CURRICULUM VITAE

Geppino Pucci. Born in Naples, Italy, on September 11 1963. Italian citizen.

Current Position

Full Professor of Computer Science,
Dipartimento di Ingegneria dell'Informazione,
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Education

01/1993 **Ph.D. in Computer Science**, Università di Pisa, Italy.
Advisor: Prof. Fabrizio Luccio.
Thesis Title: *Parallel Computational Models and Data Structures.*

02/1987 **"Laurea" in Computer Science** (*Summa cum Laude*), Università di Pisa, Italy.
Advisor: Prof. Fabrizio Luccio.
Thesis Title: *A Study of Parallel Hashing in VLSI.*

Career/Employment

2016 Visiting Faculty, Department of Computer Science, Brown University, Providence RI, USA (upon invitation of Prof. Eliezer Upfal).

2016 Visiting Faculty, Department of Computer Science and Engineering, Texas A&M University, College Station TX, USA (upon invitation of Prof. Nancy M. Amato and Prof. Lawrence Rauchwerger).

2015 Invited Visiting Scientist, Laboratoire d'Informatique Algorithmique: Fondements et Applications (LIAFA), CNRS and Paris 7 Diderot, France. (upon invitation of LIAFA Director, Prof. Pierre Fraigniaud).

2014 Sponsored Research Fellow, Semester Program on *Network Science and Graph Algorithms*, The Institute for Computational and Experimental Research in Mathematics (ICERM), Providence, RI USA.

2012-2014 Coordinator (*referente*) of the nine First and Second Level Degree Programs in ICT (Information and Communication Technologies), School of Engineering, Università di Padova, Italy.

2010-2014 Head, First and Second Level Degree Programs in Computer Engineering, Dipartimento di Ingegneria dell'Informazione Università di Padova, Italy.

2009-2013 Review Panel Member, 7th EU Framework Programme, Brussels, Belgium.

2003 UNESCO Lecturer, University of Damascus, Syria.

2002-2004 Lecturer, National Teledoctorate Program in Telecommunications, CNIT Consortium, Italy.

2001-today Full Professor, Dipartimento di Ingegneria dell'Informazione Università di Padova, Italy.

2000 Lecturer, National Doctoral School in Information Engineering, Università di Napoli, Italy.

1998-2001 Associate Professor, Dipartimento di Informatica e Elettronica, Università di Padova, Italy.

1996 Visiting Research Fellow, Chinese Academy of Science, Beijing, China.

1996 Visiting Professor and Course Instructor, Department of Computer Science, Cornell University, Ithaca, NY USA.

1996 Lecturer, ESPRIT-GEPPCOM Summer School on Architectures and Programming Paradigms for Parallel Computers, Padova, Italy.

1994, 1996 Lecturer, Phd program in Computer Science, Università di Pisa, Italy

1993 Lecturer, Phd program in Computer Engineering, Università di Roma "la Sapienza", Italy

1992-1993 Postdoctoral Fellow, International Computer Science Institute, Berkeley, CA USA.

1992-1998 Assistant Professor (tenured since October 1995), Dipartimento di Elettronica e Informatica, Università di Padova, Italy.

1990-1991 Visiting Scholar, International Computer Science Institute, Berkeley, CA USA (upon invitation of the Institute).

1989-1993 Graduate Student, Dipartimento di Informatica, Università di Pisa, Italy.

1988-1989 Research Associate, Computing Laboratory, University of Newcatle-upon-Tyne, UK.

1987-1988 Research Assistant, Dipartimento di Informatica, Università di Pisa, Italy.

Awards and Fellowships

2014 Sponsored Research Fellowship, Institute for Computational and Experimental Research in Mathematics (ICERM), Providence RI, USA:

2004 Best Poster Award (120 entries), *International Conference on Computational Science, ICCS 2004*, Krakov, PL, June 2004.

2004 Best Paper Award, Algorithms Track (4 tracks, 140 entries), *18th IEEE International Symposium on Parallel and Distributed Processing, IPDPS 2004*, Santa Fe NM, USA, April 2004.

1996	UNESCO Fellowship, University of Damascus, Syria.
1996	Research Fellowship, Chinese Academy of Science, Beijing, China.
1993	Postdoctoral Fellowship, International Computer Science Institute, Berkeley CA, USA.
1991, 93	Research Fellowship, Fibonacci Institute for the Foundations of Computer Science, Trento, Italy.
1990-91	Visiting Scholar Fellowship, International Computer Science Institute, Berkeley CA, USA.
1989–93	Phd Student Fellowship, Italian Ministry of Scientific and Technological Research (MURST).
1987–88	Research Fellowship, INTECS Sistemi Srl., Pisa, Italy.
1987	UNITEAM (Italy) Award for the Best Italian Thesis in Computer Science.
1987	IBM Award for the Best Italian Theses in Computer Science.

Professional Memberships

Association for Computing Machinery, ACM (since 1990); *Institute of Electrical and Electronics Engineers, IEEE* (since 1999); *European Association for Theoretical Computer Science, EATCS* (1992-2000 and 2012-today).

Teaching

Prof. Pucci has been active in teaching (both undergraduate and graduate courses) since 1990. He has been a course instructor in Italy (University of Padua, University of Pisa, University of Roma, University of Napoli), USA (Cornell University), and Syria (University of Damascus, UNESCO-sponsored program). Topics taught include *VLSI Theory, Introduction to Algorithms, Advanced Algorithms, Parallel Computing, Computability Theory, Introductory Computer Architecture, Parallel Computer Architecture, High-Performance Computing*, and *Interconnection Network Design*.

Former Students

Phd Students Alberto Pettarin (2012, currently Co-Founder and CTO at Smuuks.it); Alberto Bertoldo (2007, currently TO at Comune di Mira, Italy); Carlo Fantozzi (2005, currently Assistant Professor at the University of Padova); Mauro Bianco (2004, currently Computational Scientist at the Swiss National Supercomputing Centre of Lugano, CH).

Master Students Since 1990, Pucci has supervised over 50 Master Students, both in Computer Science and Computer Engineering.

Research Areas

- **Main:** Data Mining; Big Data; Design and Analysis of Parallel Algorithms; Computational Models; Reliability Modeling; Fault-Tolerant Computing; High-Performance Implementation of Finite-Element Methods.

- **Current interests:**
  - Algorithmic Primitives for Data Mining and Data Science
  - Models and algorithms for the MapReduce paradigm
  - Mobility models and random walks
  - Wireless Interconnection Networks and Routing
  - Mining of Frequent/Significant Patterns from Transactional Datasets and Biological Sequences
  - Models, Algorithms and Data Structures for Parallel and Hierarchical Architectures

Funding

1988-90 *Software Reliability Modelling*, UK NCSR Alvey Directorate (Key Researcher)

1993 *Travel Grant*, National Science Foundation, USA

1994-2009 Research Projects funded by the European Union:

- *PDCS: Predictably Dependable Computing Systems* FP1 ESPRIT BRA 3092 (1988-1990) (Key Researcher)
- *GEPPCOM: Foundations of GEneral Purpose Parallel COMputing*, FP3 ESPRIT Project 9072 (1994-1997) (Key Researcher)
- *AEOLUS: Algorithmic Principles for Building Efficient Overlay Computers*, FP6 IP Project 15964 (2005-2009) (Site Coordinator)

1996-98 *Bulk Synchronous Computational Geometry*, NATO Bilateral Grant CRG 961243 (University of Padova-Texas A&M University, Principal Investigator)

1996-2017 Research Projects of National Relevance funded by the Italian Ministry of Research:

- *Efficient Algorithms and Information Structures* (1995-1997) (Key Researcher)
- *Algorithms for Large Data Sets: Science and Engineering* (1999-2001) (Key Researcher)
- *ALINWEB: Algorithms for the Internet and the Web* (2002-2004) (Key Researcher)
- *ALGO-NEXT: Algorithms for the Next Generation Internet and the Web* (2004-2006) (Key Researcher)
- *MAINSTREAM: Algorithms for Massive Information Structures and Data Streams* (2006-2008) (Key Researcher)
- *Algo-DEEP: Algorithmic challenges for Data-intensivE processing on Emerging computing Platforms* (2010-2012) (Key Researcher)
- *AMANDA: Algorithms for MAssive and Networked DAta* (2014-2017) (Key Researcher)

1996-2001 Research Projects funded by the National Research Council of Italy (CNR):

- *Load Balancing and Exhaustive Search Techniques for Parallel Architectures* (1996-97) (Key Researcher)

- *Multicast Techniques with Application to Robotics and Packet Routing* (1999-2001) (Principal Investigator)

2003-Today Research Projects funded by the University of Padova:

- *A Programming Framework for Parallel Machines: Theory and Implementation*, Grant CPDA-033838, (2004-2005) (Key Researcher)
- *Methodologies for the Development of Adaptive Parallel Software with Applications to Finite-Element Simulations*, Grant CPDR-063332/06 (2007-2009) (Leader)
- *AACSE: Algorithms and Architectures for Computational Science and Engineering*, Strategic Project STPD08JA32 (2008-2012) (Key Researcher)
- *BiD-Algo: Big Data Algorithmics*, Grant CPDA-121378 (2013-2014) (Key Researcher)
- *Resource-Tradeoffs Based Design of Hardware and Software for Emerging Computing Platforms*, Grant CPDA152255 (2016-2018) (Key Researcher)
- *Algorithms for Networks Analysis and Bioinformatics Applications*, Grant BIRD178792 (2017-2019) (Key Researcher)

Editorial Boards

2012-2016 Editor: *Journal of Discrete Algorithms*, Elsevier.

2011-2013 Guest co-Editor: *Theory of Computing Systems*, Springer, Special Issue on ACM SPAA 2011.

2005-2010 Subject-Area Editor (Algorithms and Complexity): *Parallel Computing - Theory and Applications*, Elsevier.

2007-2009 Guest co-Editor: *Theory of Computing Systems*, Springer, Special Issue on FUN 2007.

Program Committees

2018 Member, Program Committee: *9th International Conference on Fun with Algorithms (FUN 2018)*, La Maddalena, I, June 13-15, 2018

2018 Member, Program Committee: *The Web Conference 2018, WWW 2018*, Lyon, F, April 23-27 2018: PC Member, Research Paper Track: Social Network Analysis and Graph algorithms for the Web.

2018 Member, Program Committee: *45th International Colloquium on Automata, Languages, and Programming, ICALP 2018* , Prague, CZ, July 9-13, 2018: PC Member, Trak C: Foundations of Networked Computation: Models, Algorithms and Information Management.

2017 Global Chair of Topic 10: *Theory and algorithms for parallel computation*, *23rd International European Conference on Parallel and Distributed Computing, Euro-Par 2017*, Santiago de Compostela, E, 18 Aug - 1 Sep 2017

2016 Member, Program Committee: *31th IEEE International Symposium on Parallel and Distributed Computing, IPDPS 2017*, Orlando, FL USA, 29 May - June 3 2017

2016 Member, Program Committee: *23nd IEEE International Conference on High Performance Computing, HiPC 2016*, Hyderabad, India, 19-22 December 2016

2016 Member, Program Committee: *17th Italian Conference on Theoretical Computer Science* , Lecce, Italy, 7-9 September 2016

2015 Member, Program Committee: *22nd IEEE International Conference on High Performance Computing, HiPC 2015*, Bangalore, India, 16-19 December 2015

2014 Member, Program Committee: *International European Conference on Parallel and Distributed Computing. Euro-Par 2015*, Vienna, A, 24-28 August 2015

2015 Vice-Chair, Algorithms Track: *29th IEEE International Symposium on Parallel and Distributed Computing, IPDPS 2015*, Hyderabad, India, 25-29 May 2015

2014 Member, Program Committee: *3nd International Conference on Connected Vehicles and Expo, ICCVE 2014*, Messe Wien, Austria, November 2014

2013 Member, Program Committee: *2nd International Conference on Connected Vehicles and Expo, ICCVE 2013*, Las Vegas, Nevada, USA, December 2013

2013 Member, Program Committee: *27th ACM International Conference on Supercomputing, ACM ICS 2013*, Eugene, Oregon, USA, June 2013

2012 Member, Program Committee: *8th International Symposium on Algorithms for Sensor Systems, Wireless Ad Hoc Networks and Autonomous Mobile Entities, ALGOSENSORS 2012*, Ljubljana, SLO, September 2012.

2012 Global Chair: *18th International European Conference on Parallel and Distributed Computing, Topic 12: Theory and algorithms for parallel computation, Euro-Par 2012* , Rhodes Island, GR, 27-31 August 2012.

2012 Member, Program Committee: *26th IEEE International Symposium on Parallel and Distributed Computing, IPDPS 2012*, Shanghai, China, 21-25 May 2012.

2011 Member, Program Committee: *4th International Conference on Contemporary Computing, IC3 2011*, Noida, India, August 2011.

2011 Member, Program Committee: *23rd ACM Symposium on Parallelism in Algorithms and Architectures, SPAA 2011*, FCRC Event San Jos CA, USA, June 2011.

2010 Member, Program Committee: *12th IEEE International Conference on High Performance Computing and Communications, HPCC-10*, Melbourne, AUS, September 2010.

2010 Member, Program Committee: *37th International Colloquium on Automata, Languages and Programming, ICALP 2010*, Bordeaux, F, July 2010: PC member.

2010 Member, Program Committee: *7th International Conference on Algorithms and Complexity CIAC 2010*, Rome, I, October 2010: PC member.

2010 Member, Program Committee: *5th Symposium on Trustworthy Global Computing TGC 2010*, Munich, D, February 2010.

2009 Member, Program Committee: *16th IEEE International Conference on High Performance Computing, HiPC 2009*, Cochin, IN, December 2009.

2009 Member, Program Committee: *3rd Workshop on Highly Parallel Processing on a Chip, HPPC 2009*, Delft, NL, August 2009.

2009 Member, Program Committee: *8th IEEE International Workshop on High Performance Computational Biology, HiCOMB 2009* , Rome, I, May 2009.

2009 Member, Program Committee: *23rd IEEE International Symposium on Parallel and Distributed Computing, IPDPS 2009*, Rome, I, April 2009.

2008 Member, Program Committee: *15th IEEE International Conference on High Performance Computing, HiPC 2008*, Bangalore, IN, December 2008.

2008 Global Chair: *14th International European Conference on Parallel and Distributed Computing, Topic 12: Theory and algorithms for parallel computation, Euro-Par 2008* Las Palmas de Gran Canaria, E, August 2008.

2008 Member, Program Committee: *5th ACM International Conference on Computing Frontiers, FRONTIERS 2008*, Ischia, I, May 2008.

2007 Member, Program Committee: *14th IEEE International Conference on High-Performance Computing, HiPC 2007*, Goa, India, December 2007.

2007 Member, Program Committee: *10th International Colloquium on Structural Information and Communication Complexity, SIROCCO 2007*, Castiglioncello, Italy, June 2007.

2007 Co-chair, Program Committee: *4th International Conference on Fun with Algorithms, FUN 2007*, Castiglioncello, Italy, June 2007.

2006 Member, Program Committee: *20th IEEE International Symposium on Parallel and Distributed Processing, IPDPS 2006*, Rhodes Island, Greece, April 2006.

2005 Member, Program Committee: *9th Italian Conference on Theoretical Computer Science, ICTCS'05*, Siena, Italy, July 2005.

2005 Member, Program Committee: *3rd International Workshop on High-Level Parallel Programming and Applications, HLPP 2005*, Conventry, United Kingdom, July 2005.

2005 Member, Program Committee: *2005 International Workshop on High-Performance Computational Geometry, HICOMB 2005*, Denver CO, USA, April 2005.

2004 Member, Program Committee: *16th Annual ACM Symposium on Parallel Algorithms and Architectures, SPAA 2004*, Barcelona, Spain, June 2004.

2003 Member, Program Committee: *10th International Colloquium on Structural Information Complexity, SIROCCO 2003*, Umea, Sweden. June 2003.

2002 Member, Program Committee: *19th International Symposium on Theorethical Aspects of Computer Science, STACS 2001*, Antibes Juan-les-Pins, France, March 2002.

2001 Member, Program Committee: *2nd International Conference on Fun with Algorithms, FUN 2001*, Isola d'Elba, Italy, June 2001.

2000 Member, Program Committee: *7th International Colloquium on Structural Information and Communication Complexity, SIROCCO 2000*, L'Aquila, Italy, June 2000.

1999-2005 Member, Advisory Board: *EUROPAR Conference Series.*

1998 Member, Program Committee: *4th International EUROPAR Conference, EUROPAR 1998*, Southampton, United Kingdom, September 1998.

Other Committees

2013 Member, Award Committee: *EATCS Prize, Young Italian Researcher of the Year in Theoretical Computer Science.*

2008-2011 Member, Award Committee: *IEEE Technical Committee on Parallel Processing, TCPP.*

1998 Member, Organizing Committee: *6th European Symposium on Algorithms, ESA 1998*, Venice, Italy, August 1998.

1996 Member, Organizing Committee: *9th Annual ACM Symposium on Parallel Algorithms and Architectures, SPAA 1996*, Padova, Italy, June 1996.

1994 Member, Organizing Committee: *1st Italian-Israeli Workshop on Algorithmic Aspects of Molecular Biology*, Padova, Italy, December 1994.

Invited Lectures

Dagsthul Seminar on Probabilistic Methods in the Design and Analysis of Algorithms, Dagsthul, Germany (2017) University of Texas A&M, College Station TX, USA (2015) Dagsthul Seminar on Dynamic Communication Networks, Dagsthul, Germany (2009); Workshop on Random Graphs and Randomized Algorithms (RANDOM GRAALS), Bertinoro, Italy (2008); University of Damascus, Syria (2003); Università di Napoli "Federico II", Italy (2000); Università di Venezia "Ca' Foscari", Italy (1998, 2001); DIMACS Workshop on Distributed Data and Structures (WDAS), Princeton, NJ USA (1999); Chinese Academy of Science, Beijing, China (1996); Northwestern University, Evanston IL, USA (1996); University of Illinois at Chicago, Chicago IL, USA (1996); Università di Pisa, Italy (1994, 1995, 1996, 2017); International Computer Science Institute, Berkeley CA, USA (1993); Università di Roma "La Sapienza", Italy (1992, 1993, 1994); Università di Siena, Italy (1992); City University of London, United Kingdom (1989, 1990); Trent Politechnic, Nottingham, United Kingdom (1989); University of Newcastle-upon-Tyne, United Kingdom (1988); Università di Salerno, Italy (1988).

PUBLICATIONS

Books and Book Chapters

[1] G. Bilardi and G. Pucci. Universality in VLSI computation. In D. Padua, editor, *Encyclopedia of Parallel Computing*, pages 2112–2118. Springer, 2011.

[2] I. Caragiannis G. Pucci (Global Chair), C. Leon (Local Chair) and K.T. Herley (Co-Chairs). Topic 12: Theory and algorithms for parallel computation. In E. Luque and T. Margalef, editors, *Euro-Par 2008 - Parallel Processing, Proceedings of the 14th International Euro-Par Conference*, volume 5168 of *Lecture Notes in Computer Science*, page 876. Springer.

[3] G. Prencipe P. Crescenzi and G. Pucci, editors. *Fun with Algorithms - FUN 2007. Proceedings of the 4th International Conference*, volume 4475 of *Lecture Notes in Computer Science*. Springer, 2007.

[4] G. Bilardi, A. Pietracaprina, and G. Pucci. Decomposable BSP: A bandwidth-latency model for paral lel and hierarchical computation. In J. Reif and S. Rajasekaran, editors, *Handbook of Parallel Computing: Models, Algorithms, and Applications*, pages 2–1–2–21. CRC Press, Boca Raton Fl, USA, 2007.

[5] G. Bilardi, G.F. Italiano, A. Pietracaprina, and G. Pucci, editors. *Algorithms - ESA'98. Proceedings of the 6th Annual European Symposium*, volume 1461 of *Lecture Notes in Computer Science*. Springer, 1998.

Journal Articles

[6] M. Ceccarello, C. Fantozzi, A. Pietracaprina, G. Pucci, and F. Vandin. Clustering Uncertain Graphs. *PVLDB 2018*. To appear.

[7] M. Ceccarello, A. Pietracaprina, G. Pucci, and E. Upfal. MapReduce and Streaming Algorithms for Diversity Maximization in Metric Spaces of Bounded Doubling Dimension. *PVLDB*, 10(5):469-480, January 2017.

[8] G. Bilardi, A. Pietracaprina, G. Pucci, F. Silvestri, and M. Scquizzato. Network-Oblivious Algorithms. *Journal of the ACM*, 63(1):3.1-3.36, 2016.

[9] P. Crescenzi, P. Fraigniaud, M. Halldorsson, H.A. Harutyunyan, C. Pierucci, A. Pietracaprina, and G. Pucci. On the Complexity of the Shortest-Path Broadcast Problem *Discrete and Applied Mathematics*, 199:101-109, 2016.

[10] N. Lazzarini, L. Nanni, C. Fantozzi, A. Pietracaprina, G. Pucci, T.M. Seccia, and G.P. Rossi. Heterogeneous machine learning system for improving the diagnosis of primary aldosteronism. *Pattern Recognition Letters*, 6:124-130, 2015.

[11] A. Pietracaprina, G. Pucci, F. Silvestri, and F. Vandin. Space-Efficient Parallel Algorithms for Combinatorial Search Problems. *Journal of Parallel and Distributed Computing*, Special Issue on *Architectures and Algorithms for Irregular Applications*. 76:58-65, 2015.

[12] G. Pucci, V. Luchangco, and R. Rajaraman(Guest Editors). Foreword: Parallelism in Algorithms and Architectures. *Theory of Computing Systems*, Special Issue on *SPAA 2011*, 55(3):449-450, 2014.

[13] N. Lazzarini, L. Nanni, C. Fantozzi, A. Pietracaprina, G. Pucci, T.M. Seccia, and G.P. Rossi. Heterogeneous machine learning system for diagnosing primary aldosteronism. *Journal of Hypertension*, 31(e-Supplement A):e409, 2013.

[14] A. Pettarin, A. Pietracaprina, and G. Pucci. On the expansion and diameter of bluetooth-like topologies. *Theory of Computing Systems*, 52(2):319–339, 2013.

[15] A. Kirsch, M. Mitzenmacher, A. Pietracaprina, G. Pucci, E. Upfal, and F. Vandin. An efficient rigorous approach for identifying statistically significant frequent itemsets. *Journal of the ACM*, 59(3):12, 2012.

[16] R. Grossi, A. Pietracaprina, N. Pisanti, G. Pucci, E. Upfal, and F. Vandin. Madmx: A strategy for maximal dense motif extraction. *Journal of Computational Biology*, 18(4):535–545, 2011.

[17] P. Crescenzi, C. Nocentini, A. Pietracaprina, and G. Pucci. On the connectivity of bluetooth-based *ad hoc* networks. *Concurrency and Computation: Practice and Experience*, 21(7):875–887, 2009.

[18] P. Crescenzi, F. Luccio, and G. Pucci. Foreword. *Theory of Computing Systems*, 44(2):141–142, 2009.

[19] S.N. Bhatt, G. Bilardi, and G. Pucci. Area-time tradeoffs for universal vlsi circuits. *Theoretical Computer Science*, 408(2-3):143–150, 2008.

[20] P. Bertasi, M. Bianco, A. Pietracaprina, and G. Pucci. Obtaining performance measures through microbenchmarking in a peer-to-peer overlay computer. *International Journal of Computational Intelligence Research*, 4(1):1–8, 2008. Special issue on Computational Intelligence in Scheduling and Simulation.

[21] K.T. Herley, A. Pietracaprina, and G. Pucci. Store-and-forward multicast routing on the mesh. *Theory of Computing Systems*, 42(4):519–535, 2007.

[22] C. Fantozzi, A. Pietracaprina, and G. Pucci. Translating submachine locality into locality of reference. *Journal of Parallel and Distributed Computing*, 66:633–646, 2006. Special issue on the *18th International Parallel and Distributed Processing Symposium*.

[23] A. Pietracaprina and G. Pucci. Optimal many-to-one routing on the mesh with constant queues. *Information Processing Letters*, 96:24–29, 2005.

[24] G. Bilardi, K.T. Herley, A. Pietracaprina, and G. Pucci. On stalling in LogP. *Journal of Parallel and Distributed Computing*, 65:307–312, 2005.

[25] C. Fantozzi, A. Pietracaprina, and G. Pucci. A general PRAM simulation scheme for clustered machines. *International Journal on Foundations of Computer Science*, 14(6):1147–1164, 2003.

[26] M. Bianco, G. Bilardi, F. Pesavento, G. Pucci, and B.A. Schrefler. A frontal solver tuned for fully-coupled non-linear hygro-thermo-mechanical problems. *International Journal for Numerical Methods in Engineering*, 57(13):1801–1818, 2003.

[27] K.T. Herley, A. Pietracaprina, and G. Pucci. Deterministic parallel backtrack search. *Theoretical Computer Science*, 270:309–324, 2002.

[28] R. Grossi, A. Pietracaprina, and G. Pucci. Optimal deterministic protocols for mobile robots on a grid. *Information and Computation*, 173:132–142, 2002.

[29] K.T. Herley, A. Pietracaprina, and G. Pucci. Implementing shared memory on mesh-connected computers and on the fat-tree. *Information and Computation*, 165(2):123–143, 2001.

[30] K.T. Herley, A. Pietracaprina, and G. Pucci. Deterministic branch-and-bound on distributed-memory machines. *International Journal on Foundations of Computer Science*, 10(4):391–404, 1999. Special issue on *IRREGULAR 1999*.

[31] A. Pietracaprina, G. Pucci, and J. Sibeyn. Constructive, deterministic implementation of shared memory on processor networks. *SIAM Journal on Computing*, 30(2):625–648, 2000.

[32] K.T. Herley, A. Pietracaprina, and G. Pucci. Fast deterministic parallel branch-and-bound. *Parallel Processing Letters*, 9(3):325–334, 1999.

[33] G. Bilardi, K.T. Herley, A. Pietracaprina, G. Pucci, and P. Spirakis. BSP vs LogP. *Algorithmica*, 24:405–422, 1999. Special issue on *Coarse Grained Parallel Algorithms*.

[34] S.N. Bhatt, G. Bilardi, K.T. Herley, G. Pucci, and A. Ranade. Tight bounds on parallel list marking. *Journal of Parallel and Distributed Computing*, 51:75–88, 1998.

[35] A. Pietracaprina and G. Pucci. The complexity of deterministic PRAM simulation on distributed memory machines. *Theory of Computing Systems*, 30:231–247, 1997.

[36] S.N. Bhatt, G. Bilardi, G. Pucci, A. Ranade, A.L. Rosenberg, and E.J. Schwabe. On bufferless routing of variable length messages in leveled networks. *IEEE Trans. on Computers*, C-45(6):714–729, 1996.

[37] M.C. Pinotti and G. Pucci. Parallel algorithms for priority queue operations. *Theoretical Computer Science*, 148:171–180, 1995.

[38] L. Pagli and G. Pucci. Counting the number of fault patterns in redundant VLSI arrays. *Information Processing Letters*, 50:337–342, 1994.

[39] S.N. Bhatt, G. Pucci, A. Ranade, and A.L. Rosenberg. Scattering and gathering messages in networks of processors. *IEEE Trans. on Computers*, C-42(8):938–949, 1993.

[40] F. Luccio, A. Pietracaprina, and G. Pucci. Analysis and implementation of parallel uniform hashing. *International Journal on Foundations of Computer Science*, 3(1):55–63, 1992.

[41] G. Pucci. A new approach to the modeling of recovery block structures. *IEEE Trans. on Software Engineering*, SE-17(2):159–167, 1992.

[42] M.C. Pinotti and G. Pucci. Parallel priority queues. *Information Processing Letters*, 40:33–40, 1991.

[43] F. Luccio, A. Pietracaprina, and G. Pucci. Analysis of parallel uniform hashing. *Information Processing Letters*, 37:67–69, 1991.

[44] F. Luccio, A. Pietracaprina, and G. Pucci. A new scheme for the deterministic simulation of PRAMs in VLSI. *Algorithmica*, 5(4):529–544, 1990.

[45] F. Luccio, A. Pietracaprina, and G. Pucci. A probabilistic simulation of PRAMs on a bounded degree network. *Information Processing Letters*, 28:141–147, 1988.

Conference Papers

[46] M. Ceccarello, A. Pietracaprina, and G. Pucci, Fast Coreset-Based Max-Sum Diversity under Matroid Constraints . In *Proc. 11th ACM International Conference on Web Search and Data Mining, WSDM 2018*, Los Angeles, California, USA, Feb. 2018. To appear.

[47] M. Ceccarello, A. Pietracaprina, G. Pucci, and E. Upfal. A Practical Parallel Algorithm for Diameter Approximation of Massive Weighted Graphs. In *Proc. of the 30th IEEE International Parallel & Distributed Processing Symposium IPDPS'16* , Chicago IL USA, May 2016.

[48] M. Ceccarello, A. Pietracaprina, G. Pucci, and E. Upfal. Space and Time Efficient Parallel Graph Decomposition, Clustering and Diameter Approximation. . In *Proc. 27th ACM Symp. on Parallelism in Algorithms and Architectures, SPAA'15*, pages 182-191, Portland OR USA, Jun. 2015.

[49] A. Pietracaprina, G. Pucci, F. Silvestri, and F. Vandin. Space-efficient parallel algorithms for combinatorial search problems. In *Proc. of the 38th International Symposium on Mathematical Foundations of Computer Science, MFCS 2013*, 2013.

[50] A. Pietracaprina, G. Pucci, M. Riondato, F. Silvestri, and E. Upfal. Space-round tradeoffs for MapReduce computations. In *Proc. of the ACM International Conference on Supercomputing, ICS 2012*, pages 235–244, 2012.

[51] A. Pettarin, A. Pietracaprina, G. Pucci, and E. Upfal. Tight bounds on information dissemination in sparse mobile networks. In *Proc. of the 30th ACM Symposium on Principles of Distributed Computing, PODC 2011*, pages 355–362, 2011.

[52] A. Pettarin, A. Pietracaprina, and G. Pucci. On the expansion and diameter of bluetooth-like topologies. In *Proc. of the 17th European Symposium on Algorithms, ESA 2009*, LNCS 5757, pages 528–539, 2009.

[53] A. Kirsch, M. Mitzenmacher, A. Pietracaprina, G. Pucci, E. Upfal, and F. Vandin. An efficient rigorous approach for identifying statistically significant frequent itemsets. In *Proc. of the 17th ACM Symposium on Principles of Database Systems, PODS 2009*, pages 117–126, 2009.

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