

## **Publication List**

### **Books**

Bode, A.; Karl, W.: *Multicore-Architekturen*. Reihe Informatik im Fokus. Springer-Verlag Heidelberg, to appear

Karl, W.: *Architektur und effiziente Programmierung von Cluster-Systemen*. Habilitationsschrift, Technische Universität München, Januar 2002.

Karl, W.: *Architektureigenschaften und Parallelisierungsmethoden für Rechner mit Funktionspipelining*. Dissertation. Technische Universität München, 1992.

Karl, W.: *Parallele Prozessorarchitekturen – Codegenerierung für superskalare, superpipelined und VLIW-Prozessoren*. Reihe Informatik, Bd. 93, BI-Wissenschaftsverlag, Mannheim, 1993

### **Publications as Editor**

Karl, W.: Mitherausgeber der Buchreihe Informatik im Fokus, Springer-Verlag

Karl, W.; Dimitrios Soudris: *ARCS'11 24th International Conference on Architecture of Computing Systems Workshop Proceedings, February 2011, Como, Italy, VDE-Verlag*

Müller-Schloer, Ch.; Karl, W.; Yehia, S.: *Architecture of Computing Systems – ARCS 2010 23rd International Conference Hannover, Germany, February 2010 Proceedings*. Lecture Notes in Computer Science, Vol. 5974, Springer Verlag, Heidelberg, 2010

Patterson, D. A.; Hennessy, J. L.: *Rechnerorganisation und -entwurf Die Hardware / Software-Schnittstelle*. Elsevier Spektrum Akademischer Verlag, 3. Auflage, 2005. Deutsche Ausgabe herausgegeben von A. Bode, W. Karl, T. Ungerer.

Karl, W. (Gastherausgeber): *Rechnerarchitektur in Deutschland*. it – Information Technology, Vol. 47, No. 3, Oldenbourg-Verlag, München, 2005

Bode, A.; Karl, W. (Hrsg.): *APC 2001 Arbeitsplatzcomputer, Vorträge der Fachtagung der GI/ITG Fachgruppe APS+PC zum Thema „Pervasive Ubiquitous Computing“ vom 10. bis 12. Oktober 2001 in München*. ITG Fachberichte Nr. 168, VDE-Verlag, Berlin, Oktober 2001

Bode, A.; Ludwig, T.; Karl, W.; Wismüller, R. (Eds.): *Euro-Par 2000 Parallel Processing / 6th International Euro-Par Conference München, Germany, August/September 2000 Proceedings*. Springer-Verlag, Heidelberg, Lecture Notes in Computer Science, Band 1900, August 2000

Karl, W.; Horn, G. (Eds.): *Proceedings of the SCI-Europe 2000 Conference – 3<sup>rd</sup> International Conference on SCI-based Technology and Research*. München, Germany, August 29-30, 2000. SINTEF Electronics and Cybernetics, August 2000, ISBN 82-595-9964-3

Karl, W.; Horn, G. (Eds.): *Proceedings of the SCI-Europe'99 Conference – 2<sup>nd</sup> International Conference on SCI-based Technology and Research*. Toulouse, France, September 2-3, 1999. SINTEF Electronics and Cybernetics, August 2000, ISBN 82-14-00014-9

## Publications in Journals and Book Chapters

Kicherer, M.; Nowak, F.; Buchty, R.; Karl, W.: Seamlessly Portable Applications: Managing the Diversity of Modern Heterogeneous Systems. *ACM Transactions on Architecture and Code Optimization (TACO)* Volume 8 Issue 4, January 2012

Kramer, D.; Buchty, R.; Karl, W.: *Monitoring and Self-awareness for Heterogeneous, Adaptive Computing Systems*. In: *Organic Computing - A Paradigm Shift for Complex Systems*, pages 163-177. Springer Basel, Series "Autonomic Systems", Volume 1, Part 2, ISBN 978-3-0348-0130-0, June 2011.

Ebi, T.; Kramer, D.; Schuck, C.; von Renteln, A.; Becker, J.; Brinkschulte, U.; Henkel, J.; Karl, W.: *DodOrg -- A Self-adaptive Organic Many-core Architecture*. In: *Organic Computing - A Paradigm Shift for Complex Systems*, pages 353-368. Springer Basel, Series "Autonomic Systems", Volume 1, Part 2, ISBN 978-3-0348-0130-0, June 2011.

Rainer Buchty, Vincent Heuveline, Wolfgang Karl, Jan-Philipp Weiß: *A Survey on Hardware-aware and Heterogeneous Computing on Multicore Processors and Accelerators*. "Concurrency and Computation: Practice and Experience", Journal, John Wiley & Sons, Ltd., ISSN 1532-0634, September 2011

Eichinger, F.; Kramer, D.; Böhm, K.; Karl, W.: *From Source Code to Runtime Behaviour: Software Metrics Help to Select the Computer Architecture*. In: *Knowledge Based Systems*, Volume 23, Issue 4, May 2010, pp. 343-349, Elsevier, Mai 2010

Tao, J.; Kunze, M.; Nowak, F.; Buchty, R.; Karl, W.: *Performance Analysis of Reconfigurable Cache Design on Multicore Processor Systems*. In: *International Journal on Parallel Programming*, Vol. 36, No. 3, Springer-Verlag, Heidelberg, June 2008, pp. 347-360

Buchty, R.; Karl, W.: *Design Aspects for Self-Organizing Heterogeneous Multi-Core Architectures*. In: *it - Information Technology*, 5/2008, Special Issue "Computer Architecture Challenges", Oldenbourg Wissenschaftsverlag, 2008, pp. 293-299

Brandes, T.; Schwamborn, H.; Gerndt, M.; Jeitner, J.; Kereku, E.; Schulz, M.; Brunst, H.; Nagel, W.; Neumann, R.; Müller-Pfefferkorn, R.; Trenkler, B.; Karl, W.; Tao, J.; Hoppe, H.: *Monitoring Cache Behavior on Parallel SMP Architectures and Related Programming Tools*. In: *Future Generation Computer Systems*, Elsevier B.V., Vol. 21, No. 8, October 2005, pp. 1298 - 1311

Tao, J.; Schulz, M.; Karl, W.: *Simulation as a Tool for Optimizing Memory Accesses on NUMA Machines*. In: *Performance Evaluation*, Vol. 60, No. 1-4, Elsevier B.V., May 2005, pp. 31-50

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Karl, W.; Torralba, G.; Gonzáles, V.; Sanchis, E.; Tao, J.; Schulz, M.: *Data Monitoring in High-Performance Clusters for Computing Applications*. *IEEE Transactions on Nuclear Science*. Vol. 49, No. 2, April 2002, pp. 525-531

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Weiß, C.; Kowarschik, M.; Rüde, U.; Karl, W.: *Cache-aware Multigrid Methods for Solving Poisson's Equation in Two Dimensions*. *Computing*, Vol. 64, Issue 4, Springer-Verlag, 2000, pp. 0381-0399.

Acher, G.; Karl W.; Leberecht, M.: *The TUM PCI/SCI Adapter*. In: Hellwagner, H., Reinefeld, A. (Eds.): *SCI Scalable Coherent Interface Architecture and Software for High-Performance Compute Clusters*, Springer-Verlag, LNCS State-of -the Arte Survey, Vol. 1734, Berlin, (1999), pp. 89-101

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## Publications in Conferences

Nehir Sonmez, Oriol Arcas, Philipp Kirchhofer, Martin Schindewolf, Osman S. Unsal, Adrián Cristal, and Wolfgang Karl. A low-overhead Profiling and Visualization Framework for Hybrid Transactional Memory. In *FCCM 2012: The 20th Annual IEEE International Symposium on Field-Programmable Custom Computing Machines*, pages 1–8, 2012. <http://fccm12.cse.sc.edu/4699a001.pdf>.

Ebi, T.; Kramer, D.; Henkel, J.; Karl, W.: Economic Learning for Thermal-aware Power Budgeting in Many-core Architectures. In: *Proceedings of the seventh IEEE/ACM/IFIP international conference on Hardware/software codesign and system synthesis - CODES+ISSS '11*, pages 189-196, ACM, Series "CODES+ISSS '11", ISBN 978-1-4503-0715-4, New York, NY, USA, October 9-14 2011

David Kramer, Rainer Buchty, Wolfgang Karl: A Light-Weight Approach for Online State Classification of Self-organizing Parallel Systems. In: *Architecture of Computing Systems - ARCS 2011*, pages 183-194. Springer, Series "Lecture Notes of Computer Science (LNCS)", Volume 6566, ISBN 978-3-642-19136-7, Lake Como, Italy, February 22-25 2011

Alexander von Renteln, Uwe Brinkschulte, David Kramer, Wolfgang Karl, Christian Schuck, Jürgen Becker: *Digital On-demand Computing Organism - Interaction between Monitoring and Middleware*. In: *14th IEEE International Symposium on Object/Component/Service-Oriented Real-Time Distributed Computing*, pages 189-196, IEEE Computer Society, Newport Beach, CA, USA, March 28-31, 2011

Mario Kicherer, Rainer Buchty, Wolfgang Karl: *Cost-Aware Function Migration in Heterogeneous Systems*. *HiPEAC 2011 - Proceedings of the 6th International Conference on High Performance and Embedded Architectures and Compilers*. ACM Digital Library, 2011, ISBN 978-1-4503-0241-8, Heraklion, Greece, January 2011, pp. 137 - 145

Martin Schindewolf, Alexander Esselson and Wolfgang Karl. : Compiler-Assisted Selection of a Software Transactional Memory System. In: Architecture of Computing Systems - ARCS 2011, Seiten 147-157. Springer, Reihe "Lecture Notes in Computer Science", Volume 6566, ISBN 978-3-642-19136-7, Lake Como, Italien, 22.-25. Februar 2011.

Martin Schindewolf, Oliver Mattes, Wolfgang Karl: Thread Creation for Self-aware Parallel Systems. In: Facing the Multicore-Challenge, Seiten 42-53. Springer Berlin / Heidelberg, Reihe "Lecture Notes in Computer Science", Volume 6310, ISBN 978-3-642-16232-9, Heidelberg, Deutschland, 17.-19. März 2010.

Mattes, O.; Schindewolf, M.; Karl, W.: Facing the Multicore-Challenge, Heidelberger Akademie der Wissenschaften, Heidelberg, Germany, March 17-19, 2010

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Buchty, R.; Kramer, D.; Kicherer, M.; Karl, W.: *A Light-Weight Approach to Dynamical Runtime Linking Supporting Heterogeneous, Parallel, and Reconfigurable Architectures*. In: Mladen Berenkovic, Christian Müller-Schloer, Christian Hochberger, and Stephan Wong (Eds.) Architecture of Computing Systems – ARCS 2009 22nd International Conference, Delft, The Netherlands, March 2009. Proceedings, Lecture Notes in Computer Science Vol. 5455, Springer Heidelberg / Berlin, March 2009, pp. 60 - 71

Lizhe Wang, Jie Tao, Marcel Kunze, Alvaro Canales Castellanos, David Kramer, Wolfgang Karl: *Scientific Cloud Computing: Early Definition and Experience*. The 10th IEEE Conference on High Performance Computing and Communications (HPCC'08), DeLian, China, September 25-27, 2008

Buchty, R.; Kramer, D.; Karl, W.: *An Organic Computing Approach to Sustained Real-time Monitoring*. In: Biologically-Inspired Collaborative Computing - IFIP 20th World Computer Congress, Second IFIP TC 10 International Conference on Biologically-Inspired Collaborative Computing, September 8-9, 2008, Milano, Italy. IFIP International Federation for Information Processing. Vol. 268/2008, Springer, Boston, 2008, pp. 151-162

Buchty, R.; Mattes, O.; Karl, W.: *Self-aware Memory: Managing Distributed Memory in an Autonomous Multi-master Environment*. In: Uwe Brinkschulte, Theo Ungerer, Christian Hochberger und Rainer G. Spallek (Eds.) Architecture of Computing Systems – ARCS 2008 21st International Conference, Dresden, Germany, February 25-28, 2008. Proceedings, Lecture Notes in Computer Science Vol. 4934, Springer Heidelberg / Berlin, Februar 2008, pp. 98-113

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Tao, J.; Gaugler, T.; Karl, W.: *A Profiling Tool for Detecting Cache-Critical Data Structures*. In: Anne-Marie Kermarrec, Luc Bougé und Thierry Priol (Eds.) Euro-Par 2007 Parallel Processing 13th International Euro-Par Conference, Rennes, France, August 28-31, 2007. Proceedings. Lecture Notes in Computer Science Vol. 4641, Springer Berlin/Heidelberg, September 2007, pp. 52-61

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Löw, H.-P.; Buchty, R.; Karl, W.: *A Network Agent for Diagnosis and Analysis of Real-Time Ethernet Networks*. International Conference on Compilers, Architecture, and Synthesis for Embedded Systems (CASES 2006), ACM Press, ISBN 1-59593-543-6, Seoul, Korea, October 2006, pp. 65-73

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Karl, W.: *Some Design Aspects for VLIW Architectures Exploiting Fine-Grained Parallelism*. In Bode, Arndt, Mike Reeve und G. Wolf (Eds.): PARLE'93 Parallel Architectures and Languages Europe, 5th International PARLE Conference. München: Springer-Verlag, (Juni 1993), LNCS 694, pp. 582-599.

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## **Publications in Workshops**

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Publication Type. Scope Note. Abbreviations. Works consisting of lists of shortened forms of written words or phrases used for brevity. Acronyms are included here. Abstracts. Works consisting of lists of publications on a subject and that provide full annotated bibliographical information together with substantive summaries or condensations of the facts, ideas, or opinions presented in each publication listed. (From LC Subject Cataloging Manual). Academic Dissertation. List peer-reviewed publications first. Show books first, then book chapters. Include peer-reviewed journal articles next. Next, add contributions to well-respected outlets. List other non-peer-reviewed publications last. Use MLA format. Write author names first, then title and publication. You are reading the official PANDA publication list. There is a list of related publications available as well. Furthermore, you can find a list of PhD thesis and a list of approved Technical Design Reports. 2019. [PANDA Collaboration] M. Moritz et al., The Electromagnetic Calorimeter for the PANDA Target Spectrometer, Journal of Physics, DOI: 10.1088/1742-6596/1162/1/012025, 2019.

Publication List Andreas LÃ¼chli. [3] [2] [1]. [111] [110] [109] [108]. Publications. Overview. I have authored 3 book chapters, 111 refereed journal publications, 2 ALPS collaboration papers and 3 proceedings so far. My publications currently report 7600/5700/5000 citations with an h-index of 47/42/38 based on Google Scholar/ADS Abstract Service/Web of Science. The list of publications including citation information is also available on the ResearcherID web page B-1930-2008 and on Google Scholar. This repository contains a list of known publications that use or cite the deal.II finite element library. Its contents are used to generate the publications mentioned on the deal.II website. Our institutes are evaluated at regular intervals. Consequently, we are interested in documenting the use of the programs and libraries we create. This page collects publications written on or with the help of deal.II. If you have published anything, including Diploma, Masters or PhD theses, please let us know about it. Avoid listing blogs, websites or articles published in magazines or nonscientific publications. If your thesis was not published in a journal, list it in the "Education" section of your CV rather than under publications. Publications to list on a resume might include: Trade conference presentations. Books or book chapters.