pairwise Disjoint Shortest Paths in the n-Cube and Related Problems, (with D. Serena), *Theoretical Computer Science*, Vol 369, No. 1, pp. 427 – 435, 2006. [Link](#)
- Improving the Computation and Communication Time with Buffers, Proceedings of the 17th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '05, Phoenix, Az, pp. 336 - 341, 2005. [Link](#)

- Exact and Approximation Algorithms for finding the Optimal Bridge Connecting Two Simple Polygons, (with A. M. Bhosle), *International Journal on Computational Geometry and Applications*, Vol 15, No. 6, pp. 609 - 630, Dec. 2005. [Link](#)
- Performance Data Collection Using the Hybrid Approach, (with E. Metz and R. Lencevicius), Proceedings of the 10th European Software Engineering Conference / 13th ACM SIGSOFT Symposium on the Foundations of Software Engineering, Lisbon, Portugal, pp. 126 - 135, Sept. 2005. [Link](#)
- Wavelength Assignment in Multifiber Optical Star Networks under the Multicasting Communication Mode, (with R. Brandt), *Journal of Interconnection Networks*, Vol. 6, No. 5, pp. 383 - 406, 2005. [Link](#)
- Algorithms for Single Link Failure Recovery and Related Problems, (with A. M. Bhosle), *Journal of Graph Algorithms and Applications*, Vol. 8, No 3, pp 275 – 294, 2004. [Link](#)
- Proceeding of the 16th IASTED International Conference on Parallel and Distributed Computing and Systems, ACTA Press, Ed. T. Gonzalez, 2004. [Link](#)
- Replacement Paths for Pairs of Shortest Path Edges in Directed Graphs, (with A. M. Bhosle), Proceedings of the 16th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '04, (2004), MIT Cambridge MA, 94-99. [Link](#)
- n-Cube Network: Node Disjoint Shortest Paths for Maximal Distance Pairs of Vertices, (with D. Serena), *Journal of Parallel Computing*, Vol. 30, 8, pp. 973 -998, 2004. [Link](#)
- Online Dictionary Structures, *Handbook of Data Structures and Applications*, Eds. D. Mehta and S. Sahni, Chapter 24, Part IV, Chapman & Hall / CRC, Oct. 2004. [Link](#)
- Complexity of the Pairwise Shortest Path Routing in the Grid, (with D. Serena), *Theoretical Computer Science*, Vol. 326, 1-3, pp. 155 -185, 2004. [Link](#)
- Efficient Resource Utilization in Parallel and Distributed Systems, *Journal of Supercomputing*, Vol. 28, (1), pp 5 - 6, (Guest Editorial). [Link](#)
- Open Shop Scheduling, in *Handbook of Scheduling: Algorithms, Models, and Performance Analysis*, Ed. Y. J.-T. Leung, Chapter 6, Part II, Chapman & Hall / CRC, 2004. [Link](#)
- An Efficient Algorithm for Gossiping in the Multicasting Communication Environment, *IEEE Transactions on Parallel and Distributed Systems*, Vol 14, No. 7, pp. 701 -708, 2003. [Link](#)
- Proceeding of the 15th IASTED International Conference on Parallel and Distributed Computing and Systems, ACTA Press, Ed. T. Gonzalez, 2003. [Link](#)

- Multicasting using WDM in Multifiber Optical Star Networks, (with R. Brandt), Proceedings of the 15th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '03, (2003), Marina Del Rey, CA, 56 – 61. [Link](#)
- Efficient Algorithms for Single Link Failure Recovery and Its Application to ATM Networks, (with A. M. Bhosle), Proceedings of the 15th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '03, (2003), Marina Del Rey, CA, 87 – 92. [Link](#)
- Proceeding of the 14th IASTED International Conference on Parallel and Distributed Computing and Systems, ACTA Press, Eds. S. Akl and T. Gonzalez, 2002. [Link](#)
- Complexity of k -Pairwise Disjoint Shortest Paths in the Undirected Hypercubic Network and Related Problems, (with F. D. Serena) Proceedings of the 14th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '02, (2002), MIT Cambridge, MA, 61 – 66. [Link](#)
- n -Cube Search Algorithm for Finding $(n - 1)$ -Pairwise Node Disjoint Shortest Paths, (with F. D. Serena) Proceedings of the International Conference on Communications in Computing CIC'02, (2002), Las Vegas, NV, 19 – 25. [Link](#)
- On Solving Multimessage Multicasting Problems, *International Journal of Foundations of Computer Science, Special Issue on Scheduling - Theory and Applications*, Vol. 12, No. 6, pp. 791 – 808, 2001. [Link](#)
- Simple Algorithms for MultiMessage Multicasting with Forwarding, *Algorithmica*, Vol. 29, 2001, pp. 511 – 533. [Link](#)
- Proceeding of the 13th IASTED International Conference on Parallel and Distributed Computing and Systems, ACTA Press, Ed. T. Gonzalez, 2001. [Link](#)
- Minimum-Energy Broadcast in Simple Graphs with Limited Node Power, (with O. Egecioglu) Proceedings of the 13th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '01, (2001), Anaheim, CA, 278 – 282. [Link](#)
- Node Disjoint Shortest Paths for Pairs of Vertices in an n -Cube Network, (with F. D. Serena) Proceedings of the 13th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '01, (2001), Anaheim, CA, 278 – 282. [Link](#)
- Gossiping in the Multicasting Communication Environment, Proceedings of the International Parallel and Distributed Processing Symposium, IPDPS 2001, (6 pages). [Link](#)
- Distributed Algorithms for Multimessage Multicasting, *Journal of Interconnection Networks*, Vol. 1, No. 4, Dec 2000, pp 303 – 315. [Link](#)
- Gossiping with Multicasting Communication Primitives, Proceedings of the 12th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '00, (2000), Las Vegas, NV, Vol. II, 768 – 773. [Link](#)

- Simple Algorithms for the On-Line Multidimensional Dictionary Problem and Related Problems, *Algorithmica*, Vol. 28, 2000, 255 – 267. [Link](#)
- Multimessage Multicasting with Bounded Number of Destinations, Proceedings of the 11th IASTED International Conference on Parallel and Distributed Computing and Systems PDCS '99, (1999), Cambridge, MA, 495 – 500. [Link](#)
- Distributed Multimessage Multicasting, Proceedings of the Thirteen International Conference On Systems Engineering, pp. CS-43 – CS-48, Las Vegas, Nevada, August 1999. [Link](#)
- Complexity and Approximations for Multimessage Multicasting, *Journal of Parallel and Distributed Computing*, 55, 1998, 215 – 235. [Link](#)
- On Ensuring MultiLayer Wirability by Stretching Layouts, (with S. Q. Zheng), *VLSI Design: An International Journal of Custom-Chip Design, Simulation, and Testing*, Vol. 7, No. 4, 1998, 365 – 383. [Link](#)
- Bounded Fan-Out MultiMessage Multicasting, *Nordic Journal on Computing*, Vol. 5, 1998, 196 – 213. [Link](#)
- Improved Approximation Algorithms for Embedding Hypergraphs in a Cycle, *Information Processing Letters*, Vol. 67, 1998, 267 – 271. [Link](#)
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- Self-Stabilizing Algorithms for Tree Metrics (with A. K. Datta, and V. Thiagarajan), *Parallel Processing Letters*, Vol. 8, No. 1, World Scientific, March 1998. p.121-33. [Link](#)
- Algorithms for MultiMessage Multicasting With Forwarding, Proceedings of the Tenth ISCA International Conference on Parallel and Distributed Computing Systems PDCS '97, pp. 372 – 377, New Orleans, LA, 1997. [Link](#)
- MultiMessage Multicasting: Complexity and Approximations, Proceedings of the 30th Hawaii International Conference on System Sciences (HICSS), (1997), vol.1, pp. 211 – 220, Nominated for the Best Paper Award in the Software Technology Track. [Link](#)
- A Computationally Intractable Problem on Simplicial Complexes, (with O. Egecioglu), *Computational Geometry: Theory and Applications*, Vol. 6, No. 2, 1996, pp. 85 – 98. [Link](#)
- Improved MultiMessage Multicasting Approximation Algorithms, Proceedings of the Ninth International Conference on Parallel and Distributed Computing Systems PDCS '96, pp. 456 – 461, Dijon, France, September 1996. [Link](#)
- MultiMessage Multicasting, Proceedings of the Third International Workshop on Parallel Algorithms for Irregularly Structured Problems (Irregular'96), Lecture Notes in Computer Science (1117), Springer, (1996), pp. 217 – 228. [Link](#)

- Pin Redistribution Problem for Multi-Chip Modules: Algorithms and Complexity, (with D. Chang), *International Journal of High Speed Electronics and Systems, Special Issue on High Performance CAD for Packaging and Multi-Chip Modules*, Vol. 6, No. 3, 1995, pp. 459 – 475. Also appears in *High Performance Design Automation for Multi-Chip Modules and Packages, Selected Topics in Electronics and Systems – Vol. 5*, Edited by J. D. Cho, and P. D. Franzon, World Scientific Publishing Co., 1996 (ISBN 981-02-2307-2). [Link](#)
- Complexity Aspects of Two-Dimensional Data Compression, (with H. Bodlaender and T. Kloks), *Nordic Journal on Computing*, Vol. 4, No. 2, 1995, pp. 462 – 495. [Link](#)
- Self-Stabilizing Algorithms for Tree Metrics (with V. Thiagarajan, and A. K. Datta), *Proceedings of the First International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP-95)*, Vol. 1, pp 471 – 478, Australia, 1995. [Link](#)
- LP-Free Approximation Algorithm for the Minimum Weight Vertex Cover Problem, *Information Processing Letters*, Vol. 54, No. 3, 1995, 129 – 131. [Link](#)
- Single Phase Three-Layer Channel Routing Algorithms, (with S. Q. Zheng), *INTEGRATION, the VLSI Journal*, Vol. 17, 1994, pp 141 – 151. [Link](#)
- A Flow Based Approach to the Pin Redistribution Problem for Multi-Chip Modules, (with D. Chang, and O. H. Ibarra), *Proceedings of the GLS-VLSI '94 Conference*, March 1994, pp. 114 – 119. [Link](#)
- On Optimal Guillotine Partitions Approximating Optimal d-Box Partitions, (with M. Razzazi, M. Shing and S. Q. Zheng), *Computational Geometry: Theory and Applications*, Vol. 4, No. 1, 1994, 1 – 11. [Link](#)
- Switch-Box Routing Under the Two-Overlap Wiring Model, (with K. G. Shashishekar and S. Q. Zheng), *Algorithmic Aspects of VLSI Layout*, Eds. M. Sarrafzadeh and D. T. Lee, World Scientific, 1993, 265 – 308. [Link](#)
- An Approximation Algorithm for Routing Around Two Rectangles, (with S. L. Lee), *Algorithmic Aspects of VLSI Layout*, Eds. M. Sarrafzadeh and D. T. Lee, World Scientific, 1993, 365 – 397. [Link](#)
- An Efficient Divide-and-Conquer Approximation Algorithm for Partitioning D-Boxes, (with M. Razzazi, and S. Q. Zheng), *International Journal on Computational Geometry and Applications*, Vol. 3, No. 4, 1993, 417 – 428. [Link](#)
- Algorithms for a Class of Min-Cut and Max-Cut Problems, (with T. Murayama), *Proceedings of the Third Annual International Symposium on Algorithms and Computation*, Lecture Notes in Computer Science #650, Springer-Verlag, December 1992, pp. 97 – 105. [Link](#)
- Grid Stretching Algorithms for Routing Multiterminal Nets Through a Rectangle, (with S. Q. Zheng), *INTEGRATION: the VLSI Journal*, Vol. 13, 1992, 153 – 177. [Link](#)

- The On-Line D-Dimensional Dictionary Problem, Proceedings of the 3rd Symposium on Discrete Algorithms, January 1992, pp. 376 – 385. [Link](#)
- Covering a Set of Points in Multidimensional Space, *Information Processing Letters*, Vol. 40, 1991, 181 – 188. [Link](#)
- An Approximation Algorithm for Partitioning a Hyperrectilinear Polytope with Holes, (with M. Razzazi), Proceedings of the Third Canadian Conference on Computational Geometry, August 1991, pp. 183 – 186. [Link](#)
- Properties and Algorithms for Constrained Delaunay Triangulations, (with M. Razzazi), Proceedings of the Third Canadian Conference on Computational Geometry, August 1991, pp. 114 – 117. [Link](#)
- Complexity Aspects of Map Compression, (with H. Bodlaender and T. Kloks), Proceedings of the Data Compression Conference, April 1991, pp. 287 – 296. [Link](#)
- On the Generalized Channel Definition Problem, (with M. Razzazi), Proceedings of the GLS-VLSI '91 Conference, March 1991, pp. 88 – 91. [Link](#)
- Optimal Preemptive Scheduling of Two Unrelated Processors, (with E. L. Lawler and S. Sahni), *ORSA Journal on Computing*, Vol. 2, No. 3, 1990, pp. 219 – 224. [Link](#)
- Approximation Algorithms for Covering with Fixed Size Hypersquares and Related Problems, Proceedings of the 29th Annual Allerton Conference on Communications, Control and Computing, October 1990, pp. 838 – 847. [Link](#)
- Multiterminal-Net Routing by Grid Stretching, (with S. Q. Zheng), IEEE International Conference on Computer Design: VLSI in Computers and Processors (ICCD '90), October 1990, pp. 396 – 399. [Link](#)
- An Efficient Divide-and-Conquer Approximation Algorithm for Hyperrectangular Partitions, (with M. Razzazi and S. Q. Zheng), Proceedings of the Second Canadian Conference on Computational Geometry, August 1990, pp. 214 – 217. [Link](#)
- Approximation Algorithms for Partitioning Rectilinear Polygons with Interior Points, (with S. Q. Zheng), *Algorithmica*, Vol. 5, January 1990, pp. 11 – 42. [Link](#)
- Area Bound for the Three-Layer Wiring of a Class of Planar Layouts, (with S. Q. Zheng), *Congressus Numerantium*, Vol. 74, January 1990, pp. 181 – 192. [Link](#)
- Stretching and Three-Layer Wiring Planar Layouts, (with S. Q. Zheng), *INTEGRATION: the VLSI Journal*, Vol. 8, 1989, pp. 111 – 141. [Link](#)
- Improved Bounds for Rectangular and Guillotine Partitions, (with S. Q. Zheng), *Journal of Symbolic Computation*, Vol. 7, 1989, pp. 591 – 610. [Link](#)
- An Approximation Algorithm for the Via Placement, (with K. G. Shashishekar), *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, Vol. 8, No. 3, March 1989, pp. 219 – 228. [Link](#)

- A Linear Time Algorithm for Optimal Wiring Around a Rectangle, (with S. L. Lee), *Journal of the Association for Computing Machinery*, Vol. 35, No. 4, October 1988, pp. 810 – 832. [Link](#)
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