

# Short CURRICULUM VITAE

*Roberto Baldoni*

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## Contact

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## Personal Data

Born in Rome (Italy) on 1st February 1965. Married with Dora Evangelista. Three children: Edoardo, Camilla and Luca. Italian citizenship.

## Languages

Italian, French, English.

## Academic Degree

1990: Laurea in Electronic Engineering from the University of Rome "La Sapienza".

1994: Ph.D. in Computer Science from the University of Rome "La Sapienza".

## Current Position

- *Jan. 2005-present: Full Professor at the School of Engineering of the University of Rome "La Sapienza".*
- *November 2008-Present Director of the PhD program in Computing Science and Engineering at the University of Rome "La Sapienza"*
- *April 2010-Present Director of the Master in Interoperability for the public administration and networked enterprises. University of Rome "La Sapienza"*

## Professional Appointments

- October 2007 - present. He is member of the Scientific Committee of "Sapienza Innovazione" the technology incubator of the University of Rome "La Sapienza"
- October 2007 – Present. Director of the Joint-Lab on Security Research of "Sapienza Innovazione"
- Jan 2001 - present. He founded and currently leads MIDLAB a laboratory on middleware technology (<http://www.dis.uniroma1.it/~midlab>).
- Jan 2000 – 2005. Director of the Student Laboratory "Paolo Ercoli" of the School of Engineering of the University of Rome "La Sapienza".

## Previous Academic Appointments

- From June 2007 to September 2007 he has been visiting Professor INRIA of Rennes (France) in the ASAP group led by Dr. Anne-Marie Kermarrec
- Summer 2003: Visiting Professor at EPFL (in the research group led by Prof. Rachid Guerraoui).
- Nov. 1998- Dec. 2004: Associate Professor at the School of Engineering of the University of Rome "La Sapienza".
- Nov 1996- Oct 1998: Assistant Professor at the School of Engineering of the University of Rome "La Sapienza".

- May 1996 – Oct. 1996 : Visiting Assistant Professor at Cornell University (in the research group led by Prof. Ken Birman).
- 1994-1995: Associate Researcher in Computer Science at IRISA-INRIA (France) (in the ADP research group led by Prof. Michel Raynal)

### Teaching Experience

In this Academic Year he is teaching:

- Distributed Systems (Master level) at the School of Engineering, University of Rome “La Sapienza” (both in English and Italian).
- Advanced Distributed Systems (Master level) at the School of Engineering, University of Rome “La Sapienza”.

### Research Interests

Distributed Computing, Mobile Computing, Dependable Middleware, Information Systems, Publish/Subscribe systems and Peer-to-peer systems

### Research Projects

Currently Roberto Baldoni is

- **Coordinating person** of the STREP project SM4ALL of 4.5Meuros on middleware infrastructures for Networked Embedded Systems. Kickoff Sept. 1<sup>st</sup> 2008 (duration three years). In this context he has established a two years agreement between the SM4ALL Consortium and ITRI research Institute (Taiwan) for the study of Energy Savings using the SM4ALL platform.
- **Coordinating person** of the Regional Project Sensors Network for Security of 1.5Meuros for the creation of a laboratory on middleware for Networked Embedded Systems. Kickoff Nov. 1<sup>st</sup> 2006 (duration five years)
- **Scientific CoDirector** of the STREP European Project CoMiFin a STREP project of 4.5Meuros on the protection of the financial infrastructure. Kickoff Sept. 1<sup>st</sup> 2008 (duration three years).
- **Project Advisor** and Principal Investigator of the STREP project GreenerBuilding of 3.0Meuros on middleware infrastructures for energy savings in public buildings. Kickoff June. 1<sup>st</sup> 2010 (duration three years).
- **Coordinating person** of the Regional Project “Domus Nova” of 0.5Meuros for the creation of Smart Houses. (duration three years)

**Moreover he is Principal Investigator of the following EU, Italian and Industrial research project**

- IP-ARTEMIS European Project SOFIA an IP project of 20Meuros on middleware for smart environment. Kickoff Jan. 1<sup>st</sup> 2009 (duration three years).
- EUROSTAR European Project BLEND: *Blending Technologies for Ubiquitous Real-Time Data Access* a STREP project of 2.0Meuros on Large Scale Publish-Subscribe Systems . Kickoff June 1<sup>st</sup> 2010 (duration two years).
- "P2P telephony" funded by Telecom Italia – Tilab (40Keuros). Kickoff Oct. 1<sup>st</sup> 2008 (duration two years).
- "Distributed Debugging in Complex Systems" funded by Finmeccanica. (60Keuros) Kickoff Nov. 1<sup>st</sup> 2009 (duration three years).

- MIUR PRIN Project “DOTS-LCCI: Reliable Middleware systems for Critical Infrastructures based on off-the-shelf components” of 150KEuros. Kickoff March 2010 (duration two years).

He has been Principal Investigator of the following research projects:

- IST-FP6-STREP “Semantic-Gov”
- IST-FP6-NoE “Resist”
- MIUR-FIRB “EG4M”
- Industrial Project (Finmeccanica/SELEX-SI), “Data Distribution Service”
- Industrial Project (SELEX-SEMA), “Secure plug-and-play middleware”
- MIUR “Fondo Speciale per lo Sviluppo della Ricerca di Interesse Strategico” 2001, “Infrastrutture software per reti ad-hoc orientate ad ambienti difficili” (Software infrastructure for Mobile Ad-Hoc Networks”).
- Industrial Project (Tilab - Telecom Italia), “Searching in P2P systems”
- Industrial Project (Telecom Italia), “Content-Based Publish Subscribe”
- IST/2001/37610 - MIDAS. Middleware for Composable and Dynamically Adaptable Services, 2002;
- MIUR-Ateneo “Interoperable Replication Logic” 2002-2003;
- Bilateral Project (Italy-Spain), “Software Replication in Distributed Systems”, Spanish PI: Prof. Ricardo Jimenez-Peris (Universidad Politecnica de Madrid), 2004/2005;
- IST/2001/35217- [EU-PUBLI.COM](#). Facilitating Co-operation amongst European Public Administration employees through a Unitary European Network Architecture and the use of Interoperable Middleware Components, 2002
- MIUR-FIRB “MAIS- Sistemi Informativi Adattativi Multicanale” (Roberto Baldoni is PI of WP3);
- Progetto Industriale “Middleware Infrastructures for Air Traffic Control” funded by Alenia Marconi Systems AMS 2002;
- Bilateral Project (Italy-France), “Logical Time in distributed Computing Systems”, French PI: Prof. Michel Raynal (INRIA), 2000/2001;

Finally from 2005 to 2008, he has been member of the Executive Board of the European Network of Excellence IST-FP6-NoE “RESIST” in the context of secure and dependable infrastructure

### **Member of Scientific Committees for**

*the evaluation of a Research Institute*

- Member of the Scientific Committee for Evaluation of UMR IRISA (France) on behalf of the CNRS (chair Gabriel Rouget), 2002.
- Member of the Scientific Committee for Evaluation of GET, Grand Ecoles des Telecommunications, (chair Gerard Roucariol) 2004.

*the evaluation of promotion to associate professor with Tenure*

- University of Texas at Dallas
- Technion
- INRIA

*the evaluation of grant proposals for the following institutes*

- BNF, NSF, MIUR, SNF, EU-IST

### **Professional Activities**

### *European Union*

- He regularly serves as an expert for the EU commission in the definition of research agenda for the following strategic objectives:
  - Embedded Systems
  - Security&Dependability
  - E-government
  - Software and Services
- He was a member of the IP panel for security and dependability in call 1 of the 6th FP

### *Industries*

- He is member of a Finmeccanica Panel on Software Systems for the preparation of the 7th FP program (chair Dott. G. Barontini, ISTAG member)
- He is a member of the working group defining the next generation e-government systems (Sistema Pubblico di Cooperazione) on behalf of the Italian Government.
- He is one of the five members of the jury for the evaluation of the Call For Tender for the Italian system of interoperability in the public administration (380Me)
- He is a member of the Scientific Committee of the IBM project SICA

### **Academic activities**

- Currently he is the advisor of the following Ph.D. students at the "Dipartimento di Informatica e Sistemistica" of the University of Rome "La Sapienza":
  - Luca Montanari (Distributed Complex event Processing),
  - Marco Platania (IPtv)
  - Silvia Bonomi (Dynamic Distributed Systems),
  - Davide Lamanna (Virtualization in Distributed Systems)
- He has been the advisor of the Ph.D. students at the "Dipartimento di Informatica e Sistemistica" of the University of Rome "La Sapienza":
  - **Carlo Marchetti** (Software Replication on WAN,2003, currently IT advisor at the Senath of the Italian Republic),
  - **Antonino Virgillito** (Publish/Subscribe Systems, 2004, currently IT expert at the Italian Institute of Statistics, ISTAT),
  - **Sara Tucci Piergiovanni**<sup>1</sup> (Connectivity in Dynamic Distributed Systems, 2005, currently Researcher at Commisariat Energie Atomique de Paris, Francia),
  - **Alessia Milani** (Causal Memory in Static and Dynamic Distributed Systems, 2006, currently Maitre de Conference at Université de Bordeaux, France),
  - **Leonardo Querzoni** (Publish/Subscribe systems: Techniques and Tools, 2006, currently Assistant Professor at the University of Rome “La Sapienza”),
  - **Adnan Noor Mian** (Service Discovery techniques for Mobile Ad-Hoc Networks, 2008, currently Associate Professor at Pakistan University of Computer and Emerging Sciences),
  - Sirio Scipioni (Clock synchronization on large scale systems, 2009, currently IT experts at Selex-SI a Finmeccanica Company).

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<sup>1</sup> The Master Thesis of Sara Tucci Piergiovanni has been awarded with the AICA-FEDERCOMIN prize for the best Italian Thesis on Information Technology in 2002. Moreover she got the mention of Excellence for his PhD thesis (there has been only two mentions of Excellence in the 20 years History of our PhD program).

- He has been invited member of 14 juries of Ph.D defenses worldwide: Raphaël Chand (EURECOM, France, 2005), David Cavin (EPFL, Switzerland, 2006); Nikola Milanovic (Humboldt Univ., Germany, 2006), Sebastiene Baehni (EPFL, Switzerland, 2006), Sebastiene Monnet (University of Rennes, France, 2006), Etienne Riviere (University of Rennes, France 2007), Nicolas Saltagè (University of Toulouse, France, 2007), Marzia Adorni (Università di Milano Bicocca, Italy, 2007); Erik Kuiper (University of Linköping, Sweden, 2008); Julien Sopena (University of Paris VI, France, 2008), Luis Vargas (University of Cambridge, UK, 2009), Francisco Pérez-Sorrosal (Universidad Politecnica de Madrid, Spain, 2009), Adrian Holzer (Université de Lousanne, Switzerland, 2009).
- He hosted in his research group the following Post-Docs:
  - Roman Vitemberg PhD from Technion currently Associate Professor at Univ. of Oslo (2004)
  - Vivien Quema, PhD from University of Grenoble, currently Chercheur at CNRS (2006)
  - Kleoni Ioannaodiou, PhD from University of Toronto (2006-2007) currently assistant professor at University of California San Diego (UCSD)
  - Yann Busnell, PhD from University of Rennes, currently Maitre de Conference at Univ. of Nantes (2008-2009)
  - Giorgia Lodi, PhD from University of Bologna, currently Post-Doc at MIDLAB (2008-2010)
- He hosted in his research group for long stay the following Professors
  - Miroslaw Malek, Humboldt Univ. Germany, 2005-2006
  - Lorenzo Alvisi, University of Texas at Austin, 2005
  - Jean-Michel Helary, INRIA, 2004
  - Michel Raynal, University of Rennes, 2002, 2009
  - Rachid Guerraoui, EPFL, 2004
- He regularly serves as reviewer for all main scientific journals (including JACM, all major IEEE and ACM Transactions etc) of his topics of research and it has been the Guest Editor of the issue "WORDS'01 selected Papers" on Computer Systems Science and Engineering Journal, 2002.

### **Invited Talks**

Since 1996 Roberto Baldoni delivered tens of invited talks in many Departments and Research Centers including, Cornell University, EPFL, Ohio State University, Univ. of Texas at Austin, INRIA, Telecom Tilab, Univ. of Linköping, Univ. of Toronto, Univ. of Rennes, Brown University, AT&T Research Labs, Cambridge University, University of Rennes, CNRS-LAAS, TAMU, Universidad Politecnica de Madrid, Technical University of Dresden.

Moreover he was invited to deliver talks in the following events:

- 43rd Meeting IFIP WG 10.4, “Fully Distributed Active Replication” Cabo Verde, 2002
- 3<sup>rd</sup> international workshop Med-Hoc-Net, “Architecture for group communication in mobile ad-hoc networks” 2003.
- EU-US workshop on “Large ICT-based Infrastructures and Interdependencies: Control, Safety, Security and Dependability”, “Data Distribution for critical infrastructure protection”, Washington, March 2006.
- EU-US workshop on Long Term Challenges in High Confidence Composable (Evolutionary) Embedded Systems, “Event-based architectures for evolutionary embedded systems”, Helsinki June 2006.

- EU-US summit series on Cyber Trust, “Monitoring in complex systems”, Dublin October 2006.
- Seminaire du CNRS-LAAS “Interoperability in public administration: the italian scenario” December 2006 (in French)
- Resist Open Workshop, “Data Distribution in Large-Scale Distributed Systems” Budapest, Hungary, March 2007
- 54th Meeting IFIP WG 10.4, “Dynamic Distributed Systems: The long run” Natal, 2008.
- Colloquium for the Michel Raynal’s 60<sup>th</sup> Birthday, “From Causality to Dynamic Distributed Systems, fifteen years of friendship” Rennes, May 2009.
- Workshop on Cyber Security and Global Affairs, “Extracting cyber warnings from Internet background noise through federated distributed systems”, University of Oxford, August 2009.
- EWSN 2010, “Smart Houses for home-care assistance”, Coimbra, 2010.
- Workshop on Cyber Security and Global Affairs, “Information Sharing within the Financial IT infrastructure: Opportunities and Challenges”, ETH zurich, July 2010.
- Microsoft Faculty Day on Scientific Computing, Roma Sept. 16<sup>th</sup> 2010.

### **Keynotes**

- European trade promotion organisation - EPTO 2007, “The Italian Interoperability framework”, April 18th Rome, 2007.
- 4th International Symposium on Service Availability, “The Italian e-Government Service Oriented Architecture: Strategic Vision and Technical Solutions ”, Tokio, May, 2008.
- International Workshop on Dynamic Distributed Systems, Lisboa, “When subscription dynamicity meets churn” 2006,
- ENEA workshop on critical infrastructure protection, “Towards Compositional ICT for Critical Infrastructure Protection”, Rome, July 2006
- Networked Embedded and Control Systems: IST Information day. “Data Distribution for complex networked embedded systems”, May 22nd Brussels, 2007.
- 4th International Workshop on Dependable Embedded Systems “Geocasting in mobile ad-hoc networks”, Beijing, China, October 2007.

### **PhD International Schools**

Roberto Baldoni has been invited to deliver lectures at the following European PhD school:

- Summer School on Middleware for Network Eccentric and Mobile Applications, Klagenfurt University, 11-15 July, Austria, July 2005. (invited lectures on Publish/Subscribe systems for ad-hoc mobile networks)
- Winter School on “Emergent Topics in Distributed Computing” (invited lectures on large scale publish subscribe systems), March 2008, La Plagne, France
- Winter School on Middleware for Network Eccentric and Mobile Applications, Goteborg, Sweden, March 2009. (invited lectures on Publish/Subscribe systems for ad-hoc mobile networks)
- School on E-government “Architectures et Technologies pour la Coopération dans les Systeme des Information”. Rabat (Marrocco), 2006 (in French)
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### **Conference Chairmanships**

- 2-nd ACM International Conference on Distributed Event Based Systems (DEBS), Roma, July 2008.

### **Workshop Chairmanships**

- 8-th IEEE International Workshop on Object-Oriented Real-Time Dependable Systems, Mexico City, Mexico, Jan. 2003.
- Workshop on Foundations of Middleware Technologies (WFoMT ,2002), Irvine, Ca (USA), Nov. 2002.

### **Conference PC Chairmanships**

- 19-th IEEE International Conference on Distributed Computing Systems, Austin, USA, May 1999. (Chair of the Program Committee "Distributed Algorithms" Track)
- 26-th IEEE Symposium on Reliable Distributed Systems, Beijing, October 2007
- ACM Autonomics International Conference, Rome, Nov. 2007.
- 29-th IEEE International Conference on Distributed Computing Systems, Montreal, Canada, June 2009. (Chair of the Program Committee "Dependable and Reliable Systems" Track)

### **Workshop PC Chairmanships**

- 6-th IEEE International Workshop on Object-Oriented Real-Time Dependable Systems, Rome, Italy, Jan. 2001. (Chair of the Program Committee)
- 3-rd International Symposium on Distributed Object Applications, Rome, Italy, Sept. 2001. (Chair of the Tutorial Section)
- 2-nd ACM International Workshop on Principles on Mobile Computing, Toulouse, France, Sept. 2002. (Co-Chair of the Program Committee)

### **Conference PC Memberships (not complete)**

- IEEE International Conference on Distributed Computing Systems, 1998, 2002, 2005.
- International Conference on Dependable Systems and Networks, 2004, 2005, 2006, 2008, 2010
- International Conference on Pervasive Computing and Communications, (PERCOM), 2005.
- International Conference on Parallel and Distributed Systems, 2005.
- European Conference on Dependable Computing (EDCC), 2005, 2006, 2008.
- EUROPAR International Conference, 1999 (Vice-Chair "Distributed Systems" section)
- International Symposium on Distributed Objects and Applications (DOA), 2002, 2003, 2004.
- 8ème Conférence Internationale sur les NOuvelles TEchnologies de la Repartition (NOTERE), 2008, 2009
- International Symposium on Distributed Algorithms (DISC), 2002.
- International Symposium on Reliable Distributed Systems (SRDS), 1998, 2005, 2006, 2008, 2010.
- International Conference on Cooperative Information Systems (COOPIS), 2001.
- IEEE International Symposium on Object-Oriented Real-Time Distributed Computing (WORDS) 2001, 2002, 2005
- IEEE International Conference on Pervasive Services (ICPS'05), 2005
- The 9th IEEE International Symposium on High Assurance Systems Engineering (HASE '05), 2005
- 20th IEEE Intl. Conf. on Advanced Information Networking and Applications. Vienna, Austria (AINA 2006): April 2006.

### **Some Workshop PC Memberships (not complete)**

- Workshop on Architecting Dependable Systems (WADS), 2008
- Workshop on Model-Based Software and Data MBSDI, 2008
- Workshop on Recent Advances on Intrusion-Tolerant Systems WRAITS 2007, 2008.
- 6th International Workshop on Innovative Internet Community Systems (I2CS 2006), 2006, Neuchâtel, Switzerland
- Workshop on Wireless Ad hoc and Sensor Networks WWASN2006, July 4-7, 2006, Lisboa, Portugal
- The 5th Workshop on Adaptive and Reflective Middleware (ARM2006) November 27, 2006, Melbourne, Australia
- The 7th International Workshop on Distributed Computing (IWDC'05) 2005, India
- International Workshop on Assurance in Distributed Systems and Networks (ADSN), 2005, 2006
- Workshop on Concurrency in Dependable Computing, 2001.
- Workshop on Hot Topics in Dependable Computing (HOT-DEP), 2010.

### **Organization of Conferences/Workshops**

- 26th International Symposium on Distributed Computing (DISC2011) Sept. 2011. Univ. La Sapienza Roma.
- 3th International Symposium on Distributed Objects and Applications (DOA'02) Sept. 2001.
- 8-th IEEE International Workshop on Object-Oriented Real-Time Dependable Systems, Rome, Jan. 2001.
- 9-th International Workshop on Distributed Algorithms (WDAG), Le mont Saint Michel, France, 1995.
- He launched with Alex Shvartsman (MIT) a series of Confabulations on Theoretical Aspects of Dynamic Distributed Systems. In the first edition 2009 (Elche, Spain) there were four invited speakers: Leslie Lamport (Microsoft), Michel Raynal (INRIA), Marteen van Steen (Vrije Univ. Amsterdam), Peter Drushel (Max Plank Institute). Edition 2010 (Boston): Dahlia Malki (Microsoft Research), Ion Stoika (Berkeley), Nancy Lynch (MIT), Paulo Verissimo (Univ. of Lisboa).

### **Awards**

Roberto Baldoni has been awarded with two best paper awards. Moreover he is recipient of the ACM service of recognition Award(2002), the Service2Business Award (2010) and the IBM Faculty Award (2010).

### **Patents & Expositions**

Marco Enzo Marchisio, Ivan Pazzini, Simone Ruffino, Roberto Baldoni, Alessia Milani, Leonardo Querzoni, "METHOD AND SYSTEM FOR DATA MANAGEMENT IN A PEER-TO-PEER NETWORK" Pub. No.:WO/2010/075868, International Application No.:PCT/EP2008/011143, Publication Date:08.07.2010

the project SM4ALL has been selected by the Italian Ministry of Foreign Office to represent Italy at the Shangai Expo 2010.

### **Citations**

According to Google Scholar, Roberto Baldoni's papers collect around 2200 citations (January 2010) with a h-number of 25.

## List of Publications (January 2010)

### Edited Book

- B1** Proceedings of the 6th International Workshop on Object-Oriented Real-Time Distributed Computing, R. Baldoni and Carlos Edoardo Pereira Editors, IEEE press, ISBN 0-7695-1068-X, 2001.
- B2** Proceedings of the 3rd International Symposium of Distributed Object Applications (Short Papers), R. Baldoni Editor, ISBN 8886658117, Edizioni Ingegneria 2000, 2001.
- B3** Roberto Baldoni, Andrè Schiper and Ravi Prakash (2002). *Proceedings of the second ACM international workshop on Principles of mobile computing*. ACM press.2002.
- B4** R. Baldoni, F. Davide, G. Cortese, "Global Data Management" IoS press, 2006.
- B5** Proceedings of the 2rd ACM International Conference on Distributed Event-Based Infrastructures (DEBS2008), R. Baldoni et al. Editors, , ACM 2008.

### International Journal

- IJ1.** R. Baldoni and B. Ciciani, Distributed Algorithms for Multiple Entries to a Critical Section with Priority, **Information Processing Letters**, Vol. 50, no. 3, pp. 165--172, 1994.
- IJ2** R. Baldoni, B. Ciciani and G. Cioffi, On Correctness of Goscinski's Algorithm, **Journal of Parallel and Distributed Computing**, Vol. 27, no. 2, pp. 201-204, 1995
- IJ3** R. Baldoni, and B. Ciciani, A Class of High-Performance Maekawa-type Algorithms for Distributed Systems under Heavy Demand, **Distributed Computing**, Vol. 8, no. 4, pp. 171-180, 1995.
- IJ4** R. Baldoni, and M. Raynal, A Graph-based Characterization of Communication Modes in Distributed Systems, **Foundation of Computing and Decision Sciences**, Vol. 20, no. 1, pp. 3 -20,1995.
- IJ5** R. Baldoni, A. Mostefaoui, and M. Raynal, Causal Delivery of Messages with Real-Time Data in Unreliable Networks, **Journal of Real-time Systems**, Vol 10, no. 3, 245--262, 1996.
- IJ6** R. Baldoni, R. Prakash, M. Raynal and M. Singhal. Efficient Delta-causal Broadcasting, **Journal of Computer System Science and Engineering**, vol. 13, n. 8, 263-270, May 1998.
- IJ7** R. Baldoni, J. M. Helary, A. Mostefaoui, and M. Raynal, Adaptive Checkpointing in Message Passing Distributed Systems, **International Journal of System Science** Vol. 28, no. 11, 1145-1161,1997. Special issue on Distributed Systems. Editor: Pradip Srimani.
- IJ8** R. Baldoni and S.Salza, Deadlock Detection in Multidatabase Systems: A performance analysis, **Journal of Distributed Systems Engineering**, Vol 4, no. 4, 244--252, 1997.
- IJ9** R. Baldoni, Y. Manabe, Raynal and S. Aoyagy, k-arbiters: A Safe and General scheme for h-out of k Mutual Exclusion, **Theoretical Computer Science**, vol 193, no. 1-2, 97--112,1998.
- IJ10** R. Baldoni, J. M. Helary., and M. Raynal, Consistent Records in Asynchronous Computations, **Acta Informatica**, Vol. 35, 441- 455, 1998.
- IJ11** R. Baldoni, A Positive Acknowledgment Protocol for Causal Broadcasting, **IEEE Transactions on Computers**, Vol. 47, N. 12, 1341-1350, 1998.

- IJ12** R. Baldoni, F. Quaglia and B. Ciciani, Ticket-Based Concurrency Control Algorithms for Multidatabase Systems, **Foundation of Computing and Decision Sciences**, vol.23, no.1, pp.15-33, 1998.
- IJ13** R. Baldoni, R. Beraldi and R. Prakash Slotted-FIFO channels in Unreliable Networks, **The Computer Journal**, vol. 41,no. 5, 337-348, 1998.
- IJ14** R. Baldoni, F. Quaglia and P. Fornara, An Index-Based Checkpointing Algorithm for Autonomous Distributed Systems **IEEE Transactions on Parallel and Distributed Systems**. Vol. 10, no. 2,181--192,1999.
- IJ15** R. Baldoni, R. Beraldi, R. Friedman, and R. Van Renesse, The hierarchical daisy architecture for causal delivery, **Journal of Distributed Systems Engineering**. vol. 6, 71-81, 1999.
- IJ16** R. Baldoni, and F. Quaglia, Exploiting Intra-Object Dependencies in Parallel Simulation, **Information Processing Letters** vol. 70/3, pp. 119-125,1999.
- IJ17** R. Baldoni, F. Quaglia and B. Ciciani, On the "No-Z-Cycle Property" in distributed executions, **Journal of Computer and System Science**, **61**, 400--427, 2000.
- IJ18** R. Baldoni, J. M. Helary, and M. Raynal, Rollback Dependcncy Trackability: A Minimal Characterization and its Protocol, **Information and Computation**. Vol. 165 N. 2 March 15, 2001, 147--173
- IJ19** R. Baldoni, G. Cioffi, J. M. Helary, and M. Raynal, Direct Dependency-based Determination of Consistent Global Checkpoints **Journal of Systems Science and Engineering**, vol. 16, n. 1, 2001, 43-52.
- IJ20** R. Baldoni and R. Prakash, Causality and the Spatial-Temporal Ordering of Events in Mobile Systems, Selected paper from MDDS'99, to appear on **ACM & Baltzer "Mobile networks and applications" (MONET)**. October 2004.
- IJ21** R. Baldoni, IM. Helary, M. Raynal, A. Mostefaoui, Impossibility of RDT using logical scalar-clock based ckpt algorithms. **Information Processing Letters**. 80(2): 105-111 (2001)
- IJ22** R. Baldoni, F. Quaglia and NI. Raynal, Consistent Checkpointing for Transactions Systems, **The Computer Journal**. Vol. 44, N. 2, 92 A00, 2001.
- IJ23** R. Baldoni M. Raynal, Fundamentals of Distributed Computing: A Practical Tour of Vector Clock Systems, **IEEE Distributed Systems on-line, formerly IEEE Concurrency**. Vol. 3, No. 2, February 2002.
- IJ24** R. Baldoni, J. M. Helary, G. Melideo, M. Raynal, Efficent causality tracking timestamping Protocols **IEEE Transactions on Knowledge and Data Engineering**. September/October 2003 (Vol. 15, No. 5) pp. 1239-1250.
- IJ25** R. Baldoni, J. M. Helary, M. Raynal, L. Tanguy, Consensus in Byzantine Asynchronous Systems, Selected paper from SIROCCO,2000 to appear on a special issue on **Journal of Discrete Algorithms**. 2003.
- IJ26** Roberto Baldoni and Giovanna McIideo, A lower bound on the minimal information to encode timestamps in distributed computations. **Information Processing Letters**. 84, 159-166, 2002.
- IJ27** R. Baldoni, C. Marchetti, A. Virgillito. Enhancing Availability of Cooperative Applications through Interoperable Middleware. **Journal of Information Science and Engineering**. Special issue on Parallel and Distributed Systems. Vol. 19, No. 1, Jan. 2003

- IJ28** R. Baldoni, C. Marchetti, L. Verde, Corba request portable interceptors: analysis and applications. **Concurrency and computation: Practice and Experience**. 15, 551-579, 2003.
- IJ29** R. Baldoni, R. Beraldi, A caching scheme for routing in mobile ad-hoc networks and its application to ZRP **IEEE Transactions on Computers**. 2003.
- IJ30** R. Baldoni, C. Marchetti, Three-tiers replications for FT-CORBA compliant Infrastructures. **Software Practice and Experience**. 2003.
- IJ31** M. Mecella, M. Scannapieco, A. Virgillito, R. Baldoni, T. Catarci, C. Batini. The DaQuinCIS Broker: Managing Data and their Quality in Cooperative Information Systems, **Journal of Data Semantics, Volume I**, LNCS 2800, 2003.
- IJ32** M. Scannapieco, A. Virgillito, M. Marchetti, M. Mecella, R. Baldoni. The DaQuinCIS Architecture: a Platform for Exchanging and Improving Data Quality in Cooperative Information Systems. **Information Systems**, Elsevier. 29(7): 551-582 (2004).
- IJ33** Roberto Baldoni: Response to Comment on "A Positive Acknowledgment Protocol for Causal Broadcasting". **IEEE Trans. Computers** 53(10): 1358 (2004)
- IJ34** R. Baldoni, R. Beraldi, S. Tucci Piergiovanni, A. Virgillito On the Modelling of Publish/Subscribe Communication Systems **Concurrency and Computation: Practice and Experiences**, volume 17, num. 12, pages 1471-1495, 2005.
- IJ35** Roberto Baldoni, Roberto Berardi, Gianpaolo Cugola, Matteo Migliavacca and Leonardo Querzoni Structure-less Content-Based routing in Mobile Ad Hoc Networks, **International Journal of Pervasive Computing and Communication**, December 2005 (Best Papers from ICPS'05).
- IJ36** Zahir Tari, James Broberg, Albert Y. Zomaya, Roberto Baldoni: A least flow-time first load sharing approach for distributed server farm. **J. Parallel Distrib. Comput.** 65(7): 832-842 (2005)
- IJ37** R. Baldoni, A. Milani and S. Tucci-Piergiovanni. Optimal Propagation Based Protocols implementing Causal Memories. **Distributed Computing**, 18(6): 461-474, July 2006.
- IJ38** C. Marchetti, R. Baldoni, S. Tucci-Piergiovanni, A. Virgillito. Fully Distributed Three-Tier Active Software Replication. **IEEE Transactions on Parallel and Distributed Systems**, 17(7): 633-645, July 2006
- IJ39** R. Baldoni.; S. Cimmino; C. Marchetti; On the Total Order Communication, **Journal of Parallel and Distributed Computing**, 66(1): 108-127, January 2006.
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