

References

- [1] Nils Asmussen, Marcus Völöp, Benedikt Nöthen, Hermann Härtig, and Gerhard Fettweis. “M3: A Hardware/Operating-System Co-Design to Tame Heterogeneous Manycores”. In: *ASPLOS. CONFERENCE*. ACM. Atlanta, GA, USA, Apr. 2016.
- [2] Nils Asmussen, Benedikt Nöthen, Oliver Arnold, Hermann Härtig, and Gerhard Fettweis. “Uniform Control Over Heterogeneous Cores Through NoC-Level Isolation”. In: *Design Automation Conference - Work in Progress*. WIP. San Francisco, USA, June 2015.
- [3] Nils Asmussen and Marcus Völöp. “Taming Heterogeneous Accelerators: Operating-Systems for Cores with no OS Support”. In: *ASPLOS. WIP*. Istanbul, Turkey, Mar. 2015.
- [4] Nils Asmussen and Marcus Völöp. “Heterogeneity Beyond Hybrid Architectures: a Kernel for the Tomahawk”. In: *GI Fachgruppe Betriebssysteme - Frühjahrstreffen*. SHORT. Chemnitz, Germany, Mar. 2015.
- [5] Nathan Fulton, Stefan Mitsch, Jan-David Quesel, Marcus Völöp, and André Platzer. “KeYmaera X: An Axiomatic Tactical Theorem Prover for Hybrid Systems”. In: *CADE*. Ed. by Amy P. Felty and Aart Middeldorp. Vol. 9195. LNCS. TOOL. Berlin, Germany: Springer, 2015, pp. 527–538.
- [6] Till Smejkal, Adam Lackorzynski, Benjamin Engel, and Marcus Völöp. “Transactional IPC in Fiasco.OC — Can we get the multicore case verified for free?” In: *OSPERT. WORKSHOP*. 2015.
- [7] Annett Ungethüm. “Taming Many Heterogeneous Cores”. In: *21st IEEE Real-Time and Embedded Technology and Applications Symposium - Demo Session*. DEMO. Seattle, Washington, Apr. 2015.
- [8] Marcus Völöp, Nils Asmussen, Hermann Härtig, Benedikt Nöthen, and Gerhard Fettweis. “Towards Dependable CPS Infrastructures: Architectural and Operating-System Challenges”. In: *ETFA. CONFERENCE*. Luxembourg, Sept. 2015.
- [9] Marcus Völöp, Michael Roitzsch, and Hermann Härtig. “Towards an Interpretation of Mixed Criticality for Optimistic Scheduling”. In: *21st IEEE Real-Time and Embedded Technology and Applications Symposium - Work in Progress Session*. WIP. Seattle, Washington, Apr. 2015.
- [10] Christel Baier, Marcus Daum, Benjamin Engel, Hermann Härtig, Joachim Klein, Sascha Klüppelholz, Steffen Märker, Hendrik Tews, and Marcus Völöp. “Locks: Picking key methods for a scalable quantitative analysis”. In: *Journal of Computer and System Sciences (2014)*. JOURNAL.
- [11] Michael Raitza and Marcus Völöp. “From silicon nanowire reconfigurable transistors to operating-system controlled circuit space”. In: *2nd Dresden Nanoanalysis Symposium (Poster Session)*. POSTER. Dresden, Germany, July 2014.

- [12] Andreas Richter, Andreas Voigt, Rene Schüffny, Stefan Henker, and Marcus Völp. “Integrated circuits processing chemical information: Prospects and challenges”. In: *Design, Automation and Test in Europe Conference and Exhibition (DATE)*. CONFERENCE. Dresden, Germany, Mar. 2014.
- [13] Andreas Voigt, R. Greiner, M. Allerdissen, Andreas Richter, Stefan Henker, and Marcus Völp. “Towards Computation with Microchemomechanical Systems”. In: *International Journal of Foundations of Computer Science* 25.4 (June 2014). JOURNAL.
- [14] Marcus Völp. *Verfahren und Einrichtung um eine eventuelle Schreibinkonsistenz in nicht kohärenten Architekturen abzusichern*. Patent no. DE102012106759 A1. PATENT. Dresden, Germany, Jan. 2014.
- [15] Marcus Völp. “What if we would degrade LO tasks in mixed-criticality systems?” In: *20th IEEE Real-Time and Embedded Technology and Applications Symposium - Work in Progress Session (RTAS-WIP 2014)*. WIP. Berlin, Germany, Apr. 2014.
- [16] Marcus Völp, Marcus Hähnel, and Adam Lackorzynski. “Has Energy Surpassed Timeliness? - Scheduling Energy-Constrained Mixed-Criticality Systems”. In: *20th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2014)*. CONFERENCE. Berlin, Germany, Apr. 2014.
- [17] Marcus Völp Adam Lackorzynski Benjamin Engel. “Predictable Coherent Caching with Incoherent Caches”. In: *RTLWS*. NOREVIEW. Lugano-Manno, Switzerland, Oct. 2013.
- [18] Nils Asmussen, Hermann Härtig, and Marcus Völp. “Turning x86 into a Hardware Simulator for Future Manycores”. In: *3rd Workshop on Systems for Future Multicore Architectures (SFMA’13)*. WORKSHOP. Prague, Czech Republic, Apr. 2013.
- [19] Christel Baier, Benjamin Engel, Sascha Klüppelholz, Steffen Märcker, Hendrik Tews, and Marcus Völp. “A Probabilistic Quantitative Analysis of Probabilistic-Write/Copy-Select”. In: *5th NASA Formal Methods Symposium*. CONFERENCE. Moffet Field, CA, USA, May 2013.
- [20] Marcus Hähnel, Björn Döbel, Hermann Härtig, and Marcus Völp. “eBond: Energy Saving in Heterogeneous R.A.I.N”. In: *ACM e-Energy 2013*. CONFERENCE. Berkeley, CA, USA, May 2013.
- [21] Marcus Hähnel, Marcus Völp, Björn Döbel, and Hermann Härtig. “The Potential of Energy/Utility-Accrual Scheduling”. In: *1st International Workshop on Energy-Aware Systems, Communications and Security (EASy-CoSe 2013)*. WORKSHOP. Barcelona, Spain, Mar. 2013.
- [22] Hermann Härtig, Marcus Völp, and Marcus Hähnel. “The Case for Practical Multi-Resource and Multi-Level Scheduling Based on Energy/Utility”. In: *RTCSA*. INVITEDTALK. Taipei, Taiwan, Aug. 2013.

- [23] Adam Lackorzynski, Marcus Völöp, and Alexander Warg. “Flat but Trustworthy: Security Aspects in Flattened Hierarchical Scheduling”. In: *VtRES. WORKSHOP*. Taipei, Taiwan, Aug. 2013.
- [24] Marcus Völöp, Benjamin Engel, Claude-Joachim Hamann, and Hermann Härtig. “On Confidentiality-Preserving Real-Time Locking Protocols”. In: *19th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2013)*. CONFERENCE. Philadelphia, USA, Apr. 2013.
- [25] Marcus Völöp, Adam Lackorzynski, and Hermann Härtig. “On the Expressiveness of Fixed-Priority Scheduling Contexts for Mixed-Criticality Scheduling”. In: *WMC. WORKSHOP*. Vancouver, Canada, Dec. 2013.
- [26] Marcus Völöp and Michael Roitzsch. “Elastic Manycores: How to bring the OS back into the scheduling game?” In: *1st Workshop on Runtime and Operating Systems for the Many-core Era (ROME 2013)*. WORKSHOP. Aachen, Germany, Aug. 2013.
- [27] Marcus Völöp, Johannes Steinmetz, and Marcus Hähnel. “Consolidate-to-Idle: The Second Dimension is Almost for Free”. In: *19th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2013) WiP Session*. WIP. Philadelphia, USA, Apr. 2013.
- [28] Christel Baier, Marcus Daum, Benjamin Engel, Hermann Härtig, Joachim Klein, Sascha Klüppelholz, Steffen Märcker, Hendrik Tews, and Marcus Völöp. “Chiefly Symmetric: Results on the Scalability of Probabilistic Model Checking for Operating-System Code”. In: *7th Conference on Systems Software Verification (also EPTCS 102)*. CONFERENCE. Sydney, Australia, Nov. 2012.
- [29] Christel Baier, Marcus Daum, Benjamin Engel, Hermann Härtig, Joachim Klein, Sascha Klüppelholz, Steffen Märcker, Hendrik Tews, and Marcus Völöp. “Waiting for locks: How long does it usually take?” In: *17th International Workshop on Formal Methods for Industrial Critical Systems (Co-located with FM 2012)*. Vol. 7437. WORKSHOP. LNCS. Paris, France, 2012, pp. 47–62.
- [30] Benjamin Engel and Marcus Völöp. “First Experiences on PWCS synchronized Data Structures”. In: *Real-Time Linux Workshop*. NOREVIEW. Chapel Hill, USA, Oct. 2012.
- [31] Marcus Hähnel, Björn Döbel, Marcus Völöp, and Hermann Härtig. “Measuring Energy Consumption for Short Code Paths Using RAPL”. In: *Green-Metrics 2012 (Co-located with Sigmetrics) — (best student paper)*. WORKSHOP. London UK, June 2012.
- [32] Adam Lackorzynski, Alexander Warg, Marcus Völöp, and Hermann Härtig. “Flattening Hierarchical Scheduling”. In: *International Conference on Embedded Software (EMSOFT 2012)*. CONFERENCE. Tampere, Finland, Oct. 2012.

- [33] Hendrik Tews, Marcus Völöp, and Tjark Weber. “On the Use of Under-specified Data-Type Semantics for Type Safety in Low-Level Core”. In: *7th Conference on Systems Software Verification (also EPTCS 102)*. CONFERENCE. Sydney, Australia, Nov. 2012.
- [34] Marcus Völöp, Nils Asmussen, and Hermann Härtig. “The IMData Approach to Accelerating Data-Intensive Workloads”. In: *Facing the Multicore-Challenge III - Poster*. POSTER. Stuttgart, Germany, Sept. 2012.
- [35] Marcus Völöp, Michael Roitzsch, and Hermann Härtig. “Who is going to program this?” In: *USENIX Symposium on Operating Systems Design and Implementation (OSDI 2012) - Poster*. POSTER. Hollywood, CA, USA, Oct. 2012.
- [36] Benjamin Engel and Marcus Völöp. “Turning Kriegers MCS Lock into a Send Queue or, a Case for Reusing Clever, Mostly Lock-Free Code in a Different Area”. In: *Real-Time Linux Workshop*. NOREVIEW. Prague, Czech Republic, Oct. 2011.
- [37] Marcus Völöp. “Provable Protection of Confidential Data in Microkernel-Based Systems”. THESIS. PhD Thesis (defence Jan. 31. 2011). Dresden, Germany: Technische Universität Dresden, Aug. 2010.
- [38] Hendrik Tews, Marcus Völöp, and Tjark Weber. “Formal Memory Models for the Verification of Low-Level Operating-System Code”. In: *Journal of Automated Reasoning — Special Issue on Operating System Verification* 42.2–4 (Apr. 2009). JOURNAL.
- [39] Hendrik Tews, Tjark Weber, Marko van Eekelen, Peter van Rossum, and Marcus Völöp. *Nova Micro-Hypervisor Verification*. Technical Report ICIS-R08012 (Robin Deliverable D.13). TECHREPORT. Katholieke Universiteit Nijmegen, Apr. 2008.
- [40] Hendrik Tews, Tjark Weber, and Marcus Völöp. “A Formal Model of Memory Peculiarities for the Verification of Low-Level Operating-System Code”. In: *3rd International Workshop in Systems Software Verification (SSV08) (also ENTCS 217)*. WORKSHOP. Sydney, Australia, Feb. 2008.
- [41] Marcus Völöp. “Statically Checking Confidentiality of Shared Memory Programs with Dynamic Labels”. In: *3rd International Conference on Reliability and Security (ARES)*. CONFERENCE. Mar. 2008.
- [42] Marcus Völöp, Claude-Joachim Hamann, and Hermann Härtig. “Avoiding Timing Channels in Fixed Priority Schedulers”. In: *Symposium on Information, Computer & Communication Security (ASIACCS)*. CONFERENCE. ACM. Tokyo, Japan, Mar. 2008.
- [43] Marcus Völöp. “Preliminary Thoughts on Verifying L4-Based Operating Systems”. In: *3rd International Workshop on Dependable Embedded Systems (co-located with SRDS 2006)*. WORKSHOP. Leeds, UK, Oct. 2006.
- [44] Marcus Völöp. *Multicontext processor architecture*. Patent no. EP1522923 (also: US2005080120). PATENT. Rousset, France, Apr. 2005.

- [45] Marcus Völp. *Secured start-up of an electronic device having an SMP architecture*. Patent no. FR2862397 (also: US2007113088). PATENT. Rousset, France, May 2005.
- [46] Marcus Völp and Claude Anguille. *Data encryption in an electronic apparatus with several symmetrical processors*. Patent no. EP1524795 (also: US2005138403). PATENT. Rousset, France, Apr. 2005.
- [47] Marcus Völp and William Orlando. *Memory access control in an electronic apparatus*. Patent no. EP1548601 (also: US2005182909). PATENT. Rousset, France, June 2005.
- [48] Marcus Völp. “Design and Implementation of the Recursive Virtual Address Space Model for Small Scale Multiprocessor Systems”. THESIS. Diplom. Karlsruhe, Germany: System Architecture Group, Universität Karlsruhe TH, Feb. 2003.
- [49] Marcus Völp. “Prototypical Design and Implementation of L4-SMP Microkernel Mechanisms”. THESIS. Studienarbeit. Karlsruhe, Germany: System Architecture Group, Universität Karlsruhe TH, Apr. 2002.
- [50] Jochen Liedtke, Uwe Dannowski, Kevin Elphinstone, Gerhard Liefänder, Espen Skoglund, Volkmar Uhlig, Christian Ceelen, Andreas Haeberlen, and Marcus Völp. *The L4Ka Vision*. White Paper. TECHREPORT. Universität Karlsruhe TH, Apr. 2001.
- [51] Jochen Liedtke, Marcus Völp, and Kevin Elphinstone. “Preliminary Thoughts on Memory-Bus Scheduling”. In: *9th SIGOPS European Workshop*. CONFERENCE. Kolding, Denmark, Sept. 2000.
- [52] Marcus Völp and Jochen Liedtke. “Threads on an L4/x86 SMP Nucleus”. In: *1st Workshop on Microkernel Based Systems (co-located with SOSp’99)*. WORKSHOP. Kiawah Island Resort, Charleston, SC, USA, Dec. 1999.