

Publications

[BPS+24]

[PDFBIB](#)

Buglowski, M., Pfannschmidt, V., Stollenwerk, A., Schoberer, M., Huong Nguyen, T. B., Becker, S., and Braun, O., "Beatmungsgerät und Verfahren zur Atemgasversorgung", 2024.

Beatmungsgerät und Verfahren zur Atemgasversorgung

Bibtex entry :

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@techreport { BPS+24,
  author = { Buglowski, Mateusz and Pfannschmidt, Valerie and
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  title = { Beatmungsger{\a}t und Verfahren zur Atemgasversorgung },
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[GRB+24]

[PDFBIB](#)

Goldermann, L., Rakel, S., Buglowski, M., Mokhtarian, A., Kampmann, A., Janß, A., Yilmaz, O., Beger, F., Walter, M., Leonhardt, S., Kowalewski, S., and Stollenwerk, A., "Designing the user interface of a ventilator under the constraints of a pandemic", *Automatisierungstechnik*, vol. 72, iss. 5, pp. 484-495, 2024

Designing the user interface of a ventilator under the constraints of a pandemic

Bibtex entry :

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@article { GRB+24,
  author = { Goldermann, Lavinia and Rakel, Stefan and Buglowski,
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cin = { 122810 / 611010 / 419410 / 120000 },
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[MHA24]

[PDFBIB](#)

Mokhtarian, A., Hegerath, L., and Alrifaae, B., "CPM Academy: A Remote Platform for Teaching Current Topics in Connected and Automated Vehicles", in *Proc. 2023 62nd IEEE Conference on Decision and Control (CDC) : 13-15 Dec. 2023, 2024*, IEEE.

CPM Academy: A Remote Platform for Teaching Current Topics in Connected and Automated Vehicles

Bibtex entry :

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@inproceedings { MHA24,
  author = { Mokhtarian, Armin and Hegerath, Lucas and Alrifaae,
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  booktitle = { 2023 62nd IEEE Conference on Decision and Control
(CDC) :
13-15 Dec. 2023 },
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http://publications.rwth-aachen.de/record/977464/files/977464.pdf },
}
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[PSK24]

[PDFBIB](#)

Pfannschmidt, V., Stollenwerk, A., and Kowalewski, S., "Physiologische Regelung der künstlichen Beatmung Frühgeborener", in *Proc. Downloads zum 58. Regelungstechnischen Kolloquium vom 21. bis 23. Februar 2024: Kurzfassungen der Vorträge*, 2024.

Physiologische Regelung der künstlichen Beatmung Frühgeborener

Bibtex entry :

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@inproceedings { PSK24,
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    kolloquium-boppard.html },
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[BBZ+23]

[PDFBIB](#)

Behery, M. A. A., Brauner, P., Zhou, H. A., Uysal, M. S., Samsonov, V., Bellgardt, M., Brillowski, F. S., Brockhoff, T., Farhang Ghahfarokhi, A., Gleim, L. C., Gorißen, L. M., Grochowski, M., Henn, T., Iacomini, E., Kaster, T., Koren, I., Liebenberg, M. R., Reinsch, L. N., Tirpitz, L., Trinh, M., Posada Moreno, A. F., Liehner, G. L. V., Schemmer, T., Vervier, L. S., Völker, M., Walderich, P., Zhang, S., Brecher, C., Schmitt, R. H., Decker, S. J., Gries, T., Häfner, C. L., Herty, M., Jarke, M., Kowalewski, S., Kuhlen, T., Schleifenbaum, J. H., Trimpe, J. S., van der Aalst, W. M. P., Ziefle, M., and Lakemeyer, G., "Actionable Artificial Intelligence for the Future of Production" Cham: Springer International Publishing, 2023, pp. 1-46.

Actionable Artificial Intelligence for the Future of Production

Bibtex entry :

```
@inbook { BBZ+23,
  author = { Behery, Mohamed Anwar Abdellatif and Brauner, Philipp
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Sascha and Brockhoff, Tobias and Farhang Ghahfarokhi,
Anahita and Gleim, Lars Christoph and Gori{\ss}en, Leon
Michel and Grochowski, Marco and Henn, Thomas and Iacomini,
Elisa and Kaster, Thomas and Koren, István and Liebenberg,
Martin Roland and Reinsch, Leon Niwes and Tirpitz, Liam and
Trinh, Minh and Posada Moreno, Andres Felipe and Liehner,
Gian Luca Valentin and Schemmer, Thomas and Vervier, Luisa
Sophie and V{"o}lker, Marcus and Walderich, Philipp and
Zhang, Song and Brecher, Christian and Schmitt, Robert H.
and Decker, Stefan Josef and Gries, Thomas and H{"a}fner,
Constantin Leon and Herty, Michael and Jarke, Matthias and
Kowalewski, Stefan and Kuhlen, Torsten and Schleifenbaum,
Johannes Henrich and Trimpe, Johann Sebastian and van der
Aalst, Wil M. P. and Ziefle, Martina and Lakemeyer, Gerhard },
title = { Actionable Artificial Intelligence for the Future of
Production },
booktitle = { Internet of production : fundamentals, applications
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Wil van der Aalst, Matthias Jarke, Frank T. Piller, Melanie
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publisher = { Springer International Publishing },
pages = { 1-46 },
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[BMA+23]

PDFBIB

Böhlen, B., Meyer, O., Alrifae, B., Beerwerth, J., Kampmann, A., Kowalewski, S., Konersmann, M., Rumpe, B., and Steinfurth, F., "Software-Defined Vehicle – Herausforderungen in der Diagnose dienstorientierter Fahrzeugarchitekturen", in *Proc. Diagnose in mechatronischen Fahrzeugsystemen XVI : Software-Defined Vehicle, SOVD, Maschinelles Lernen und KI, Standardisierung, HU und ADAS / Prof. Dr. Bernard Bäker, Dipl.-Ing. Andreas Unger (Hrsg.) und 53 Mitautoren*, Dresden, 2023, TUDpress, pp. 17-28.

Software-Defined Vehicle - Herausforderungen in der Diagnose dienstorientierter Fahrzeugarchitekturen

Bibtex entry :

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@inproceedings { BMA+23,
  author = { B{"o}hlen, Boris and Meyer, Oliver and Alrifaae, Bassam and
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  title = { Software-Defined Vehicle – Herausforderungen in der
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}
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[BWH+23]

PDFBIB

Berg, F. J., Wiartalla, M. O., Hüllmann, M., Derks, A., Kowalewski, S., and Stollenwerk, A., "ASMO: a decentralized and verifiable interoperability platform in intensive care", *Proceedings on automation in medical engineering*, vol. 2, iss. 1, p. 2, 2023

ASMO: a decentralized and verifiable interoperability platform in intensive care

Bibtex entry :

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@article { BWH+23,
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[FFN+23]

[PDFBIB](#)

Fonck, S. A. M., Fritsch, S., Nottenkämper, G., and Stollenwerk, A., "Implementation of ResNet-50 for the Detection of ARDS in Chest X-Rays using transfer-learning", *Proceedings on automation in medical engineering*, vol. 2, iss. 1, p. 2, 2023

Implementation of ResNet-50 for the Detection of ARDS in Chest X-Rays using transfer-learning

Bibtex entry :

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@article { FFN+23,
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[FLS+23]

[PDFBIB](#)

Fischbach, A., Lamberti, M., Simons, J. A., Wrede, E., Theißen, A., Winnersbach, P., Rossaint, R., Stollenwerk, A., and Bleilevens, C., "Early Blood Clot Detection Using Forward Scattering Light Measurements Is Not Superior to Delta Pressure Measurements", *Biosensors : open access journal*, vol. 13, iss. 12, p. [1]-13, 2023

Early Blood Clot Detection Using Forward Scattering Light Measurements Is Not Superior to Delta Pressure Measurements

Bibtex entry :

```
@article { FLS+23,
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}
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[KA23]

[PDFBIB](#)

Kloock, M. M. and Alrifae, B., "Coordinated Cooperative Distributed Decision-Making Using Synchronization of Local Plans", *IEEE Transactions on Intelligent Vehicles*, vol. 8, iss. 2, pp. 1292-1306, 2023

Coordinated Cooperative Distributed Decision-Making Using Synchronization of Local Plans

Bibtex entry :

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@article { KA23,  
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[KA23a]

[PDFBIB](#)

Kloock, M. M. and Alrifae, B., "Cooperative Pose Control of Non-Holonomic Vehicles Using Synchronization", in *Proc. 2023 IEEE 26th International Conference on Intelligent Transportation Systems (ITSC) : [Proceedings]*, 2023, IEEE, pp. 93-99.

Cooperative Pose Control of Non-Holonomic Vehicles Using Synchronization

Bibtex entry :

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@inproceedings { KA23a,  
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[Kam23]

[PDFBIB](#)

Kampmann, A., "A dynamic service-oriented software architecture for the automotive domain", PhD Thesis, Aachen, 2023.

A dynamic service-oriented software architecture for the automotive domain

Bibtex entry :

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@phdthesis { Kam23,
  author = { Kampmann, Alexandru },
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[Klo23]

[PDFBIB](#)

Kloock, M. M., "Synchronization-based cooperative trajectory planning of networked vehicles", PhD Thesis, Aachen, 2023.

Synchronization-based cooperative trajectory planning of networked vehicles

Bibtex entry :

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@phdthesis { Klo23,  
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[KSA23]

[PDFBIB](#)

Kloock, M. M., Scheffe, P., and Alrifaae, B., "Testing distributed trajectory planning in the cyber-physical mobility lab", *Automatisierungstechnik*, vol. 71, iss. 4, pp. 317-325, 2023

Testing distributed trajectory planning in the cyber-physical mobility lab

Bibtex entry :

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@article { KSA23,  
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[KSG+23]

[PDFBIB](#)

Kloock, M. M., Scheffe, P., Gress, O., and Alrifaae, B., "An Architecture for Experiments in Connected and Automated Vehicles", *IEEE open journal of intelligent transportation systems*, vol. 4, pp. 175-186, 2023

An Architecture for Experiments in Connected and Automated Vehicles

Bibtex entry :

```
@article { KSG+23,
  author = { Kloock, Maximilian Martin and Scheffe, Patrick and
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[Kug23]

[PDFBIB](#)

Kugler, C., "Systematic derivation of feature-driven and risk-based test strategies for automotive applications", PhD Thesis, Aachen, 2023.

Systematic derivation of feature-driven and risk-based test strategies for automotive applications

Bibtex entry :

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@phdthesis { Kug23,
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[MKJ+23]

[PDF](#)BIB

Mohan Prabhu, V., Kessler, V., Jentges, M., and Kowalewski, S., "SafMiddleware: A configurable middleware for future safety-critical vehicle applications", in *Proc. Tagungsband : Embedded Software Engineering Kongress 2023, 4. bis 8. Dezember ; Preconference 1. Dezember 2023*, Würzburg, 2023, Vogel Communications Group, pp. 399-412.

SafMiddleware: A configurable middleware for future safety-critical vehicle applications

Bibtex entry :

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@inproceedings { MKJ+23,
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[MKK+23]

PDFBIB

Mohan Prabhu, V., Kowalewski, S., Kessler, G., and Jentges, M., "Automotive Safety Software Architecture: A Fault-Tolerant Safety-Critical Software Architecture for Modern Vehicles", in *Proc. [32nd Aachen Colloquium Sustainable Mobility 2023]*, 2023.

Automotive Safety Software Architecture: A Fault-Tolerant Safety-Critical Software Architecture for Modern Vehicles

Bibtex entry :

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@inproceedings { MKK+23,
  author = { Mohan Prabhu, Vinod and Kowalewski, Stefan and Kessler, G.
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[MSV+23]

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Mroß, R., Schnakenbeck, A., Völker, M., Fay, A., and Kowalewski, S., "GRAFCET Reduction Techniques for Model Checking", in *Proc. 2023 IEEE 21st International Conference on Industrial Informatics (INDIN) : 18-20 July 2023 / publisher: IEEE, [Piscataway, NJ]*, 2023, IEEE, p. 6.

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Bibtex entry :

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@inproceedings { MSV+23,
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[MSV+23a]

[PDFBIB](#)

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@inproceedings { MSV+23a,
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[PSA+23]

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Pedrosa, M. V. A., Scheffe, P., Alrifaae, B., and Flaßkamp, K., "Optimization-based motion primitive automata for autonomous driving", *Automatisierungstechnik : AT*, vol. 71, iss. 4, pp. 294-300, 2023

Optimization-based motion primitive automata for autonomous driving

Bibtex entry :

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@article { PSA+23,
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[SA23]

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A Scaled Experiment Platform to Study Interactions Between Humans and CAVs

Bibtex entry :

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Data-Driven Predictive Control With Online Adaption: Application to a Fuel Cell System

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@article { SBB+23,
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[SHK+23]

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Optimal Trajectory Planning in Autonomous Vehicle Racing

Bibtex entry :

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@article { SHK+23,  
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[Sim23]

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Bibtex entry :

```
@phdthesis { Sim23,  
  author = { Simon, Hendrik },  
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[SMV+23]

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Transformation von GRAFCET in GAL auf Basis eines ausführlichen Metamodells zur Verifikation von Entwurfsfehlern

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@article { SMV+23,
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[SMV+23a]

PDFBIB

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[SMV+23b]

[PDFBIB](#)

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Structural Analysis of GRAFCET Control Specifications

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[SOS23]

[PDFBIB](#)

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Toxic comments are associated with reduced activity of volunteer editors on Wikipedia

Bibtex entry :

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@article { SOS23,
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[SSK+23]

[PDFBIB](#)

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Vehicle Localization

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@inproceedings { SSK+23,
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[TDB+23]

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Bibtex entry :

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    Abdellatif and Baier, Ralph Oliver and Henn, Thomas and
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[vLL+23]

[PDFBIB](#)

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Dorsa and Maier, Jonas and Reuss, Hans-Christian and
Afanasenko, Valentyna and Solomakha, Oleksandr and Roge,
Swapnil Sunil and Kallfass, Ingmar and Buchholz, Michael and
Dehler, Robin and Henning, Matti and Hermann, Charlotte and
Sch{"o"}n, Markus and Dietmayer, Klaus },
  title = { AUTotech.agil : Architecture and Technologies for
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  booktitle = { 32nd Aachen Colloquium Sustainable Mobility 2023.
Aachen,
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    automobiltechnischer Agilit{"a"}t (01IS22088A) },
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Policy iteration for value set analysis of PLC programs

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  author = { V{"o"}lker, Marcus },
  othercontributors = { Kowalewski, Stefan and Beckert, Bernhard },
  title = { Policy iteration for value set analysis of PLC programs
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[WBK+23]

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  author = { Wiartalla, Marc Oliver and Berg, Frederik Julius and
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  Entwicklung eines vollautomatisierten in vitro Teststands
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[WBO+23a]

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    (BMBF-031L0134B) },
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aaabqpuxyx },
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[BOB+22]

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[BOP+22]

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[BPB+22]

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Buglowski, M., Pfannschmidt, V., Becker, S., Braun, O., Hutten, M., Ophelders, D., Oprea, C., Pattai, S., Schoberer, M., and Stollenwerk, A., "Closed-Loop Control of Arterial CO₂ in Mechanical Ventilation of Neonates", in *Proc. 44th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) / pre-conference workshops & social events: Monday, July 11, 2022, conference dates: Tuesday, July 12-Friday, July 15, 2022 / conference chair: Christopher James (University of Warwick), conference co-chair: James Patton (University of Chicago) ; programm chair: Ron Summers (Collegium Basilea)*, [Piscataway, NJ], 2022, IEEE, pp. 4991-4995.

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[EEC+22]

[PDFBIB](#)

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[GVK22]

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[GVK22a]

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/ [IEEE Industrial Electronics Society, IEEE] },
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[HVK+22]

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}

[JSS+22]

PDFBIB

Janisch, T., Stollenwerk, A., Siekmann, U., and Kopp, R., "Treatment of children with Hyperbaric Oxygenation (HBOT) : an Europe-wide survey", *Minerva pediatrica*, vol. 74, iss. 2, pp. 116-120, 2022

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[KDK+22]

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Bibtex entry :

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[KLK+22]

[PDFBIB](#)

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Bibtex entry :

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[KLP+22]

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[KMK+22]

[PDFBIB](#)

Kampmann, A., Mokhtarian, A., Kowalewski, S., and Alrifaaee, B., "ASOA - A Dynamic Software Architecture for Software-defined Vehicles", in *Proc. [31st Aachen Colloquium Sustainable Mobility 2022]*, 2022.

ASOA - A Dynamic Software Architecture for Software-

defined Vehicles

Bibtex entry :

```
@inproceedings { KMK+22,
  author = { Kampmann, Alexandru and Mokhtarian, Armin and
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[MA22]

[PDFBIB](#)

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CPM Remote: A Remote Access to the CPM Lab

Bibtex entry :

```
@inproceedings { MA22,
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      {"U"}niversitesi, LISIER, IEEE SMC - System, Man, and
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Mengchu Zhou (New Jersey Institute of Technology, USA) ;
publication co-chairs: Mariagrazia Dotoli (Polytechnic
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nationale d'ingénieurs de Tarbes, France) },
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```

[MSA22]

[PDFBIB](#)

Mokhtarian, A., Schäfer, S., and Alrifaae, B., "CPM Olympics: Development of Scenarios for Benchmarking in Networked and Autonomous Driving", in *Proc. 2022 IEEE Intelligent Vehicles Symposium (IV) : 4-9 June 2022* / publisher: IEEE, Piscataway, NJ, 2022, IEEE, pp. 9-15.

CPM Olympics: Development of Scenarios for Benchmarking in Networked and Autonomous Driving

Bibtex entry :

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@inproceedings { MSA22,
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```

[MSK+22]

PDFBIB

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Remote Teaching with the Cyber-Physical Mobility Lab

Bibtex entry :

```
@article { MSK+22,
  author = { Mokhtarian, Armin and Scheffe, Patrick and Kowalewski,
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http://publications.rwth-aachen.de/record/855749/files/855749.pdf },
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```

[MSV+22]

PDFBIB

Mroß, R., Schnakenbeck, A., Völker, M., Fay, A., and Kowalewski, S., "Transformation of GRAFCET Into GAL for Verification Purposes Based on a Detailed Meta-Model", *IEEE access*, vol. 10, pp. 125652-125665, 2022

Transformation of GRAFCET Into GAL for Verification Purposes Based on a Detailed Meta-Model

Bibtex entry :

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@article { MSV+22,
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pages = { 125652-125665 },
volume = { 10 },
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[OBS+22]

PDFBIB

Olivier, L., Buglowski, M., Sabine, B., Hütten, M., Olikowsky, T., Stollenwerk, A., and Schoberer, M., "Work in progress: Detektion einer intensivierten invasiven Beatmung bei Neonaten mithilfe eines Fuzzylogik-Modells", in *Proc. Abstracts 48. Jahrestagung der Gesellschaft für Neonatologie und Pädiatrische Intensivmedizin / Gesellschaft für Neonatologie und Pädiatrische Intensivmedizin e. V.*, Jena, 2022, Conventus Congressmanagement & Marketing GmbH, p. 93.

Work in progress: Detektion einer intensivierten invasiven Beatmung bei Neonaten mithilfe eines Fuzzylogik-Modells

Bibtex entry :

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@inproceedings { OBS+22,
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[SDA22]

[PDFBIB](#)

Scheffe, P., Dorndorf, G., and Alrifaae, B., "Increasing Feasibility with Dynamic Priority Assignment in Distributed Trajectory Planning for Road Vehicles", in *Proc. 2022 IEEE 25th International Conference on Intelligent Transportation Systems (ITSC) : 8-12 Oct. 2022*, Piscataway, NJ, 2022, IEEE, pp. 3873-3879.

Increasing Feasibility with Dynamic Priority Assignment in Distributed Trajectory Planning for Road Vehicles

Bibtex entry :

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@inproceedings { SDA22,
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[SMV+22]

PDFBIB

Schnakenbeck, A., Mroß, R., Völker, M., Kowalewski, S., and Fay, A., "Transformation von GRAFCET in GAL auf Basis eines ausführlichen Metamodells zur Verifikation von Entwurfsfehlern", in *Proc. Entwurf komplexer Automatisierungssysteme : Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen / Ulrich Jumar, Christian Diedrich (Hrsg.)*, Magdeburg, 2022, Otto-von-Guericke-Universität Magdeburg, p. 18.

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Bibtex entry :

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@inproceedings { SMV+22,
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  cin = { 122810 / 120000 },
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[SPF+22]

PDFBIB

Scheffe, P., Pedrosa, M. V. A., Flaßkamp, K., and Alrifaae, B., "Receding Horizon Control Using Graph Search for Multi-Agent Trajectory Planning", *IEEE Transactions on Control Systems Technology*, vol. 31, iss. 3, pp. 1092-1105, 2022

Receding Horizon Control Using Graph Search for Multi-Agent Trajectory Planning

Bibtex entry :

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@article { SPF+22,
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[WSE+22]

[PDFBIB](#)

Walter, M., Stollenwerk, A., Eckstein, L., Kowalewski, S., and Leonhardt, S., "PV1000 – Interdisziplinäre Entwicklung eines Pandemie-Beatmungsgerätes", in *Proc. MT-2022 Tagungsband*, 2022, p. 169.

PV1000 - Interdisziplinäre Entwicklung eines Pandemie-Beatmungsgerätes

Bibtex entry :

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@inproceedings { WSE+22,
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https://www.vdi-mechatroniktagung.de/images/programm/MT2022_Tagungsband
.pdf },
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[Boh21]

[PDFBIB](#)

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Symbolic methods for formal verification of industrial control software

Bibtex entry :

```
@phdthesis { Boh21,  
  author = { Bohlender, Dimitri },  
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  title = { Symbolic methods for formal verification of industrial  
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[FFK+21]

[PDFBIB](#)

Fonck, S., Fritsch, S. J., Kowalewski, S., Hensen, R., and Stollenwerk, A., "Algorithmic distinction of ARDS and Heart Failure in ICU data from medical embedded systems by using a computer model", *IFAC-PapersOnLine*, vol. 54, iss. 4, pp. 135-140, 2021

Algorithmic distinction of ARDS and Heart Failure in ICU data from medical embedded systems by using a computer model

Bibtex entry :

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@article { FFK+21,  
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Computational
Intelligence and Telematics in Control, Valenciennes
(France), 2021-07-05 - 2021-07-07 },
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[JSG+21]

[PDFBIB](#)

Jatzkowski, I., Stolte, T., Graubohm, R., Maurer, M., Kampmann, A., Alrifae, B., Kowalewski, S., Buchholz, M., and Dietmayer, K., "Integration of a Vehicle Operating Mode Management into UNICARagil's Automotive Service-oriented Software Architecture", in *Proc. 30. Aachen Colloquium Sustainable Mobility : October 4th-6th, 2021 / scientific management: Univ.-Prof. Dr.-Ing. Lutz Eckstein, Univ.-Prof. Dr.-Ing. Stefan Pischinger ; organizational management: Michaela Wacker (M. Sc.), Jonas Müller (M. Sc.) ; organized by: Institute for Automotive Engineering (RWTH Aachen University), Institute for Combustion Engines (RWTH Aachen University)*, Aachen, 2021, Institute for Automotive Engineering, RWTH Aachen University, pp. 595-614.

Integration of a Vehicle Operating Mode Management into UNICARagil's Automotive Service-oriented Software Architecture

Bibtex entry :

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@inproceedings { JSG+21,
author = { Jatzkowski, Inga and Stolte, Torben and Graubohm, Robert
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Maurer, Markus and Kampmann, Alexandru and Alrifae, Bassam
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title = { Integration of a Vehicle Operating Mode Management into
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4th-6th, 2021 / scientific management: Univ.-Prof. Dr.-Ing.
Lutz Eckstein, Univ.-Prof. Dr.-Ing. Stefan Pischinger ;
organizational management: Michaela Wacker (M. Sc.), Jonas
M{"u"}ller (M. Sc.) ; organized by: Institute for Automotive
Engineering (RWTH Aachen University), Institute for

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}

```

[KHK+21]

PDFBIB

Kloock, M. M., He, Q., Kowalewski, S., and Alrifaaee, B., "Trajectory Verification for Networked and Autonomous Vehicles using Temporal Logic and Model Checking", in *Proc. 2021 IEEE International Intelligent Transportation Systems Conference (ITSC) : 19-22 Sept. 2021* / publisher: IEEE, [Piscataway, NJ], 2021, IEEE, pp. 244-250.

Trajectory Verification for Networked and Autonomous Vehicles using Temporal Logic and Model Checking

Bibtex entry :

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@inproceedings { KHK+21,
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Kowalewski,
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[KSM+21]

PDFBIB

Kloock, M. M., Scheffe, P., Maczijewski, J., Kampmann, A., Mokhtarian, A., Kowalewski, S., and Alrifaae, B., "Cyber-Physical Mobility Lab : An Open-Source Platform for Networked and Autonomous Vehicles", in *Proc. 2021 European Control Conference (ECC)*, [Piscataway, NJ], 2021, IEEE, pp. 1937-1944.

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Bibtex entry :

```
@inproceedings { KSM+21,
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2021-06-29 -
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[LKL+21]

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Lamberti, M., Kopp, R., Lübke, C., Leonhardt, S., Walter, M., and Stollenwerk, A., "Safety and Automation Concepts for Artificial Impantable Lungs - SmartLungControl", *Biomedical engineering*, vol. 66, iss. s1, 2021

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Bibtex entry :

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@article { LKL+21,
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[MBF+21]

PDFBIB

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  author = { Marx, Gernot and Bickenbach, Johannes and Fritsch,
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            Konstantin and Mayer, Hannah and Kuepfer, Lars and Burghaus,
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Simon and Putensen, Christian and Zenker, Sven and
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Tiller, Daniel and Wisotzki, Emilia and Gross, Sebastian and
Homeister, Lorenz and Bloos, Frank and Scherag, André and
Ammon, Danny and Mueller, Susanne and Palm, Julia and Simon,
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[MKL+21]

[PDFBIB](#)

Mokhtarian, A., Kampmann, A., Lüer, M., Kowalewski, S., and Alrifaae, B., "A Cloud Architecture for Networked and Autonomous Vehicles", *IFAC-PapersOnLine*, vol. 54, iss. 2, pp. 233-239, 2021

A Cloud Architecture for Networked and Autonomous Vehicles

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@article { MKL+21,
  author = { Mokhtarian, Armin and Kampmann, Alexandru and L{\u}er,
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http://publications.rwth-aachen.de/record/828696/files/828696.pdf },
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  author = { Mohan Prabhu, Vinod and Kowalewski, Stefan and
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[PSS+21]

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    André and Kowalewski, Stefan and Heinrichs, Timo },
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https://worldwide.espacenet.com/patent/search/family/066998405/publicat
ion/DE102018120081B4?q=DE102018120081 },
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[Sch21]

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Bibtex entry :

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    author = { Schweigler, Martin },
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http://publications.rwth-aachen.de/record/826036/files/826036.pdf },
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[BBF+20]

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    Entwicklung eines vollautomatisierten in vitro Teststands
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[BBG+20]

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16. Fachtagung EKA 2020 / Ulrich Jumar, Christian Diedrich
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  pages = { 10 Seiten },
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[BKR+20]

[PDFBIB](#)

Bürger, J. C., Kausch, H., Raco, D., Ringert, J. O., Rumpe, B., Stüber, S. W., and Wiartalla, M. O., "Towards an Isabelle Theory for distributed, interactive systems : the untimed case", , Düren2020.

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  author = { B{"u"}rger, Jens Christoph and Kausch, Hendrik and Raco,
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https://www.shaker.de/de/content/catalogue/index.asp?lang=de&ID=8&ISBN=978-3-8440-7265-5 },
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[DCC20]

[PDFBIB](#)

Dzafic, D., Candiotti, J. L., and Cooper, R. A., "Improving wheelchair route planning through instrumentation and navigation systems", in *Proc. 42nd Annual International Conferences of the IEEE Engineering in Medicine and Biology Society in conjunction with the 43rd Annual Conference of the Canadian Medical and Biological Engineering Society : July 20-24, 2020 via the EMBS Virtual Academy / IEEE, EMB ; conference chairs: Mohamad Sawan (Westlake University), Carolyn McGregor AM (Ontario Tech University), Atam Dhawan (NJIT), Piscataway, NJ, 2020, IEEE, pp. 5737-5740.*

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Mohamad Sawan (Westlake University), Carolyn McGregor AM
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[FFL20]

[PDFBIB](#)

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Bibtex entry :

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[GKB+20]

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Grochowski, M., Kowalewski, S., Buchsbaum, M. S. K., and Brecher, C., "Befähigung der Testautomatisierung für ein cyber-physisches Produktionssystem", in *Proc. Entwurf komplexer Automatisierungssysteme : Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen : 16. Fachtagung EKA 2020 / Ulrich Jumar, Christian Diedrich (Hrsg.)*, Magdeburg, 2020, Institut für Automation und Kommunikation e.V. - An-Institut der Otto-von-Guericke-Universität Magdeburg, p. 10.

Befähigung der Testautomatisierung für ein cyber-physisches Produktionssystem

Bibtex entry :

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@inproceedings { GKB+20,
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Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen :
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[GSB+20]

[PDFBIB](#)

Grochowski, M., Simon, H., Bohlender, D., Kowalewski, S., Löcklin, A., Müller, T., Jazdi, N., Zeller, A., and Weyrich, M., "Formale Methoden für rekonfigurierbare cyber-physische Systeme in der Produktion", *Automatisierungstechnik*, vol. 68, iss. 1, pp. 3-14, 2020

Formale Methoden für rekonfigurierbare cyber-physische Systeme in der Produktion

Bibtex entry :

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[KGE+20]

[PDFBIB](#)

König, G., Grochowski, M., Eckert, M., Jakobczak, F., Stollenwerk, J., Kowalewski, S., and Loosen, P., "Apparat zur automatisierten Justage optischer Systeme", *DGaO-Proceedings*, vol. 2020, 2020

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Bibtex entry :

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@article { KGE+20,
  author = { K{"o"}nig, Georg and Grochowski, Marco and Eckert,
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        and Jakobczak, F. and Stollenwerk, Jochen and Kowalewski, S.
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[KMR+20]

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Kampmann, A., Mokhtarian, A., Rogalski, J., Kowalewski, S., and Alrifaaee, B., "Agile Latency Estimation for a Real-time Service-oriented Software Architecture", *IFAC-PapersOnLine*, vol. 53, iss. 2, pp. 5795-5800, 2020

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Bibtex entry :

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@article { KMR+20,
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[KST+20]

[PDFBIB](#)

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@article { KST+20,
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[LvW+20]

[PDFBIB](#)

Lampe, B., van Kempen, R., Woopen, T., Kampmann, A., Alrifaaee, B., and Eckstein, L., "Reducing Uncertainty by Fusing Dynamic Occupancy Grid Maps in a Cloud-based Collective Environment Model", in *Proc. 2020 IEEE Intelligent Vehicles Symposium (IV)* / publisher: IEEE, Piscataway, NJ, 2020, IEEE, pp. 837-843.

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[LvW+20a]

[PDF](#)[BIB](#)

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Reducing Uncertainty by Fusing Dynamic Occupancy Grid Maps in a Cloud-based Collective Environment Model

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@article { LvW+20a,
  author = { Lampe, Bastian and van Kempen, Raphael and Woopen, Timo
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[MKA+20]

PDFBIB

Mokhtarian, A., Kampmann, A., Alrifae, B., Kowalewski, S., Lampe, B., and Eckstein, L., "Agile Requirement Engineering for a Cloud System for Automated and Networked Vehicles", in *Proc. 2nd International Workshop on Autonomous Systems Design : ASD 2020, March 13, 2020, Grenoble, France, converted to a virtual event due to COVID-19, held in April 2020 / edited by Sebastian Steinhorst, Jyotirmoy V. Deshmukh*, Saarbrücken/Wadern, Germany, 2020 in OpenAccess Series in Informatics, Schloss Dagstuhl - Leibniz-Zentrum für Informatik GmbH, Dagstuhl Publishing, August, p. 4:1-4:8.

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@inproceedings { MKA+20,
  author = { Mokhtarian, Armin and Kampmann, Alexandru and Alrifae,
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[MKA+20a]

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The Dynamic Service-oriented Software Architecture for the UNICARagil Project

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@inproceedings { MKA+20a,
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    Wacker (M. Sc.), Jonas M{"u"}ller (M. Sc.) ; organized by:
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@inproceedings { MKK+20,  
  author = { Mohan Prabhu, Vinod and Kowalewski, Stefan and Kessler,  
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  cin = { 122810 / 120000 },  
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[Obs20]

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Obster, M., "Unterstützung der SPS-Programmierung durch statische Analyse während der Programmeingabe", PhD Thesis, Aachen, 2020.

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@phdthesis { Obs20,  
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[SMK+20]

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Scheffe, P., Maczijewski, J., Kloock, M. M., Kampmann, A., Derks, A., Kowalewski, S., and Alrifaaee, B., "Networked and Autonomous Model-scale Vehicles for Experiments in Research and Education", *IFAC-PapersOnLine*, vol. 53, iss. 2, pp. 17332-17337, 2020

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@article { SMK+20,
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[SRT+20]

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Smieschek, M., Rakel, S., Thönnessen, D., Derks, A., Stollenwerk, A., and Kowalewski, S., "A Remote Test Environment for a Large-Scale Microcontroller Laboratory Course", in *Proc. Cyber physical systems : model-based design : 9th international workshop, CyPhy 2019 and 15th international workshop, WESE 2019, New York City, NY, USA, October 17-18, 2019 : revised selected papers / Roger Chamberlain, Martin Edin Grimheden, Walid Taha (eds.)*, Cham, 2020 in *Lecture Notes in Computer Science*, Springer, pp. 231-246.

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@inproceedings { SRT+20,
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    Final.pdf },
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[SS20]

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Stollenwerk, A. and Smieschek, M., "Eingabe und Übertragung von Instandhaltungsinformationen für das Condition Monitoring - Digitalisierung von Offline-Informationen", , Düsseldorf / Berlin, VDI/VDE 3711, 2020.

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@techreport { SS20,
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https://www.vdi.de/richtlinien/details/vdivde-3711-eingabe-und-uebertragung-von-instandhaltungsinformationen-fuer-das-condition-monitoring-digitalisierung-von-offline-informationen },
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[Sto20]

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@inproceedings { Sto20,
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http://publications.rwth-aachen.de/record/783168/files/783168.pdf },
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[BCK+19]

[PDFBIB](#)

Bohlender, D., Chiyah Garcia, F. J., Köhl, M., Menghi, C., and Wortmann, A., "On Explainability and its Characterization", , pp. 4-7, 2019

On Explainability and its Characterization

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@article { BCK+19,
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  url = { https://arxiv.org/pdf/1904.11851.pdf#page=9 },
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[BK19]

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Leveraging Horn clause solving for compositional verification of PLC software

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```
@article { BK19,
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url = { http://publications.rwth-aachen.de/record/775404 },
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[BK19a]

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https://www.semanticscholar.org/paper/Towards-a-Characterization-of-Explainable-Systems-Bohlender-Köhl/b3516a71fed895a1a88b7d9842eca41c0fb48b7d },
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[Der19]

[PDF](#)[BIB](#)

Dernehl, C. M., "Verification of embedded software models by combining abstract interpretation, symbolic execution and stability analysis", PhD Thesis, Aachen, 2019.

Verification of embedded software models by combining abstract interpretation, symbolic execution and stability analysis

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@phdthesis { Der19,
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[FDG+19]

[PDFBIB](#)

Fabry, G., Doorschodt, B. M., Grzanna, T., Boor, P., Elliott, A. R., Stollenwerk, A., Tolba, R. H., Rossaint, R., and Bleilevens, C., "Cold Preflush of Porcine Kidney Grafts Prior to Normothermic Machine Perfusion Aggravates Ischemia Reperfusion Injury", *Scientific reports*, vol. 9, p. 9, 2019

Cold Preflush of Porcine Kidney Grafts Prior to Normothermic Machine Perfusion Aggravates Ischemia Reperfusion Injury

Bibtex entry :

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@article { FDG+19,
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```

[GKB+19]

[PDF](#)BIB

Grochowski, M., Kowalewski, S., Buchsbaum, M. S. K., and Brecher, C., "Applying Runtime Monitoring to the Industrial Internet of Things", in *Proc. 2019 24th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA) : Paraninfo Building, University of Zaragoza, Zaragoza, Spain, 10-13 September, 2019 : proceedings / organized by: University of Zaragoza, Spain ; sponsored by: the Institute of Electrical and Electronics Engineers (IEEE), IEEE Industrial Electronics Society (IES), Aragón Institute for Engineering Research (I3A), Spain, Piscataway, NJ, 2019, IEEE.*

Applying Runtime Monitoring to the Industrial Internet of Things

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@inproceedings { GKB+19,
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[GKB+19a]

[PDFBIB](#)

Grochowski, M., Kowalewski, S., Buchsbaum, M. S. K., and Brecher, C., "Applying Passive Testing to an Industrial Internet of Things Plant", in *Proc. VALID 2019 : the Eleventh International Conference on Advances in System Testing and Validation Lifecycle : November 24-28, 2019, Valencia, Spain / IARIA ; VALID 2019 editors: Jos van Rooyen (Identify - Software Quality Services, the Netherlands), Samuele Buro (University of Verona, Italy), Marco Campion (University of Verona, Italy), Michele Pasqua (University of Verona, Italy), [Wilmington, DE, USA], 2019, IARIA, pp. 31-37.*

Applying Passive Testing to an Industrial Internet of Things Plant

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@inproceedings { GKB+19a,
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[Gob19]

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@phdthesis { Gob19,
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[Gro19]

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[KAK+19]

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  author = { Kampmann, Alexandru and Alrifaae, Bassam and Kohout,
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        and W{"u}stenberg, Andreas and Woopen, Timo and Nolte,
        Marcus and Eckstein, Lutz and Kowalewski, Stefan },
  title = { A Dynamic Service-Oriented Software Architecture for
Highly
        Automated Vehicles },
  booktitle = { The 2019 IEEE Intelligent Transportation Systems
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        - ITSC : Auckland, New Zealand, 27-30 October 2019 / IEEE,
        IEEE-ITSC 2019, ITSS - IEEE Intelligent Transportation
        Systems Society },
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[KBS+19]

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    André
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  booktitle = { World Congress on Medical Physics and Biomedical
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      (BMBF-031L0134B) },
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  author = { Kloock, Maximilian Martin and Kragl, Ludwig and
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    Hans-Christian and Buchholz, Michael and Gies, Fabian and
    Dietmayer, Klaus and Lauer, Martin and Stiller, Christoph
    and Ackermann, Stefan and Winner, Hermann and Kampmann,
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Automobil- und
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        Automotive and Engine Technology, Stuttgart (Germany),
        2019-03-19 - 2019-03-20 },
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Conference,
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[KSM+19]

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    author = { Kloock, Maximilian Martin and Scheffe, Patrick and
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  booktitle = { 2019 IEEE 17th International Conference on Industrial Informatics (INDIN) : Aalto University, Helsinki-Espoo, Finland, 22-25 July, 2019 : proceedings / organized by: Aalto University, Finland; Tampere University, Finland; Finnish Society of Automation, Finland ; sponsored by: the Institute of Electrical and Electronics Engineers (IEEE), IEEE Industrial Electronics Society (IES) },
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  year = { 2019 },
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[KWA+19]

[PDFBIB](#)

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  author = { Kampmann, Alexandru and W{"u}stenberg, Andreas and
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      IEEE-ITSC 2019, ITSS - IEEE Intelligent Transportation
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[PAS+19]

[PDFBIB](#)

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  title = { Deep Learning of Arrhythmia Analysis Based on
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  author = { Schommer, John },
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  pages = { 1 Online-Ressource (xv, 177 Seiten) : Illustrationen,
    Diagramme },
  series = { Aachener Informatik-Berichte },
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[SKS+19]

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  author = { Smieschek, Manfred and Kobsik, Gregor and Stollenwerk,
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    intensive
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      Engineering in Medicine and Biology Society (EMBC) : 41st
      EMB Conference : July 23-27, Berlin / IEEE, EMB ; conference
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  doi = { 10.1109/EMBC.2019.8856990 },
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  url = { http://publications.rwth-aachen.de/record/770752 },
}
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[TSF+19]

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  Spiridon (Spyros) Reveliotis ; editors: Cappelleri, David;
  Dimarogonas, Dimos V.; Dotoli, Mariagrazia; Fanti, Maria
  Pia; LUTZ, Philippe; Seatzu, Carla; Xie, Xiaolan },
publisher = { IEEE },
pages = { 1388-1393 },
year = { 2019 },
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and
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typ = { PUB:(DE-HGF)7 },
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[VK19]

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  author = { V{"o"}lker, Marcus and Kowalewski, Stefan },
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  pages = { 73-95 },
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http://publications.rwth-aachen.de/record/768806/files/768806.pdf },
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[VKR+19]

[PDFBIB](#)

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Vehicles,
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  url = { http://publications.rwth-aachen.de/record/766778 },
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[AM18]

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  author = { Alrifaae, Bassam and Maczijekowski, Janis },
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[BFH+18]

[PDFBIB](#)

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@techreport { BFH+18,
  author = { Bordasch, Manuel and Facchi, Christian and Heidepriem, Sebastian and J{"a"}hnert, J{"u"}rger and Jung, Tobias and K{"o"}llner, Christian and Kraas, Alexander and Krause, Jan and Kr{"u"}ning, Kai and Kugler, Alexander and Maschler, Benjamin and Schleicher, Christian and Siegrist, Daniel and Simon, Hendrik and St{"o"}rmer, Christoph and Th{"o"}nnessen, David and Wassermann, Erik and Weyrich, Michael and Wimmer, Thomas and Zeller, Andreas },
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[BHK18]

[PDFBIB](#)

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Cycle-Bounded Model Checking of PLC Software via Dynamic Large-Block Encoding

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  author = { Bohlender, Dimitri and Hamm, Daniel and Kowalewski, Stefan },
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url = { http://publications.rwth-aachen.de/record/752221 },
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[BK18]

[PDF](#)BIB

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@article { BK18,
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[BK18a]

[PDF](#)BIB

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Bibtex entry :

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[CMW+18]

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  author = { Chomicz, Paul and M{"u"}ller-Lerwe, Armin and Wegner,
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[GSA+18]

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[KRG+18]

[PDFBIB](#)

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[KRG+18a]

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[KSK+18]

[PDFBIB](#)

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  author = { K{"u"}hn, Jan and Stollenwerk, André and Kowalewski,
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  title = { A long-term setup for kidney perfusion },
  year = { 2018 },
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      (Mock Loop) - Ein k{"u"}nstlicher Kreislauf als
      Ersatzmethode zur Biokompatibilit{"a"}tstestung von
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      (BMBF-031L0134B) },
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[MVC+18]

[PDFBIB](#)

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Factorization

Bibtex entry :

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},
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[PAS+18]

[PDFBIB](#)

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Bibtex entry :

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@inproceedings { PAS+18,
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Malmivuo, Technische Universit{"a}t Berlin, Germany, Dr.
Marian Walter, RWTH Aachen University, Germany, Benjamin
Hentze, RWTH Aachen University, Germany Markus L{"u}ken,
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[PAS+18a]

[PDFBIB](#)

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Classification of Obstructive Sleep Apnea Using Machine Learning

Bibtex entry :

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  author = { Pomprapa, Anake and Ahmed, W. and Sayani, M. S. and
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[PAS+18b]

[PDFBIB](#)

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Bibtex entry :

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[PSA+18]

[PDFBIB](#)

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@inproceedings { PSA+18,
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[SBK18]

[PDFBIB](#)

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@article { SBK18,
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[SGT+18]

[PDFBIB](#)

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Bibtex entry :

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[SHS+18]

[PDF](#)[BIB](#)

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Bibtex entry :

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[SK18]

[PDF](#)[BIB](#)

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Mode-Aware Concolic Testing for PLC Software

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  author = { Simon, Hendrik and Kowalewski, Stefan },  
  title = { Mode-Aware Concolic Testing for PLC Software },  
  booktitle = { Integrated formal methods : 14th International  
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  IFM 2018, Maynooth, Ireland, September 5-7, 2018 :  
  proceedings / Carlo A. Furia, Kirsten Winter (eds.) },  
  publisher = { Springer },  
  pages = { 367-376 },  
  series = { Lecture notes in computer science },  
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  author = { Simon, Hendrik and Triefenbach, Lucas and Kowalewski,  
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Castellammare
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  cin = { 122810 / 120000 },
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  author = { Terber, Matthias },
  othercontributors = { Kowalewski, Stefan and Rumpe, Bernhard },
  title = { Real-world deployment and evaluation of synchronous
    programming in reactive embedded systems },
  publisher = { RWTH Aachen University, Department of Computer
    Science },
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[WLB+18]

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    author = { Woopen, Timo and Lampe, Bastian and B{"o}ddeker, Torben
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Becker, Matthias and Stiller, Christoph and Furmans, Kai and
Bengler, Klaus and Diermeyer, Frank and Lienkamp, Markus and
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Michael and Dietmayer, Klaus and Lategahn, Henning and
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    Hin{"u}ber, Edgar and Dupuis, Marius and Hecker, Christian },
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      Rainer Wolsfeld ; organized by: Institute for Automotive
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author = { Winter, Alfred and St{"a"}ubert, Sebastian and Ammon,
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Gert and Gewehr, Jan E. and de Greiff, Armin and Haferkamp,
Silke Dorothee and Hahn, Udo and Henkel, Andreas and
Kirsten, Toralf and Kl{"o"}ss, Thomas and Lippert, J{"o"}rg
and L{"o"}be, Matthias and Lowitsch, Volker and Maassen,
Oliver and Maschmann, Jens and Meister, Sven and
Mikolajczyk, Rafael and N{"u"}chter, Matthias and Pletz,
Mathias W. and Rahm, Erhard and Riedel, Morris and Saleh,
Kutaiba and Schuppert, Andreas and Smers, Stefan and
Stollenwerk, Andr{e} and Uhlig, Stefan and Wendt, Thomas and
Zenker, Sven and Fleig, Wolfgang and Marx, Gernot and
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title = { Smart Medical Information Technology for Healthcare
(SMITH)
: Data Integration based on Interoperability Standards },
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[AMA17]

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[BHK+17]

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[BMK+17]

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              30.-31. Mai 2017 Stuttgart, Germany / Peter Dencker, Herbert
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[DDK+17]

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Dankert, J., Dernehl, C., Kusmenko, E., Eckstein, L., Kowalewski, S., and Rumpe, B., "RapidCoop - Robuste Architektur durch geeignete Paradigmen für Kooperativ Interagierende Automobile", in *Proc. AAET - Automatisiertes und Vernetztes Fahren : Beiträge zum gleichnamigen 18. Braunschweiger Symposium vom 8. und 9. Februar 2017, Stadthalle, Braunschweig / ITS automotive nord e.V. (Hrsg.)*, Braunschweig, 2017, ITS automotive nord e.V., pp. 225-244.

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@inproceedings { DDK+17,
  author = { Dankert, Jens and Dernehl, Christian and Kusmenko,
Evgeny
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  title = { RapidCoop - Robuste Architektur durch geeignete
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Beitr{"a"}ge
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          Februar 2017, Stadthalle, Braunschweig / ITS automotive nord
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year = { 2017 },
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Automatisiertes und
Vernetztes Fahren, Braunschweig (Germany), 2017-02-08 -
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http://www.se-rwth.de/publications/RapidCoop-Robuste-Architektur-durch-
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Automobile.pdf?PHPSESSID=eb66ba2042d9500e5135d33f6b7575af },
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[DKK17]

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Case studies on automated verification with slope boundaries for block diagrams

Bibtex entry :

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@article { DKK17,
  author = { Dernehl, Christian and K{"u}hn, Jan and Kowalewski,
Stefan },
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  volume = { 54 },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752271 },
}

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[DSF+17]

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Dzafic, D., Schoonbrood, P., Franke, D., and Kowalewski, S., "ENav: A Suitable Navigation System for the Disabled", in *Proc. Ambient Assisted Living : 9. AAL-Kongress, Frankfurt/M,*

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Bibtex entry :

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@inproceedings { DSF+17,
  author = { Dzafic, Dzenan and Schoonbrood, Pierre and Franke,
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Frankfurt/M,
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},
  pages = { 133-150 },
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  year = { 2017 },
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  organization = { 9. Congress on Ambient Assisted Living,
Frankfurt/M
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  reportid = { RWTH-2018-222675 },
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  url = { http://publications.rwth-aachen.de/record/720210 },
}
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[DWS+17]

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@article { DWS+17,
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pages = { 278-287 },
volume = { 2017 },
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year = { 2017 },
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Salzburg
(Austria), 2017-07-05 - 2017-07-07 },
typ = { PUB:(DE-HGF)16 },
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[DWS+17a]

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Pedestrians },
  booktitle = { Proceedings International Conference on Intelligent
Transport Systems in Theory and Practice, mobil.TUM 2017 },
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Systems in
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  url = { http://publications.rwth-aachen.de/record/752277 },
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[FD17]

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  author = { Fonck, Simon Ansgar Martin and Deserno, Thomas },
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  booktitle = { MEDINFO 2017 : precision healthcare through
informatics :
      proceedings of the 16th World Congress on Medical and Health
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Utah/VA Salt Lake City Health Care System), Marie-Christine
Jaulent (DR Inserm) and Dongsheng Zhao (Academy of Military
Medical Science of China) },
  publisher = { IOS Press },
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  year = { 2017 },
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http://publications.rwth-aachen.de/record/716886/files/716886.pdf },
}
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Bibtex entry :

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  author = { G{"o}be, Florian and Aydin, Selin and Kowalewski,  
Stefan },  
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supervision of PLC programs },  
  booktitle = { 2017 22nd IEEE International Conference on Emerging  
Technologies and Factory Automation : September 12-15, 2017,  
Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus },  
  publisher = { IEEE },  
  pages = { 8 Seiten },  
  year = { 2017 },  
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  organization = { 22. IEEE International Conference on Emerging  
Technologies  
and Factory Automation, Limassol (Cyprus), 2017-09-12 -  
2017-09-15 },  
  doi = { 10.1109/ETFA.2017.8247575 },  
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  url = { http://publications.rwth-aachen.de/record/722221 },  
}
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[Ger17]

[PDF](#)BIB

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Incremental Integration and Static Analysis of Model-Based Automotive Software Artifacts

Bibtex entry :

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@phdthesis { Ger17,  
  author = { Gerlitz, Thomas },  
  othercontributors = { Kowalewski, Stefan and Schaefer, Ina },  
  title = { Incremental Integration and Static Analysis of Model-  
Based  
Automotive Software Artifacts },  
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  series = { Aachener Informatik Berichte },
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year = { 2017 },
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cin = { 120000 / 122810 },
url = {
http://publications.rwth-aachen.de/record/706814/files/706814.pdf },
}

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[HWK+17]

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  author = { Hansen, Norman and Wiechowski, Norbert and Kugler,
Alexander
and Kowalewski, Stefan and Rambow, Thomas and Busch, Rainer },
  title = { Model-in-the-Loop and Software-in-the-Loop Testing of
Closed-Loop Automotive Software with Arttest },
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proceedings / Maximilian Eibl, Martin Gaedke (Hrsg.) },
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  series = { GI-Edition : lecture notes in informatics. Proceedings
},
  year = { 2017 },
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  organization = { 47. Jahrestagung der Gesellschaft f{"u}r
Informatik e.V.
(GI), Chemnitz (Germany), 2017-09-25 - 2017-09-29 },
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  url = { https://dl.gi.de/handle/20.500.12116/21 },
}

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[Kal17]

[PDFBIB](#)

Kalkov, I., "A real-time capable, open-source-based platform for off-the-shelf embedded

devices", PhD Thesis, Aachen, 2017.

A real-time capable, open-source-based platform for off-the-shelf embedded devices

Bibtex entry :

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@phdthesis { Kal17,
  author = { Kalkov, Igor },
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    off-the-shelf embedded devices },
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[KBS+17]

[PDFBIB](#)

Kühn, J., Brendle, C., Stollenwerk, A., Schweigler, M., Kowalewski, S., Janisch, T., Rossaint, R., Leonhardt, S., Walter, M., and Kopp, R., "Decentralized safety concept for closed-loop controlled intensive care : Supervision of a blood pump during extracorporeal circulation", *Biomedical engineering = Biomedizinische Technik*, vol. 62, iss. 2, pp. 213-224, 2017

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Bibtex entry :

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@article { KBS+17,
  author = { K{"u}hn, Jan and Brendle, Christian and Stollenwerk,
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[KGK17]

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Kalkov, I., Gurchian, A., and Kowalewski, S., "Explicit prioritization of parallel Intent broadcasts in real-time Android", in *Proc. Concurrency and computation*, Chichester, 2017, vol. 29, Wiley.

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Bibtex entry :

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    author = { Kalkov, Igor and Gurchian, Alexandru and Kowalewski,
Stefan },
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2014-10-13 - 2014-10-14 },
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[KKR+17]

PDFBIB

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Bibtex entry :

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Automobil- und  
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  url = { http://publications.rwth-aachen.de/record/752278 },  
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  author = { Leonhardt, Steffen },
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title = { Special Issue: Smart Life Support },
booktitle = { Biomedical engineering = Biomedizinische Technik },
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}

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[NKM+17]

[PDFBIB](#)

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Bibtex entry :

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@inproceedings { NKM+17,
  author = { Nowack, Jan and Kugler, Christopher and Maquet, Ralf and
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https://drivetrain-symposium.world/cn/continuous-process-validation-tra
nsmmission-controls/ },
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[OK17]

[PDFBIB](#)

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A live static code analysis architecture for PLC software

Bibtex entry :

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@inproceedings { OK17,
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[SAB+17]

[PDFBIB](#)

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    Clark Barrett, Misty Davies, Temesghen Kahsai (eds.) },
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Field, CA
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[SKS+17]

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  author = { Stollenwerk, André and Kopp, R{"u}dger and Sehl,
Florian
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Wearables },
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  url = { https://www.publications.embedded.rwth-aachen.de/file/79 },
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[SPD+17]

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Watch Out! : User-Centered Feedback Design for a V2X-Smartphone App

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  author = { Schmidt, Teresa and Philippsen, Ralf and Dzafic, Dzenan  
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V2X-Smartphone App },  
  booktitle = { Digital Human Modeling. Applications in Health,  
Safety,  
Ergonomics, and Risk Management: Health and Safety : 8th  
International Conference, DHM 2017, Held as Part of HCI  
International 2017, Vancouver, BC, Canada, July 9-14, 2017,  
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  pages = { 365-383 },  
  series = { Lecture Notes in Computer Science },  
  year = { 2017 },  
  address = { Cham },  
  organization = { 8. International Conference on Digital Human  
Modeling and  
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[SSK+17]

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@inproceedings { SSK+17,  
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Kowalewski,
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Maier-Hein, Thomas M. Deserno, Heinz Handels, Thomas
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pages = { 169-172 },
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[TRR+17]

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    author = { Th{"o"}nnessen, David and Reinker, Niklas and Rakel,
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[UVS+17]

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    Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus },
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  author = { Walter, Marian and Kunczik, Janosch and K{"u}hn, Jan
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  Janisch, Thorsten and Kopp, R{"u}dger and Leonhardt,
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  the European Medical and Biological Engineering Conference
  (EMBEC) and the Nordic-Baltic Conference on Biomedical
  Engineering and Medical Physics (NBC) : Tampere, Finland /
  Editors: Jennika Karvinen, Janne Koivisto, Sampo Tuukkanen,
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  publisher = { BioMediTech Institute and Faculty of Biomedical
  Sciences and
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  pages = { 365, 150-150 },
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[WRB+17]

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2017-04-04
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[Ben16]

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    author = { Ben Makhoulf, Ibtissem },
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    title = { Comparative evaluation and improvement of computational
        approaches to reachability analysis of linear hybrid systems },
    publisher = { Shaker Verlag },
    school = { RWTH Aachen },
    pages = { viii, 221 Seiten : Illustrationen, Diagramme },
    series = { Aachener Informatik-Berichte },
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  author = { Brendle, Christian and Hackmack, K.-F. and K{"u}hn, Jan  
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  Wardeh, M. N. and Janisch, T. and Kopp, R{"u}dger and  
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  Stefan and Misgeld, Berno Johannes Engelbert and Leonhardt,  
  Steffen and Walter, Marian },  
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  url = { http://publications.rwth-aachen.de/record/678132 },  
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  othercontributors = { Kowalewski, Stefan and Fay, Alexander },  
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pages = { 1 Online-Ressource (x, 153 Seiten) : Illustrationen,
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            f{"u}r sicherheitskritische eingebettete Software im
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                Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen :
                EKA 2016 : 24.-25.05.2016, 14. Fachtagung mit Tutorium /
                Ulrich Jumar, Christian Diedrich (Hrsg.) ; eine Kooperation
                von ifak (Otto von Guericke Universit{"a}t Magdeburg) },
  publisher = { Institut f{"u}r Automation und Kommunikation e.V.
                Magdeburg
                (An-Institut der Otto-von-Guericke-Universit{"a}t
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  pages = { 1-10 },
  year = { 2016 },
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Concolic test generation for PLC programs using coverage metrics

Bibtex entry :

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  author = { Bohlender, Dimitri and Simon, Hendrik and Friedrich,
Nico
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Christos G. Cassandras, Alessandro Giua, Zhiwu Li ;
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  pages = { 432-437 },
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  address = { Piscataway, NJ },
  organization = { 13. International Workshop on Discrete Event
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[BSK+16]

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    17. Branchentreff der Mess- und Automatisierungstechnik :
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[BSK16]

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        Freiburg im Breisgau 1.–2. M{"a}rz 2016 / Ralf Wimmer
        (Herausgeber) },
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    year = { 2016 },
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        Systemen", Freiburg im Breisgau (Germany), 2016-03-01 -
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    url = {
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    }

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[Der16]

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    publisher = { IEEE },
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    year = { 2016 },
    address = { Piscataway, NJ },
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Maurice H. ter Beek, Stefania Gnesi, Alexander Knapp (eds.) },
  publisher = { Springer International Publishing },
  pages = { 25-38 },
  series = { Lecture Notes in Computer Science },
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Critical Systems, Pisa (Italy), 2016-09-26 - 2016-09-28 },
  doi = { 10.1007/978-3-319-45943-1_2 },
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[DHK16a]

[PDFBIB](#)

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Combining Abstract Interpretation with Symbolic Execution for a Static Value Range Analysis of Block Diagrams

Bibtex entry :

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@inproceedings { DHK16a,  
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  pages = { 137-154 },  
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  year = { 2016 },  
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  cin = { 122810 / 120000 },  
  url = { http://publications.rwth-aachen.de/record/680854 },  
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  author = { Dernehl, Christian and K{"u}hn, Jan and Kowalewski,
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[DLS+16]

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[GHD+16]

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[GK16]

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[GK16a]

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[KSB+16]

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[KVS+16]

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[SK16]

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[SSJ+16]

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[SSS16a]

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  author = { Schlaefer, Alexander and Schupp, Sibylle and
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Br{"u"}gge, J{"o"}rn Fahsel, Andrea Herrmann, Anne Hoffmann,
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[TSN+16]

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https://worldwide.espacenet.com/patent/search?q=pn%3DUS20180081372A1 },
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[WBK+16]

[PDFBIB](#)

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Bibtex entry :

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@inproceedings { WBK+16,
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[ZAB+16]

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[BGK15]

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[BHK+15]

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K{\\"u}hn,  
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[BK15]

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[PDF](#)BIB

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[BSK+15]

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[CSB+15]

[PDFBIB](#)

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[DHG+15]

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[Dia15]

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[dMK+15]

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[FKL15]

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[GSK15]

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[GTD15]

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  publisher = { RWTH Aachen },
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[HBS+15]

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[JMR+15]

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[KGK15]

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[KSB+15]

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[KSK+15]

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    Kowalewski, Stefan and Kopp, R{"u}dger },
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[SAC+15]

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  author = { Schupp, Stefan and Ábrahám, Erika and Chen, Xin and Ben  
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  pages = { 8-24 },  
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  year = { 2015 },  
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[SFB+15]

[PDFBIB](#)

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[SKW+15]

[PDFBIB](#)

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[SLR+15]

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  booktitle = { ARCH14 CPSWeek 2014 : Berlin, Germany, April 14 - 17,
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2014 },
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Efficient Handling of States in Abstract Interpretation of Industrial Programmable Logic Controller Code

Bibtex entry :

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@inproceedings { BKS+14,
  author = { Biallas, Sebastian and Kowalewski, Stefan and
Stattelmann,
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of
Industrial Programmable Logic Controller Code },
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12th
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  pages = { 400-405 },
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Workshop on
Discrete Event Systems], Cachan (France), 2014-05-14 -
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@inproceedings { DBB+14,
  author = { Dzafic, Dzenan and Bitsch, Jó Ágila and Baumeister, Danni
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  title = { Towards an Indoor Traffic Report - Requirements for Dynamic
    Route Planning for Wheelchair Users },
  booktitle = { International Conference on Indoor Positioning and Indoor
    Navigation (IPIN), 2012 : 13 - 15 Nov. 2012, Sydney, Australia ; conference proceedings / organized by UNSW Australia, the University of New South Wales, Australia. Ed. by Chris Rizos ... },
  publisher = { IEEE },
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    Navigation, Busan (South Korea), 2014-10-27 - 2014-10-30 },
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Bibtex entry :

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}
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  author = { F{"o"}rster, Marc and Auerswald, Marko and Keldenich,
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    Thessaloniki, Greece, October 1 - 2, 2012 ; revised selected
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[Guc14]

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  author = { G{"u"}ckel, Dominique },
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http://publications.rwth-aachen.de/record/464374/files/5296.pdf },
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}
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[KGK14]

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[Mer14]

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Bibtex entry :

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@phdthesis { Mer14,
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[OKK14]

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Development and Execution of PLC Programs on Real-Time Capable Mobile Devices

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@inproceedings { OKK14,
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[Pal14]

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Palczynski, J., "Time continuous behaviour comparison based on abstract models", PhD Thesis, Aachen, 2014.

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Bibtex entry :

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@phdthesis { Pal14,
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[RBH+14]

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  author = { Reinbacher, Thomas and Brauer, J{"o}rg and Horauer,  
Martin  
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  author = { Reinbacher, Thomas and Fuegger, Matthias and Brauer,  
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[SBS+14]

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[SKB+14]

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  author = { Stollenwerk, André and K{"u}hn, Jan and Brendle,  
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die Therapie des Lungenversagens (ECLA-VENT) (224967929) },  
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18.
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Software : 8. International Workshop, Essen (Germany),
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title = { Theoretische Chemie 2012 },
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pages = { 320-329 },
volume = { 61 },
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[BDK12]

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Verifikation für SPS-Programme

Bibtex entry :

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@article { BKS12a,  
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Bibtex entry :

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@article { BSK12,
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booktitle = { 2nd DEXA Workshop on Information Systems for
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Bibtex entry :

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[GDF+12]

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[KFS+12]

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Bibtex entry :

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@inproceedings { KFS+12,
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[MDH+12]

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Bibtex entry :

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@inproceedings { MDH+12,
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      2012 in Berlin / J{"a}hnichen, Stefan [Hrsg.] ; K{"u}pper,
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[MEJ+12]

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Synchronization for Hybrid MPSoC Full-System Simulation

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  author = { Murillo, Luis Gabriel and Eusse, Juan Fernando and
    Jovic,
      Jovana and Yakoushkin, Sergey and Leupers, Rainer and
      Ascheid, Gerd },
  title = { Synchronization for Hybrid MPSoC Full-System Simulation
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(DAC
  2012) : San Francisco, California, USA, 3 - 7 June 2012. -
  Vol. 1 },
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[MHL+12]

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@inproceedings { MHL+12,  
  author = { Murillo, Luis Gabriel and Harnath, Julian and Leupers,  
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(S4D),  
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  organization = { System, Software, SoC and Silicon Debug  
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http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=6338153 },  
}
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[Mic12]

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@phdthesis { Mic12,  
  author = { Michailidis, Alexander A. },  
  othercontributors = { Kowalewski, Stefan },  
  title = { Konzepte für eine virtuelle Integration von  
    AUTOSAR-konformer Fahrzeug-Software in frühen  
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url = { http://publications.rwth-aachen.de/record/64327 },
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Applied timed testing: Testautomatisierung in industriellen Testprozessen von eingebetteten Systemen

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```
@phdthesis { Mit12,
  author = { Mitsching, Ralf },
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industriellen
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  pages = { 108 S. . Ill., graph. Darst. },
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  url = { http://publications.rwth-aachen.de/record/210819 },
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[MPK12]

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  author = { Merschen, Daniel and Pott, Julian and Kowalewski, Stefan },
  title = { Integration and Analysis of Design Artefacts in Embedded
Software Development },
  booktitle = { IEEE 36th Annual Computer Software and Applications
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Ed.: Xiaoying Bai ... },
publisher = { IEEE },
pages = { 503-508 },
year = { 2012 },
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organization = { IEEE 36. Annual Computer Software and Applications
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2012-07-20 },
doi = { 10.1109/COMPSACW.2012.94 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-236330 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752306 },
}

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[PBD+12]

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  author = { Pleuss, Andreas and Botterweck, G{"o"}tz and Dhungana,
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  author = { Reuter, Sebastian and Diab, Hilal and Kowalewski, Stefan
and
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Biomimetics, Guangzhou (Peoples R China), 2012-12-11 -
2012-12-14 },
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[SFL+12]

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  publisher = { IEEE },  
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[SWL+12]

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  booktitle = { Forum on Specification and Design Languages (FDL),  
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Vienna  
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typ = { PUB:(DE-HGF)8 },
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  author = { Sheng, Weihua and Wiebe, Artur and Stulova, Anastasia
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  title = { FIFO Exploration in Mapping Streaming Applications onto
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          TI OMAP3530 Platform: Case Study and Optimizations },
  booktitle = { IEEE 6th International Symposium on Embedded
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[WBB+12]

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  author = { Walter, Marian and Brendle, Christian and Bensberg, Ralf
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[WBS+12]

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  author = { Walter, Marian and Brendle, Christian and Stollenwerk,
    André and Kopp, R{"u}dger and Arens, Jutta and Bensberg,
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  author = { Barakat, Kamal },
  title = { Introducing Timers to Pi-Calculus },
  pages = { 31 },
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  typ = { PUB:(DE-HGF)29 },
  reportid = { RWTH-CONV-236331 },
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[BBD+11]

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  author = { Beckschulze, Eva and Boymanns, David and D{"u}lks,
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    and Gatterdam, Thomas and Kowalewski, Stefan and Lang, M.
    and Salewski, Falk and Siegbert, Thomas },
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  volume = { 231 },
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    typ = { PUB:(DE-HGF)29 },
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[BBK+11]

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Automatically Deriving Symbolic Invariants for PLC Programs Written in IL

Bibtex entry :

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  author = { Biallas, Sebastian and Brauer, J{"o}rg and Kowalewski,
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  booktitle = { Formal methods for automation and safety in railway
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  year = { 2011 },
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  organization = { Formal methods for automation and safety in
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}

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Bibtex entry :

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  author = { Biallas, Sebastian and Brauer, J{"o}rg and Kowalewski,
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[BBS+11]

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Bibtex entry :

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  author = { Beckschulze, Eva and Brauer, J{"o}rg and Stollenwerk,
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Object/Component/Service-Oriented Real-Time Distributed
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Beach, California, USA ; proceedings },
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organization = { 14. IEEE International Symposium on
Object/Component/Service-Oriented Real-Time Distributed
Computing, Newport Beach, CA (USA), 2011-03-28 - 2011-08-31 },
doi = { 10.1109/ISORCW.2011.40 },
typ = { PUB:(DE-HGF)7 },
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}
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[BBS+11a]

[PDFBIB](#)

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@article { BBS+11a,
author = { Brendle, Christian and Bensberg, Ralf and Stollenwerk,
André and Arens, Jutta and Walter, Marian },
title = { Patientenorientierte Automatisierung der Therapie mit der
Extrakorporalen Membranoxygenierung (ECMO) },
journal = { Biomedizinische Technik = Biomedical Engineering },
publisher = { de Gruyter },
pages = { 4 Seiten },
volume = { 56 },
number = { Suppl. 1 },
year = { 2011 },
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url = { http://dx.doi.org/10.1515/BMT.2011.811 },
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[BBS+11b]

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  author = { Brendle, Christian and Bensberg, Ralf and Stollenwerk,
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[BK11]

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series = { Lecture Notes in Computer Science },
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Pasadena,
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[BK11a]

PDFBIB

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Transfer Function Synthesis without Quantifier Elimination

Bibtex entry :

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@inproceedings { BK11a,
  author = { Brauer, J{"o}rg and King, Andy },
  title = { Transfer Function Synthesis without Quantifier
Elimination },
  booktitle = { Programming languages and systems : 20th European
Symposium
    on Programming, ESOP 2011, held as part of the Joint
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  series = { Lecture notes in computer science },
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Saarbr{"u}cken
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}

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[BKK11]

[PDFBIB](#)

Brauer, J., King, A., and Kriener, J., "Existential Quantification as Incremental SAT", in *Proc. Computer aided verification : 23rd international conference, CAV 2011, Snowbird, UT, USA, July 14-20, 2011 ; proceedings / Ganesh Gopalakrishnan; Shaz Qadeer (eds.)*, Heidelberg [u.a.], 2011 in *Lecture notes in computer science*, Springer, pp. 191-207.

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Bibtex entry :

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@inproceedings { BKK11,
  author = { Brauer, J{\o}rg and King, Andy and Kriener, Jael },
  title = { Existential Quantification as Incremental SAT },
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}
```

[BKS11]

[PDFBIB](#)

Biallas, S., Kowalewski, S., and Schlich, B., "Leistungsfähige Verifikation von industriellen SPS-Programmen mittels Model-Checking und statischer Analyse", in *Proc. 'Zukunft verantwortungsvoll gestalten' : Automation 2011 ; der 12. Branchentreff der Mess- und Automatisierungstechnik ; Kongress Baden-Baden, 28. und 29. Juni 2011 / VDI/VDE-Gesellschaft Mess- und Automatisierungstechnik. [Kongressleiter: Peter Adolphs ...]*, Düsseldorf, 2011 in *VDI-Berichte*, VDI-Verl., pp. 67-72.

Leistungsfähige Verifikation von industriellen SPS-Programmen mittels Model-Checking und statischer Analyse

Bibtex entry :

```
@inproceedings { BKS11,
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author = { Biallas, Sebastian and Kowalewski, Stefan and Schlich,
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2011 ;
           der 12. Branchentreff der Mess- und Automatisierungstechnik
           ; Kongress Baden-Baden, 28. und 29. Juni 2011 /
           VDI/VDE-Gesellschaft Mess- und Automatisierungstechnik.
           [Kongressleiter: Peter Adolphs ...] },
publisher = { VDI-Verl. },
pages = { 67-72 },
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Automatisierungstechnik,
           Baden-Baden (Germany), 2011-06-28 - 2011-06-29 },
typ = { PUB:(DE-HGF)8 },
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[BMH+11]

[PDFBIB](#)

Ben Makhoulf, I., Maschuw, J. P., Hänsch, P., Diab, H., Kowalewski, S., and Abel, D., "Safety Verification of a Cooperative Vehicle Platoon with Uncertain Inputs Using Zonotopes", in *Proc. Proceedings of the 18th IFAC World Congress, 2011 : August 28 - September 2, 2011, Università Cattolica del Sacro Cuore, Milano Italy / Ed.: Sergio Bittanti ...*, Milano, Italy, 2011 in IFAC-PapersOnLine, Curran, pp. 9769-9774.

Safety Verification of a Cooperative Vehicle Platoon with Uncertain Inputs Using Zonotopes

Bibtex entry :

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@inproceedings { BMH+11,
  author = { Ben Makhoulf, Ibtissem and Maschuw, Jan P. and
H{\'a}nsch,
           Paul and Diab, Hilal and Kowalewski, Stefan and Abel, Dirk },
  title = { Safety Verification of a Cooperative Vehicle Platoon
withUncertain Inputs Using Zonotopes },
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August
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[BRT11]

[PDFBIB](#)

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Proceedings of the 6th International Workshop on Systems Software Verification (SSV 2011)

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@techreport { BRT11,
  author = { Brauer, J{"o}rg and Roveri, Marco and Tews, Hendrik },
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}

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[DFD+11]

[PDFBIB](#)

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author = { Dernehl, Christian and Franke, Dominik and Diab, Hilal
and
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title = { An Architecture with Integrated Image Processing for
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competitions
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[FDW+11]

[PDFBIB](#)

Franke, D., Dzafic, D., Weise, C., and Kowalewski, S., "Entwicklung eines mobilen Navigationssystems für Elektrofahrzeuge auf Basis von OpenStreetMap-Daten", in *Proc. Anwenderkonferenz für Freie und Open Source Software für Geoinformationssysteme : FOSSGIS 2011 ; Heidelberg, 5. - 7. April, 2011*, Heidelberg, 2011, pp. 92-99.

Entwicklung eines mobilen Navigationssystems für Elektrofahrzeuge auf Basis von OpenStreetMap-Daten

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booktitle = { Anwenderkonferenz f{"u}r Freie und Open Source
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http://www.mapmedia.de/jthomsen/FOSSGIS_Tagungsband/2011_FOSSGIS_Tagung
sband.pdf },
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Konzept eines Mobilen OSM-Navigationssystems für Elektrofahrzeuge

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@inproceedings { FDW+11a,
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AGIT-Symposium (AGIT) },
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http://gispoint.de/fileadmin/user_upload/paper_gis_open/537508024.pdf
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}

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[FEW+11]

[PDFBIB](#)

Franke, D., Elsemann, C., Weise, C., and Kowalewski, S., "Reverse Engineering of Mobile Application Lifecycles", in *Proc. 2011 18th Working Conference on Reverse Engineering (WCRE 2011) : Limerick, Ireland, 17 - 20 October 2011 ; [proceedings] / [Technically co-sponsored by IEEE Computer Society. Sponsored by Reengineering Forum; IEEE-CS Technical Council on Software Engineering]*. Ed.: Martin Pinzger, Piscataway, NJ, 2011, IEEE, pp. 283-292.

Reverse Engineering of Mobile Application Lifecycles

Bibtex entry :

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@inproceedings { FEW+11,  
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  title = { Reverse Engineering of Mobile Application Lifecycles },  
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Society. Sponsored by Reengineering Forum; IEEE-CS Technical  
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  publisher = { IEEE },  
  pages = { 283-292 },  
  year = { 2011 },  
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  organization = { 18. Working Conference on Reverse Engineering,  
Limrick  
(Ireland), 2011-10-17 - 2011-10-20 },  
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[FW11]

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Bibtex entry :

```
@inproceedings { FW11,  
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Software Testing, Verification, and Validation ; Berlin,  
Germany, 21-25 March 2011 / Spons. by IEEE Computer  
Society. Ed. by Lisa O'Conner },
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publisher = { IEEE },
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    2011-03-25 },
doi = { 10.1109/ICST.2011.18 },
typ = { PUB:(DE-HGF)8 },
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[GK11]

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Automatic Derivation of Abstract Semantics From Instruction Set Descriptions

Bibtex entry :

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@inproceedings { GK11,
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Instruction
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Systems
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        Fakult{"a"}t Informatik. J{"o"}rg Brauer ... (ed.) },
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[GKK+11]

[PDFBIB](#)

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Using Timed Automata in Requirements Analysis for Engine Control Units

Bibtex entry :

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  author = { Grobosch, Sebastian and Kamin, Volker and Krirkkawin,
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```

[HSK11]

[PDFBIB](#)

Hänsch, P., Schommer, J. F., and Kowalewski, S., "Self-balancing Controllable Robots in Education: A Practical Course for Bachelor Students", in *Proc. Intelligent robotics and applications : 4th international conference, ICIRA 2011, Aachen, Germany, December 6 - 8, 2011 ; proceedings / Sabina Jeschke; Honghai Liu; Daniel Schilberg (eds.)*, Berlin, Heidelberg, 2011 in Lecture notes in computer science : Lecture notes in artificial intelligence, Springer Verlag, pp. 297-306.

Self-balancing Controllable Robots in Education: A Practical Course for Bachelor Students

Bibtex entry :

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@inproceedings { HSK11,
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  booktitle = { Intelligent robotics and applications : 4th
    international
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      2011 ; proceedings / Sabina Jeschke; Honghai Liu; Daniel
      Schilberg (eds.) },
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  year = { 2011 },
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  organization = { Intelligent robotics and applications : 4.
    international
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}
```

[KBW+11]

PDFBIB

Kopp, R., Bensberg, R., Walter, M., Arens, J., Rossaint, R., and Stollenwerk, A., "Automation of extracorporeal membrane oxygenation using a combined safety and control concept", in *Proc. Intensive care medicine*, Berlin [u.a.], 2011, vol. 37, Springer, pp. 230-230.

Automation of extracorporeal membrane oxygenation using a combined safety and control concept

Bibtex entry :

```
@inproceedings { KBW+11,
  author = { Kopp, R{"u}dger and Bensberg, Ralf and Walter, Marian
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  pages = { 230-230 },
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year = { 2011 },
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issn = { 0340-0964 },
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(Germany),
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doi = { 10.1007/s00134-011-2322-1 },
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[KRS+11]

[PDFBIB](#)

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A Miniaturized Extracorporeal Membrane Oxygenator with Integrated Rotary Blood Pump: Preclinical In Vivo Testing

Bibtex entry :

```

@article { KRS+11,
  author = { Kopp, R{\u}dger and Rossaint, Rolf and Schmitz-Rode,
Thomas
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  url = { http://publications.rwth-aachen.de/record/142316 },
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[KS11]

[PDFBIB](#)

Kowalewski, S. and Stollenwerk, A., "Supporting Evolving Requirements in CPS by Abstraction

Layers in the Architecture", in *Proc. Workshop on Architectures for Cyber-Physical Systems, Chicago, IL, USA, 2011*.

Supporting Evolving Requirements in CPS by Abstraction Layers in the Architecture

Bibtex entry :

```
@conference { KS11,  
  author = { Kowalewski, Stefan and Stollenwerk, André },  
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[MDA+11]

[PDFBIB](#)

Maschuw, J. P., Diab, H., Abel, D., and Kowalewski, S., "Control Design for Generalized Platoon Problems", *Automatisierungstechnik : at*, vol. 59, iss. 12, pp. 721-729, 2011

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Bibtex entry :

```
@article { MDA+11,  
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```

[MPB+11]

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Bibtex entry :

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@inproceedings { MPB+11,  
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  author = { Mitsching, Ralf and Weise, Carsten and Bohnenkamp,  
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  title = { TripleT: Improving Test Responsiveness for High  
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  author = { Mitsching, Ralf and Weise, Carsten and Franke, Dominik  
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Island (South Korea), 2011-06-27 - 2011-06-29 },
doi = { 10.1109/SSIRI-C.2011.27 },
typ = { PUB:(DE-HGF)8 },
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url = { http://publications.rwth-aachen.de/record/123848 },
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January 23-25, 2011 ; proceedings / Ranjit Jhala; David
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publisher = { Springer },
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  author = { Reinbacher, Thomas and Brauer, J{"o"}rg },
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      Hei{\ss}, Peter Pepper,Holger Schlingloff, J{"o}rg
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[RHS+11]

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  title = { Hardware Support for Efficient Testing of Embedded
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  year = { 2011 },
  address = { New York, NY },
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publisher = { Elsevier },
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[SGA+11]

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Interoperability : HCMDSS/MDPnP 2011 ; in conjunction with
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http://www.seas.upenn.edu/~rahulm/Shared/HCMDSS/hcmdss11_aachen.pdf },
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[SNB+11]

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    Embedded Software },
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        / Kedar Namjoshi ... (eds.) },
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    series = { Lecture Notes in Computer Science },
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    organization = { 5. International Haifa Verification Conference,
HCV 2009,
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    url = { http://publications.rwth-aachen.de/record/116214 },
}

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[SSK+11]

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    author = { Sasnauskas, Raimondas and Soria Dustmann, Oscar and
        Kaminski, Benjamin Lucien and Wehrle, Klaus and Weise,
        Carsten and Kowalewski, Stefan },
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    booktitle = { 2011 31st International Conference on Distributed
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        Systems, (ICDCS 2011) : Minneapolis, Minnesota, USA, 20 - 24
        June 2011 / IEEE. [Sponsored by IEEE Computer Society
        Technical Committee on Distributed Processing. David
        Hung-Chang Du, general chair] },
    publisher = { IEEE },
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    year = { 2011 },
    address = { Piscataway, NJ },
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Computing
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Bibtex entry :

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@inproceedings { WBA+11,
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and
  Stollenwerk, André and Kopp, R{"u}dger and Bensberg, Ralf
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oxygenation },
  booktitle = { The international journal of artificial organs },
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  year = { 2011 },
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Porto
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[AdM+10]

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    Kopp, R{"u}dger and Walter, Marian and Stollenwerk, Andr{e}  
    and Schmitz-Rode, Thomas and Steinseifer, Ulrich },  
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pressure  
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@phdthesis { Arm10,  
  author = { Armoush, Ashraf },  
  othercontributors = { Kowalewski, Stefan },  
  title = { Design patterns for safety-critical embedded systems },  
  publisher = { Publikationsserver der RWTH Aachen University },  
  pages = { XIV, 181 S. : graph. Darst. },  
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[BBG+10]

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  author = { Biallas, Sebastian and Brauer, J{\o}rg and Kowalewski,
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Verification,
Vancouver (Canada) },
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Magdeburg, Denkfabrik im Wissenschaftshafen / ifak, Institut
f{"u}r Automation und Kommunikation e.V., Magdeburg;
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[BKK10]

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15.
international workshop, Antwerp (Belgium), 2010-09-20 -
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Software
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}

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[BPK10]

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Bibtex entry :

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    author = { Botterweck, G{\\"o}tz and Polzer, Andreas and Kowalewski,
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[CBD+10]

[PDFBIB](#)

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  author = { Chávez Grunewald, Martin Guillermo and Ben Makhlof,  
            Ibtissem and Diab, Hilal and Abel, Dirk and Kowalewski,  
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Estimation and  
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Control in  
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[CBD+10a]

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Bibtex entry :

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}
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[DCB+10]

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  pages = { 1718-1723 },
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pages = { 27 S. },
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[WLK+10]

[PDFBIB](#)

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  author = { Walter, Marian and Leonhardt, Steffen and Kopp,
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[BPP+09]

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[BSK09]

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[DBK+09]

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[Guc09]

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    applications / edited by Jan Lunze, Françoise  
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  author = { Klein, Gerwin and Huuck, Ralf and Schlich, Bastian },  
  title = { Operating System Verification },  
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  publisher = { Springer },  
  pages = { 123-124 },  
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  author = { Kl{"u}nder, Daniel },  
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http://publications.rwth-aachen.de/record/51797/files/Kluender\_Daniel.pdf
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  author = { Kopp, R{"u}dger and Walter, Marian and Arens, Jutta and
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publisher = { RWTH Aachen, Department of Computer Science },
pages = { 23-25 },
volume = { 2009,14 },
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  http://subs.emis.de/LNI/Proceedings/Proceedings154/P-154.pdf },
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    Simulation : EMS 2009 ; Athens, Greece, 25 - 27 November
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publisher = { IEEE },
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      2009 / [sponsored by: IEEE Industrial Electronics Society
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  author = { Schlich, Bastian and Brauer, J{"o}rg and Wernerus,
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  author = { Schlich, Bastian and Kowalewski, Stefan and Wernerus,
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    publisher = { Wichtig Ed. },
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[DHH+08]

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  author = { Drews, Peter and Hesseler, Frank and Hoffmann, Kai and
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[DHS+08]

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  booktitle = { Moderne Elektronik im Kraftfahrzeug III : Systeme von
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    Verification and Analysis, Seoul (South Korea), 2008-10-20 -
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  doi = { 10.1007/978-3-540-88387-6_17 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-095469 },
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```

[HSW+08]

[PDFBIB](#)

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Bibtex entry :

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@article { HSW+08,
  author = { Herberich, Gerlind and Schlich, Bastian and Weise,
Carsten
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  title = { Proving correctness of an efficient abstraction for
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address = { Amsterdam [u.a.] },
issn = { 1571-0661 },
doi = { 10.1016/j.entcs.2008.06.046 },
typ = { PUB:(DE-HGF)16 },
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url = { http://publications.rwth-aachen.de/record/130980 },
}
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[KKK08]

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  author = { Klünder, Daniel and Kameni, Dimitri and Kowalewski,
    Stefan },
  title = { Nahtloser Entwurf sicherheitskritischer, eingebetteter
    Softwaresysteme mit abstrakten Zustandsmaschinen und
    Business Object Notation },
  booktitle = { Entwurf komplexer Automatisierungssysteme, EKA 2008 :
    Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen ;
    10. Fachtagung, 15. bis 16. April 2008 Tutorium, 16. bis 17.
    April 2008 Fachtagung, Magdeburg, Denkfabrik im
    Wissenschaftshafen / Ifak, Institut für Automation und
    Kommunikation e.V., Magdeburg ... Hrsg.: Ulrich Jumar;
    Eckehard Schneider; Christian Diedrich },
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  year = { 2008 },
  address = { Magdeburg },
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    Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen ;
    10. Fachtagung, Magdeburg (Germany), 2008-04-15 - 2008-04-16 },
  typ = { PUB:(DE-HGF)8 },
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  url = { http://publications.rwth-aachen.de/record/98748 },
}
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[KLK08]

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@inproceedings { KLK08,
  author = { Kl{\\"u}nder, Daniel and Li, J. and Kowalewski, Stefan },
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    Programmers' Perspective (SVPP 2008) },
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[Klu08]

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Modellierung und Analyse von Fahrzeugsoftware mit Abstract State Machines

Bibtex entry :

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  author = { Kl{\\"u}nder, Daniel },
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    Thomas
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  publisher = { Ges. f. Informatik },
  pages = { 225-228 },
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  year = { 2008 },
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http://subs.emis.de/LNI/Proceedings/Proceedings127/gi-proc-127-017.pdf
    },
  }

```

[MHR+08]

[PDFBIB](#)

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  author = { Michailidis, Alexander A. and Hedenetz, Bernd and
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    - technische Innovationen und Entwicklungstrends ; [28.
    Tagung 'Elektronik im Kraftfahrzeug' vom Haus der Technik
    Essen e.V. in M{"u}nchen (i.e. Dresden!)] / Bernard
    B{"a}ker (Hrsg.) u. 46 Mitautoren },
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}

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[NS08]

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  author = { Noll, Thomas and Schlich, Bastian },  
  title = { Delayed nondeterminism in model checking embedded systems  
    assembly code },  
  booktitle = { Hardware and software: verification and testing :  
third  
    International Haifa Verification Conference, HVC 2007,  
    Haifa, Israel, October 23 - 25, 2007 ; proceedings / Karen  
    Yorav (ed.) },  
  publisher = { Springer },  
  pages = { 185-201 },  
  volume = { 4899 },  
  series = { Lecture notes in computer science },  
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[RKH+08]

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  author = { Reinbacher, Thomas and Kramer, Michael and Horauer,  
Martin  
    and Schlich, Bastian },  
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Mechatronic and
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Mechatronic and
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    China), 2008-10-12 - 2008-10-15 },
doi = { 10.1109/MESA.2008.4735653 },
typ = { PUB:(DE-HGF)8 },
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}

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[RKH+08a]

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@inproceedings { RKH+08a,
    author = { Reinbacher, Thomas and Kramer, Michael and Horauer,
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        IEEE },
    publisher = { IEEE },
    pages = { 245-248 },
    year = { 2008 },
    address = { Piscataway, NJ },
    organization = { 2008 International Symposium on Industrial
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[Sal08]

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  author = { Salewski, Falk },
  othercontributors = { Kowalewski, Stefan },
  title = { Empirical evaluations of safety critical embedded systems },
  publisher = { Publikationsserver der RWTH Aachen University },
  pages = { X, 175 S. : graph. Darst. },
  series = { Aachener Informatik-Berichte },
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http://publications.rwth-aachen.de/record/459474/files/Salewski_Falk.pdf
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[Sch08]

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  author = { Schlich, Bastian },
  othercontributors = { Kowalewski, Stefan },
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  publisher = { RWTH Aachen, Department of Computer Science },
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  series = { Aachener Informatik-Berichte },
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http://publications.rwth-aachen.de/record/63747/files/Schlich_Bastian.p
df },
}

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[SDH+08]

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Bibtex entry :

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@inproceedings { SDH+08,
  author = { Schmitz, Dominik and Drews, Peter and He{\ss}eler,
    Frank-Josef and Jarke, Matthias and Kowalewski, Stefan and
    Palczynski, Jacob and Polzer, Andreas and Reke, Michael and
    Rose, Thomas },
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    Fachbereichs
      Softwaretechnik, 18. - 22.02.2008 in M{"u"}nchen /
      Gesellschaft f{"u"}r Informatik (GI). Korbinian Herrmann;
      Bernd Bruegge (Hrsg.) },
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}

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[SGK08]

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Bibtex entry :

```
@inproceedings { SGK08,  
  author = { Schlich, Bastian and G{"u"}ckel, Dominique and  
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  url = { http://publications.rwth-aachen.de/record/98749 },  
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[SK08]

[PDFBIB](#)

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@inproceedings { SK08,  
  author = { Salewski, Falk and Kowalewski, Stefan },
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title = { The effect of real-time software reuse in FPGAs and
microcontrollers with respect to software faults },
booktitle = { 2008 International Symposium on Industrial Embedded
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: [SIES'2008] ; La Grande Motte, France, 11 - 13 June 2008 /
IEEE },
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Embedded Systems,
La Grande Motte (France), 2008-06-11 - 2008-06-13 },
doi = { 10.1109/SIES.2008.4577692 },
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url = { http://publications.rwth-aachen.de/record/98747 },
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[SK08a]

[PDFBIB](#)

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author = { Salewski, Falk and Kowalewski, Stefan },
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journal = { IEEE transactions on industrial informatics },
publisher = { IEEE },
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volume = { 4 },
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year = { 2008 },
address = { New York, NY },
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[SLK08]

[PDFBIB](#)

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  author = { Schlich, Bastian and L{"o"}ll, Jann and Kowalewski,
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    microcontroller assembly code },
  booktitle = { Formal methods for industrial critical systems : 12th
international workshop, FMICS 2007, Berlin, Germany, July 1
- 2, 2007 ; revised selected papers / Stefan Leue; Pedro
Merino (eds.) },
  publisher = { Springer },
  pages = { 21-37 },
  volume = { 4916 },
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  year = { 2008 },
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  url = { http://publications.rwth-aachen.de/record/83462 },
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[ST08]

[PDFBIB](#)

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: [ISIE 2008] ; Cambridge, United Kingdom, 30 June - 2 July
2008. - Vol. 4 },
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Cambridge (UK), 2008-06-30 - 2008-07-02 },
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}

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[Wil08]

[PDFBIB](#)

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@phdthesis { Wil08,
author = { Wilking, Dirk },
othercontributors = { Kowalewski, Stefan },
title = { Empirical studies for the application of agile methods to
embedded systems },
publisher = { Fachgruppe Informatik, RWTH Aachen },
pages = { XIV, 157 S. : graph. Darst. },
series = { Aachener Informatik-Berichte },
year = { 2008 },
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typ = { PUB:(DE-HGF)11 },
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http://publications.rwth-aachen.de/record/52375/files/Wilking_Dirk.pdf
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}

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[WSK08]

[PDFBIB](#)

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  author = { Wilking, Dirk and Schilli, David and Kowalewski, Stefan },
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    Second IFIP TC 2 Central and East European Conference on Software Engineering Techniques, CEE-SET 2007, Poznań, Poland, October 10-12, 2007 ; revised selected papers / Bertrand Meyer; Jerzy R. Nawrocki; Bartosz Walter (eds.) },
  publisher = { Springer },
  pages = { 157-168 },
  series = { Lecture notes in computer science },
  year = { 2008 },
  address = { Berlin [u.a.] },
  organization = { 2. IFIP TC 2 Central and East European Conference on Software Engineering Techniques: Balancing Agility and Formalism in Software Engineering, Poznań (Poland), 2007-10-10 - 2007-10-12 },
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  url = { http://publications.rwth-aachen.de/record/127027 },
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[BKK07]

[PDFBIB](#)

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  author = { Bettenhausen, Kurt D. and Kowalewski, Stefan and Kugi, Andreas },
  title = { Significance of the automation engineering },
  journal = { Automatisierungstechnik : at },
  publisher = { Oldenbourg },
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pages = { 269-271 },
volume = { 55 },
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issn = { 0178-2312 },
doi = { 10.1524/auto.2007.55.5.269 },
typ = { PUB:(DE-HGF)16 },
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}
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[CSK+07]

[PDFBIB](#)

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  author = { Chen, Xi and Salewski, Falk and Kowalewski, Stefan and
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    - technische Innovationen und Entwicklungstrends ; und 19
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issn = { 1551-3688 },
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[SWK06]

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  booktitle = { Extreme programming and agile processes in software  
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  pages = { 319-320 },  
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