Curriculum Vitae of Wang Yi

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Education and Qualifications

- Docent in Computer Systems, Uppsala University, Sweden, 1996
- Ph.D. in Computing Science, Chalmers University of Technology, Sweden, 1991
- Lic.D. in Computing Science, Chalmers University of Technology, 1988
- B.Sc. in Computer Engineering, Northeastern University, China, 1982

Awards and Honors

- ACM Fellow
- IEEE Fellow
- Fellow of Royal Society of Sciences, Uppsala, Sweden
- Member of Academy of Europe, London, UK

- Recipient of KAW Grant 2010 (25 MSEK)
- Recipient of ERC Advanced Grant 2019 (2.5 MEUR)
- Recipient of IEEE TCRTS Award 2019 (IEEE Technical Committee on Real-Time Systems)
- Recipient of CAV Award 2013

- Best Paper Award of RTSS 2017
- Best Paper Award of RTSS 2015
- Best Paper Award of ECRTS 2015
- Best Paper Award of DATE 2013
- Best Paper Award of RTSS 2009
- Best Tool Paper Award of ETAPS 2002

- Ph.D. Supervisor of:
  - Pontus Ekberg, Oskar Prize 2021 and Bjurzons Premium Prize 2016 for his Ph.D. thesis work.
  - Nan Guan, EDAA Outstanding Dissertation Award, European Design Automation Association, 2014
  - Pavel Krcal, Naturvetarna's Best Swedish Thesis Award, the Royal Academy of Sciences, 2009
  - Paul Pettersson, Professor and President of Malardalen University, Sweden, 2016 –
  - Elena Fersman, vice President of Ericsson, 2021 –

Employment Record

- Chair Professor in Embedded Systems, Uppsala University, 2009 –
- Professor in Real-Time Systems, Uppsala University, 2000-2009
- Associate Professor in Computer Systems, Uppsala University, 1996-2000
- Senior Lecturer in Computer Systems, Uppsala University, 1992-1996
- Postdoc Fellow, Aalborg University, Denmark, 1991-1992
- System Engineer, Volvo Data, Gothenburg, 1988-1989
- Ph.D. Position, Chalmers University of Technology, 1985-1990

Other Positions

- Distinguished professor, North Eastern University, China, since 2007
- Visiting professor, Inst. of Software, Chinese Academy of Sciences, 2002 - 2007
- Visiting professor, National University of Singapore, 2003
- Visiting professor, Institute of Software Technology, United Nation University, 2002
- Visiting professor, MRTC, Malardalen University, Sweden, 1998-2002

Invited/Keynote Talks (selected)

- RTSS19, Designed for UPDATE (Award Speech), Hong Kong, Dec. 2019
- SETTA19, Symp. on Dependable Soft. Eng. Theories, Tools & Applications, Shanghai, Nov. 2019
- DATE19, Design Automation and Test in Europe, 25-29 March 2019
- MEMOCODE18, the 16th ACM-IEEE International Conference on Formal Methods and Models for System Design, October 2018
- SETSS18, the 2nd International School on Engineering Trustworthy Software Systems, April 2018
- ICFEM17, the 19th International Conference on Formal Engineering Methods, November 2017
- APSEC17, the 24th Asia-Pacific Software Engineering Conference, November 2017
- SIES16, the 11th IEEE Intern. Symp. on Industrial Embedded Systems, Poland, May 2016
- Pasargad Summer School on Cyber-Physical Systems, Tehran, Iran, Sept. 2016
- UPMARC Summer School on Multicore Programming, Uppsala, June 2016
- ETAPS15, European Joint Conf. on Theory and Practice of Software, London, April 2015
- EATCS Young Researchers School on Automata, Logic and Games, Czech, Aug. 2014
- Nano-Tera/Artist Summer School on Embedded System Design (ETH & EPFL), France, Sept. 2013.
- The 12th Conf. on Formal Engineering Methods, Shanghai, China, Nov. 2010
- Summer School on Model Checking, Chinese Academy of Sciences, Beijing, Oct. 2010
- VTSA School, Verification Technology, Systems and Applications, Luxembourg, 2010
- The 10th School on Formal Methods for the Design of Computer, Communication and Software Systems: Quantitative Aspects of Programming Languages, Bertinoro, Italy, 2010
- ARTIST Summer School Europe 2010, Autrans, Grenoble, France, September 2010
- ARTIST Summer School China, Beijing, July 2010
- The 7th IEEE/IFIP International Conference on Embedded and Ubiquitous Computing, Vancouver, 2009
- ARTIST2 School on Modelling, Testing and Verification for Embedded Systems, Trento, 2007
- ARTIST-China School on Embedded Systems Design, SuZhou, China, 2007
- The 22nd Conf. on Mathematical Foundations of Programming Semantics, Genova, 2006
- ARTIST-China School on *Models, Methods and Tools for Embedded Systems*, Xian, China, 2006
- SIGPL Summer School, Seoul, Republic of Korea, 2005
- The 3rd Symposium on Formal Methods for Components and Objects, Leiden, 2004
- The 2nd Workshop on Quantitative Aspects of Programming Languages, ETAPS04, Barcelona, 2004
- Workshop: Beyond Safety, Schloss Ringberg, Germany, 2004
- Workshop on Constraint Programming and Constraints for Verification, ETAPS04, Barcelona, 2004
- European Summer School on Embedded Systems, Mælardalen University, Sweden, 2003
- The 7th Workshop on Formal Methods for Industrial Critical Systems (FMICS02), Malaga, Spain. 2002
- The 10th anniversary colloquium of UNU IIST, Formal Methods at the Crossroads from Panacea to Foundational Support, Portugal, 2002
- The 5th Winter School in Computer Science, Tallinn, Estonia, 2000
- Real–Time Systems (RTSS'95), Pisa, Italy, 1995 (invited tutorial on UPPAAL).

University Service at Uppsala (selected)

- Director of Research Education (Ph.D. Studies), Information Technology, 2006 – 2018
- Board Member of UPMARC: Uppsala Prog. for Multicore Architectures Research Center, 2010 – 2015
- Founding Director of M.Sc Program in Embedded Systems, 2009 – 2011
- Board Member of Research Education, Faculty of Natural Sciences and Technology, 2006 – 2015
- Member of Normination Committee, Faculty of Science and Technology, 2007 – 2010
- Member of Gender Equity Group, Department of Information Technology, 2004 – 2007
- Board Member of Department of Information Technology, 1999 – 2000
- Director of Research Education (Ph.D. Studies), Computer Systems, 1998 – 1999

Editorial Boards

- Associate Editor, ACM Transactions on Embedded Computing Systems, 2017 –
- Associate Editor, IEEE Journal, Embedded System Letters, 2016 –
- Associate Editor, IEEE Journal, Design and Test, 2016 –
- Associate Editor, IEEE Transactions on Computers, 2002-2007
- Associate Editor, Elsevier Journal of Systems Architecture, 2009 – 2015
- Associate Editor, Journal of Computer Science and Technology (Chinese Academy of Sciences), 2007 –
- Guest editor for Nordic Journal of Computing (2005, 2000), Journal on Software Tools for Technology Transfer (2002), and ACM Transactions on Embedded Computing Systems (2007)

Steering Committees (SC) etc.

- Vice Chair, ACM SIGBED (Embedded Systems), 2019 –
- Chair of Award Committee, ACM CASPI Dissertation Award, 2016 – 2019
- Advisory Board Member, SETTA, Symposium on Dependable Software Engineering, China, 2016 –
- Board Member of Directors, ACM SIGBED (Embedded Systems), 2016 – 2019
- SC Member, ESWEEK (Embedded Systems Week: CASES, CODES+ISSS, EMSOFT), 2013 –
- SC Co-Chair, EMSOFT, ACM/IEEE Conf. on Embedded Software, 2006 –
- SC Member, FORMATS, Conf. on Formal Modelling and Analysis of Timed Systems, 2003 –
- SC Member, LCTES, ACM Conf. on Lang., Compilers, Tools & Theory for Emb. Sys., 2012 –
- SC Member, ARTIST/China Summer School on Embedded Systems Design since 2006 - 2011
- SC Member, ARTIST Working Group on Education in Embedded Software and Systems, 2001-2004
- SC Member, CUE (China, US and Europe) [1] initiative on Informatics, 2002-2005

Program Committees (PC) etc.

- PC Chair, SETTA, Symposium on Dependable Software Engineering, 2015
- PC Chair, LCTES, Conf. on Languages, Compilers, Tools and Theory for Embedded Systems, 2012
- PC Chair, HSCC, ACM Int. Conf. on Hybrid Systems: Computation and Control (HSCC), 2010
- PC Chair, EMSOFT, ACM/IEEE Conf. on Embedded Software, 2006
- PC Chair, FORMATS, Int. Conf. on Formal Modelling and Analysis of Timed Systems, 2005
- PC Chair, TACAS, Int. Conf. on Tools & Algorithms for Construction & Analysis of Systems, 2001
- Track Chair, RTSS, Design & Verification, the 32th IEEE Real-Time Systems Symposium, 2008
- Topic Chair, DATE, Model based Design and Verification of Embedded Systems, 2012-2014
- Tool Chair of FTRTFT: Sch. and Symp. on Formal Tech. in RT & Fault-Tolerant Systems, 1996
- PC Chair, NWPT, Nordic Workshop on Programming Theory, 1999 and 2004
- PC Chair, RTTOOLS: Workshop on Real-Time Tools (affiliated with CAV), 2002

[1] CUE is an international research collaboration initiative (2002-2005), started by Armando Haeberer, the late Director of UNU International Institute of Software Technoloogy, Macau and supported by the Chinese CNSF, US NSF and EC.

- PC Member of:
  - SETTA, Symposium on Dependable Software Engineering, 2015 – 2017
  - RTSS: IEEE Real-Time Systems Symposium, 2008 – 2015, 2017
  - EMSOFT: ACM/IEEE Conference on Embedded Software, 2006 and 2011 – 2014, 2016-2017
  - RTNS: International Conference on Real-Time and Network Systems, 2012, 2017
  - RTCSA: IEEE Conf. on Embedded and Real Time Comp. Sys. & Applications, 2002–2006, 2017
  - RTAS: IEEE Real Time and Embedded Technology and Applications Symp., 2007-2008, 2011 - 2016
  - DATE - Design, Automation and Test in Europe, 2009 – 2016
  - ECRTS: Euromicro Conference on Real-Time Systems, 1999, 2000, 2006 and 2015
  - HSCC: ACM Conference on Hybrid Systems: Computation and Control, 2010
  - SAC: ACM Symposium on Applied Computing, 2009 - 2015
  - ISCT: IEEE Conference on Software Testing, Verification, and Validation, 2009
  - TACAS: Conf. on Tools & Algorithms for Construction & Analysis of Systems, 2000–2002 and 2006
  - PSI: A.P. Ershov Conference Perspectives in System Informatics, 2003, 2006 and 2009
  - TASE: IEEE and IFIP Symposium on Theoretical Aspects of Software Engineering, 2007 – 2016
  - ICECCS: IEEE Conference on Engineering of Complex Computer Systems, 2007
  - ATVA: Symposium on Automated Technology for Verification and Analysis, 2006 - 2016
  - FMOODS: IFIP Conference on Formal Methods for Open Object-Based Distributed Systems, 2007
  - CONCUR: Conference on Concurrency Theory, 2000 and 2004
  - APLAS: ASIAN Symposium on Programming Languages and Systems, 2005
  - FORMATS: Conf. on Formal Modelling and Analysis of Timed Systems, 2003–2005 and 2008
  - SEFM: IEEE Conference on Software Engineering and Formal Methods, 2003–2005
  - ICTAC: Colloquium on Theoretical Aspects of Computing, 2004
  - ICFEM: Conference on Formal Engineering Methods, 2002–2016
  - ACS: Conference on Applications of Concurrency to System Design, 2003
  - CAV: Conference on Computer-Aided Verification, 2002
  - LCTES: ACM Conf. on Languages, Compilers, and Tools for Embedded Systems, 2000, 2013 – 2015

Member of Organization Committees

- ETAPS: European Joint Conferences on Theory and Practice of Software, Uppsala, 2017
- ESWEEK: Cyber Physical Systems Week, Stockholm, 2010
- ARTIST2 Summer School on Component & Modelling, Testing & Verification, and Statical Analysis of Embedded Systems, Stockholm, 2005
- FORMATS: Conf. on Formal Modelling and Analysis of Timed Systems, Uppsala, 2005 (Chair)
- NWPT: Nordic Workshop on Programming Theory, Uppsala, 1999 and 2004 (Chair)
- FTRTFT: Sch. and Symp. on Formal Techn. in RT & Fault Tolerant Systems, Uppsala, 1996
- CONCUR: Conf. on Concurrency Theory, Uppsala, 1994
- NWPT: Nordic Workshop on Program Correctness, Gothenburg, 1992
- Chalmers Workshop on Concurrency, Båstad, Sweden, 1991

Evaluation and Reviewing (selected)

- Panel member, Finish Natural Science Foundation, Academy of Finland, 2014
- Panel member, National Lab. of Computer Science, Chinese Academy of Sciences, 2013
- Panel member, INRIA ICT Evaluation (Embedded Systems), 2012
- Reviewer, Swedish KK Foundation (KK-Stiftelsen), 2014
- Reviewer of ITEA-project (Inform. Techn. for European Advancement), TIMMO-2-USE, 2012
- Reviewer for the ARC Centres of Excellence Programme of the Australian Research Council 2002-2004
- Reviewer for the Netherlands Organisation for Scientific Research (NWO), National University of Singapore, Irish Science Foundation and the Czech Science Foundation.

- Reviewer (sakkuninga) for professorship/faculty positions at National University of Singapore, Hong Kong Polytechnic University, Beijing University (China), University of Hamstad (Sweden), Teesside University (UK), Mälardalen University (Sweden), Linköpings university (Sweden), and Vienna University of Technology.

Leader- and Entrepreneur-ship

- Founder of the UPPAAL project (supported in 1993 by NUTEK – Swedish Agency for Technical Development), which lead to the successful development of UPPAAL between Uppsala and Aalborg University (CAV 2013 Award); the first prototype of UPPAAL was presented at FORTE'94:

  > Wang Yi, Paul Pettersson and Mats Daniels: *Automatic Verification of Real-Time Communicating Systems by Constraint Solving.* In Proceedings of the 7th IFIP WG6.1 International Conference on Formal Description Techniques, Berne, Switzerland, 1994. IFIP Conference Proceedings 6, Chapman & Hall, ISBN 0-412-64450-9

- Completion of 3-week program on leadership by the Swedish Institute of Management (IFL), 1995
- Co-Founder of UP4ALL International AB (serving as CEO, 2004 - present)
- Founding Director of M.Sc Program in Embedded Systems at Uppsala (2010 - 2011)
- PI and project leader of SSF-supported program, CoDeR MP (Computationally Demanding Real-Time Applications on Multicore Platforms) jointly with ABB Robotics and SAAB. Funding level: 20,000,000 SEK, 2009-2015
- PI and area coordinator of the VR-supported Linnaeus centre UPMARC (Uppsala Programming for Multicore Architectures Research Center), Funding level: 64,000,000 SEK, 2008 - 2018
- Co-PI for the VINNOVA-supported ASTEC (Advanced Software Technology Centre) and leaders for several industrial and leaders for several industrial projects with Volvo, Mecel AB, ABB within ASTEC, 1995 - 2005
- Site leader of the ARTIST Network of Excellence (Advanced Real-Time Systems in Information Society Technologies) of FP5, ARTIST2 of FP6 and ArtistDesign of FP7, 2000 - 2011
- Site leader of three large European IST/FP projects: WOODDES 1999-2003, CREDO 2006 - 2009 and CERTAINTY 2011 - 2014

Supervised Ph.D. Students (and their first positions)

- Pontus Ekberg, Ph.D. January 15, 2016, Postdoc, Uppsala University
- Zhang Yi, Ph.D. Oct, 2014 (at North Eastern Univ), Ass Prof. North Eastern Univ, China
- Martin Stigge, Ph.D. April 11, 2014, System Engineer, ARISTA Networks, Vancouver, Canada
- Nan Guan, Ph.D. 2013, Ass Prof., Hong Kong Polytechnic University
- Liu Ying, Ph.D. Oct, 2013 (at North Eastern Univ), Ass Prof., North Eastern Univ, China
- Rafal Somla, Ph.D. 2012, Software Architect, Oracle, Poland
- Fanxin Kong, Ph.D. June 2012 (at North Eastern Univ), Research Fellow, McGill Univ, Canada
- Pavel Krcal, Ph.D. 2009, System Analysist, Scandpower AB, Sweden
- John Håkansson, Ph.D. 2009 (with Paul Pettersson), Software Engineer, IAR Systems AB, Sweden
- Elena Fersman, Ph.D. 2004, Research manager, Ericsson Research, Sweden
- Alexandre David, Lic. 2001 and Ph.D. 2003, associate professor at Aalborg Univ., Denmark
- Tobias Amnell, Lic. 2003, System Engineer, SAAB Systems, Sweden
- Anders Wall, Lic. 1999 and Ph.D. 2003 (with Christer Nordstrom), Research manager, ABB Robotics
- Johan Bengtsson, Lic. 2001 and Ph.D. 2002. Software Engineer, IAR Systems AB, Sweden
- Fredrik Larsson, Lic. 2000, Manager, Voicecorp AB, Sweden
- Paul Pettersson, Ph.D. 1999, Professor, Rector of Mälardalen University, Sweden

H-Index: 58 (Google Scholar)

Software

[1] UPPAAL (www.uppaal.org): a Model-Checker for Real Time Systems developed jointly by Uppsala University and Aalborg University (co-founder and team leader at Uppsala, received CAV Award 2013)

[2] TIMES (www.timestool.com): a Tool for Implementation and Modelling of Embbedded Systems developed at Uppsala University (co-founder and team leader, received ETAPS Tool Paper Award 2002)

Peer-Reviewed Journal Papers

[1] Gang Chen, Nan Guan, Kai Huang, Wang Yi: Fault-tolerant real-time tasks scheduling with dynamic fault handling. J. Syst. Archit. 102 (2020)

[2] Zhiwei Feng, Nan Guan, Mingsong Lv, Wenchen Liu, Qingxu Deng, Xue Liu, Wang Yi: Efficient drone hijacking detection using two-step GA-XGBoost. J. Syst. Archit. 103 (2020)

[3] Xu Jiang, Nan Guan, He Du, Weichen Liu, Wang Yi: On the Analysis of Parallel Real-Time Tasks with Spin Locks. Trans. on Computers (accepted for publication in 2020).

[4] S Liu, N Guan, D Ji, W Liu, X Liu, W Yi: Leaking your engine speed by spectrum analysis of real-time scheduling sequences. Journal of Systems Architecture, 2019.

[5] Zhiwei Feng, Nan Guan, Mingsong Lv, Weichen Liu, Qingxu Deng, Xue Liu, Wang Yi: An Efficient UAV Hijacking Detection Method Using Onboard Inertial Measurement Unit. ACM Trans. Embedded Comput. Syst. 17(6): 96:1-96:19 (2019)

[6] He Du, Wei Zhang, Nan Guan, Wang Yi: Scope-aware data cache analysis for OpenMP programs on multi-core processors. J. Syst. Archit. 98: 443-452 (2019)

[7] D Liu, N Guan, J Spasic, G Chen, S Liu, T Stefanov, W Yi: Scheduling Analysis of Imprecise Mixed-Criticality Real-Time Tasks. IEEE Trans. Computers 67(7): 975-991 (2018)

[8] Gang Chen, Nan Guan, Di Liu, Qingqiang He, Kai Huang, Todor Stefanov, Wang Yi: Utilization-Based Scheduling of Flexible Mixed-Criticality Real-Time Tasks. IEEE Trans. Computers 67(4): 543-558 (2018)

[9] Tianyu Zhang, Nan Guan, Qingxu Deng, Wang Yi: Start time configuration for strictly periodic real-time task systems. Journal of Systems Architecture - Embedded Systems Design 66-67: 61-68 (2016)

[10] Mingsong Lv, Nan Guan, Jan Reineke, Reinhard Wilhelm, and Wang Yi: A Survey on Static Cache Analysis for Real-Time Systems. Leibniz Transactions on Embedded Systems, LITES 3(1): 05:1-05:48 (2016)

[11] Jinghao Sun, Nan Guan, Yang Wang, Qingxu Deng, Peng Zeng, Wang Yi: Feasibility of Fork-Join Real-Time Task Graph Models: Hardness and Algorithms. ACM Trans. Embedded Comput. Syst. (TECS) 15(1):14 (2016)

[12] Pontus Ekberg, Wang Yi: Schedulability analysis of a graph-based task model for mixed-criticality systems. Real-Time Systems (RTS) 52(1):1-37 (2016)

[13] Y Bi, M Lv, C Song, W Xu, N Guan, W Yi: Autodietary: A wearable acoustic sensor system for food intake recognition in daily life. IEEE Sensors Journal 16 (3), 806-816, 2016

[14] Yin Bi, Mingsong Lv, Yangjie Wei, Nan Guan, Wang Yi: Multi-feature fusion for thermal face recognition, Infrared Physics & Technology, Volume 77, 2016, Pages 366-374.

[15] Martin Stigge, Wang Yi: Combinatorial abstraction refinement for feasibility analysis of static priorities. *Real-Time Systems Journal*, 51(6):639-674 (2015)

[16] Martin Stigge, Wang Yi: Graph-Based Models for Real-TimeWorkload: a Survey. *Real-Time Systems Journal*, 51(5):602-636 (2015)

[17] Hao Lin, Wenyao Xu, Nan Guan, Dong Ji, Yangjie Wei, Wang Yi: Noninvasive and Continuous Blood Pressure Monitoring Using Wearable Body Sensor Networks. IEEE Intelligent Systems 30(6):38-48 (2015)

[18] Pontus Ekberg, Nan Guan, Martin Stigge, Wang Yi: An optimal resource sharing protocol for generalized multiframe tasks. Journal of Logical and Algebraic Methods in Programming 84 (1), 92-105 (2015)

[19] Nan Guan, Mingsong Lv, Wang Yi, Ge Yu: WCET analysis with MRU cache: Challenging LRU for predictability ACM Transactions on Embedded Computing Systems (TECS) 13 (4s), 123, (2014)

[20] Chuanwen Li, Yu Gu, Jianzhong Qi, Ge Yu, Rui Zhang, Wang Yi: Processing Moving kNN Queries Using Influential Neighbor Sets. PVLDB 8(2): 113-124 (2014)

[21] Changqing Xia, Nan Guan, Qingxu Deng, Wang Yi: Maximizing Lifetime of Three-Dimensional Corona-Based Wireless Sensor Networks. IJDSN 10 (2014)

[22] Pontus Ekberg, Wang Yi: Bounding and shaping the demand of generalized mixed-criticality sporadic task systems. *Real-Time Systems Journal*, 50(1): 48-86 (2014)

[23] Philip Axer, Rolf Ernst, Heiko Falk, Alain Girault, Daniel Grund, Nan Guan, Bengt Jonsson, Peter Marwedel, Jan Reineke, Christine Rochange, Maurice Sebastian, Reinhard von Hanxleden, Reinhard Wilhelm, Wang Yi: Building Timing Predictable Embedded Systems. ACM Trans. Embedded Computing Systems (TECS) 13(4): 82 (2014)

[24] Martin Stigge, Pontus Ekberg, Wang Yi: The fork-join real-time task model. *SIGBED Review* 10(2): 20 (2013)

[25] Nan Guan, Wang Yi, Qingxu Deng, Zonghua Gu, Ge Yu: Schedulability analysis for non-preemptive fixed-priority multiprocessor scheduling. *Journal of Systems Architecture - Embedded Systems Design* 57(5): 536-546 (2011)

[26] Gerd Behrmann, Alexandre David, Kim Guldstrand Larsen, Paul Pettersson, Wang Yi: Developing UPPAAL over 15 years. *Software Practice and Experience* 41(2): 133-142 (2011)

[27] Parosh Aziz Abdulla, Pavel Krcl, Wang Yi: Sampled Semantics of Timed Automata. *Logical Methods in Computer Science* 6(3) (2010)

[28] Immo Grabe, Mohammad Mahdi Jaghoori, Bernhard K. Aichernig, Christel Baier, Tobias Blechmann, Frank S. de Boer, Andreas Griesmayer, Einar Broch Johnsen, Joachim Klein, Sascha Klppelholz, Marcel Kyas, Wolfgang Leister, Rudolf Schlatte, Andries Stam, Martin Steffen, Simon Tschirner, Liang Xuedong, Wang Yi: Credo Methodology: Modeling and Analyzing A Peer-to-Peer System in Credo. *Electr. Notes Theor. Comput. Sci.* 266: 33-48 (2010)

[29] Mingsong Lv, Nan Guan, Qingxu Deng, Ge Yu, Wang Yi: Static worst-case execution time analysis of the C/OS-II real-time kernel. *Frontiers of Computer Science in China* 4(1): 17-27 (2010)

[30] Parosh Aziz Abdulla, Pavel Krcl, Wang Yi: Universality of R-automata with Value Copying. *Electr. Notes Theor. Comput. Sci.* 239: 131-141 (2009)

[31] Jin Song Dong, Ping Hao, Shengchao Qin, Jun Sun, Wang Yi: Timed Automata Patterns. *IEEE Trans. Software Eng.* 34(6): 844-859 (2008)

[32] Elena Fersman, Pavel Krcl, Paul Pettersson, Wang Yi: Task automata: Schedulability, decidability and undecidability. *Information and Computation* 205(8): 1149-1172 (2007)

[33] Elena Fersman, Leonid Mokrushin, Paul Pettersson, Wang Yi: Schedulability analysis of fixed-priority systems using timed automata. *Theor. Comput. Sci.* 354(2): 301-317 (2006)

[34] Paul Caspi, Alberto L. Sangiovanni-Vincentelli, Lus Almeida, Albert Benveniste, Bruno Bouyssounouse, Giorgio C. Buttazzo, Ivica Crnkovic, Werner Damm, Jakob Engblom, Gerhard Fohler, Marisol Garca-Valls, Hermann Kopetz, Yassine Lakhnech, Franois Laroussinie, Luciano Lavagno, Giuseppe Lipari, Florence Maraninchi, Philipp Peti, Juan Antonio de la Puente, Norman Scaife, Joseph Sifakis, Robert de Simone, Martin Trngren, Paulo Verssimo, Andy J. Wellings, Reinhard Wilhelm, Tim A. C. Willemse, Wang Yi: Guidelines for a graduate curriculum on embedded software and systems. ACM Trans. Embedded Comput. Syst. (TECS) 4(3):587-611 (2005)

[35] Jifeng He, Dang Van Hung, Geguang Pu, Zongyan Qiu, Wang Yi: Exploring optimal solution to hardware/software partitioning for synchronous model. Formal Asp. Comput. (FAC) 17(4):443-460 (2005)

[36] Elena Fersman, Wang Yi: A Generic Approach to Schedulability Analysis of Real-Time Tasks. Nord. J. Comput. (NJC) 11(2):129-147 (2004)

[37] Kim Guldstrand Larsen, Fredrik Larsson, Paul Pettersson, Wang Yi: Compact Data Structures and State-Space Reduction for Model-Checking Real-Time Systems. *Real-Time Systems Journal* 25(2-3):255-275 (2003)

[38] Tiziana Margaria, Wang Yi: Introductory paper: scalability aspects of validation. STTT 5(1):1-3 (2003)

[39] Huimin Lin, Wang Yi: Axiomatising timed automata. Acta Inf. (ACTA) 38(4):277-305 (2002)

[40] Johan Bengtsson, W. O. David Griffioen, Kre J. Kristoffersen, Kim Guldstrand Larsen, Fredrik Larsson, Paul Pettersson, Wang Yi: Automated verification of an audio-control protocol using UPPAAL. J. Log. Algebr. Program. (JLP) 52-53:163-181 (2002)

[41] Tobias Amnell, Elena Fersman, Paul Pettersson, Hongyan Sun, Wang Yi: Code Synthesis for Timed Automata. Nord. J. Comput. (NJC) 9(4):269-300 (2002)

[42] Bengt Jonsson, Wang Yi: Testing preorders for probabilistic processes can be characterized by simulations. Theor. Comput. Sci. (TCS) 282(1):33-51 (2002)

[43] Magnus Lindahl, Paul Pettersson, Wang Yi: Formal design and analysis of a gear controller. STTT 3(3):353-368 (2001)

[44] Kim Guldstrand Larsen, Justin Pearson, Carsten Weise, Wang Yi: Clock Difference Diagrams. Nord. J. Comput. (NJC) 6(3):271-298 (1999)

[45] Kim Guldstrand Larsen, Wang Yi: Time-abstracted Bisimulation: Implicit Specifications and Decidability. Information and Computation 134(2):75-101 (1997)

[46] Kim Guldstrand Larsen, Paul Pettersson, Wang Yi: UPPAAL in a Nutshell. STTT 1(1-2):134-152 (1997)

Peer-Reviewed Conference Papers

[47] Jakaria Abdullah, Gaoyang Dai, and Wang Yi: Worst-Case Cause-Effect Reaction Latency in Systems with Non-Blocking Communication. Proc. of DATE 2019.

[48] Jakaria Abdullah, Gaoyang Dai, Morteza Mohaqeqi and Wang Yi: Schedulability Analysis and Software Synthesis for Graph-Based Task Models with Resource Sharing. RTAS 2018.

[49] Jie An, Naijun Zhan, Xiaoshan Li, Miaomiao Zhang and Wang Yi: Model Checking Continuous-time Bounded Extended Linear Duration Invariants. HSCC 2018.

[50] Wang Yi: Towards Customizable CPS: Composability, Efficiency and Predictability. In proc. of ICFEM17. Lecture Notes in Computer Science 10610, Springer 2017. pages 3-15.

[51] Pontus Ekberg and Wang Yi Fixed-Priority Schedulability of Sporadic Tasks on Uniprocessors is NP-hard, RTSS 2017 (Best Paper Award).

[52] Jinghao Sun, Nan Guan, Yang Wang, Qingqing He Wang Yi: Scheduling and Analysis of Real-Time OpenMP Task Systems with Tied Tasks, RTSS 2017.

[53] Yue Tang, Nan Guan, Weichen Liu, Linh Thi Xuan Phan and Wang Yi: Revisiting GPC and AND Connector in Real-Time Calculus, RTSS 2017.

[54] Xu Jiang, Nan Guan, Xiang Long and Wang Yi: Semi-Federated Scheduling of Parallel Real-Time Tasks on Multiprocessors, RTSS 2017.

[55] Morteza Mohaqeqi, Syed Md Jakaria Abdullah, Pontus Ekberg, Wang Yi: Refinement of Workload Models for Engine Controllers by State Space Partitioning. ECRTS 2017: 11:1-11:22

[56] Zhiwei Feng, Nan Guan, Mingsong Lv, Weichen Liu, Qingxu Deng, Xue Liu, Wang Yi: Efficient drone hijacking detection using onboard motion sensors. DATE 2017: 1414-1419.

[57] Morteza Mohaqeqi, Jakaria Abdullah, Wang Yi: An Executable Semantics for Synchronous Task Graphs: From SDRT to Ada. Ada-Europe 2017: 137-152.

[58] J. Abdullah, G. Dai, N. Guan, M. Mohaqeqi, and W. Yi: Towards a Tool: TIMES-Pro for Modeling, Analysis, Simulation and Implementation of Cyber-Physical Systems. Larsen Festschrift, LNCS 10460, Chapter 31, 2017.

[59] Jakaria Abdullah, Morteza Mohaqeqi, Wang Yi: Synthesis of ada code from graph-based task models. SAC 2017: 1467-1472.

[60] Kai Lampka, Wang Yi, Steffen Bondorf, Jens Schmitt and Nan Guan. Generalized Finitary Real-Time Calculus. INFOCOM, 2017.

[61] Yang Wang, Nan Guan, Jinghao Sun, Mingsong Lv, Qingqiang He, Tianzhang He, Wang Yi: Benchmarking OpenMP programs for real-time scheduling. RTCSA 2017: 1-10.

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