

Marko Bertogna – PhD, Assistant Professor

Personal details

Born in Rijeka (Croatia) on October, 15th, 1977.

Nationality: Italian.

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Professional experience

From November 2014 **University of Modena** *Modena, Italy*
Associate Professor at the Algorithmic Research Group.

November 2011 – October 2014 **University of Modena** *Modena, Italy*
Tenured Assistant Professor at the Algorithmic Research Group. Unit leader for the EU project P-SOCRATES. Management Committee Member of COST project TACLE. Best Paper Award at RTCSA 2013 and SIES 2014.

September 2009 – November 2011 **Scuola Superiore S.Anna** *Pisa, Italy*
Assistant Professor at the Real-Time Systems Laboratory of the Scuola Superiore Sant’Anna, Pisa. Unit leader of EU project Predator. Participant to EU project Actors. Best Paper of the year 2009 for the IEEE Transactions on Industrial Informatics. Best Paper Award at the 15th and 16th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA 2009 and 2010).

April 2007 – September 2009 **Scuola Superiore S.Anna** *Pisa, Italy*
Two and a half years research contract. Collaboration to a EU project (Frescor). “Giovanni Spitali” Award for the best PhD thesis of the Scuola Superiore Sant’Anna of Pisa in 2008-2009.

January 2004 – May 2008 **Scuola Superiore S.Anna** *Pisa, Italy*
PhD student with a three-year scholarship. Research in the embedded real-time systems domain at the ReTiS lab (<http://retis.sssup.it/>). Best Paper Award at the 17th Euromicro Conference on Real-Time Systems (ECRTS 2005), Mallorca, Spain, June 2005.

September 2006 – January 2007 **UNC at Chapel Hill** *North Carolina, USA*
Visiting researcher at the University of North Carolina at Chapel Hill, collaborating with prof. Sanjoy Baruah (<http://www.cs.unc.edu/~baruah/>).

January 2003 – January 2004 **Scuola Superiore S.Anna** *Pisa, Italy*
One year research contract in the field of real-time systems. Analysis of Real-Time Operating Systems on FPGA platforms.

November 2001 – June 2002 **TU Delft / TU Eindhoven** *The Netherlands*
Research activity and design of integrated optical devices at the opto-electronic group of the Technische Universiteit of Delft and of Eindhoven. Scholarship of the University of Bologna.

Education

May 2008 **Scuola Superiore S.Anna** *Pisa, Italy*
Doctorate of Philosophy (score *100 cum laude*) with a dissertation entitled: “Real-Time Scheduling Analysis for Multiprocessor Platforms”. The dissertation received the 2010 “Giovanni Spitali” Award for the best PhD thesis at the Scuola Superiore Sant’Anna of Pisa in 2008-2009.

July 2002 **University of Bologna** *Bologna, Italy*
Master in Telecommunication Engineering (score: *100 cum laude*).

1991-1996 **Liceo scientifico Belfiore** *Mantova, Italy*
Scientific high-school degree (score: *60/60*).

Research interests

Analysis and development of real-time scheduling algorithms for single, multi- and many-core platforms. Schedulability analysis and feasibility tests with reduced complexity for concurrent task systems. Analysis of protocols for the exclusive access to shared resources. Design of hierarchical servers for bandwidth reservation.

Honors and Awards

2010 Best Paper Award for the IEEE Transactions on Industrial Informatics (Impact Factor = 2,356) as the first author of the paper "*Resource-sharing servers for Open Environments*".

Best Paper Award at the 9th IEEE International Symposium on Industrial Embedded System (SIES 2014), June 2014, Pisa (Italy) for the paper "*Hard Constant Bandwidth Server: Comprehensive Formulation and Critical Scenarios*".

Best Paper Award at the 19th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA 2013), August 2013, Taipei (Taiwan) for the paper "*Global Fixed Priority Scheduling with Deferred Pre-emption*".

Best Paper Award at the 16th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA 2010), August 2010, Macau (China) for the paper "*Feasibility Analysis under Fixed Priority Scheduling with Fixed Preemption Points*".

Best Paper Award at the 15th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA 2009), August 2009, Beijing (China) for the paper "*The Multi Supply Function Resource Abstraction for Multiprocessors: the Global EDF case*".

Best Paper Award at the 17th Euromicro Conference on Real-Time Systems (ECRTS'05), June 2005, Mallorca (Spain) as the first author of the paper "*Improved EDF multiprocessor schedulability analysis*".

2010 "Giovanni Spitali" Award for the best PhD thesis of the Scuola Superiore Sant'Anna, Pisa, in 2008-2009.

Senior Member of the IEEE.

Communications Coordinator for Europe of the Technical Committee on Real-Time Systems (TCRTS).

Member of the European Network of Excellence on High Performance and Embedded Architecture and Compilation (HiPEAC).

Member of the Editorial Board of the following journals:

- Co-editor of the Real-Time Systems Journal - Special Issue on Multicore Systems, 2015 (Springer).
- Since 2014: Open Access Computer Science Journal (PeerJ).
- Since 2013: International Journal of Embedded Systems (Inderscience Publishers).
- Since 2013: The Scientific World Journal (Hindawi Publishing Corporation).

Chair of the following events:

- Program Chair of the 21st International Conference on Reliable Software Technologies (Ada-Europe 2016), Pisa, Italy, June 2016.
- Program Chair of the 6th Real-Time Scheduling Open Problems Seminar (RTSOPS'15) held in conjunction with ECRTS'15: 27th Euromicro International Conference on Real-Time Systems, July 7-10, 2015, Lund, Sweden.
- Program Chair of the 20th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA'15), Real-Time and (Networked) Embedded Systems Track, September 8-11, 2015, Luxembourg.

- Program Chair of the 5th Real-Time Scheduling Open Problems Seminar (RTSOPS'14) held in conjunction with ECRTS'14: 26th Euromicro International Conference on Real-Time Systems, July 8-11, 2014, Madrid, Spain.
- WiP Chair of the 26th Euromicro International Conference on Real-Time Systems, (ECRTS'14), July 8-11, 2014, Madrid, Spain.
- WiP Chair of the 19th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS'13), April 9-11, 2013, Philadelphia, USA.
- Co-chair of the 1st Interdisciplinary Workshop on Algorithmic Challenges in Real-Time Systems (IWAC), 27-29 February, 2012, Berlin, Germany.

Keynote speaker at the following venues:

- INRIA/LORIA Nancy – TRIO research group, Amnéville, France, June 18th, 2012. Title: “Limited Preemption Scheduling of Hard Real-Time Systems”.
- University of Luxembourg, Real-time Dependable Systems seminar series – FSTC/CSC-LASSY, Luxembourg, June 19th, 2012. Title: “EDF Scheduling for Identical Multiprocessor Systems”
- ISEP/CISTER Distinguished Seminar Series, Porto, Portugal, October 2nd, 2012. Title: “The Limited Preemption Scheduling Model”.

Member of the Program Committee of the following international conferences (in chronological order):

- 30th IEEE Real-Time Systems Symposium (RTSS'09), December 1-4, 2009, Washington DC, USA.
- 22nd Euromicro Conference on Real-Time Systems (ECRTS'10), July 7-9, 2010, Brussels, Belgium.
- 1st International Real-Time Scheduling Open Problems Seminar (RTSOPS'10), July 6, 2010, Brussels, Belgium.
- 16th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA'10), WiP session, August 23, 2010, Macau, China.
- 31st IEEE Real-Time Systems Symposium (RTSS'10), WiP session, November 30 - December 3, 2010, San Diego, CA, USA.
- 17th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS'11), WiP session, April 11-14, 2011, Chicago, IL, USA,
- 2nd International Real-Time Scheduling Open Problems Seminar (RTSOPS'11), July 5, 2011, Porto, Portugal.
- 32nd IEEE Real-Time Systems Symposium (RTSS'11), WiP session, November 29 - December 2, 2011, Vienna, Austria.
- 24th Euromicro Conference on Real-Time Systems (ECRTS'12), July 11-13, 2012, Pisa, Italy.
- International Workshop on Embedded Multicore Systems (ICPP-EMS'12), in conjunction with 41th International Conference on Parallel Processing (ICPP'12), September 10 - 13, 2012, Pittsburgh, PA, USA.
- 17th IEEE International Conference on Emerging Technologies & Factory Automation (ETFA'12), Track 3: Real Time and Networked Embedded Systems, September 17-21, 2012, Krakow, Poland.

- 3rd International Real-Time Scheduling Open Problems Seminar (RTSOPS'12), July 10, 2012, Pisa, Italy.
- High-performance and Real-time Embedded Systems (HiRES) workshop, in conjunction with 8th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC'13), January 21-23, 2013, Berlin, Germany.
- 19th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS'13), Track 1: Applied Methodologies and Foundations, April 9-11, 2013, Philadelphia, USA.
- 25th Euromicro Conference on Real-Time Systems (ECRTS'13), July 9-12, 2013, Paris, France.
- 4th International Real-Time Scheduling Open Problems Seminar (RTSOPS'13), July 9, 2013, Paris, France.
- International Workshop on Embedded Multicore Systems (ICPP-EMS'13) in conjunction with the 42nd International Conference on Parallel Processing (ICPP'13), October 1-4, 2013, Lyon, France.
- 21st International Conference on Real-Time and Network Systems (RTNS'13), 17-18 October 2013, Nice-Sophia Antipolis, France.
- 8th IEEE International Symposium on Industrial Embedded Systems (SIES'13), WiP session, June 19-21, 2013, Porto, Portugal.
- 18th IEEE International Conference on Emerging Technologies & Factory Automation (ETFA'13), Track on Real Time and Networked Embedded Systems, September 10-13, 2013, Cagliari, Italy.
- 34th IEEE Real-Time Systems Symposium (RTSS'13), WiP session, December 3-6, 2013, Vancouver, Canada.
- 2nd High-performance and Real-time Embedded Systems (HiRES'14) workshop, in conjunction with 9th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC'14), January 20-22, 2014, Vienna, Austria.
- 20th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS'14), WiP session, April 15-17, 2014, Berlin, Germany.
- 26th Euromicro Conference on Real-Time Systems (ECRTS'14), July 9-11, 2014, Madrid, Spain.
- 20th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA'14), August 20-22, 2014, Chongqing, China.
- International Workshop on Embedded Multicore Systems (ICPP-EMS'14) in conjunction with the 43rd International Conference on Parallel Processing (ICPP'14), September 9-12, 2014, Minneapolis, USA.
- 22nd International Conference on Real-Time and Network Systems (RTNS'14), October 8-10, 2014, Versailles, France.
- 2nd Workshop on Virtualization for Real-Time Embedded Systems (VtRES'14) in conjunction with the 19th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA'14), September 16, 2014, Barcelona, Spain.
- 19th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA'14), Track on Real Time and Networked Embedded Systems, September 16-19, 2014, Barcelona, Spain.
- 35th IEEE Real-Time Systems Symposium (RTSS'14), WiP session, December 2-5, 2014, Rome, Italy.
- 21st IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS'15), April 2015, Seattle, Washington, USA.
- 27th Euromicro International Conference on Real-Time Systems (ECRTS'15), July 7-10, 2015, Lund, Sweden.

- 3rd High-performance and Real-time Embedded Systems (HiRES'15) workshop, in conjunction with 10th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC'15), January 19-21, 2015, Amsterdam, Netherlands.
- International Workshop on Embedded Multicore Systems (ICPP-EMS'15) in conjunction with the 44th International Conference on Parallel Processing (ICPP'15), September 1-4, 2015, Beijing, China.
- 13th IEEE/IFIP International Conference on Embedded and Ubiquitous Computing (EUC'15), Parallel and Distributed Systems Track, October 21-23, Porto, Portugal.

International projects

Vice Coordinator, Unit Leader and Work-package Leader of the EU project P-SOCRATES: Parallel Software Framework for Time-Critical Many-Core Systems (FP7/2013/ICT/611016). Overall project budget: 3.624.9424€(2.762.000€of whom funded by the EU). Budget assigned to the Research Unit of the University of Modena: 492.200€(378.400€of whom funded by the EU).

Management Committee (MC) Member for Italy of the EU project TACLe: Timing Analysis on Code-Level (ICT COST Action IC1202). Overall budget: 120.000€

Unit Leader of the EU project PREDATOR: Design for Predictability and Efficiency (FP7/2008/ICT/216008). Budget assigned to the Research Unit of Scuola Sant'Anna: 398.200€(299.400€ of whom funded by the EU).

Participant to the EU project ACTORS: Adaptivity and Control of Resources in Embedded Systems (FP7/2008/ICT/216586).

Participant to the EU project IRMOS: Interactive Realtime Multimedia Applications on Service Oriented Infrastructures (FP7/2007/ICT/214777).

Participant to the EU project FRESCOR: Framework for Real-time Embedded Systems based on Contracts (FP6/2005/IST/5-034026).

Reviewing activity

Reviewer for the following international journals:

IEEE Transactions on Computers, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Industrial Informatics, IEEE Transactions on Software Engineering, ACM Transactions in Embedded Computing Systems, ACM Operating Systems Review, Springer Real-Time Systems Journal, Springer Lecture Notes in Computer Science, Springer Journal of Scheduling, Springer Journal of Computer Science and Technology, Springer Journal of Signal Processing Systems, Elsevier Journal of Systems Architecture, Elsevier Journal of Computer and System Sciences, Elsevier Journal of Systems and Software, Elsevier Microprocessors and Microsystems, Elsevier Information Processing Letters, Hindawi Journal of Applied Mathematics, Wiley Software: Practice and Experience.

Reviewer for the following international conferences:

IEEE International Real-Time Systems Symposium (RTSS), IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS), IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA), Euromicro Conference on Real-Time Systems (ECRTS), ACM Symposium On Applied Computing (SAC), IEEE International Conference on Emerging Technologies and Factory Automation (ETF A), IEEE International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS), and other minor conferences.

Teaching activity

Responsible of the “**Advanced Programming**” course (72 hours, 9 credits) for the Degree in Computer Science of the University of Modena, Italy, for the academic years 2011-2012, 2012-2013, 2013-2014, 2014-2015.

Teaching Assistant of the “**Basic Computer Science**” course (20 hours, 2 credits) for different degrees of the University of Modena, Italy, for the academic years 2012-2013 and 2013-2014, 2014-2015.

Responsible of the “**Computer Architectures**” course (94 hours, 9 credits) for the Degree in Automation Engineering of the University of Siena, Italy, for the academic year 2010-2011.

Responsible of the “**Real-Time Operating Systems**” course (52 hours, 5 credits) for the Degree in Automation Engineering of the University of Siena, Italy, for the academic years 2008-2009, 2009-2010 and 2010-2011.

Responsible of the “**Multiprocessor Scheduling**” course (2x10 hours, 2x1 credits) for PhD and Master students on Computer Science of the Scuola Sant’Anna, Pisa, Italy, for the academic year 2009-2010.

Responsible of the “**Multicore Systems**” course at the ERICSSON Research Center of Rome, Italy (16 hours), July 2008.

Personal life

Married with Lidia Maria Diaz Monzon (since September 2008).

Proud father of two children: Luca (April 22, 2010) and Diego (April 20, 2013).

Languages

Italian, English and Spanish: excellent level.

Croatian, German and French: good level.

Modena, February 1st, 2015
Marko Bertogna

Major publications

Marko Bertogna is author of more than 50 papers in international journals and peer-reviewed conferences, mainly in the field of real-time and embedded systems. His main interests are in the analysis and design of scheduling algorithms for single, multi- and many-core systems, protocols for the access to shared resources, resource-reservation techniques. His works collected more than 1100 citations in 8 years, with an h-index of 21 (source: Google Scholar). A list of the major publications follows.

Books

- 1) Sanjoy Baruah, Marko Bertogna, Giorgio Buttazzo, “*Multiprocessor Scheduling for Real-Time Systems*”, Springer International Publishing, Embedded Systems Series, 2015.

International Journals

- 2) Robert Davis, Alan Burns, Jose Marinho, Vincent Nelis, Stefan Petter, Marko Bertogna. “*Global and Partitioned Multiprocessor Fixed Priority Scheduling with Deferred Pre-emption*”, ACM Transactions on Embedded Computing Systems. To appear.
 - 3) Giorgio Buttazzo, Marko Bertogna, Gang Yao. “*Limited Preemptive Scheduling for Real-Time Systems: a Survey*”, IEEE Transactions on Industrial Informatics. 9(1): 3-15. February 2013.
 - 4) Gang Yao, Giorgio Buttazzo, Marko Bertogna. “*Feasibility Analysis under Fixed Priority Scheduling with Limited Preemptions*”, Real-Time Systems: The International Journal of Time-Critical Computing. 47(3): 198-223. May 2011. Springer.
 - 5) Marko Bertogna, Sanjoy Baruah. “*Tests for global EDF schedulability analysis*”, Journal of Systems Architecture. 57(5): 487-497. May 2011. Elsevier.
 - 6) Marko Bertogna, Sanjoy Baruah. “*Limited preemption EDF scheduling of sporadic task systems*”, IEEE Transactions on Industrial Informatics. 6(4): 579-591. November 2010.
 - 7) Marko Bertogna, Nathan Fisher, Sanjoy Baruah. “*Resource-sharing servers for Open Environments*”, IEEE Transactions on Industrial Informatics. 5(3): 202-220. August 2009. **Best paper award IEEE Transactions on Industrial Informatics 2010.**
 - 8) Marko Bertogna, Michele Cirinei, Giuseppe Lipari. “*Schedulability analysis of global scheduling algorithms on multiprocessor platforms*”, IEEE Transactions on Parallel and Distributed Systems. 20(4): 553-566. April 2009.
 - 9) Marko Bertogna, Nathan Fisher, Sanjoy Baruah. “*Resource holding times: Computation and Optimization*”, Real-Time Systems: The International Journal of Time-Critical Computing. 41(2): 87-117. Springer. February 2009.
 - 10) Theodor P. Baker, Michele Cirinei, Marko Bertogna. “*EDZL scheduling analysis*”, Real-Time Systems: The International Journal of Time-Critical Computing. 40(3): 264-289. Springer. December 2008.
 - 11) Marko Bertogna, Michele Cirinei, Giuseppe Lipari. “*New schedulability tests for real-time task sets scheduled by Deadline Monotonic on multiprocessors*”, Lecture Notes in Computer Science. 3974/2006: 306-321. Springer. 2006.
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Peer-Reviewed International Conferences

- 12) Vincent Nelis, Patrick Meumeu Yomsi, Luis Miguel Pinho, Eduardo Quiñones, Marko Bertogna, Andrea Marongiu, Paolo Gai and Claudio Scordino. “*A system model and stack for the parallelization of time-critical applications on many-core architectures*”, Proceedings of 3rd High-performance and Real-time Embedded Systems (HiRES’15) workshop, in conjunction with 10th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC’15), January 2015, Amsterdam, Netherlands.

- 13) Cláudio Maia, Marko Bertogna, Luís Nogueira, Luis Miguel Pinho, “*Response-Time Analysis of Synchronous Parallel Tasks in Multiprocessor Systems*”, Proceedings of the 22nd International Conference on Real-Time Networks and Systems (RTNS’14), Versailles, France, October 2014.
- 14) Mario Bambagini, Marko Bertogna, Giorgio Buttazzo. “*On the Effectiveness of Energy-Aware Real-Time Scheduling Algorithms on Single-Core Platforms*”, Proceedings of the 19th IEEE International Conference on Emerging Technologies and Factory Automation (ETFAs 2014), Barcelona, Spain, September 2014.
- 15) Luis Miguel Pinho, Eduardo Quinones, Marko Bertogna, Andrea Marongiu, Jorge Pereira Carlos, Claudio Scordino, Michele Ramponi, “*P-SOCRATES: a Parallel Software Framework for Time-Critical Many-Core Systems*”, Proceedings of the 17th Euromicro Conference on Digital Systems Design (DSD 2014), Verona, Italy, August 2014.
- 16) Bo Peng, Nathan Fisher and Marko Bertogna, “*Explicit Preemption Placement for Real-Time Conditional Code*”, Proceedings of 26th Euromicro Conference on Real-Time Systems (ECRTS 2014), Madrid, Spain, July 2014.
- 17) Alessandro Biondi, Alessandra Melani, Marko Bertogna, Giorgio Buttazzo, “*Optimal Design for Reservation Servers under Shared Resources*”, Proceedings of 26th Euromicro Conference on Real-Time Systems (ECRTS 2014), Madrid, Spain, July 2014.
- 18) Vincent Nélis, Patrick Meumeu Yomsi, Luís Miguel Pinho, José Carlos Fonseca, Marko Bertogna, Eduardo Quiñones, Roberto Vargas, Andrea Marongiu, “*The Challenge of Time-Predictability in Modern Many-core Architectures*”, Proceedings of 14th International Workshop on Worst-Case Execution Time Analysis (WCET 2014), Madrid, Spain, July 2014.
- 19) Alessandro Biondi, Alessandra Melani, Marko Bertogna, “*Hard Constant Bandwidth Server: Comprehensive Formulation and Critical Scenarios*”, Proceedings of 9th IEEE International Symposium on Industrial Embedded Systems (SIES 2014), Pisa, Italy, June 2014. **Best Paper Award.**
- 20) Luis Miguel Pinho, Eduardo Quinones, Marko Bertogna, Luca Benini, Jorge Pereira Carlos, Claudio Scordino, Michele Ramponi, “*Time Criticality Challenge in the Presence of Parallelised Execution*”, Proceedings of 2nd Workshop on High-performance and Real-time Embedded Systems (HiRES 2014), held in conjunction with the 9th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC 2014), Vienna, Austria, January 2014.
- 21) Jose Marinho, Vincent Nelis, Stefan M. Petters, Marko Bertogna, Robert I. Davis, “*Limited Preemptive Global Fixed Task Priority*”, Proceedings of 34th IEEE Real-Time Systems Symposium (RTSS 2013), Vancouver, Canada, December 2013.
- 22) Robert I. Davis, Alan Burns, Jose Marinho, Vincent Nelis, Stefan M. Petters, Marko Bertogna, “*Global Fixed Priority Scheduling with Deferred Pre-emption*”, Proceedings of the 19th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA 2013), Taipei (Taiwan), August 2013. **Best Paper Award.**
- 23) Cláudio Maia, Luís Nogueira, Luis Miguel Pinho, Marko Bertogna. “*Response-Time Analysis of Fork/Join Tasks in Multiprocessor Systems*”, WiP session of 25th Euromicro Conference on Real-Time Systems (ECRTS 2013), Paris, France, July 2013.
- 24) Mario Bambagini, Giorgio Buttazzo, Marko Bertogna. “*Energy-Aware Scheduling for Tasks with Mixed Energy Requirements*”, Proceedings of 4th International Real-Time Scheduling Open Problems Seminar (RTSOPS 2013), Paris, France, July 2013.
- 25) Rob Davis, Marko Bertogna. “*Optimal FP Scheduling with Deferred Preemptions*”, Proceedings of 11th Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP 2013), Pont à Mousson, France, June 2013.
- 26) Mario Bambagini, Marko Bertogna, Mauro Marinoni, Giorgio Buttazzo. “*An Energy-Aware Algorithm Exploiting Limited Preemptive Scheduling under Fixed Priorities*”, Proceedings of 8th IEEE International Symposium on Industrial Embedded Systems (SIES 2013), Porto, Portugal, June 2013.
- 27) Mario Bambagini, Marko Bertogna, Mauro Marinoni, Giorgio Buttazzo. “*On the Impact of Runtime Overhead on Energy-Aware Scheduling*”, Workshop on Power, Energy, and Temperature Aware Real-time Systems (PETARS 2013), Philadelphia, USA, April 2013.
- 28) Giuseppe Lipari, Laurent George, Enrico Bini, Marko Bertogna. “*On the Average Complexity of the Processor Demand Analysis for Earliest Deadline Scheduling*”, Real-time systems: the past, present, and future, York, UK, March 2013.
- 29) Rob Davis, Marko Bertogna. “*Optimal Fixed Priority Scheduling with Deferred Preemptions*”, Proceedings of 33rd IEEE Real-Time Systems Symposium (RTSS 2012), San Juan, Puerto Rico, December 2012.

- 30) Mario Bambagini, Giorgio Buttazzo, Marko Bertogna. *"Energy Saving Exploiting the Limited Preemption Task Model"*, Proceedings of 3rd International Real-Time Scheduling Open Problems Seminar (RTSOPS 12), Pisa, Italy, July 2012.
- 31) José Marinho, Stefan M. Petters and Marko Bertogna. *"Extending Fixed Task-Priority Schedulability by Interference Limitation"*, Proceedings of 20th International Conference on Real-Time and Network Systems (RTNS 2012), Pont à Mousson, France, November 2012.
- 32) Marko Bertogna, Giorgio Buttazzo, Gang Yao. *"Improving Feasibility of Fixed Priority Tasks using Non-Preemptive Regions"*, Proceedings of 32nd IEEE Real-Time Systems Symposium (RTSS 2011), Vienna, Austria, December 2011.
- 33) Marko Bertogna, Nathan Fisher. *"The Explicit Preemption Placement Problem for Real-Time Conditional Code"*, Proceedings of 2nd International Real-Time Scheduling Open Problems Seminar (RTSOPS 11), Porto, Portugal, July 2011.
- 34) Marko Bertogna, Orges Khani, Mauro Marinoni, Francesco Esposito, Giorgio Buttazzo. *"Optimal Selection of Preemption Points to Minimize Preemption Overhead"*, Proceedings of the 23rd Euromicro Conference on Real-Time Systems (ECRTS 11), Porto, Portugal, July 2011.
- 35) Gang Yao, Giorgio Buttazzo, Marko Bertogna. *"Comparative evaluation of limited preemptive methods"*, Proceedings of the 15th IEEE International Conference on Emerging Technologies and Factory Automation (ETF A 2010), Bilbao, Spain, September 2010.
- 36) Gang Yao, Giorgio Buttazzo, Marko Bertogna. *"Feasibility Analysis under Fixed Priority Scheduling with Fixed Preemption Points"*, Proceedings of the 16th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA 2010), Macau, China, August 2010.
Best Paper Award.
- 37) Marko Bertogna, Giorgio Buttazzo, Mauro Marinoni, Gang Yao, Francesco Esposito, Marco Caccamo. *"Preemption points placement for sporadic task sets"*, Proceedings of 22nd Euromicro Conference on Real-Time Systems (ECRTS 2010), Bruxelles, Belgium, June 2010.
- 38) Enrico Bini, Marko Bertogna, Sanjoy K. Baruah. *"The Parallel Supply Function Abstraction for a Virtual Multiprocessor"*, Proceedings of Dagstuhl Seminar on Scheduling, Schloss Dagstuhl, Leibniz-Zentrum für Informatik, Germany, May 2010.
- 39) Tullio Facchinetti, Enrico Bini and Marko Bertogna. *"Reducing the Peak Power through Real-Time Scheduling Techniques in Cyber-Physical Energy Systems"*, International Workshop on Energy Aware Design and Analysis of Cyber Physical Systems (in conjunction with CPSWEEK 2010), Stockholm, Sweden, April 2010.
- 40) Dario Faggioli, Marko Bertogna, Fabio Checconi. *"Sporadic Server Revisited"*, Proceedings of 25th ACM Symposium On Applied Computing (SAC 2010), Sierre, Switzerland, March 2010.
- 41) Enrico Bini, Marko Bertogna, Sanjoy Baruah. *"Virtual Multiprocessor Platforms: Specification and Use"*, Proceedings of 30th IEEE Real-Time Systems Symposium (RTSS 2009), Washington, D.C., USA, December 2009.
- 42) Marko Bertogna. *"Evaluation of existing schedulability tests for global EDF"*, Proceedings of Real-time systems on multicore platforms: Theory and Practice (in conjunction with ICPP 2009), Vienna, Austria, September 2009.
- 43) Yifan Wu and Marko Bertogna. *"Improving Task Responsiveness with Limited Preemptions"*, Proceedings of 14th IEEE International Conference on Emerging Technologies and Factory Automation (ETF A 2009), Palma de Mallorca, Spain, September 2009.
- 44) Gang Yao, Giorgio Buttazzo, Marko Bertogna. *"Bounding the Maximum Length of Non-Preemptive Regions Under Fixed Priority Scheduling"*, Proceedings of the 15th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA 2009), Beijing, China, August 2009.
- 45) Enrico Bini, Giorgio Buttazzo, Marko Bertogna. *"The Multi Supply Function Resource Abstraction for Multiprocessors: the Global EDF case"*, Proceedings of the 15th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA 2009), Beijing, China, August 2009. **Best Paper Award.**
- 46) Dario Faggioli, Michael Trimarchi, Fabio Checconi, Marko Bertogna, Antonio Mancina. *"An Implementation of the Earliest Deadline First Algorithm in Linux"*, Proceedings of the 24th Annual ACM Symposium on Applied Computing (SAC 2009), Honolulu, Hawaii, USA. March 2009.
- 47) Marko Bertogna, Fabio Checconi, Dario Faggioli. *"Non-Preemptive Access to Shared Resources in Hierarchical Real-Time Systems"*, Proceedings of the 1st Workshop on Compositional Theory and

Technology for Real-Time Embedded Systems, Barcelona, Spain (Co-located with RTSS 2008). November 2008.

- 48) Marko Bertogna, Nathan Fisher and Sanjoy Baruah. "*Static-Priority Scheduling and Resource Hold Times*", Proceedings of the 15th IEEE International Parallel and Distributed Processing Symposium (IPDPS 2007), Long Beach, CA. March 2007.
 - 49) Nathan Fisher, Marko Bertogna and Sanjoy Baruah. "*Resource-Locking Durations in EDF-Scheduled Systems*", Proceedings of the 13th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2007), Bellevue, WA. April 2007.
 - 50) Marko Bertogna and Michele Cirinei. "*Response-Time Analysis for Globally Scheduled Symmetric Multiprocessor Platforms*", Proceedings of the 28th IEEE International Real-Time Systems Symposium (RTSS 2007), Tucson, Arizona. December 2007.
 - 51) Nathan Fisher, Marko Bertogna and Sanjoy Baruah. "*The Design of an EDF-scheduled Resource-sharing Open Environment*", Proceedings of the 28th IEEE International Real-Time Systems Symposium (RTSS 2007), Tucson, Arizona. December 2007.
 - 52) Marko Bertogna, Michele Cirinei, Giuseppe Lipari, "*New schedulability tests for real-time task sets scheduled by Deadline Monotonic on multiprocessors*", 9th International Conference on Principles of Distributed Systems (OPODIS 2005), Pisa (Italy), December 2005.
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