Curriculum Vitae:
Cristina M. Pinotti

Affiliation: Department of Mathematics and Computer Science,
University of Perugia
Via Vanvitelli 1, 06123 Perugia
Phone: (+39) 075 5855055 (office) +335 8448245 (mobile)
E-mail: cristina.pinotti@unipg.it
Web: http://www.unipg.it/pagina-personale?n=cristina.pinotti
Address: Via A. Volta 29, 56017 Ghezzano, San Giuliano Terme, Pisa, ITALY

Summary

Cristina M. Pinotti received the Dr. degree *cum laude* in Computer Science from the University of Pisa, Italy, in 1986. During 1987-1999 she was a Researcher with the National Council of Research at the Istituto di Elaborazione dell'Informazione, Pisa. From 2000-2003, she was an Associate Professor of Computer Science at University of Trento. From 2004, she is a Full Professor of Computer Science at the University of Perugia.

Her research interests are in: design and analysis of algorithms, pervasive computing, wireless sensor networks, networks of smart devices with special interest in energy aspects, content delivery in radio networks. She worked in cellular networks, parallel and distributed architectures, parallel data structures, VLSI special purpose architectures, non conventional arithmetic units.

She has published 60+ articles in International journals and 80+ International conferences, workshops, and book chapters. She has been a guest co-editor for special issues in *Mobile Networks and Applications*, *Wireless Networks*, and other journals as well. She has been appointed twice as Associate Editor of the prestigious Int'l journal *IEEE Transactions on Parallel and Distributed Systems*, from August 2009 to August 2013, and other journals as well. She served in the program committee of 30+ International conferences and workshop, mainly in the networking area, in the last five years. She serves as a reviewer for Int'l high quality journals, and she acts as a reviewer for relevant regional or nation-wide italian projects.

He is prime investigator and mentor of a PostDoc Position *NALP-SAPR: Navigazione Autonoma e Localizzazione Precisa per Sistemi Aeromobili a Pilotaggio Remoto* supported by FSE grants and Regione Umbria (Italy) in the program A.R.CO. Her research activity is also currently supported by the European project "Geospatial based Environment for Optimisation Systems Addressing Fire Emergencies" (GEO-SAFE), contract no. H2020-691161. She was supported by the Italian project "RISE: un nuovo framework distribuito per data collection, monitoraggio e comunicazioni in contesti di emergency response", Fondazione Cassa Risparmio Perugia, code 2016.0104.021, and INDAM projects. In the past, she partecipated at Research Grant 2010N5K7EB 'PRIN 2010' ARS TechnoMedia (Algoritmica per le Reti Sociali Tecno-mediate)' from the Italian Ministry of University and Research.

Recent Research Interest

In the last fifteen years, she has worked in the area of wireless communications and wireless networks. She has been attracted by the challenges of the pervasive and ubiquitous control of the physical environment, from the very beginning of this revolution. Methodologically, she is interested in modeling fundamental problems that arise in this context, with a particular attention to the optimization of the critical resources. After studying the computational complexity of the problem, she looks for rigorous solutions with high performance, and, whenever possible, the proposed solutions are experimentally tested.

Her recent contributes are in: networks of smart devices with special interest in energy aspects and security aspects, wireless sensor networks, content delivery in smart environments.

The most recent topic is working on is the use of drones for efficiently solving basic problems in wireless sensor networks. One of the basic problems in the ubiquitous control of the physical environment that may take advantage from the use of drones is the localization of targets/sensors [C7,A5,A1]. The approach of replacing all the fixed anchors with a single drone that flies through a sequence of waypoints has been explored in order to speed-up and to minimize the cost of the localization (no cost for the anchors, no cost and no time for the deployment of the anchors). At each waypoint, the drone acts as an anchor and (securely) determines the positions. The main challenges become how to guarantee a precise localization on the ground although the drone flies at a certain altitude, and how to find a convenient path for the drone to localize all the devices minimizing the energy cost. The problem presents novel aspects, which make existing localization algorithm and path planning algorithms unsuitable.

She has worked on sensor networks for more than ten years nowadays. She has almost always taken the view of a massive and random deployment of heterogeneous sensor devices – characterized by small size, low cost, extremely limited energy and anonymity – that cooperate with some distributed in-network control entities to guide the behaviour of the application end-users. In such a vision, she has studied the network ability of self-configuring and of working unattended. She has proposed unattended training algorithms in which the sensors learn their position in a lightweight coordinate system by means of an in-network sink in [A18], or by cooperation among themselves after a bootstrapping phase performed by a temporary sink in [A19, A16]. To save energy, she considered wireless duty-cycled sensor networks [A23, A15] able to guarantee connectivity and data aggregation [A9]. In almost all results, a cost for switching between the awake and the sleep status in the energy model has been included, to better fit the realistic energy model. To study the ability of the network to distribute information, in [A11], the condition on transmission radius needed to achieve connectivity in duty-cycled wireless sensor networks (briefly, DC-WSN) has been investigated. It has been proved that the connectivity condition on Random Geometric Graphs (RGG), given by Gupta and Kumar (1989), can be used to derive a weak sufficient condition to achieve connectivity in DC-WSN. To find a stronger result, a new vertex-based random connection model has been introduced which is of independent interest. Following a proof technique of M. Penrose (1991) it has been proved that when the density of the nodes approaches infinity then a finite component of size greater than 1 exists with probability 0 in this model. This result has been used to obtain an optimal condition on node transmission radius which is both necessary and sufficient to achieve connectivity and is hence optimal. The optimality of such a radius is also tested via simulation for two specific duty-cycle schemes, called the contiguous (which limits the awake/sleep transitions) and the random selection duty-cycle scheme. The independent interest of the vertex-based random connection model has been investigated in [C11] where the same model

has been used to explain the behaviour of directional networks that follow either the more realistic fading model or the more abstract ideal model.

To study the ability of the wireless sensor network to collect information and to reply to query from the external world, she has studied the possibility to collect data in so-called storage nodes, which receive raw data from other nodes, compress them, and send them toward a sink [A6, A8]. The problem of locating k storage nodes in order to minimize the energy consumed for converging the raw data to the storage nodes as well as to converge the compressed data to the sink has been studied. This is known as the minimum k-storage problem. In general, the problem is NP-hard. However, a polynomial-time algorithm that optimally solves the problem in bounded-treewidth graphs has been devised along with approximated solutions for general graphs. A different variant of the problem, which also consider a cost for broadcasting the external query in the network, has been studied and optimally solved for arbitrary trees in [A10]. Due to the increasing importance of distributed repositories outside the sensor networks, she is interested in using trustable clouds in addition to storage in-network nodes. The study of the cloud has just started in [A4] where she considers the problem of providing end-to-end anonymous communications and file-exchange under the cooperative privacy threat of involved parties including network operators and cloud providers that actively tamper with the communication. The proposed solution replicates each single communications in a bundle of communications and it has been tested in terms of performance overhead in a mobile context, i.e., assuming that the data producers are mobile devices.

Mobile wireless devices, like smartphones, have catalyzed a lot of her attention. Namely, she thinks that the first real implementation of a massive random deployed network of sensors is that of the sensors embedded in the smart mobile devices we use every day. Due to the smartphone abilities in computing and communicating, smartphones consume a lot of energy and although smartphones are bigger than sensors, they experience the same scarcity of energy. Recent energy measurements on smartphones shown that parallel communications (e.g., data transfer and voice call) require less energy than their stand-alone execution. Guided by these results, she has investigated the possibility of scheduling communications in pairs for minimizing the energy consumption in [A7]. After having classified the services that involve communications in real-time or delay-tolerant services, she proposed two energy optimization problems, which allow to postpone delay-tolerant services for performing them in parallel with real-time services in order to save energy. In particular, the Single Delay-Tolerant Assignment (SDA) problem allows at most one delay-tolerant service to be paired with each real-time service, whereas the Multiple Delay-Tolerant Assignment (MDA) problem allows multiple delay-tolerant services to be paired (in different times) with the same real-time service. For the SDA problem, she proposes an optimal algorithm. For the MDA problem, which is computationally intractable, an approximation algorithm is given. The benefits of the energy-efficient pairing strategy have been evaluated via simulations on synthetic traces, leading to a saving of at least 30%. In [C12], she has studied how to match on-line a voice call with delay-tolerant services. The peculiarity of the voice calls is that their length is unknown: when a call starts, we do not know how long it will last. This situation can be modeled as a new variant of the more standard online knapsack problem where the only information missing to the provided instances is the capacity B of the knapsack. We refer to this problem as the online Knapsack of Unknown Capacity problem. Approximated solutions are given.

She also focused her research in designing efficient data-diffusion broadcast algorithms, which nowadays could be used to broadcast data in smart environments. She considered the problem of allocating N uniform data to K transmission channels so as the Average Expected Delay (AED) is

minimized. The basic dynamic programming algorithm for solving the uniform allocation problem with cost $O(N^2K)$ is speedup up in [C8] to $O(NK)$ time by applying a known optimal algorithm to find the row-minima of totally monotone matrices. Such a new algorithm is always faster than the best previously known algorithm for the uniform allocation problem that runs in $O(NKlogN)$, that she proposed in [A30], and it is computationally optimal for the uniform allocation of up to N data and K channels. She has applied the dynamic programming technique not only to this problem but also to to the context of scheduling and timetabling [A17, A24].

She has studied the multi-interface networks. Let $G = (V, E)$ be a graph which models a set of wireless devices (nodes V) that can communicate by means of multiple radio interfaces, according to proximity and common interfaces (edges E). The problem of switching on (activating) the minimum cost set of interfaces at the nodes in order to guarantee the coverage of G was recently studied. A connection is covered (activated) when the endpoints of the corresponding edge share at least one active interface. In general, every node holds a subset of all the possible k interfaces. Such networks are known as multi-interface networks and there are many examples in the devices around us. In this setting, she studied Connectivity, Cheapest Path, Matching in [A20, A12].

She has also considered the problem of exploring graphs with robots [A14], which is a fundamental problem with many applications in search-and-rescue scenarios.

Appointments and Degree

Professor, Dept. of Computer Science and Math., University of Perugia, 2004
Associate Professor, Dept. of Information Technology, University of Trento, 2000
Researcher, National Council of Research, Pisa, 1987
Degree (cum laude) in Computer Science, University of Pisa, 1986

Professional Activities from 2012

- Editor **IEEE Trans. on Parallel and Distributed Systems**
  since August 2009 up to August 2013
- Editor **Int'l Journal of Distributed Sensor Networks**
  from August 2010 up to February 2013.
- Member of the Scientific Commitee of **Journal of Applied Computer Science**
  ISSN:1843-1046 http://jacs.usv.ro, since 2008.
- Editor **International Journal of Parallel, Emergent, and Distributed Systems**
  http://www.informaworld.com/smpp/title content=t713729127, from 2004 up to 2012.

Program Committees from 2012

- *DCOSS 2019*, Santorini Island, Greece, May 29 - 31, 2019
- *International Conference on Distributed Computing and Networking (ICDCN)*, Bangalore, India, January, 2019
- *MOBIWAC 2018: The 16th ACM* International Symposium on Mobility Management and Wireless Access* , October 28 - November 2, 2018, Montreal, Canada

- *19th International Conference on Distributed Computing and Networking (ICDCN)*, Varanasi, India, January 4 - 7, 2018
- *MOBIWAC 2017: The 15th ACM International Symposium on Mobility Management and Wireless Access* , Miami Beach, 2017
- *MOBIWAC 2016: The 14th ACM* International Symposium on Mobility Management and Wireless Access* , November 13-17, 2016, Malta, 2016
- *The 36rd International Conference on Distributed Computing Systems (ICDCS)*, 2016, June 27 - 30, 2016, Nara, Japan.
- *IPDPS 2015: 29th IEEE International Parallel & Distributed Processing Symposium*, May 25-29, 2015
- *MOBIWAC 2015: The 13th ACM* International Symposium on Mobility Management and Wireless Access* , Nov. 2- 6, Cancun, Mexico 2015
- *SmartComp 2014: International Conference on Smart Computing*, 3-5 November 2014
- *UWCNS 2014: International Workshop on Under Water Communication Systems and Networks*, 2014
- *MOBIWAC 2014: The 12th ACM* International Symposium on Mobility Management and Wireless Access* , 2014
- *The 33rd International Conference on Distributed Computing Systems (ICDCS)*, 2013, July 08 - 11, 2013, Philadelphia, USA.
- *The IEEE Int'l Conference on Cyber, Physical, and Social Computing*, 2012, September 11 - 14, 2012, Besancon, France
- *MOBIWAC 2012: The 10th ACM* International Symposium on Mobility Management and Wireless Access* , 2012, October 21 - 25, 2012, Paphos, Cyprus Island
- *The 8th IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing* , 2012, Lugano, Switzerland, March 19
- *The 32nd International Conference on Distributed Computing Systems (IDCDS 2012)*, 2012, Macau, China, June 18-21
- *ACM 6th International Conference on Ubiquitous Information Management and Communication (ICUIMC 2012)*, 2012 February 20-22, 2012, Kuala Lampur, Malasya
- She has been Program Chair for 5 Workshops before 2007

Reviewer for many international conferences and for many international and prestigious journals, such as IEEE Transactions on Computers, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Circuit and Systems, IEEE Transactions on Mobile Computing, Journal of Parallel and Distributed Computing, Pervasive and Mobile Computing, and Computer Networks.

Exchange visits starting from 2012

In March 2018, June 2017, and April 2016, she visited Prof. Vlady Ravelomanana at Computer Science Department of the University Paris Diderot VII under the program Erasmus+ Staff Mobility for teaching mobility agreement.
In September 2015-October 2015, she visited the Department of Coumputer Science, Missouri Science & Tecnology University, Rolla, MO, USA.
In April 2015, she visited Computer Science Department of the University of Porto under the program Erasmus+ Staff Mobility for teaching mobility agreement.
In February-March 2013 and in May 2014 (Program Erasmus+), she visited the Department of Computer Science and Engineering, Aalto University School of Science at Helsinki.
She visited IIT New Delhi, Dept. of Computer Science in January 2013, invited by Prof. Amitabha Bagchi.

Current International Collaborations

- Prof. Amitabha Bagchi, IIT Delhi, New Delhi, India.
- Prof. Swades De, IIT Delhi, New Delhi, India.
- Prof. Vlady Ravelomana, University Paris Diderot, Paris, France.
- Prof. Sajal K. Das, Department Chair & St. Clair Endowed Chair, Rolla, MO, USA.
- Prof. Azzedine Boukerche, University of Ottawa, Canada.

Teaching activities

She is teaching regularly two classes (yearly 160 hours) from 2010:

- Algorithm and Data Structures (until 2014 CFU 9, from 2015 CFU 15) at the Bachelor degree (Laurea Triennale)
- Advanced Algorithms (CFU 6) at the Master degree (Laurea Magistrale).

She has occasionally taught a class on her research activity (Wireless sensor networks, Emergent new areas in computer networks) for the PhD program.

International teaching activities

She taught a course on Algorithm Analysis (T-110.6120), titled *Basics of Algorithm Analysis and Applications to Software Systems* from May 12th to May 20th 2014 at Aalto University, Department of Computer Science and Engineering in Helsinki, Finland; under the framework of the LLP-ERASMUS Staff Mobility Programme Academic Year 2013/14.
She taught a short course on *Case Study in Advanced Algorithms* at the University of Porto under the program Erasmus+ Staff Mobility in April 2015.

Grants from 2011

1. Mentor PostDoc position *NALP-SAPR: Navigazione Autonoma e Localizzazione Precisa per Sistemi Aeromobili a Pilotaggio Remoto*, supported by Regione Umbria (Program A.R.Co) with FSE funding.

2. Member of European project "Geospatial based Environment for Optimisation Systems Addressing Fire Emergencies" (GEO-SAFE), contract no. H2020-691161

3. Member of "RISE: un nuovo framework distribuito per data collection, monitoraggio e comunicazioni in contesti di emergency response", Fondazione Cassa Risparmio Perugia, code 2016.0104.021

4. Member of Projet émergent "Fondements du calcul par agents mobiles" LaBRI - Laboratoire Bordelais de Recherche en Informatique - Bordeaux, Francia (2011)

5. Member of ARS TechnoMedia - "Algorithmics for Social Technological Networks" (Code: 2010N5K7EB)

6. ARISE, un nuovo framework distribuito per data collection, monitoraggio e comunicazioni in contesti di emergency response. Fondazione Cassa di Risparmio della Provincia dell'Aquila (2012)

7. Grant for visiting professor INDAM 2017: March 2017

8. Erasmus + : scholarship for teaching abroad (2014, 2015, 2016)

9. Grant for visiting Computer Science Department, University of Missouri-Rolla, MO, October 2015

Publications

A: International Journal

1. F. Betti Sorbelli, S. K. Das, C. M. Pinotti, & S. Silvesti, "Range based Algorithms for Precise Localization of Terrestrial Objects using a Drone", *Journal of Pervasive and Mobile Computing*, Vol. 48, August 2018, (IF [1] =2.349 in 2017).

2. A. Navarra & Cristina M. Pinotti, "Online Knapsack of Unknown Capacity", *Theoretical Computer Science*, Vol. 697, pp. 98-109, 2017 (IF=0.649).

3. G. Audrito, A.A. Bertossi, C.M. Pinotti, & A. Navarra, "Maximizing the Overall End-User Satisfaction of Data Broadcast in Wireless Mesh Networks", *Journal of Discrete Algorithms*, Vol. 45, pp. 14-25, 2017. (SNIP [2]=0.856)

4. C.A. Ardagna, K. Ariyapala, M. Conti, C.M. Pinotti, & J. Stefa "Anonymous End-to-End Communications in Adversarial Mobile Clouds", *Journal of Pervasive and Mobile Computing*, Vol. 36, pp. 57-67, 2017. (IF=2.349)

[1] IF=Impact Factor
[2] SNIP=Source Normalized Impact per Paper

5. P. Perrazzo, F. Betti Sorbelli, M. Conti, G. Dini, & C.M. Pinotti "Drone Path Planning for Secure Positioning and Secure Position Verification", accepted for publication in *IEEE Trans. Mob. Comput.* Vol. 16, No. 9, pp. 2478-2493 (2017) (IF=3.822)

6. G. D'Angelo, D. Diodati, A, Navarra, & C.M. Pinotti, "The Minimum k-Storage Problem: Complexity, Approximation, and Experimental Analysis", *IEEE Trans. Mob. Comput.*, Vol. 15, No. 17, pp. 1797-1811, 2016. (IF= 2.456 nel 2015)

7. M. Conti, B. Crispo, D. Diodati, J.K. Nurminen, C.M. Pinotti, & T. Teemaa, "Leveraging Parallel Communications for Minimizing Energy Consumption on Smartphones", *IEEE Trans. Parallel Distrib. Syst.*, Vol. 26, No. 10, pp. 2778-2790, 2015, IF=2.661

8. G. D'Angelo, D. Diodati, A. Navarra, & Cristina M. Pinotti, "The minimum k-storage problem on directed graphs", *Theoretical Computer Science*, 596, 102-108, 2015. IF=0.643

9. A. Navarra, C. M. Pinotti, S. K. Das, & M. Di Francesco, "Interference-free Scheduling with Minimum Latency in Cluster-based Wireless Sensor Networks", *Wireless Networks* 21(7): 2395-2411, 2015. IF=1.006

10. A. Bertossi, D. Diodati, & C.M. Pinotti "Storage Placements in Path Networks", *IEEE Trans. on Computers*, Vol. 64, No.4, pp. 1201–1207, 2015. IF=1.723

11. A. Bagchi, S. Galhotra, T. Mangla, & C.M. Pinotti, "Optimal Radius for Connectivity in Duty-Cycled Wireless Sensor Networks", *ACM Trans. Sensor Networks* 11(2):Article 36:1-36:37, 2015. IF=1.448

12. A. Kosowski, A. Navarra, D. Pajak, & Cristina M Pinotti "Maximum Matching in Multi-Interface Networks", *Theoretical Computer Science*, Vol. 507: 52-60, 2013. IF=0.516

13. A. Navarra, C.M. Pinotti, & A. Formisano, "Distributed colorings for collision-free routing in sink-centric sensor networks " *Journal of Discrete Algorithms*, Vol. 14: 232-247, 2012. (CiteScore= 0.81 nel 2015)

14. A. Kosowski, A. Navarra, & C. M. Pinotti, "Synchronous Black Hole Search in Directed Graphs", *Theoretical Computer Science*, Vol. 412, 41, 23 September 2011, 5752-5759. IF=0.665

15. A. A. Papadopoulos, A. Navarra, J. McCann, M.C. Pinotti "VIBE: An Energy Efficient Routing Protocol for Dense and Mobile Sensor Networks", *Journal of Network and Computer Applications*, Vol. 35, No. 4, 2012, pp. 1177-1190. IF=1.467

16. G. Ghidini, S.K. Das, A. Navarra, & M.C. Pinotti, "Localization and Scheduling Protocols for Actor-Centric Sensor Networks", *Networks*, Vol. 59, No. 3, 2012, pp. 299-319. IF=0.645

17. G. D'Angelo, G. Di Stefano, A. Navarra, & M.C. Pinotti, "Recoverable Robust Timetables: an Algorithmic Approach on Trees", *IEEE Transactions on Computers*, 60(3): 433-446, 2011. IF=1.103

18. F. Barsi, A. A. Bertossi, C. Lavault, A. Navarra, M.C. Pinotti, S. Olariu, & V. Ravelomanana, "Efficient Location Training Protocols for Heterogeneous Sensor and Actor Networks", *IEEE Transactions on Mobile Computing*, 10(3): 377-391, 2011. IF=2.283

19. A. Navarra, M.C. Pinotti, V. Ravelomanana, Betti Sorbelli F., & R. Ciotti "Cooperative Training for High Density Sensor and Actor Networks", *Journal of Selected Areas in Communications*, 28(5): 753-763, 2010. IF=4.232

20. A. Kosowski, A. Navarra, & C.M. Pinotti: "Exploiting Multi-Interface Networks: Connectivity and Cheapest Paths", *Wireless Networks*, Vol, 16, No. 4, April 2010,1063-1073. IF=0.958

21. P. Barsocchi, A.A. Bertossi, M.C. Pinotti, & F. Potortí, " Allocating data for broadcasting over wireless channels subject to transmission errors", *Wireless Networks*, Vol. 16, No. 2, 2010, 355-365. IF=0.958

22. F. Barsi & M.C. Pinotti, "Error Control by Product Codes in Arithmetic Units", *The International Journal of Parallel, Emergent and Distributed Systems*, Vol. 24, no. 5, October 2009, 407-419.

23. F. Barsi, A.A. Bertossi, F. Betti Sorbelli, R. Ciotti, S. Olariu & M.C. Pinotti, "Asynchronous Corona Training Protocols in Wireless Sensor and Actor Networks", *IEEE Transactions on Parallel and Distributed Systems*, Vol. 20, no. 8, August 2009, 1216-1230. IF=1.733

24. A.A. Bertossi, M.C. Pinotti, & R. Rizzi, "Optimal receiver scheduling algorithms for a multicast problem", *Discrete Applied Mathematics*, Vo. 157, No. 15, 2009, pg. 3187-3197. IF=0.816

25. S. Anticaglia, F. Barsi, A.A. Bertossi, L. Iamele & M.C. Pinotti, "Efficient Heuristics for Data Broadcasting on Multiple Channels", *Wireless Networks*, Vol. 14, No. 2, 2008, 219-231. IF=1.194

26. A.A. Bertossi, S. Olariu, & C.M. Pinotti, "Efficient Corona Training Protocols for Sensor Networks", *Theoretical Computer Science*, Vol. 402, No. 1, 2008, 2-15. IF=0.806

27. A. A. Bertossi & C.M. Pinotti, "Approximate $L(\delta_1, \delta_2, \ldots, \delta_t)$-Coloring of Trees and Interval Graphs", *Networks*, Vol. 49, No. 3, 2007, 204-216. IF=0.609

28. N. Saxena, C.M. Pinotti, K. Basu & S.K. Das, "A Dynamic Hybrid Scheduling Algorithm for Heterogeneous Asymmetric Environments", *The International Journal of Parallel, Emergent and Distributed Systems*, Vol. 20, No. 3-4, September-December 2005, 185-204.

29. A. Boukerche, T. Dash, & C.M. Pinotti "Performance analysis of a novel hybrid push-pull algorithm with QoS adaptations in wireless networks", *Performance Evaluation*, Vol. 60, 2005, 201-221. IF=0.756

30. E. Ardizzoni, A.A. Bertossi, M.C. Pinotti, S. Ramaprasad, R. Rizzi, & M.V.S. Shashanka, "Optimal Skewed Data Allocation on Multiple Channels with Flat Broadcast per Channel", *IEEE Transactions on Computers*, Vol. 54, No. 5, 2005, 558-572. IF=1.875

31. A.A. Bertossi, M.C. Pinotti, R. Rizzi, & A.M. Shende "Channel Assignment for Interference Avoidance in Honeycomb Wireless Networks", *Journal of Parallel and Distributed Computing*, Vol. 64, No. 12, 2004, 1329-1344. IF=0.729

32. A.A. Bertossi, M.C. Pinotti, R. Rizzi, & P. Gupta, "Allocating Servers in Infostations for Bounded Simultaneous Requests", *Journal of Parallel and Distributed Computing*, Vol. 64, No. 10, 2004, 1113-1126. IF=0.729

33. G. Lancia, M.C. Pinotti & R. Rizzi, "Haplotyping Populations by Pure Parsinomy: Complexity, Exact and Approximation Algorithms", *INFORMS Journal on Computing*, Vol. 16, No. 4, 2004, 348-359. IF=1.522

34. A.A. Bertossi, S. Olariu, M.C. Pinotti & S.Q. Zheng, "Selection on Matrices Classifying Rows and Columns", *IEEE Transactions on Parallel and Distributed Systems.* Vol. 15, No. 7, 2004, 654-665. IF=1.190

35. A.A. Bertossi, M.C. Pinotti & R. Tan, "Channel Assignment with Separation for Interference Avoidance in Wireless Networks", *IEEE Transactions on Parallel and Distributed Systems*, Vol. 14, No. 3, 2003, 222-235. IF=1.183

36. S.K. Das and M.C. Pinotti, " Load Balanced and Optimal Disk Allocation Strategy for Partial Match Queries on Multi-dimensional Files", *IEEE Transactions on Parallel and Distributed Systems*, Vol. 13, No. 12, 2002, 1320-1332. IF=0.819

37. A.A. Bertossi and M.C. Pinotti,"Mappings for Conflict-Free Access of Paths in Bidimensional Arrays, Circular Lists, and Complete Trees", *Journal of Parallel and Distributed Computing*, Vol. 62, 2002, 1314-1333. IF=0.342

38. S. Olariu, M.C. Pinotti & L. Wilson, "Greedy Algorithms for Tracking Mobile Users in Special Mobility Graphs", *Discrete Applied Mathematics*, Vol 117/1-3, 2002, 215-227. IF=0.471

39. V. Auletta, S.K. Das, A. De Vivo, M.C. Pinotti, & V. Scarano, "Optimal Tree Access by Elementary and Composite Templates in Parallel Memory Systems," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 13, No. 4, 2002, 399-412.IF=0.819

40. Y. Guo, S.K. Das & M.C. Pinotti, "A New Hybrid Broadcast scheduling Algorithm for Asymmetric Communication Systems: Push and Pull Data based on Optimal Cut-Off Point", *Mobile Computing and Communications Review (MC2R)*, Vol. 5, No. 4, 2001.

41. S.Q. Zheng, K.Li, Y. Pan, & M.C. Pinotti "Generalized Coincident Pulse Technique and New Addressing Schemes for Pipelined Time-Division Multiplexing Optical Buses", *Journal of Parallel and Distributed Computing*, Vol. 61, No. 8, 2001, 1033-1051. IF=0.353

42. S. Olariu, M.C. Pinotti & S.Q. Zheng, "An Optimal Hardware-Algorithm for Sorting Using a Fixed-Size Parallel Sorting Device", *IEEE Transactions on Computers*, Vol. 49, No. 12, 2000, 1310-1324. IF=1.263

43. S.K. Das & M.C. Pinotti, "Optimal Mappings of q-ary and Binomial Trees into Parallel Memory Modules for Fast and Conflict-Free Access to Path and Subtree Templates", *Journal of Parallel and Distributed Computing*, Vol. 60, No. 8, 2000, 998-1027. IF=0.603

44. R. Lin, S. Olariu, K. Nakano, M.C. Pinotti, J.L. Schwing, & A. Y. Zomaya, "Scalable Hardware-Algorithms for Binary Prefix Sums", *IEEE Transactions on Parallel and Distributed Systems*, Vol. 11, No. 8, 2000, 838-850. IF=0.882

45. S.K. Das & M.C. Pinotti, "Parallel Priority Queues Based on Binomial Heaps", *Parallel Computing*, Vol. 26, 2000, 1411-1428. IF=0.470

46. G. Brodal & M.C. Pinotti, "Comparator Networks for Binary Heap Construction", *Theoretical Computer Science*, Vol. 250/1-2, 2000, 235-245. IF=0.417

47. S. Olariu, M.C. Pinotti & S.Q. Zheng, "How to sort N Items Using a Network of Fixed I/O", *IEEE Transactions on Parallel and Distributed Systems*, Vol. 10, No. 5, 1999, 487-499.

48. S.K. Das & M.C. Pinotti, "$O(\log \log n)$ Time Algorithms for Hamiltonian-Suffix and Min-Max-Pair Heap Operations on the Hypercube", *Journal of Parallel and Distributed Computing*, Vol. 48, No. 2, 1998, 200-211.

49. S.K. Das & M.C. Pinotti, "Fast VLSI Circuits for CSD-Coding and GNAF-Coding", *Electronics Letters*, Vol. 32, No. 7, 1996, 632-634.

50. S.K. Das, M.C. Pinotti, & F. Sarkar, "Optimal and Load Balanced Mapping of Parallel Priority Queues in Hypercubes", *IEEE Transactions on Parallel and Distributed Systems*, Vol. 7, No. 6, 1996, 555-564.

51. F. Barsi & M.C. Pinotti, "Fast Base Extension and Precise Scaling in RNS for Look Up Table Implementations", *IEEE Transactions on Signal Processing*, Vol. 43, No. 10, 1995, 2427-2430.

52. M.C. Pinotti & G. Pucci, "Parallel Algorithms for Priority Queue Operations", *Theoretical Computer Science*, Vol. 148, 1995, 171-180.

53. F. Barsi & M.C. Pinotti, "Efficient Error Correcting Technique for Digital Equipment", *Electronic Letters*, Vol. 31, No. 3, 1995, 158-159.

54. F. Barsi & M.C. Pinotti, Addendum to "A Fully Parallel Residue-to-Binary Conversion", *Information Processing Letters*, Vol. 55, No. 1, 1995, 25-26.

55. F. Barsi & M.C. Pinotti, "Time Optimal Mixed Radix Conversion for Residue Number Applications", *The Computer Journal*, Vol. 37, No. 11, 1994, 907-916.

56. F. Barsi & M.C. Pinotti, "A Fully Parallel Residue-to-Binary Conversion", *Information Processing Letters*, Vol. 50, No. 1, 1994, 1-8.

57. C. Luchetti & M.C. Pinotti, "Some Comments on Building Heaps in Parallel", *Information Processing Letters*, Vol. 47, 1993, 145-148.

58. F. Barsi & M.C. Pinotti, "Adding Flexibility to Hybrid Number Systems", *The Computer Journal*, Vol. 35, No. 6, 1992, 630-635.

59. M.C. Pinotti & G. Pucci, "Parallel Priority Queues", *Information Processing Letters*, Vol. 40, 1991, 33-40.

60. F. Luccio & M.C. Pinotti, "Minimal Synthesis of Multivalued Functions with New Operators", *IEE Proceedings Part E: Computer and Digital Tecniques*, Vol. 138, No. 6, 1991, pp. 419-423.

61. F. Luccio & M.C. Pinotti, "Suboptimal Solution for PLA Multiple Column Folding", *Computer Aided-Design*, Vol. 22, No. 8, 1990, 515-520.

62. Syed R. Rizvi, Stephan Olariu, Cristina M. Pinotti, Shaharuddin Salleh, Mona E. Rizvi, & Zainab Zaidi (Editor), "Vehicular Ad Hoc Networks", *International Journal of Vehicular Technology*, Hindawi, 2011.

63. Y-C. Tseng, W-C. Peng, V.C.M. Leung, W-T. Chen, & C.M. Pinotti, (Editor) "Information Processing and Data Management in Wireless Sensor Networks", *Signal Processing*, (Elsevier), Vol. 87, No. 12, December 2007, 2859-2860.

64. A.A. Bertossi, A. Boukerche & M.C. Pinotti, (Editor) "Special Issue on WMAN04 Best Papers", *Wireless Networks*, Vol. 12, No. 6, December 2006, 669-731.

65. A. A. Bertossi, S. Olariu, & M.C. Pinotti, (Editor) "Special Issue: Algorithms for wireless and ad-hoc networks", *Journal of Parallel and Distributed Computing*, Vol. 66, No. 4, April 2006, 487-488.

66. A. Bar-Noy, A.A. Bertossi, M.C. Pinotti, & C.S. Raghavendra, (Editor) "Foreword: Special Issue on Algorithmic Solutions for Wireless, Mobile, Ad Hoc and Sensor Networks", *Mobile Networks and Applications*, Vol. 10, No. 1-2, 2005.

I: Book Chapters

1. Alan A. Bertossi, C.M. Pinotti & R. Rizzi, "Data Broadcasts on Multiple Wireless Channels: Exact and Time-Optimal Solutions for Uniform Data and Heuristics for Non-Uniform Data", *Handbook of Approximation Algorithms and Metaheuristics – IInd edition* (Ed. Teofilo Gonzalez) Taylor & Francis Books (CRC Press), in press.

2. Gianlorenzo D'Angelo, Alfredo Navarra, & Cristina M. Pinotti, "Approximation and exact algorithms for optimally placing a limited number of storage nodes in a wireless sensor network", *Handbook of Approximation Algorithms and Metaheuristics – IInd edition* (Ed. Teofilo Gonzalez) Taylor & Francis Books (CRC Press), in press.

3. S.K. Das, A. Navarra, & C.M. Pinotti, "Dense, Concentric and Nonuniform Multi-hop Sensor Networks", in: *Theoretical Aspects of Distributed Computing in Sensor Networks*, (Co-Editors Sotiris Nikoletseas & Jose' Rolim), Springer Verlag, 1st Edition., 2011, XXVI, 928 p., Hardcover ISBN: 978-3-642-14848-4

4. A.A. Bertossi, M.C. Pinotti, R. Rizzi, & P. Gupta, "Scalable algorithms for server allocation in infostations", in: *Handbook of Research on Scalable Computing Technologies* (Co-Editors Kuan-Ching, Ching-Hsien, Laurence, Jack and Hans), IGI Publishing, 2010, ISBN: 978-1-60566-661-7.

5. P. Barsocchi, A.A. Bertossi, M.C. Pinotti, & F. Potortì, "Quality of Service of data broadcasting algorithms on erroneous wireless channels", in: *Handbook of Research on Mobile Multimedia* (Ed. Ismail K. Ibrahim), IGI Publishing, 2009, ISBN: 978-1-60566-046-2.

6. P. Barsocchi, A.A. Bertossi, M.C. Pinotti, & F. Potortì, "Data broadcasting algorithms on error-prone wireless channels", in: *NATO Security Through Science Series*, IOS Press, Amsterdam, in stampa.

7. Alan A. Bertossi & M.C. Pinotti, "Channel assignment with separation in wireless networks based on regular plane tessellations", in: *NATO Security Through Science Series*, IOS Press, Amsterdam, in stampa.

8. Alan A. Bertossi & M.C. Pinotti "Channel Assignment in Wireless Local Networks", in: *Wireless Ad Hoc Networking: Personal-Area, Local-Area, and Sensory-Area Networks* (Ed. Yu-Chee Tseng) Auerbach Publications, Taylor & Francis, June, 2007, pp. 277-299.

9. Alan A. Bertossi, M.C. Pinotti & R. Rizzi, "Scheduling Data Broadcasts on Wireless Channels: Exact Solutions and Heuristics", *Handbook of Approximation Algorithms and Metaheuristics* (Ed. Teofilo Gonzalez) Taylor & Francis Books (CRC Press), May, 2007, pp. 73.1-73.16.

10. S.K. Das & M.C. Pinotti, "Distributed Data Access in Tree-Like Structures and Multidimensional Vector Spaces – A Survey", *Distributed Data and Structures*, (Eds. N. Santoro & P. Widmayer), Carleton Scientific Pub., 1999, 21-42.

11. S.K. Das & M.C. Pinotti, "Efficient Schemes for Distributing Data on Parallel Memory Systems", *AAMS-DIMACS Series on Discrete Mathematics and Theoretical Computer Science*, *Ex ternal Memory Algorithms*, (Eds. J. M. Abello & J. S. Vitter), Vol. 50, 1999, 233–245.

C: International Conferences

1. F. Coró, G. D'Angelo, & C.M. Pinotti, "On the Maximum Connectivity Improvement problem", *Algosensors 2018*, August 23-24, 2018, Helsinki, Finland

2. F. Betti Sorbelli & C. M. Pinotti, "On the Localization of Sensors using a Drone with UWB Antennas", *International Workshop on Robust Solutions for Fire Fighting.* July 19-20, 2018, L'Aquila, Italy.

3. A. Bagchi, F. Coró, C.M. Pinotti, & V. Ravelomnana, "Border Effects on Connectivity for Randomly Oriented Directional Antenna Networks", *Med-Hoc-Net 2018*, June 20-22, 2018, Capri, Italy

4. F. Betti Sorbelli, C.M. Pinotti, & V. Ravelomanana, "Range-Free Localization Algorithm Using a Customary Drone", *IEEE Int'l Conference on Smart Computing (Smartcomp 18)*, June 18-20, 2018, Taormina, Italy, 2018.

5. F. Betti Sorbelli, S. K. Das, C.M. Pinotti, S. Silvestri, "On the accuracy of localizing terrestrial objects using drones", *IEEE International Conference on Communications, ICC*, May 20-25, 2018, Kansas City, MO, USA, 2018.

6. F. Betti Sorbelli, S. K. Das, C.M. Pinotti, S. Silvestri, "Precise Localization in Sparse Sensor Networks using a Drone with Directional Antennas", *ICDCN 2018*, January 4–7, 2018,Varanasi, India, pp. 34:1-34:10.

7. C.M. Pinotti, F. Betti Sorbelli, P. Perazzo, G. Dini, "Localization with Guaranteed Bound on the Position Error using a Drone", *MobiWac 2016*, Malta, November 13-17, 2016, pp. 147-154.

8. G. Audrito, D. Diodati, C.M. Pinotti, "Optimal Skewed Allocation on Multiple Channels for Broadcast in Smart Cities", *2nd IEEE SMARTCOMP 2016*, St. Louis (MO), May 18-20, 2016, pp. 1-8.

9. A. Navarra, P. Palazzo, C. M. Pinotti, L. Mostarda, "Algorithms for Services with Multiple Levels of Quality", *AINA Workshops 2016*, Crans-Montana, Switzerland, March 23-25, 2016, pp. 306-311.

10. K. Ariyapala, M. Conti, C. M. Pinotti, "CaT: Evaluating Cloud-aided TLS for Smartphone Energy Efficiency", In *Proceedings of the 1st IEEE Workshop on Security and Privacy in Cybermatics (IEEE CNS 2015 workshop: SPiCy 2015)*, Florence, Italy, September 30, 2015, pp. 601-609.

11. A. Bagchi, F. Betti Sorbelli, C.M. Pinotti, V. Ribeiro, "Connectivity of a dense mesh of rando mly oriented directional antennas under a realistic fading model", AlgoSensors15, September 2015, LNCS 9536, pp. 13-26.

12. D. Diodati, A. Navarra, and C.M. Pinotti, "Online Knapsack of Unknown Capacity: Energy optimization for smartphone communications", *SEA 2015*, June 2015, Sorbonne University, Paris UPMC, LNCS 9125, pp. 165-177.

13. G. D'Angelo, D. Diodati, A. Navarra, and C.M. Pinotti, "Optimal placement of storage nodes in a wireless sensor network", *ICTCS 2014*, Perugia, Settembre 17-19, 2014, pp. 259-263.

14. A. Bagchi, C.M. Pinotti, S. Galhotra, T. Mangla, "Optimal Radius for Connectivity in Duty-Cycled Wireless Sensor Networks", *ACM MSWIM 2013*, Barcellona, November 3-8, 2013, pp. 125-128.

15. G. D'Angelo, A. Navarra, D. Diodati and C. M. Pinotti, "Approximation Bounds for the Minimum k-Storage Problem", *Algosensors 2013*, LNCS 8243, Springer 2014, September 5-6, 2013, Sophia Antipolis, France, pp. 123-138.

16. M. Conti, D. Diodati, C.M. Pinotti, & B. Crispo, "Optimal Solutions for Pairing Services on Smartphones: a Strategy to Minimize Energy Consumption", *IEEE CPSCom Conference*, 20-22 November 2012, Besancon, France, pp. 269-276.

17. M. Di Francesco, C.M. Pinotti, & S.K. Das, "Interference-free scheduling with bounded delay in cluster-tree wireless sensor networks", *The 15th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems, MSWiM '12*, October 21-25, 2012, Paphos, Cyprus, pp. 99-106.

18. A. Kosowski, A. Navarra, D. Pajak, & C.M. Pinotti, "Maximum Matching in Multi-Interface Networks", *Combinatorial Optimization and Applications - 6th International Conference, COCOA 2012*, Banff, AB, Canada, August 5-9, 2012, pp. 13-24, in LNCS 7402.

19. A. Di Saverio, A. Navarra, C.M. Pinotti, G. Ghidini, & S.K. Das, "Broadcast Analysis in Dense Duty-Cycle Sensor Networks", *ACM-ICUIMC 2012*, Kuala Lampur, February 20-22, 2012.

20. A.A. Bertossi, A. Navarra, & C.M. Pinotti, "Maximum Bandwidth Broadcast in Single and Multi-Interface Networks", *ACM-ICUIMC 11*, Seoul, February 21-23, 2011.

21. A. Navarra & C.M. Pinotti, "Collision-free Routing in Sink-Centric Sensor Networks with Coarse-Grain Coordinates", *IWOCA 2010*, July 26–28, 2010 London, LNCS 6460, Springer-Verlag, 140-153.

22. G. Ghidini, C.M. Pinotti, & S.K. Das, "A semi-Distributed Localization Protocol for Wireless Sensor and Actor Networks", *Sixth IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing (PerSeNS 2010)*, March 29-April 2, 2010, Mannheim, Germany.

23. A. Kosowski, A. Navarra, & C. M. Pinotti, "Synchronization Helps Robots to detect Black Holes in Directed Graphs", *International Conference On Principle Of DIstributed Systems*, December 15-18, 2009 Nimes France , Lecture Notes in Computer Science 5923, Springer-Verlag, pp. 86–98.

24. F. Betti Sorbelli, R. Ciotti, A. Navarra, C. M. Pinotti, & V. Ravelomanana "Cooperative Training in Wireless Sensor and Actor Networks", *Sixth International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine 2009)*, Invited Paper , QShine Conference Proceeding, Las Palmas de Gran Canaria, Spain,2009, Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, pp. 569–583.

25. G. D'Angelo, G. Di Stefano, A. Navarra, & C.M. Pinotti "Recoverable-Robust Timetables on Trees", Proceedings of the 3rd Annual International Conference on Combinatorial Optimization and Applications (COCOA), Lecture Notes in Computer Science 5573, Springer-Verlag, pp. 451-462, 2009.

26. F. Barsi, A. Navarra, & M.C. Pinotti, " Cheapest Paths in Multi-Interface Networks", *ICDCN 09*, LNCS 5408, January 3-7, 2009, Hyderabad, India.

27. A. Kosowski, A. Navarra, & C.M. Pinotti, "Connectivity in Multi-Interface Networks", *Proceedings of the 4th Symposium on Trustworthy Global Computing (TGC)*, LNCS 5474, November 3-4, 2008, Barcelona.

28. F. Barsi, A. Navarra, C.M. Pinotti, C. Lavault, V. Ravelomanana, S. Olariu, & A.A. Bertossi, "Efficient Binary Schemes for Training Heterogeneous Sensor and Actor Networks", *HeterSANET 08*, Hong Kong, May 26, 2008.

29. F. Barsi, F. Betti Sorbelli, R. Ciotti, M.C. Pinotti, A.A. Bertossi, & S.Olariu, "Asynchronous Training in SANET", *First ACM Workshop on Sensor Actor Networks*, Montreal, Canada, September 10, 2007.

30. F. Barsi, A.A. Bertossi, F. Betti Sorbelli, R. Ciotti, S. Olariu, & M.C. Pinotti, "Asynchronous Training in Wireless Sensor Networks", *3nd International Workshop on Algorithmic Aspects of Wireless Sensor Networks (ALGOSENSORS 2007)*, July 14, 2007, Wroclaw, Poland, LNCS 4837, 2008, 46-57.

31. A. A. Bertossi, S. Olariu, & M.C.Pinotti, "Efficient Training of Sensor Networks", *2nd International Workshop on Algorithmic Aspects of Wireless Sensor Networks (ALGOSENSORS 2006)*, July 15, 2006, Venice, Italy, in LNCS 4240, December 2006, 1-12.

32. A. A. Bertossi & M.C. Pinotti, "Skewed Allocation of Non-Uniform Data for Broadcasting over Multiple Channels", IEEE Int'l Parallel and Distributed Processing Symposium (IPDPS), April 26-28, 2006, Rhodes, Greece, 8 pp.

33. N. Saxena, K. Basu, S. Das, and C.M. Pinotti, "A New Service Classification Strategy in Hybrid Scheduling to Support Differentiated QoS in Wireless Data Networks", *International Conference on Parallel Processing (ICPP-05)*, 2005, Oslo, Norway, June 2005, 389-396.

34. N. Saxena and M. C. Pinotti, "On-line Balanced K-Channel Data Allocation with Hybrid Schedule per Channel", *IEEE Intl. Conf. in Mobile Data Management (MDM)*, 2005, Ayia Napa, Cyprus, May 2005, 239-246.

35. N. Saxena, K. Basu, S.K. Das, & M.C. Pinotti, "A Dynamic Hybrid Scheduling Algorithm with Clients' Departure for Impatient Clients in Heterogeneous Environments", *5th IEEE International Workshop on Algorithms for Wireless, Mobile, Ad Hoc and Sensor Networks (WMAN), WMAN-IPDPS*, 2005, 7 pp.

36. N. Saxena, K. Basu, S.K. Das & C.M. Pinotti, "A New Hybrid Scheduling Framework for Asymmetric Wireless Environments with Request Repetition", *3rd IEEE Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt)*, April 3-7, 2005, 368-376.

37. N. Saxena, C.M. Pinotti, & S.K. Das "A Probabilistic Push-Pull Hybrid Scheduling Algorithm for Asymmetric Wireless Environment", *IEEE GLOBECOM Wireless Ad hoc and Sensor Networks*, Dallas, TX, December 2004, 5-9.

38. E. Ardizzoni, A. Bertossi, M.C.Pinotti, & R.Rizzi, "Comparing Algorithms for Data Broadcasting over Multiple Channels", *AlgorithmS for Wirelss and Ad-hoc networks (A-SWAN)*, August 26, 2004, Boston, USA.

39. A. Boukerche, T. Dash & M.C. Pinotti, "Performance Analysis of a Hybrid Push-Pull Algorithm with QoS Adaptions in Wireless Networks", *The Ninth IEEE Symposium on Computers and Communications (ISCC04)*, June 28 - July 01, 2004, Cairo, Egypt, 512-524.

40. A.A. Bertossi, M.C. Pinotti, S. Ramaprasad, R. Rizzi, & M.V.S. Shashanka, "Optimal multichannel data allocation with flat broadcast per channel", IEEE Int'l Parallel and Distributed Processing Symposium (IPDPS), April 26-30, 2004, Santa Fe, USA, 8 pp.

41. A.A. Bertossi, M.C. Pinotti, R. Rizzi, & A.M. Shende "Channel Assignment in Honeycomb Networks", *3rd ICTCS*, October 13-15, Bertinoro, Italy, 2003.

42. A.A. Bertossi, M.C. Pinotti & R. Rizzi, *Channel Assignment with Separation on Trees and Interval Graphs*, *3rd Int'l Workshop on Wireless, Mobile and Ad Hoc Networks*, Workshop IEEE IPDPS 2003), April 26, 2003, 7 pp.

43. A.A. Bertossi, M.C. Pinotti, R. Rizzi, & P. Gupta, *Allocating Servers in Infostations for Bounded Simultaneous Requests*, IEEE Int'l Parallel and Distributed Processing Symposium (IPDPS), April 22-26, 2003, Nice, France, 8 pp.

44. M.C. Pinotti, N. Saxena, "Push less and pull the current highest demanded data item to decrease the waiting time in asymmetric communication environments", *4th Int'l Workshop on Distributed Computing, Special Day on Wireless Networks*, in LNCS 2571, December 28-31, 2002, Calcutta, India.

45. A.A. Bertossi, M.C. Pinotti, & R. Tan, "Channel Assignment with Separation for Special Classes of Wireless Networks : Grids and Rings", *2nd Int'l Workshop on Parallel and Distributed Computing Issues in Wireless Networks and Mobile Computing*, (satellite workshop of IEEE IPDPS 2002), April 15-19, 2002, Fort Lauderdale, Florida, 8 pp.

46. Y. Guo, S.K. Das & M.C. Pinotti, "A New Hybrid Broadcast scheduling Algorithm for Asymmetric Communication Systems: Push and Pull Data based on Optimal Cut-Off Point", *ACM Int'l Workshop on Modeling Analysis and Simulation of Wireless and Mobile Systems (MSWim 2001)*, Rome, July 2001, 123–130.

47. V. Auletta, S.K. Das, A. De Vivo, M.C. Pinotti & V. Scarano, "Optimal Tree Access by Elementary and Composite templates in Parallel Memory Systems", *Proc. Int'l Parallel and Distributed Processing Symposium* (sponsored by the IEEE Computer Society), San Francisco, April, 2001.

48. A.A. Bertossi, M.C. Pinotti & R. Tan, "Efficient Use of Radio Spectrum in Wireless Networks with Channel Separation between Close Stations", *DIAL M for Mobility; Int'l ACM Workshop on Discrete Algorithms and Methods for Mobile Computing*, Boston, August 11, 2000.

49. A.A. Bertossi & M.C. Pinotti, "Mappings for Conflict-Free Access of Paths in Elementary Data Structures", *Sixth Annual Int'l Computing and Combinatorics Conference*, Sydney, July 26-28, 2000 (atti pubblicati su LNCS).

50. S. Olariu, M.C. Pinotti & S.Q. Zheng, "An Optimal Hardware-Algorithm for Selection Using a Fixed-Size Parallel Classifier Device", *6th Int'l Conference on High Performance Computing*, Calcutta, India, December 17-20, 1999, 284-288.

51. S.Q.Zheng, K. Li, Y. Pan, & M.C. Pinotti, "Generalized Coincident Pulse Technique and New Addressing Schemes for Pipelined Time-Division Multiplexing Optical Buses", *6th (IEEE) International Conference on Parallel Interconnects (PI'99)*, Anchorage, Alaska, USA, October 17-19, 1999.

52. S.K. Das & M.C. Pinotti, "A Strictly-Optimal Strategy to Access Multi-Dimensional Data on Parallel Disk Systems", *29th Int'l Conference on Parallel Processing*, Aizu-Wakamatsu City, Japan, September 21-24, 1999, 120-127.

53. M.C. Pinotti & S.Q. Zheng, "Efficient Parallel Computation on a Processor Array with Pipelined TDM Optical Buses", *12th ISCA-PDCS Int'l Conference on Parallel and Distributed Computing Systems*, August 1999, Florida.

54. R. Lin, S. Olariu, K. Nakano, M.C. Pinotti, J.L. Schwing, & A. Y. Zomaya,"Scalable Hardware-Algorithms for Binary Prefix Sums", *Proc. Reconfigurable Architecture Workshop 99 Int'l Parallel Processing Symposium and Symposium on Parallel and Distributed Processing* (sponsored by the IEEE Computer Society), Puerto Rico, April 1999, 500-504.

55. S.K. Das & M.C. Pinotti, "An Optimal Disk Allocation Strategy for Partial Match Queries on Non-Uniform Cartesian Product Files", *Proc. Int'l Parallel Processing Symposium and Symposium on Parallel and Distributed Processing* (sponsored by the IEEE Computer Society), Puerto Rico, April 1999, 550-554.

56. S. Olariu, M.C. Pinotti & S.Q. Zheng, "An Optimal Hardware-Algorithm for Sorting Using a Fixed-Size Parallel Sorting Device", *10th Int'l IASTED Conf. Parallel and Distributed Computing and Systems*, Las Vegas, Nevada, October 28-31, 1998, 38-44.

57. G. Brodal & M.C. Pinotti, "Comparator Networks for Binary Heap Construction", *Sixth Scandinavian Workshop on Algorithm Theory* , July 1998, in LNCS 1432, Stockholm, Sweden, 158-168.

58. R. Lin, S. Olariu, K. Nakano, M.C. Pinotti, J.L. Schwing, & A. Y. Zomaya, "A Scalable VLSI Architecture for Binary Prefix Sums", *Proc. Int'l Parallel Processing Symposium and Symposium on Parallel and Distributed Processing* (sponsored by the IEEE Computer Society), Orlando, April 1998, 333-337.

59. V. Auletta, S.K. Das, A. De Vivo, M.C. Pinotti & V. Scarano, "Toward a Universal Mapping for Accessing Trees in Parallel Memory Systems", *Proc. Int'l Parallel Processing Symposium and Symposium on Parallel and Distributed Processing* (sponsored by the IEEE Computer Society), Orlando, April 1998, 447-454.

60. M.C. Pinotti & L. Wilson, "On the Problem of Tracking Mobile Users in Wireless Communications Networks", *Wireless Networks and Mobile Computing Minitrack of the Thirty-First Hawaii International Conference on System Sciences (HICSS-31)*, January 6-9 1998, 666-671.

61. S.Q. Zheng, S. Olariu & M.C. Pinotti, "A Systolic Architecture for Sorting an Arbitrary Number of Elements", *IEEE 3rd International Conf. on Algorithms and Architectures for Parallel Processing*, Melbourne, Australia, December 1997, 113-126.

62. S.K. Das, M.C. Pinotti & F. Sarkar, "Conflict-Free Data Access in Parallel Memory Systems: Algorithms and Experimental Study", invited paper at *World Multiconference in Systemics, Cybernetics and Informatics (ISAS'97)* Caracas, Venezuela, July 7-11, 1997, 467-474.

63. G. Bilardi, B. Codenotti, G. Del Corso, M.C. Pinotti & G. Resta, "Broadcast and Other Primitive Operations on Fat-Trees", *EuroPar*, Passau, Germany, August 26-29, 1997, in LNCS 1300, 196-207.

64. S.K. Das & M.C. Pinotti, "Load Balanced Mapping of Data Structures in Parallel Memory Modules for Fast and Conflict-Free Templates Access", *Proc. 5th Int. Workshop on Algorithms and Data Structures (WADS'97)* Halifax NS, August 1997, in LNCS 1272, 272-281.

65. S.K. Das & M.C. Pinotti, "Conflict-Free Access to Templates of Trees and Hypercubes in Parallel Memory Systems", *3rd Annual Int'l Conference on Computing and Combinatorics (Cocoon)*, Shanghai, Cina, August 20-22, 1997 in LNCS 1276, 1-10.

66. S.K. Das, M.C. Pinotti & F. Sarkar, "Conflict-Free Template Access in k-ary and Binomial Trees", *Proc. ACM-Int'l Conference on Supercomputing 1997*, Wien, July 7-11, 1997, 237-244.

67. S.K. Das & M.C. Pinotti, "$O(\log \log N)$ Time Algorithms for Hamiltonian-Suffix and Min-Max-Pair Heap Operations on the Hypercube", *Proc. Int'l Parallel Processing Symposium* (sponsored by the IEEE Computer Society), Geneve, April 1-5, 1997, 507-511.

68. V. Crupi, S.K. Das & M.C. Pinotti, "Parallel and Distributed Meldable Priority Queues Based on Binomial Heaps", *Proc. Int'l Conf. on Parallel Processing, Indian Lakes Resort*, August 12-16, 1996, 255-262.

69. S.K. Das, M.C. Pinotti & F. Sarkar, "Distributed Priority Queues on Hypercube Architectures", *Proc. 16th IEEE Int'l Conf. on Distributed Computing Systems*, Hong Kong, May 27-30, 1996, 620-627.

70. V. Crupi, S.K. Das & M.C. Pinotti, "A Parallel Solution to the Extended Set-Union Problem With Unlimited Backtracking," *Proc. IEEE Int'l Parallel Processing Symposium* (sponsored by the IEEE Computer Society), Hawaii, April 15-19, 1996, 182-186.

71. S.K. Das & M.C. Pinotti, "Parallel CSD-Coding and Its Generalization", *Proc. Int'l Conf. on High Performance Computing* (sponsored by IEEE Computer Society), New Delhi, India, December 1995, 730-733.

72. S.K. Das, M.C. Pinotti & F. Sarkar, "Conflict-Free Path Access of Trees in Parallel Memory Systems and Its Generalization with Applications to Distributed Heap Implementation", *Proc. Int'l Conf. on Parallel Processing*, Wisconsin (Oconomowoc), August 1995, Vol. III, 164-167.

73. G. Pucci & M.C. Pinotti "Parallel Algorithms for Priority Queue Operations", *Scandinavian Workshop on Algorithm Theory SWAT 1992*, Helsinki, Finland, July 1992, in LNCS 621, 130-139.

74. G. Pucci & M.C. Pinotti "Parallel Priority Queues", *Twenty-Eighth Annual Allerton Conference on Communication, Control and Computing*, Urbana Champaign (IL), October 1990, pp. 926-935.

D: National Conferences

1. Cristina M. Pinotti, " Algorithms for Data Diffusion on SmartCities", *2nd Italian Conference on ICT for Smart Cities and Communities*, I-CiTies 2016, Benevento, 19 Settembre 2016

2. Francesco Betti Sorbelli & Cristina M. Pinotti, " Localization in sparse sensor networks using a drone with directional antennas", *3rd Italian Conference on ICT for Smart Cities and Communities*, I-CiTies 2017, Bari 2017

3. Luca Bartoli, Federico Coró, Cristina M. Pinotti, & Anil Shende, " Drone Delivery System in a Mixed Landscape", *4th Italian Conference on ICT for Smart Cities and Communities*, I-CiTies 2018, L'Aquila 2018