List of Publications

Tomáš Bureš

October 2018

The list is structured per guidelines of the Faculty of Mathematics and Physics, Charles University. Following the Charles University Rector's Directives 9/2014 and 17/2014, the list also distinguishes publications with IF (Sections C1A and C3A) and publications equivalent to publications with IF (Section C3B).

The list identifies publications registered in the WOS database of Thomson Reuters and in the SCOPUS database of Elsevier. Entries for publications with IF give the IF[1] data from WOS, and, where available, the SNIP[2] data from SCOPUS. Also where available, entries for conference publications give the CORE rank.[3] The values listed are always the values relevant to the publication year.

B. Chapters in scientific monographs

[1] V. Matena, T. Bures, I. Gerostathopoulos, and P. Hnetynka: **"Experimenting with Adaptation in Smart Cyber-Physical Systems: A Model Problem and Testbed"**. In *Engineering adaptive software systems [in print]*. Springer, 2018.

[2] A. Musil, J. Musil, D. Weyns, T. Bures, H. Muccini, and M. Sharaf: **"Patterns for Self-Adaptation in Cyber-Physical Systems"**. In *Multi-Disciplinary Engineering for Cyber-Physical Production Systems: Data Models and Software Solutions for Handling Complex Engineering Projects*. Springer, 2017, pp. 331–368. DOI: 10.1007/978-3-319-56345-9_13.

[3] N. Hoch, H.-P. Bensler, D. Abeywickrama, T. Bureš, and U. Montanari: **"The E-mobility Case Study"**. In *Software Engineering for Collective Autonomic Systems: The ASCENS Approach*. Springer, 2015, pp. 513–533. DOI: 10.1007/978-3-319-16310-9_17.

[4] T. Bureš, I. Gerostathopoulos, J. Keznikl, F. Plášil, and P. Tůma: **"Formalization of Invariant Patterns for the Invariant Refinement Method"**. In *Software, Services, and Systems: Essays Dedicated to Martin Wirsing on the Occasion of His Retirement from the Chair of Programming and Software Engineering*. Springer, 2015, pp. 602–618. DOI: 10.1007/978-3-319-15545-6_34.

[5] L. Bulej, T. Bureš, I. Gerostathopoulos, V. Horký, J. Keznikl, L. Marek, M. Tschaikowski, M. Tribastone, and P. Tůma: **"Supporting Performance Awareness in Autonomous Ensembles"**. In *Software Engineering for Collective Autonomic Systems: The ASCENS Approach*. Springer, 2015, pp. 291–322. DOI: 10.1007/978-3-319-16310-9_8.

[6] T. Bureš, I. Gerostathopoulos, P. Hnetynka, J. Keznikl, M. Kit, and F. Plasil: **"The Invariant Refinement Method"**. In *Software Engineering for Collective Autonomic Systems: The ASCENS Approach*. Springer, 2015, pp. 405–428. DOI: 10.1007/978-3-319-16310-9_12.

[7] P. Mayer, J. Velasco, A. Klarl, R. Hennicker, M. Puviani, F. Tiezzi, R. Pugliese, J. Keznikl, and T. Bureš: **"The Autonomic Cloud"**. In *Software Engineering for Collective Autonomic Systems: The ASCENS Approach*. Springer, 2015, pp. 495–512. DOI: 10.1007/978-3-319-16310-9_16.

[8] L. Bulej, T. Bureš, T. Coupaye, M. Děcký, P. Ježek, P. Parízek, F. Plášil, T. Poch, N. Rivierre, O. Šerý, and P. Tůma: **"CoCoME in Fractal"**. In *The Common Component Modeling Example: Comparing Software Component Models*. Berlin, Heidelberg: Springer, 2008, pp. 357–387. DOI: 10.1007/978-3-540-85289-6_14.

[1] Impact Factor, see http://www.webofknowledge.com/jcr.

[2] Source Normalized Impact per Paper is a citation indicator adjusted per subject field, in the SCOPUS database the 50th percentile is 0.52, the 75th percentile is 1.10, the 90th percentile is 1.77, see DOI: 10.1016/j.joi.2010.01.002.

[3] Computing Research and Education Association Conference Ranking is an occasionally updated ranking of computer science conferences on the scale of A-C, where A stands for "exceptional or excellent", B for "good to very good", C for "sound and satisfactory", see http://www.core.edu.au/coreportal.

[9] T. Bureš, M. Děcký, P. Hnětynka, J. Kofroň, P. Parízek, F. Plášil, T. Poch, O. Šerý, and P. Tůma: **"CoCoME in SOFA"**. In *The Common Component Modeling Example: Comparing Software Component Models*. Berlin, Heidelberg: Springer, 2008, pp. 388–417. DOI: 10.1007/978-3-540-85289-6_15.

C. Original scientific publications

(C1) In foreign scientific journals

(C1A) Publications with IF

[10] T. Bures, F. Plasil, M. Kit, P. Tuma, and N. Hoch: **"Software Abstractions for Component Interaction in the Internet of Things"**. In *Computer* 49.12 (2016), pp. 50–59. DOI: 10.1109/MC.2016.377.
WOS 2016 IF 1.755, SCOPUS 2016 SNIP 2.361.

[11] A. Masrur, M. Kit, V. Matena, T. Bures, and W. Hardt: **"Component-Based Design of Cyber-Physical Applications with Safety-Critical Requirements"**. In *Microprocessors and Microsystems (MICPRO)* 42 (2016).
WOS 2016 IF 1.025, SCOPUS 2016 SNIP 0.864.

[12] L. Bulej, T. Bureš, V. Horký, J. Kotrč, L. Marek, T. Trojánek, and P. Tůma: **"Unit testing performance with Stochastic Performance Logic"**. In *Automated Software Engineering* 24.1 (2017), pp. 139–187. DOI: 10.1007/s10515-015-0188-0.
WOS 2016 IF 2.625, SCOPUS 2016 SNIP 1.589.

[13] C. Kroiss and T. Bures: **"Logic-based modeling of information transfer in cyber–physical multi-agent systems"**. In *Future Generation Computer Systems* 56.Supplement C (2016), pp. 124–139. DOI: https://doi.org/10.1016/j.future.2015.09.013.
WOS 2016 IF 3.997, SCOPUS 2016 SNIP 3.383.

[14] I. Gerostathopoulos, T. Bures, P. Hnetynka, J. Keznikl, M. Kit, F. Plasil, and N. Plouzeau: **"Self-adaptation in software-intensive cyber–physical systems: From system goals to architecture configurations"**. In *Journal of Systems and Software* (2016). DOI: 10.1016/j.jss.2016.02.028.
WOS 2016 IF 2.444, SCOPUS 2016 SNIP 2.039.

[15] V. Simko, D. Hauzar, P. Hnetynka, T. Bures, and F. Plasil: **"Formal Verification of Annotated Textual Use-Cases"**. In *The Computer Journal* 58.7 (2015), pp. 1495–1529. DOI: 10.1093/comjnl/bxu068.
WOS 2015 IF 1.000, SCOPUS 2015 SNIP 1.342.

[16] J. Keznikl, T. Bureš, F. Plášil, and P. Hnětynka: **"Automated resolution of connector architectures using constraint solving (ARCAS method)"**. In *Software & Systems Modeling* 13.2 (2014), pp. 843–872. DOI: 10.1007/s10270-012-0274-8.
WOS 2014 IF 1.408, SCOPUS 2014 SNIP 1.822.

[17] T. Pop, P. Hnětynka, P. Hošek, M. Malohlava, and T. Bureš: **"Comparison of component frameworks for real-time embedded systems"**. In *Knowledge and Information Systems* 40.1 (2014), pp. 127–170. DOI: 10.1007/s10115-013-0627-9.
WOS 2014 IF 1.782, SCOPUS 2014 SNIP 2.414.

[18] M. Malohlava, F. Plasil, T. Bures, and P. Hnetynka: **"Interoperable domain-specific languages families for code generation"**. In *Software: Practice and Experience* 43.5 (2013), pp. 479–499. DOI: 10.1002/spe.2118.
WOS 2013 IF 1.148, SCOPUS 2013 SNIP 1.905.

(C1B) Other publications in C1

[19] I. Gerostathopoulos, T. Bures, P. Hnetynka, A. Hujecek, F. Plasil, and D. Skoda: **"Strengthening Adaptation in Cyber-Physical Systems via Meta-Adaptation Strategies"**. In *ACM Trans. Cyber-Phys. Syst.* 1.3 (2017), 13:1–13:25. DOI: 10.1145/2823345.

[20] T. Bures, P. Hnetynka, and F. Plasil: **"Runtime Concepts of Hierarchical Software Components"**. In *International Journal of Computer and Information Science* 8 (2007), pp. 454–463. ISSN: 1525-9293.

(C3) In foreign peer reviewed proceedings

(C3A) Publications with IF

[21] T. Bures and F. Plasil: **"Communication Style Driven Connector Configurations"**. In *Software Engineering Research and Applications: First International Conference, SERA 2003, San Francisco, CA, USA, June 25-27, 2003, Selected Revised Papers*. Berlin, Heidelberg: Springer, 2004, pp. 102–116. DOI: 10.1007/978-3-540-24675-6_11.
WOS 2004 IF 0.513, SCOPUS 2004 SNIP 0.756.

(C3B) Equivalent to publications with IF

In computer science, publications at selective conferences are considered as valuable as publications with IF. This section lists full length conference publications from conferences where submissions are reviewed by at least three reviewers and where at most one third of such submissions is accepted. The criteria were chosen because they can be objectively and independently verified (the parameters of the review process and the numbers of submitted and accepted publications are taken from the program committee chairman introduction in the corresponding proceedings) and because they reasonably correspond to the selectivity and citation impact of the computer science journals, see for example DOI: 10.1145/1743546.1743569.

[22] I. Gerostathopoulos, D. Skoda, F. Plasil, T. Bures, and A. Knauss: **"Architectural Homeostasis in Self-Adaptive Software-Intensive Cyber-Physical Systems"**. In *Software Architecture: 10th European Conference, ECSA 2016, Copenhagen, Denmark, November 28 – December 2, 2016, Proceedings*. Springer, 2016, pp. 113–128. DOI: 10.1007/978-3-319-48992-6_8.
CORE 2016 A.

[23] T. Bures, P. Hnetynka, J. Kofron, R. A. Ali, and D. Skoda: **"Statistical Approach to Architecture Modes in Smart Cyber Physical Systems"**. In *2016 13th Working IEEE/IFIP Conference on Software Architecture (WICSA)*. 2016, pp. 168–177. DOI: 10.1109/WICSA.2016.33.
CORE 2016 A.

[24] I. Gerostathopoulos, T. Bures, P. Hnetynka, A. Hujecek, F. Plasil, and D. Skoda: **"Meta-Adaptation Strategies for Adaptation in Cyber-Physical Systems"**. In *Software Architecture: 9th European Conference, ECSA 2015, Dubrovnik/Cavtat, Croatia, September 7-11, 2015. Proceedings*. Springer, 2015, pp. 45–52. DOI: 10.1007/978-3-319-23727-5_4.
CORE 2015 A.

[25] R. Al Ali, T. Bures, I. Gerostathopoulos, J. Keznikl, and F. Plasil: **"Architecture Adaptation Based on Belief Inaccuracy Estimation"**. In *Proceedings of the 2014 IEEE/IFIP Conference on Software Architecture*. Washington, DC, USA: IEEE Computer Society, 2014, pp. 87–90. DOI: 10.1109/WICSA.2014.20.
CORE 2014 A.

[26] T. Bures, I. Gerostathopoulos, P. Hnetynka, J. Keznikl, M. Kit, and F. Plasil: **"Gossiping Components for Cyber-Physical Systems"**. In *Software Architecture: 8th European Conference, ECSA 2014, Vienna, Austria, August 25-29, 2014. Proceedings*. Springer, 2014, pp. 250–266. DOI: 10.1007/978-3-319-09970-5_23.
CORE 2014 A, Best Research Paper Award.

[27] T. Bures, I. Gerostathopoulos, P. Hnetynka, J. Keznikl, M. Kit, and F. Plasil: **"DEECO: An Ensemble-based Component System"**. In *Proceedings of the 16th International ACM Sigsoft Symposium on Component-based Software Engineering*. New York, NY, USA: ACM, 2013, pp. 81–90. DOI: 10.1145/2465449.2465462.
CORE 2013 A.

[28] J. Keznikl, T. Bures, F. Plasil, I. Gerostathopoulos, P. Hnetynka, and N. Hoch: **"Design of Ensemble-based Component Systems by Invariant Refinement"**. In *Proceedings of the 16th International ACM Sigsoft Symposium on Component-based Software Engineering*. New York, NY, USA: ACM, 2013, pp. 91–100. DOI: 10.1145/2465449.2465457.
CORE 2013 A, ACM Distinguished Paper Award.

[29] T. Pop, F. Plasil, M. Outly, M. Malohlava, and T. Bures: **"Property Networks Allowing Oracle-based Mode-change Propagation in Hierarchical Components"**. In *Proceedings of the 15th ACM SIGSOFT Symposium on Component Based Software Engineering*. New York, NY, USA: ACM, 2012, pp. 93–102. DOI: 10.1145/2304736.2304753.
CORE 2012 A.

[30] J. Keznikl, T. Bures, F. Plasil, and M. Kit: **"Towards Dependable Emergent Ensembles of Components: The DEECo Component Model"**. In *2012 Joint Working IEEE/IFIP Conference on Software Architecture and European Conference on Software Architecture*. 2012, pp. 249–252. DOI: 10.1109/WICSA-ECSA.212.39.
CORE 2012 A.

[31] P. Hošek, T. Pop, T. Bureš, P. Hnětynka, and M. Malohlava: **"Comparison of Component Frameworks for Real-Time Embedded Systems"**. In *Component-Based Software Engineering: 13th International Symposium, CBSE 2010, Prague, Czech Republic, June 23-25, 2010. Proceedings*. Berlin, Heidelberg: Springer, 2010, pp. 21–36. DOI: 10.1007/978-3-642-13238-4_2.
CORE 2010 A.

[32] S. Sentilles, A. Vulgarakis, T. Bureš, J. Carlson, and I. Crnković: **"A Component Model for Control-Intensive Distributed Embedded Systems"**. In *Component-Based Software Engineering: 11th International Symposium, CBSE 2008, Karlsruhe, Germany, October 14-17, 2008. Proceedings*. Berlin, Heidelberg: Springer, 2008, pp. 310–317. DOI: 10.1007/978-3-540-87891-9_21.
CORE 2008 A, ICSA 2018 Most Influential Paper Award.

(C3C) Other publications in C3

[33] R. Al Ali, T. Bures, P. Hnetynka, F. Krijt, F. Plasil, and J. Vinarek: **"Dynamic Security Specification through Autonomic Component Ensemble"**. In *Proceedings of the 8th International Symposium On Leveraging Applications of Formal Methods, Verification and Validation (ISOLA 2018)*. Springer, 2018.
CORE 2018 C.

[34] I. Gerostathopoulos, C. Prehofer, and T. Bures: **"Adapting a System with Noisy Outputs with Statistical Guarantees"**. In *Proceedings of 13th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2018)*. Gothenburg, Sweden, 2018.

[35] I. Gerostathopoulos, C. Prehofer, L. Bulej, T. Bureš, V. Horký, and P. Tůma: **"Cost-Aware Stage-Based Experimentation: Challenges and Emerging Results"**. In *Proceedings of IEEE International Conference On Software Architecture (ICSA 2018)*. Seattle, USA, 2018.

[36] D. Khalyeyev, P. Hnetynka, and T. Bures: **"A Virtual Playground for Testing Smart Cyber-Physical Systems"**. In *Proceedings of IEEE International Conference On Software Architecture (ICSA 2018)*. Seattle, USA, 2018.

[37] P. Kubát, L. Bulej, T. Bureŝ, V. Horký, and P. Tuma: **"Adaptive Dispatch: A Pattern for Performance-Aware Software Self-Adaptation"**. In *Workshop on Challenges in Performance Methods for Software Development, Companion of the 2018 ACM/SPEC International Conference on Performance Engineering*. New York, NY, USA: ACM, 2018, pp. 195–198. DOI: 10.1145/3185768.3186406.

[38] T. Bures, V. Matena, R. Mirandola, L. Pagliari, and C. Trubiani: **"Performance Modelling of Smart Cyber-Physical Systems"**. In *Companion of the 2018 ACM/SPEC International Conference on Performance Engineering*. New York, NY, USA: ACM, 2018, pp. 37–40. DOI: 10.1145/3185768.3186306.

[39] F. Krijt, Z. Jiracek, T. Bures, P. Hnetynka, and F. Plasil: **"Automated Dynamic Formation of Component Ensembles - Taking Advantage of Component Cooperation Locality"**. In *Proceedings of the 5th International Conference on Model-Driven Engineering and Software Development*. 2017, pp. 561–568. DOI: 10.5220/0006273705610568.

[40] O. Nikiforova, N. E. Marzouki, K. Gusarovs, H. Vangheluwe, T. Bures, R. Al-Ali, M. Iacono, P. O. Esquivel, and F. Leon: **"The Two-Hemisphere Modelling Approach to the Composition of Cyber-Physical Systems"**. In *Proceedings of the 12th International Conference on Software Technologies*. 2017, pp. 286–293. DOI: 10.5220/0006424902860293.
CORE 2017 B.

[41] V. Matena, A. Masrur, and T. Bures: **"An Ensemble-Based Approach for Scalable QoS in Highly Dynamic CPS"**. In *2017 43rd Euromicro Conference on Software Engineering and Advanced Applications (SEAA)*. 2017, pp. 234–238. DOI: 10.1109/SEAA.2017.62.
CORE 2017 B.

[42] F. Krijt, Z. Jiracek, T. Bures, P. Hnetynka, and I. Gerostathopoulos: **"Intelligent Ensembles: A Declarative Group Description Language and Java Framework"**. In *Proceedings of the 12th International Symposium on Software Engineering for Adaptive and Self-Managing Systems*. Piscataway, NJ, USA: IEEE Press, 2017, pp. 116–122. DOI: 10.1109/SEAMS.2017.17.

[43] S. Schmid, I. Gerostathopoulos, C. Prehofer, and T. Bures: **"Self-adaptation Based on Big Data Analytics: A Model Problem and Tool"**. In *Proceedings of the 12th International Symposium on Software Engineering for Adaptive and Self-Managing Systems*. Piscataway, NJ, USA: IEEE Press, 2017, pp. 102–108. DOI: 10.1109/SEAMS.2017.20.

[44] C. Dupont, T. Bures, M. Sheikhalishahi, C. Pham, and A. Rahim: **"Low-cost IoT, Big Data, and Cloud Platform for Developing Countries"**. In *Economics of Grids, Clouds, Systems, and Services*. Springer, 2017, pp. 285–299. ISBN: 978-3-319-68066-8.

[45] T. Bures, P. Hnetynka, F. Krijt, V. Matena, and F. Plasil: **"Smart Coordination of Autonomic Component Ensembles in the Context of Ad-Hoc Communication"**. In *Proceedings of the 7th International Symposium On Leveraging Applications of Formal Methods, Verification and Validation (ISOLA 2016)*. Corfu, Greece: Springer, 2016, pp. 642–656. DOI: 10.1007/978-3-319-47166-2_45.
CORE 2017 C.

[46] V. Matena, T. Bures, I. Gerostathopoulos, and P. Hnetynka: **"Model Problem and Testbed for Experiments with Adaptation in Smart Cyber-physical Systems"**. In *Proceedings of the 11th International Symposium on Software Engineering for Adaptive and Self-Managing Systems*. New York, NY, USA: ACM, 2016, pp. 82–88. DOI: 10.1145/2897053.2897065.

[47] I. Gerostathopoulos, T. Bures, S. Schmid, V. Horky, C. Prehofer, and P. Tuma: **"Towards Systematic Live Experimentation in Software-Intensive Systems of Systems"**. In *International Colloquium on Software-intensive Systems-of-Systems, colocated with ECSA 2016*. 2016.

[48] C. Kroiß and T. Bureš: **"Logic-Based Modeling of Information Transfer in Cyber-Physical Multi-Agent Systems"**. In *Nature of Computation and Communication: International Conference, ICTCC 2014, Ho Chi Minh City, Vietnam, November 24-25, 2014, Revised Selected Papers*. Springer, 2015, pp. 42–52. DOI: 10.1007/978-3-319-15392-6_5.

[49] M. Kit, I. Gerostathopoulos, T. Bures, P. Hnetynka, and F. Plasil: **"An Architecture Framework for Experimentations with Self-Adaptive Cyber-physical Systems"**. In *2015 IEEE/ACM 10th International Symposium on Software Engineering for Adaptive and Self-Managing Systems*. 2015, pp. 93–96. DOI: 10.1109/SEAMS.2015.28.

[50] M. Kit, F. Plasil, V. Matena, T. Bures, and O. Kovac: **"Employing Domain Knowledge for Optimizing Component Communication"**. In *Proceedings of the 18th International ACM SIGSOFT Symposium on Component-Based Software Engineering*. New York, NY, USA: ACM, 2015, pp. 59–64. DOI: 10.1145/2737166.2737172.
CORE 2015 B.

[51] T. Bures, F. Krijt, F. Plasil, P. Hnetynka, and Z. Jiracek: **"Towards Intelligent Ensembles"**. In *Proceedings of the 2015 European Conference on Software Architecture Workshops*. New York, NY, USA: ACM, 2015, 17:1–17:4. DOI: 10.1145/2797433.2797450.

[52] O. Štumpf, T. Bureš, and V. Matěna: **"Security and Trust in Data Sharing Smart Cyber-Physical Systems"**. In *Proceedings of the 2015 European Conference on Software Architecture Workshops*. New York, NY, USA: ACM, 2015, 18:1–18:4. DOI: 10.1145/2797433.2797451.

[53] T. Bureš, V. Horký, M. Kit, L. Marek, and P. Tůma: **"Towards Performance-Aware Engineering of Autonomic Component Ensembles"**. In *Leveraging Applications of Formal Methods, Verification and Validation. Technologies for Mastering Change: 6th International Symposium, ISoLA 2014, Imperial, Corfu, Greece, October 8-11, 2014, Proceedings, Part I*. Berlin, Heidelberg: Springer, 2014, pp. 131–146. DOI: 10.1007/978-3-662-45234-9_10.

[54] T. Bures, I. Gerostathopoulos, and R. Al Ali: **"DEECo: Software Engineering for Smart CPS"**. In *In ERCIM news Special theme: Cyber-Physical Systems*. 96. 2014.

[55] A. Masrur, M. Kit, T. Bures, and W. Hardt: **"Towards Component-Based Design of Safety-Critical Cyber-Physical Applications"**. In *2014 17th Euromicro Conference on Digital System Design*. 2014, pp. 254–261. DOI: 10.1109/DSD.2014.87.

[56] R. Al Ali, T. Bures, I. Gerostathopoulos, P. Hnetynka, J. Keznikl, M. Kit, and F. Plasil: **"DEECo: An Ecosystem for Cyber-physical Systems"**. In *Companion Proceedings of the 36th International Conference on Software Engineering*. New York, NY, USA: ACM, 2014, pp. 610–611. DOI: 10.1145/2591062.2591140.

[57] T. Bures, P. Hnetynka, and F. Plasil: **"Strengthening Architectures of Smart CPS by Modeling Them As Runtime Product-lines"**. In *Proceedings of the 17th International ACM Sigsoft Symposium on Component-based Software Engineering*. New York, NY, USA: ACM, 2014, pp. 91–96. DOI: 10.1145/2602458.2602478.
CORE 2014 B.

[58] I. Gerostathopoulos, J. Keznikl, T. Bures, M. Kit, and F. Plasil: **"Software Engineering for Software-Intensive Cyber-Physical Systems"**. In *In Proceedings of the 44th Annual Meeting of the German Informatics Society*. 2014, pp. 1179–1190.

[59] J. Barnat, N. Beneš, T. Bureš, I. Černá, J. Keznikl, and F. Plášil: **"Towards Verification of Ensemble-Based Component Systems"**. In *Formal Aspects of Component Software: 10th International Symposium, FACS 2013, Nanchang, China, October 27-29, 2013, Revised Selected Papers*. Springer, 2014, pp. 41–60. DOI: 10.1007/978-3-319-07602-7_5.

[60] P. Mayer, A. Klarl, R. Hennicker, M. Puviani, F. Tiezzi, R. Pugliese, J. Keznikl, and T. Bures: **"The Autonomic Cloud: A Vision of Voluntary, Peer-2-Peer Cloud Computing"**. In *Proceedings of the 3rd Workshop on Challenges for Achieving Self-Awareness in Autonomic Systems as SASO 2013*. 2013, pp. 89–94. DOI: 10.1109/SASOW.2013.16.

[61] N. Šerbedžija, T. Bureš, and J. Keznikl: **"Engineering Autonomous Systems"**. In *Proceedings of the 17th Panhellenic Conference on Informatics*. New York, NY, USA: ACM, 2013, pp. 128–135. DOI: 10.1145/2491845.2491862.

[62] T. Bures, R. D. Nicola, I. Gerostathopoulos, N. Hoch, M. Kit, N. Koch, G. V. Monreale, U. Montanari, R. Pugliese, N. Serbedzija, M. Wirsing, and F. Zambonelli: **"A Life Cycle for the Development of Autonomic Systems: The E-mobility Showcase"**. In *Proceedings of the 3rd Workshop on Challenges for Achieving Self-Awareness in Autonomic Systems as SASO 2013*. 2013, pp. 71–76. DOI: 10.1109/SASOW.2013.23.

[63] L. Bulej, T. Bures, V. Horký, and J. Keznikl: **"Adaptive Deployment in Ad-hoc Systems Using Emergent Component Ensembles: Vision Paper"**. In *Proceedings of the 4th ACM/SPEC International Conference on Performance Engineering*. New York, NY, USA: ACM, 2013, pp. 343–346. DOI: 10.1145/2479871.2479922.

[64] I. Gerostathopoulos, T. Bures, and P. Hnetynka: **"Position Paper: Towards a Requirements-driven Design of Ensemble-based Component Systems"**. In *Proceedings of the 2013 International Workshop on Hot Topics in Cloud Services*. New York, NY, USA: ACM, 2013, pp. 79–86. DOI: 10.1145/2462307.2462325.

[65] S. Kounev, S. Rizou, S. Zschaler, S. Alexakis, T. Bures, J.-M. Jézéquel, D. Kourtesis, and S. Pantelopoulos: **"RELATE: A Research Training Network on Engineering and Provisioning of Service-based Cloud Applications"**. In *Proceedings of the 2013 International Workshop on Hot Topics in Cloud Services*. New York, NY, USA: ACM, 2013, pp. 51–54. DOI: 10.1145/2462307.2462319.

[66] L. Hermann, T. Bureš, P. Hnětynka, and M. Malohlava: **"CoDIT: Bridging the Gap between System-Level and Component-Level Development"**. In *Software Engineering Research, Management and Applications 2012*. Berlin, Heidelberg: Springer, 2012, pp. 159–175. DOI: 10.1007/978-3-642-30460-6_12.

[67] L. Bulej, T. Bures, V. Horky, J. Keznikl, and P. Tuma: **"Performance Awareness in Component Systems: Vision Paper"**. In *2012 IEEE 36th Annual Computer Software and Applications Conference Workshops*. 2012, pp. 514–519. DOI: 10.1109/COMPSACW.2012.96.
CORE 2012 B.

[68] L. Bulej, T. Bureš, J. Keznikl, A. Koubková, A. Podzimek, and P. Tůma: **"Capturing Performance Assumptions Using Stochastic Performance Logic"**. In *Proceedings of the 3rd ACM/SPEC International Conference on Performance Engineering*. New York, NY, USA: ACM, 2012, pp. 311–322. DOI: 10.1145/2188286.2188345.

[69] V. Simko, P. Hnetynka, T. Bures, and F. Plasil: **"FOAM: A Lightweight Method for Verification of Use-Cases"**. In *2012 38th Euromicro Conference on Software Engineering and Advanced Applications*. 2012, pp. 228–232. DOI: 10.1109/SEAA.2012.15.

[70] M. Malohlava, P. Hnetynka, and T. Bures: **"SOFA 2 Component Framework and Its Ecosystem"**. In *Post-conference Proceedings of FESCA 2012*. 2012.

[71] T. Pop, J. Keznikl, P. Hosek, M. Malohlava, T. Bures, and P. Hnetynka: **"Introducing Support for Embedded and Real-Time Devices into Existing Hierarchical Component System: Lessons Learned"**. In *2011 Ninth International Conference on Software Engineering Research, Management and Applications*. 2011, pp. 3–11. DOI: 10.1109/SERA.2011.14.
CORE 2011 C.

[72] V. Simko, D. Hauzar, T. Bures, P. Hnetynka, and F. Plasil: **"Verifying Temporal Properties of Use-Cases in Natural Language"**. In *Formal Aspects of Component Software: 8th International Symposium, FACS 2011, Oslo, Norway, September 14-16, 2011, Revised Selected Papers*. Berlin, Heidelberg: Springer, 2012, pp. 350–367. DOI: 10.1007/978-3-642-35743-5_21.

[73] J. Keznikl, M. Malohlava, T. Bures, and P. Hnetynka: **"Extensible Polyglot Programming Support in Existing Component Frameworks"**. In *2011 37th EUROMICRO Conference on Software Engineering and Advanced Applications*. 2011, pp. 107–115. DOI: 10.1109/SEAA.2011.25.

[74] T. Bures, P. Jezek, M. Malohlava, T. Poch, and O. Sery: **"Strengthening Component Architectures by Modeling Fine-Grained Entities"**. In *2011 37th EUROMICRO Conference on Software Engineering and Advanced Applications*. 2011, pp. 124–128. DOI: 10.1109/SEAA.2011.27.
CORE 2011 C.

[75] V. Šimko, P. Hnětynka, and T. Bureš: **"From Textual Use-Cases to Component-Based Applications"**. In *Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing 2010*. Berlin, Heidelberg: Springer, 2010, pp. 23–37. DOI: 10.1007/978-3-642-13265-0_3.

[76] T. Bureš, J. Hala, and P. Hnětynka: **"Using Connectors to Address Transparent Distribution in Enterprise Systems – Pitfalls and Options"**. In *Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing*. Berlin, Heidelberg: Springer, 2009, pp. 81–92. DOI: 10.1007/978-3-642-01203-7_7.

[77] P. Ježek, T. Bureš, and P. Hnětynka: **"Supporting Real-Life Applications in Hierarchical Component Systems"**. In *Software Engineering Research, Management and Applications 2009*. Berlin, Heidelberg: Springer, 2009, pp. 107–118. DOI: 10.1007/978-3-642-05441-9_10.
CORE 2009 C.

[78] K. Masek, P. Hnetynka, and T. Bures: **"Bridging the Component-Based and Service-Oriented Worlds"**. In *2009 35th Euromicro Conference on Software Engineering and Advanced Applications*. 2009, pp. 47–54. DOI: 10.1109/SEAA.2009.58.

[79] T. Bureš, P. Hnětynka, and M. Malohlava: **"Using a Product Line for Creating Component Systems"**. In *Proceedings of the 2009 ACM Symposium on Applied Computing*. New York, NY, USA: ACM, 2009, pp. 501–508. DOI: 10.1145/1529282.1529388.
CORE 2009 B.

[80] P. Hnetynka, T. Bures, M. Prochazka, R. Ward, and Z. Hanzálek: **"SOFA High Integrity: Our Approach to SAVOIR"**. In *DASIA 2009 - DAta Systems in Aerospace*. 2009, p. 17.

[81] T. Bures, J. Carlson, S. Sentilles, and A. Vulgarakis: **"A Component Model Family for Vehicular Embedded Systems"**. In *2008 The Third International Conference on Software Engineering Advances*. 2008, pp. 437–444. DOI: 10.1109/ICSEA.2008.58.
CORE 2008 B.

[82] T. Bures, M. Malohlava, and P. Hnetynka: **"Using DSL for Automatic Generation of Software Connectors"**. In *Seventh International Conference on Composition-Based Software Systems (ICCBSS 2008)*. 2008, pp. 138–147. DOI: 10.1109/ICCBSS.2008.17.
CORE 2008 C.

[83] L. Kapová, T. Bureš, and P. Hnětynka: **"Preserving Intentions in SOA Business Process Development"**. In *Software Engineering Research, Management and Applications*. Berlin, Heidelberg: Springer, 2008, pp. 59–72. DOI: 10.1007/978-3-540-70561-1_5.

[84] T. Bures, P. Hnetynka, F. Plasil, J. Klesnil, O. Kmoch, T. Kohan, and P. Kotrc: **"Runtime Support for Advanced Component Concepts"**. In *5th ACIS International Conference on Software Engineering Research, Management Applications (SERA 2007)*. 2007, pp. 337–345. DOI: 10.1109/SERA.2007.115.
CORE 2007 C.

[85] P. Hnetynka and T. Bures: **"Advanced features of hierarchical component models"**. In *in: Proceedings of ISIM'07, Hradec nad Moravici, Czech Republic, 2007*. 2007, pp. 3–10.

[86] T. Bures, M. Decky, P. Hnetynka, J. Kofron, P. Parizek, F. Plasil, T. Poch, O. Sery, and P. Tuma: **"CoCoME in SOFA 2.0"**. In *Intel 12th EMEA Academic Forum*. Intel Corporation, 2200 Mission College Blvd., Santa Clara, CA, USA, 2007.

[87] L. Bulej and T. Bures: **"Eliminating Execution Overhead of Disabled Optional Features in Connectors"**. In *Software Architecture: Third European Workshop, EWSA 2006, Nantes, France, September 4-5, 2006, Revised Selected Papers*. Berlin, Heidelberg: Springer, 2006, pp. 50–65. DOI: 10.1007/11966104_5.

[88] T. Bures, P. Hnetynka, and F. Plasil: **"SOFA 2.0: Balancing Advanced Features in a Hierarchical Component Model"**. In *Fourth International Conference on Software Engineering Research, Management and Applications - SERA 2006*. 2006, pp. 40–48. DOI: 10.1109/SERA.2006.62.

[89] J. Kofron, J. Adamek, T. Bures, P. Jezek, V. Mencl, P. Parízek, and F. Plasil: **"Checking Fractal Component Behavior Using Behavior Protocols"**. In *the 5th Fractal Workshop - part of ECOOP*. 2006.

[90] J. Adamek, T. Bures, P. Jezek, J. Kofron, V. Mencl, P. Parizek, and F. Plasil: **"Real-life Behavior Specification of Software Components"**. In *The 11th EMEA Academic Forum, Dublin, Ireland*. 2006.

[91] L. Bulej and T. Bureš: **"Using Connectors for Deployment of Heterogeneous Applications in the Context of OMG D&C Specification"**. In *Interoperability of Enterprise Software and Applications*. London: Springer, 2006, pp. 349–360. DOI: 10.1007/1-84628-152-0_31.

[92] V. Mencl and T. Bures: **"Microcomponent-Based Component Controllers: A Foundation for Component Aspects"**. In *2013 20th Asia-Pacific Software Engineering Conference (APSEC)* 00 (2005), pp. 729–737. DOI: doi.ieeecomputersociety.org/10.1109/APSEC.2005.78.

[93] O. Galik and T. Bures: **"Generating Connectors for Heterogeneous Deployment"**. In *Proceedings of the 5th International Workshop on Software Engineering and Middleware*. New York, NY, USA: ACM, 2005, pp. 54–61. DOI: 10.1145/1108473.1108486.

[94] T. Bures, E. Denney, B. Fischer, and E. C. Nistor: **"The role of ontologies in schema-based program synthesis, Workshop on Ontologies as SofDiare Engineering Artifacts"**. In *Workshop on Ontologies as Software Engineering Artifacts OOPSLA*. 2004.

[95] T. Bures and F. Plasil: **"Scalable Element-Based Connectors"**. In *Proceedings of SERA*. 2003.

E. Other scientific publications

(E1) Invited contributions

[96] T. Bures: **"Autonomic Component Ensembles for Dynamic Evolving Architectures of Context-aware Smart Systems: Invited Talk Abstract"**. In *CASA Workshop at the 11th European Conference on Software Architecture*. New York, NY, USA: ACM, 2017, pp. 70–70. DOI: 10.1145/3129790.3129795.

[97] T. Bures: **"Development of Smart Cyber-physical Systems"**. In *Tutorial at 17th International ACM Sigsoft Symposium on Component-based Software Engineering*. New York, NY, USA: ACM, 2014, pp. 189–190. DOI: 10.1145/2602458.2611458.
CORE 2014 B.

[98] F. Plasil and T. Bures: **"Software Components in Computer Assisted Living"**. In *SOFSEM 2013: Theory and Practice of Computer Science: 39th International Conference on Current Trends in Theory and Practice of Computer Science, Špindlerův Mlýn, Czech Republic, January 26-31, 2013. Proceedings*. Berlin, Heidelberg: Springer, 2013, pp. 28–28. DOI: 10.1007/978-3-642-35843-2_2.
CORE 2013 B.

(E2) Software

Software prototype construction is a necessary component of research activities, serving to collect experimental results and validate research hypotheses and providing tools for further research and development. The following list includes selected software prototypes related to the listed publications. Software is a product of long term team development, detailed authorship information is available in source code repositories.

[99] **"DEECo Component Model and Runtime Framework"**. 2011–2017.
Component model and runtime framework targeting design of systems consisting of autonomous, self-aware, and adaptable components. This software package includes implementation in Java and C++ along with integration with several network-aware simulators and demonstrators. This software supports research results of a large number of publications, primarily of[[10, 11, 26, 27]]. Used as a software platform for resource sharing experiments in the EU FP7 FET project ASCENS. The relevance of the topic and results also attracted industrial research funding from Volkswagen AG.
http://d3s.mff.cuni.cz/software/deeco/.

[100] **"SOFA 2 component framework"**. 2006–2014.

Component framework employing hierarchically composed components and providing features like ADL-based design, behavior specification using behavior protocols, automatically generated connectors supporting seamless and transparent distribution of applications, and distributed runtime environment with dynamic update of components. This software supports research results of a large number of publications, primarily of [9, 70, 88, 57, 16, 18]. Accepted as a project of the OW2 international open source consortium.
`http://sofa.ow2.org/`.

[101] **"TCOF – Trait-based Coalition Formation Framework & Intelligent Ensembles"**. 2017.
These are two software artifacts addressing the same problem from two different angles. They both serve for separating responsibilities to components and coalitions, and enable easy and expressive definition of when to establish the coalition, how to select its members and what to communicate among the members. The Trait-based Coalition Formation Framework (TCOF) is a framework featuring an architecture description language for coalitions (TCOF-ADL) which is designed as a Scala internal DSL. The Intelligent Ensembles framework on the other hand uses an external DSL and is built top of the Z3 SMT solver and the Eclipse Modelling Framework. Intelligent Ensembles has been accepted as a artifact to Dagstuhl Artifact Series (DARTS). These two software artifacts (TCOF and Intelligent Ensembles) support publications [39, 42]
`https://github.com/d3scomp/tcof` and `http://drops.dagstuhl.de/opus/volltexte/2017/7144/`.

[102] **"IVIS - ESTABLISH Visualization Framework"**. 2017.
ESTABLISH Visualization Framework is a component of the ESTABLISH project architecture. Its main purpose is visualization and processing of data collected from IoT sensors. It focuses on streamlining creation of visualizations where ability of rapid customizing is needed. IVIS allows for easy and straightforward customization and extending even by non-developers (e.g. data analyst), who understand the data but have limited or even no programming knowledge.
`https://gitlab.d3s.mff.cuni.cz/evif/ivis-core`.

[103] **"Invariant Refinement Method"**. 2012–2017.
A method and framework for designing software-intensive Cyber-Physical Systems with a focus on dependability aspects and self-adaptation of these systems. This software supports research results in [4, 6, 14, 19, 28].
`http://d3s.mff.cuni.cz/software/irm/`.

[104] **"Testbed for Experiments with Adaptation in Smart Cyber-Physical Systems"**. 2016.
Robotic testbed for experimentations with adaptations in smart cyber-physical systems. It combines a simulation platform based on Robotic Operating System(ROS), Stage robot simulator and OMNeT++ network simulator with DEECo component framework. It allows execution on physical robots (TurtleBot 2) or simulated execution. The testbed comes with a demo application focused on robotic cleaning.
`http://d3s.mff.cuni.cz/software/ros_sCPS_testbed/`.

[105] **"SOFA High Integrity"**. 2010.
SOFA HI is a component framework targeted at high-integrity real-time embedded systems. It features a completely new implementation of SOFA in C and with restrictions and changes that are implied by the real-time and embedded environment. The defining features of SOFA HI are its predictability, low memory footprint, support for low-level programming and deployment time synthesis of components. This software is introduced in [80]. SOFA HI component framework attracted an ESA-funded project.
`http://sofa.ow2.org/sofahi/index.html`.

(E3) Other

Other contributions are listed for consistency with the list of citations.

[106] T. Bures, D. Weyns, B. Schmer, E. Tovar, E. Boden, T. Gabor, I. Gerostathopoulos, P. Gupta, E. Kang, A. Knauss, P. Patel, A. Rashid, I. Ruchkin, R. Sukkerd, and C. Tsigkanos: **"Software Engineering for Smart Cyber-Physical Systems: Challenges and Promising Solutions"**. In *ACM SIGSOFT Software Engineering Notes* 42.2 (2017), pp. 19–24. DOI: 10.1145/3089649.3089656.

[107] F. Krijt, Z. Jiracek, T. Bures, P. Hnetynka, and I. Gerostathopoulos: **"Intelligent Ensembles – a Declarative Group Description Language and Java Framework (Artifact)"**. In *Dagstuhl Artifacts Series* 3.1 (2017), 6:1–6:3. DOI: 10.4230/DARTS.3.1.6.
Keywords: Smart Cyber-physical Systems; Adaptive Architecture; Ensemble-based Component System; Group-wise Adaptation; Autonomic Systems.

[108] S. Schmid, I. Gerostathopoulos, C. Prehofer, and T. Bures: **"Model Problem (CrowdNav) and Framework (RTX) for Self-Adaptation Based on Big Data Analytics (Artifact)"**. In *Dagstuhl Artifacts Series* 3.1 (2017), 5:1–5:3. DOI: 10.4230/DARTS.3.1.5.

[109] T. Bures, P. Hnetynka, J. Kofron, R. Al Ali, and D. Skoda: **"Statistical Approach to Architecture Modes in Smart Cyber Physical Systems"**. Tech. rep. No. D3S-TR-2015-04. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2015.

[110] I. Gerostathopoulos, T. Bures, P. Hnetynka, J. Keznikl, M. Kit, F. Plasil, and N. Plouzeau: **"Self-Adaptation in Cyber-Physical Systems: from System Goals to Architecture Configurations"**. Tech. rep. No. D3S-TR-2015-02. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2015.

[111] I. Gerostathopoulos, T. Bures, P. Hnetynka, A. Hujecek, F. Plasil, and D. Skoda: **"Meta-Adaptation Strategies for Adaptation in Cyber-Physical Systems"**. Tech. rep. No. D3S-TR-2015-01. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2015.

[112] T. Bures, D. Weyns, C. Berger, S. Biffl, M. Daun, T. Gabor, D. Garlan, I. Gerostathopoulos, C. Julien, F. Krikava, R. Mordinyi, and N. Pronios: **"Software Engineering for Smart Cyber-Physical Systems – Towards a Research Agenda: Report on the First International Workshop on Software Engineering for Smart CPS"**. In *SIGSOFT Softw. Eng. Notes* 40.6 (2015), pp. 28–32. DOI: 10.1145/2830719.2830736.

[113] T. Bures, I. Gerostathopoulos, P. Hnetynka, J. Keznikl, M. Kit, and F. Plasil: **"Computational Model for Gossiping Components in Cyber-Physical Systems"**. Tech. rep. No. D3S-TR-2014-03. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2014.

[114] L. Bulej, T. Bures, V. Horky, J. Kotrc, L. Marek, T. Trojanek, and P. Tuma: **"SPL: Unit Testing Performance"**. Tech. rep. No. D3S-TR-2014-04. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2014.

[115] I. Gerostathopoulos, J. Keznikl, T. Bures, M. Kit, and F. Plasil: **"Software Engineering for Software-Intensive Cyber-Physical Systems"**. Tech. rep. No. D3S-TR-2014-02. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2014.

[116] T. Bures, I. Gerostathopoulos, P. Hnetynka, J. Keznikl, M. Kit, F. Plasil, and N. Plouzeau: **"Adaptation in Cyber-Physical Systems: from System Goals to Architecture Configurations"**. Tech. rep. No. D3S-TR-2014-01. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2014.

[117] T. Bures, I. Gerostathopoulos, J. Keznikl, and F. Plasil: **"Formalization of Invariant Patterns for the Invariant Refinement Method"**. Tech. rep. No. D3S-TR-2013-04. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2013.

[118] T. Bures, I. Gerostathopoulos, P. Hnetynka, J. Keznikl, M. Kit, and F. Plasil: **"DEECo - an Ensemble-Based Component System"**. Tech. rep. No. D3S-TR-2013-02. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2013.

[119] R. Al Ali, T. Bures, I. Gerostathopoulos, P. Hnetynka, J. Keznikl, M. Kit, and F. Plasil: **"DEECo Computational Model - I"**. Tech. rep. No. D3S-TR-2013-01. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2013.

[120] M. Malohlava, P. Hnetynka, and T. Bures: **"SOFA 2 Component Framework and Its Ecosystem"**. In *Electronic Notes in Theoretical Computer Science* 295.Supplement C (2013). Proceedings the 9th International Workshop on Formal Engineering approaches to Software Components and Architectures (FESCA), pp. 101–106. DOI: https://doi.org/10.1016/j.entcs.2013.04.009.

[121] T. Bures, P. Hnetynka, P. Kroha, and V. Simko: **"Requirement Specifications Using Natural Languages"**. Tech. rep. No. D3S-TR-2012-05. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2012.

[122] J. Keznikl, T. Bures, F. Plasil, and P. Hnetynka: **"Automated Resolution of Connector Architectures Using Constraint Solving** *ARCASmethod***"**. Tech. rep. No. D3S-TR-2012-03. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2012.

[123] T. Bures, P. Hnetynka, J. Keznikl, F. Plasil, and P. Tuma: **"Towards a Periodic Table of Component Models"**. Tech. rep. No. D3S-TR-2012-07. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2012.

[124] T. Bures, I. Gerostathopoulos, P. Hnetynka, J. Keznikl, M. Kit, and F. Plasil: **"Autonomous components in dynamic environments"**. Tech. rep. 2012. DOI: 10.2417/3201209.004415.

[125] V. Simko, P. Hnetynka, T. Bures, and F. Plasil: **"Formal Verification of Annotated Use-Cases (FOAM Method)"**. Tech. rep. Charles University in Prague, Tech. Rep, 2012.

[126] M. Malohlava, F. Plasil, T. Bures, and P. Hnetynka: **"Interoperable DSL Families for Code Generation"**. Tech. rep. No. 2011/4. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2011.

[127] T. Pop, T. Bures, and P. Hnetynka: **"Case Studies for Component Based Development for Real-time and Embedded Devices"**. Tech. rep. No. 2011/10. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2011.

[128] M. Outly, T. Pop, M. Malohlava, and T. Bures: **"Mode Change in Real-time Component Systems - Suitable Form of Run-Time Variability in Resource Constrained Environments"**. Tech. rep. No. 2011/7. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2011.

[129] P. Hosek, T. Pop, M. Malohlava, P. Hnetynka, and T. Bures: **"Supporting real-time features in a hierarchical component system"**. Tech. rep. No. 2010/5. Dep. of Distributed and Dependable Systems, Charles University in Prague, 2010.

[130] V. Simko, P. Hnetynka, T. Bures, and F. Plasil: **"Formal verification of annotated use-cases"**. Tech. rep. Charles University in Prague, Tech. Rep, 2010.

[131] T. Bures, P. Jezek, M. Malohlava, T. Poch, and O. Sery: **"Fine-grained Entities in Component Architectures"**. Tech. rep. No. 2009/5. Dep. of SW Engineering, Charles University, Prague, 2009.

[132] T. Bures and P. Hnetynka: **"Safe Systems with Software Components in SOFA 2"**. Tech. rep. 2008, pp. 27–28.

[133] T. Bures, J. Carlson, I. Crnkovic, S. Sentilles, and A. V. Feljan: **"ProCom - the Progress Component Model Reference Manual, version 1.0"**. Tech. rep. ISSN 1404-3041 ISRN MDH-MRTC-230/2008-1-SE. 2008.

[134] T. Bures, J. Carlson, I. Crnkovic, S. Sentilles, and A. V. Feljan: **"Progress Component Model Reference Manual - version 0.5"**. Tech. rep. ISSN 1404-3041 ISRN MDH-MRTC-225/2008-1-SE. 2008.

[135] T. Bures, J. Carlson, S. Sentilles, and A. Vulgarakis: **"Towards Component Modelling of Embedded Systems in the Vehicular Domain"**. Tech. rep. 1404-3041. Malardalens hogskola, 2008.

[136] S. Becker, L. Bulej, T. Bures, P. Hnetynka, L. Kapova, J. Kofron, H. Koziolek, J. Kraft, R. Mirandola, J. Stammel, G. Tamburrelli, and M. Trifu: **"Service Architecture Meta Model"**. Tech. rep. 2008.

[137] M. Malohlava and T. Bures: **"Language for reconfiguring runtime infrastructure of component-based systems"**. Tech. rep. 2008. ISBN: 978-80-7355-082-0.

[138] L. Bulej and T. Bures: **"Addressing Static Execution Overhead in Connectors with Disabled Optional Features"**. Tech. rep. No. 2006/6. Dep. of SW Engineering, Charles University, Prague, 2006.

[139] J. Adamek, T. Bures, P. Jezek, J. Kofron, V. Mencl, P. Parizek, and F. Plasil: **"Component reliability extensions for fractal component model"**. Tech. rep. 2006.

[140] O. Galik and T. Bures: **"Handling Heterogeneity in Connector Generation"**. Tech. rep. No. 2005/2. Dep. of SW Engineering, Charles University, Prague, 2005.

[141] L. Bulej and T. Bures: **"Deploying Heterogeneous Applications using OMG D&C and Software Connectors"**. Tech. rep. No. 2005/10. Dep. of SW Engineering, Charles University, Prague, 2005.

[142] T. Bures: **"Automated Synthesis of Connectors for Heterogeneous Deployment"**. Tech. rep. No. 2005/4. Dep. of SW Engineering, Charles University, Prague, 2005.

[143] P. Hnetynka, F. Plasil, T. Bures, V. Mencl, and L. Kapova: **"SOFA 2.0 metamodel"**. Tech. rep. No. 2005/11. Dep. of SW Engineering, Charles University, Prague, 2005.

[144] L. Bulej and T. Bures: **"Addressing Heterogeneity in OMG D&C-based Deployment"**. Tech. rep. No. 2004/7. Dep. of SW Engineering, Charles University, Prague, 2004.

[145] T. Bures and F. Plasil: **"Composing Connectors of Elements"**. Tech. rep. No. 2003/3. Dep. of SW Engineering, Charles University, Prague, 2003.

[146] L. Bulej and T. Bures: **"A Connector Model Suitable for Automatic Generation of Connectors"**. Tech. rep. No. 2003/1. Dep. of SW Engineering, Charles University, Prague, 2003.

H. Theses

[147] T. Bures: **"Managing Variability in Component-based Software Engineering"**. Habilitation Thesis. Charles University, Department of Distributed and Dependable Systems, 2013.

[148] T. Bures: **"Generating Connectors for Homogeneous and Heterogeneous Deployment"**. Doctoral Thesis. Dep. of SW Engineering, Charles University, Prague, 2006.

[149] T. Bures: **"Generator of Connectors for SOFA/DCUP"**. Master Thesis. Czech Technical University, 2002.