

Publications

[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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@article { GSB+20,
  author = { Grochowski, Marco and Simon, Hendrik and Bohlender,
Dimitri
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M{"u}ller, Timo and Jazdi, Nasser and Zeller, Andreas and
Weyrich, Michael },
  title = { Formale Methoden f{"u}r rekonfigurierbare cyber-
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  journal = { Automatisierungstechnik },
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  volume = { 68 },
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to-2019-0115.xml }
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[BK19]

[PDFBIB](#)

Bohlender, D. and Kowalewski, S., "Leveraging Horn clause solving for compositional verification of PLC software", *Discrete event dynamic systems*, vol. 30, pp. 1-24, 2019

Leveraging Horn clause solving for compositional verification of PLC software

Bibtex entry :

```
@article { BK19,  
  author = { Bohlender, Dimitri and Kowalewski, Stefan },  
  title = { Leveraging Horn clause solving for compositional  
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  journal = { Discrete event dynamic systems },  
  publisher = { Springer Science + Business Media B.V },  
  pages = { 1-24 },  
  volume = { 30 },  
  year = { 2019 },  
  address = { Dordrecht [u.a.] },  
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[BKB+19]

PDFBIB

Bohlender, D., Kohl, M. A., Baum, K., Langer, M., Oster, D., and Speith, T., "Explainability as a Non-Functional Requirement", in *Proc. 2019 IEEE 27th International Requirements Engineering Conference (RE) : [Proceedings]*, 2019, IEEE, pp. 363-368.

Explainability as a Non-Functional Requirement

Bibtex entry :

```
@inproceedings { BKB+19,  
  author = { Bohlender, Dimitri and Kohl, Maximilian A. and Baum,  
    Kevin  
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  cin = { 122810 / 120000 },  
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[Der19]

[PDFBIB](#)

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

Bibtex entry :

```
@phdthesis { Der19,
  author = { Dernehl, Christian Michael },
  othercontributors = { Kowalewski, Stefan and Moormann, Dieter },
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  pages = { 1 Online-Ressource (xxiii, 156 Seiten) : Illustrationen,
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[FDG+19]

[PDFBIB](#)

Fabry, G., Doorschodt, B. M., Grzanna, T., Boor, P., Elliott, A., 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]

[PDFBIB](#)

Grochowski, M., Kowalewski, S., Buchsbaum, M., and Brecher, C., Eds., *Applying runtime monitoring to the industrial internet of things*IEEE, 2019.

Applying runtime monitoring to the industrial internet of things

Bibtex entry :

```
@proceedings { GKB+19,
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[GKB+19a]

[PDFBIB](#)

Grochowski, M., Kowalewski, S., Buchsbaum, M. S. K., and Brecher, C., Eds., *Applying Passive Testing to an Industrial Internet of Things Plant*, 2019.

Applying Passive Testing to an Industrial Internet of Things Plant

Bibtex entry :

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@proceedings { GKB+19a,
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    Melanie Sarah Katharina and Brecher, Christian },
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[Gob19]

[PDFBIB](#)

Göbe, F., "Runtime supervision of PLC programs using discrete-event systems", PhD Thesis, Aachen, 2019.

Runtime supervision of PLC programs using discrete-event systems

Bibtex entry :

```
@phdthesis { Gob19,
  author = { G{"o}be, Florian },
  othercontributors = { Kowalewski, Stefan and Lunze, Jan },
  title = { Runtime supervision of PLC programs using discrete-event
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  publisher = { RWTH Aachen University, Department of Computer
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[Gro19]

[PDFBIB](#)

Grobosch, S., "Formale Methoden für die Entwicklung von eingebetteter Software in kleinen und mittleren Unternehmen", PhD Thesis, Düren, 2019.

Formale Methoden für die Entwicklung von eingebetteter Software in kleinen und mittleren Unternehmen

Bibtex entry :

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@phdthesis { Gro19,
  author = { Grobosch, Sebastian },
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[KAK+19]

[PDFBIB](#)

Kampmann, A., Alrifaae, B., Kohout, M., Wüstenberg, A., Woopen, T., Nolte, M., Eckstein, L., and Kowalewski, S., "A Dynamic Service-Oriented Software Architecture for Highly Automated Vehicles", in *Proc. 2019 IEEE Intelligent Transportation Systems Conference (ITSC)* :

[Proceedings], 2019, IEEE.

A Dynamic Service-Oriented Software Architecture for Highly Automated Vehicles

Bibtex entry :

```
@inproceedings { KAK+19,
  author = { Kampmann, Alexandru and Alrifaae, Bassam and Kohout,
    Markus
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  title = { A Dynamic Service-Oriented Software Architecture for
    Highly
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  booktitle = { 2019 IEEE Intelligent Transportation Systems
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  publisher = { IEEE },
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  organization = { 2019 IEEE Intelligent Transportation Systems
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[KBS+19]

[PDFBIB](#)

Kühn, J., Buglowski, M., Stollenwerk, A., Kowalewski, S., Walter, M., Leonhardt, S., Petran, J., Kopp, R., Rossaint, R., and Janisch, T., "Fault Identification in a Blood Pump Using Neural Networks", in *Proc. World Congress on Medical Physics and Biomedical Engineering 2018 : June 3-8, 2018, Prague, Czech Republic (Vol.2) / edited by Lenka Lhotska, Lucie Sukupova, Igor Lacković, Geoffrey S. Ibbott*, Singapore, 2019 in IFMBE Proceedings, Springer Singapore, pp. 27-32.

Fault Identification in a Blood Pump Using Neural Networks

Bibtex entry :

```
@inproceedings { KBS+19,
  author = { K{"u}hn, Jan and Buglowski, Mateusz and Stollenwerk,
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title = { Fault Identification in a Blood Pump Using Neural
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booktitle = { World Congress on Medical Physics and Biomedical
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edited by Lenka Lhotska, Lucie Sukupova, Igor Lacković,
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2018-06-08 },
doi = { 10.1007/978-981-10-9038-7_6 },
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[KKM+19]

[PDFBIB](#)

Kloock, M., Kragl, L., Maczijekowski, J., Alrifaae, B., and Kowalewski, S., "Distributed Model Predictive Pose Control of Multiple Nonholonomic Vehicles", in *Proc. 2019 IEEE Intelligent Vehicles Symposium (IV) : [Proceedings]*, [Piscataway, NJ], 2019, IEEE, pp. 1620-1625.

Distributed Model Predictive Pose Control of Multiple Nonholonomic Vehicles

Bibtex entry :

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@inproceedings { KKM+19,
author = { Kloock, Maximilian and Kragl, Ludwig and Maczijekowski,
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booktitle = { 2019 IEEE Intelligent Vehicles Symposium (IV) :
[Proceedings] },
publisher = { IEEE },
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year = { 2019 },
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[KNR+19]

[PDFBIB](#)

Keilhoff, D., Niedballa, D., Reuss, H., Buchholz, M., Gies, F., Dietmayer, K., Lauer, M., Stiller, C., Ackermann, S., Winner, H., Kampmann, A., Alrifaae, B., Kowalewski, S., Klein, F., Struth, M. M., Woopen, T., and Eckstein, L., "UNICARagil - New architectures for disruptive vehicle concepts", in *Proc. 19. Internationales Stuttgarter Symposium : Automobil- und Motorentechnik / herausgegeben von Michael Bargende, Hans-Christian Reuss, Andreas Wagner, Jochen Wiedemann*, Wiesbaden, 2019 in Proceedings Springer eBooks, Springer Fachmedien Wiesbaden, pp. 830-842.

UNICARagil - New architectures for disruptive vehicle concepts

Bibtex entry :

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@inproceedings { KNR+19,
  author = { Keilhoff, Dan and Niedballa, Dennis and Reuss,
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    and Eckstein, Lutz },
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    concepts },
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Automobil- und
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Automobil- und
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[KSB+19]

PDFBIB

Kloock, M., Scheffe, P., Botz, L., Maczijewski, J., Alrifaae, B., and Kowalewski, S., "Networked Model Predictive Vehicle Race Control", in *Proc. 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings]*, 2019, IEEE.

Networked Model Predictive Vehicle Race Control

Bibtex entry :

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@inproceedings { KSB+19,
  author = { Kloock, Maximilian and Scheffe, Patrick and Botz, Lukas
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[KSM+19]

PDFBIB

Kloock, M., Scheffe, P., Marquardt, S., Maczijewski, J., Alrifaae, B., and Kowalewski, S., "Distributed Model Predictive Intersection Control of Multiple Vehicles", in *Proc. 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings]*, 2019, IEEE.

Distributed Model Predictive Intersection Control of Multiple Vehicles

Bibtex entry :

```
@inproceedings { KSM+19,
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[KTF19]

PDFBIB

Khan, A., Thönnessen, D., and Fabian, M., "On-the-fly conformance testing of safety PLC code using QuickCheck", in *Proc. [17th IEEE International Conference on Industrial Informatics, INDIN'19 Industrial Applications of Artificial Intelligence, INDIN, 2019-07-22 - 2019-07-25, Helsinki, Finland]*, 2019.

On-the-fly conformance testing of safety PLC code using QuickCheck

Bibtex entry :

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@inproceedings { KTF19,
  author = { Khan, Adnan and Th{"o"}nnessen, David and Fabian, Martin
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[KWA+19]

PDFBIB

Kampmann, A., Wüstenberg, A., Alrifaae, B., and Kowalewski, S., "A Portable Implementation of the Real-Time Publish-Subscribe Protocol for Microcontrollers in Distributed Robotic Applications", in *Proc. 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings]*, 2019, IEEE.

A Portable Implementation of the Real-Time Publish-Subscribe Protocol for Microcontrollers in Distributed Robotic Applications

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[PAS+19]

[PDFBIB](#)

Pomprapa, A., Ahmed, W., Stollenwerk, A., Kowalewski, S., and Leonhardt, S., "Deep Learning of Arrhythmia Analysis Based on Convolutional Neural Network", *International journal of bioelectromagnetism : IJBEM*, vol. 21, iss. 1, pp. 48-58, 2019

Deep Learning of Arrhythmia Analysis Based on Convolutional Neural Network

Bibtex entry :

```
@article { PAS+19,  
  author = { Pomprapa, Anake and Ahmed, Waqar and Stollenwerk, André  
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Convolutional  
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[SKS+19]

PDFBIB

Smieschek, M., Kobsik, G., Stollenwerk, A., Kowalewski, S., Orlikowsky, T., and Schoberer, M., "Aided Hand Detection in Thermal Imaging Using RGB Stereo Vision", in *Proc. [41st Annual International Conference of the IEEE Engineering in Medicine & Biology Society, EMBC, 2019-07-23 - 2019-07-27, Berlin, Germany]*, Piscataway, NJ, 2019, IEEE, pp. 6314-6317.

Aided Hand Detection in Thermal Imaging Using RGB Stereo Vision

Bibtex entry :

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@inproceedings { SKS+19,
  author = { Smieschek, Manfred and Kobsik, Gregor and Stollenwerk,
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[TSF+19]

PDFBIB

Thönnessen, D., Smallbone, N., Fabian, M., Claessen, K., and Kowalewski, S., "Testing Safety PLCs Using QuickCheck", in *Proc. [IEEE 15th International Conference on Automation Science*

and Engineering, CASE, 2019-08-22 - 2019-08-26, Vancouver, Canada], 2019.

Testing Safety PLCs Using QuickCheck

Bibtex entry :

```
@inproceedings { TSF+19,
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  year = { 2019 },
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  cin = { 122810 / 120000 },
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[VK19]

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@inproceedings { VK19,
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cin = { 122810 / 120000 },
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http://publications.rwth-aachen.de/record/768806/files/768806.pdf },
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[VKR+19]

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  author = { V{"o}lker, Marcus and Kloock, Maximilian and Rabanus, Leon
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  url = { http://publications.rwth-aachen.de/record/766778 },
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  author = { Alrifaae, Bassam and Maczijekowski, Janis },
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  year = { 2018 },
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[BFH+18]

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  author = { Bordasch, Manuel and Facchi, Christian and Heidepriem,
    Sebastian and J{"a}hnert, J{"u}rger and Jung, Tobias and
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    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,
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75395274c78c },
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[BHK18]

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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]

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  author = { Bohlender, Dimitri and Kowalewski, Stefan },
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  author = { Bohlender, Dimitri and Kowalewski, Stefan },
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Conference,
  IFM 2018, Maynooth, Ireland, September 5-7, 2018,
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pages = { 47-68 },
series = { Lecture Notes in Computer Science },
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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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Language,
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http://publications.rwth-aachen.de/record/752264/files/752264.pdf },
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[CMW+18a]

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[GAK18]

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Göbe, F., Aydin, S., and Kowalewski, S., "Applicability of supervisory control theory for the supervision of PLC programs", in *Proc. 2017 22nd IEEE International Conference on Emerging Technologies and Factory Automation : September 12-15, 2017, Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus*, [Piscataway, NJ], 2018 in IEEE International Conference on Emerging Technologies and Factory Automation-ETFA, IEEE, p. 8.

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Bibtex entry :

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@inproceedings { GAK18,
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[GSA+18]

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Navigation using a Smartphone

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[KSK+18]

[PDFBIB](#)

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A long-term setup for kidney perfusion

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  author = { K{"u}hn, Jan and Stollenwerk, André and Kowalewski,
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    and Tolba, René H. and Rossaint, Rolf and Bleilevens,
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    url = { http://publications.rwth-aachen.de/record/752261 },
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[MVC+18]

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    author = { Merchant, Farhad and Vatwani, Tarun and Chattopadhyay,
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[OK18]

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A live static code analysis architecture for PLC software

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and Factory Automation, Limassol (Cyprus), 2017-09-12 -
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}
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[PAS+18]

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Bibtex entry :

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@inproceedings { PAS+18,
  author = { Pomprapa, Anake and Ahmed, Waqar and Stollenwerk, André
and
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  Leonhardt, RWTH Aachen University, Germany, Prof. Jaakko
  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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Bibtex entry :

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[PAS+18b]

[PDFBIB](#)

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    author = { Pomprapa, Anake and Ahmed, Waqar and Stollenwerk, André
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    title = { Arrhythmia Analysis in a Non-contact cECG Chair using
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url = { http://www.ijbem.org/volume20/number1/47-50.pdf },
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[SBK18]

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author = { Stollenwerk, André and Bugłowski, Mateusz and K{"u}hn,
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[SGT+18]

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@inproceedings { SGT+18,
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[SHS+18]

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A New Condition Indicator for Slow-Rotating Roller Chains based on the Angle and Torque of the Driving Motor

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[SK18]

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https://link.springer.com/content/pdf/10.1007%2F978-3-319-98938-9_21.pd
f },
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[STK18]

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@article { STK18,
  author = { Simon, Hendrik and Triefenbach, Lucas and Kowalewski,
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752265 },
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[Ter18]

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@phdthesis { Ter18,
  author = { Terber, Matthias },
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Science },
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http://publications.rwth-aachen.de/record/749610/files/749610.pdf },
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[TK18]

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Bibtex entry :

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@article { TK18,
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[TK18a]

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@inproceedings { TK18a,
  author = { Th{\o}nnessen, David and Kowalewski, Stefan },
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[TRR+18]

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@inproceedings { TRR+18,
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doi = { 10.1109/ETFA.2017.8247580 },
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[TRR+18a]

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[TRR+18b]

[PDFBIB](#)

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Correctness Properties and Exemplified Applicability of a Signal Matching Algorithm with Multidimensional Tolerance Specifications

Bibtex entry :

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@inproceedings { TRR+18b,
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[UVS+18]

[PDFBIB](#)

Ulewicz, S., Vogel-Heuser, B., Simon, H., Bohlender, D., Obster, M., and Kowalewski, S., "A priori test coverage estimation for automated production systems : Using generated behavior models for coverage calculation", in *Proc. 2017 22nd IEEE International Conference on Emerging Technologies and Factory Automation : September 12-15, 2017, Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus*, [Piscataway, NJ], 2018 in IEEE International Conference on Emerging Technologies and Factory Automation-ETFA, IEEE, p. 4.

A priori test coverage estimation for automated production systems : Using generated behavior models for coverage calculation

Bibtex entry :

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@inproceedings { UVS+18,
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[WKJ+18]

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Bibtex entry :

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[WLB+18]

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Bibtex entry :

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@inproceedings { WLB+18,
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Dominik and Katzenbeisser, Stefan and Leinen, Stefan and
Becker, Matthias and Stiller, Christoph and Furmans, Kai and
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Michael and Dietmayer, Klaus and Lategahn, Henning and

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[WSA+18]

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author = { Winter, Alfred and St{"a}ubert, Sebastian and Ammon,
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Silke Dorothee and Hahn, Udo and Henkel, Andreas and
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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
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Scherag, Andr{e} and L{"o}ffler, Markus },
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(SMITH)
: Data Integration based on Interoperability Standards },
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http://publications.rwth-aachen.de/record/757852/files/757852.pdf },
}

```

[AMA17]

[PDFBIB](#)

Alrifaae, B., Maczijekowski, J., and Abel, D., "Sequential Convex Programming MPC for Dynamic Vehicle Collision Avoidance", in *Proc. First Annual IEEE Conference on Control Technology and Applications : Kohala Coast, Hawai'i, August 27-30, 2017 : CCTA 2017 / IEEE, CSS, IEEE Robotics & Automation Society, SICE, Piscataway, NJ, 2017, IEEE*, pp. 2202-2207.

Sequential Convex Programming MPC for Dynamic Vehicle Collision Avoidance

Bibtex entry :

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@inproceedings { AMA17,
  author = { Alrifaae, Bassam and Maczijekowski, Janis and Abel, Dirk
},
  title = { Sequential Convex Programming MPC for Dynamic Vehicle
Collision Avoidance },
  booktitle = { First Annual IEEE Conference on Control Technology
and
Applications : Kohala Coast, Hawai'i, August 27-30, 2017 :
CCTA 2017 / IEEE, CSS, IEEE Robotics & Automation Society,
SICE },
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pages = { 2202-2207 },
year = { 2017 },
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Applications,
    Mauna Lani, HI (USA), 2017-08-27 - 2017-08-30 },
doi = { 10.1109/CCTA.2017.8062778 },
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}

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[BHK17]

[PDFBIB](#)

Ben Makhlof, I., Hansen, N., and Kowalewski, S., "HyReach: A Reachability Tool for Linear Hybrid Systems Based on Support Functions", in *Proc. ARCH16. 3rd International Workshop on Applied Verification for Continuous and Hybrid Systems / Editors: Goran Frehse and Matthias Althoff*, 2017 in EPiC Series in Computing, pp. 68-79.

HyReach: A Reachability Tool for Linear Hybrid Systems Based on Support Functions

Bibtex entry :

```

@inproceedings { BHK17,
    author = { Ben Makhlof, Ibtissem and Hansen, Norman and
Kowalewski,
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and Matthias Althoff },
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for
    Continuous and Hybrid Systems, Vienna (Austria), 2016-04-12
- 2016-04-12 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-213474 },
    cin = { 122810 / 120000 },
    url = { https://easychair.org/publications/paper/334327 },
}

```

[BMK+17]

PDFBIB

Brendle, C., Mülders, T., Kühn, J., Janisch, T., Kopp, R., Rossaint, R., Stollenwerk, A., Kowalewski, S., Misgeld, B. J. E., Leonhardt, S., and Walter, M., "Physiological closed-loop control of mechanical ventilation and extracorporeal membrane oxygenation", *Biomedizinische Technik*, vol. 62, iss. 2, pp. 199-212, 2017

Physiological closed-loop control of mechanical ventilation and extracorporeal membrane oxygenation

Bibtex entry :

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@article { BMK+17,
  author = { Brendle, Christian and M{"u}lders, Thorsten and
K{"u}hn,
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  title = { Physiological closed-loop control of mechanical
ventilation
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  publisher = { de Gruyter },
  pages = { 199-212 },
  volume = { 62 },
  number = { 2 },
  year = { 2017 },
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  issn = { 1862-278X },
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  url = { http://publications.rwth-aachen.de/record/707843 },
}
```

[CMW+17]

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Chomicz, P., Müller-Lerwe, A., Wegner, G., Busch, R., and Kowalewski, S., "Towards the Use of Controlled Natural Languages in Hazard Analysis and Risk Assessment", in *Proc. Automotive - Safety & Security 2017 : Sicherheit und Zuverlässigkeit für automobile Informationstechnik : 30.-31. Mai 2017 Stuttgart, Germany / Peter Dencker, Herbert Klenk, Hubert B. Keller, Erhard Plödereder (Hrsg.)*, Bonn, 2017 in GI-Edition : lecture notes in informatics. Proceedings, Gesellschaft für Informatik e.V. (GI), pp. 163-174.

Towards the Use of Controlled Natural Languages in Hazard Analysis and Risk Assessment

Bibtex entry :

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@inproceedings { CMW+17,
  author = { Chomicz, Paul and Müller-Lerwe, Armin and Wegner,
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    Analysis and Risk Assessment },
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    30.-31. Mai 2017 Stuttgart, Germany / Peter Dencker, Herbert
    Klenk, Hubert B. Keller, Erhard Pl{"o}dereder (Hrsg.) },
  publisher = { Gesellschaft f{"u}r Informatik e.V. (GI) },
  pages = { 163-174 },
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  year = { 2017 },
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  organization = { Automotive - Safety & Security 2017 : Sicherheit
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}
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[DDK+17]

[PDFBIB](#)

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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Bibtex entry :

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@inproceedings { DDK+17,
  author = { Dankert, Jens and Dernehl, Christian and Kusmenko,
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    zum gleichnamigen 18. Braunschweiger Symposium vom 8. und 9.
    Februar 2017, Stadthalle, Braunschweig / ITS automotive nord
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Automatisiertes und
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geeignete-Paradigmen-fuer-Kooperativ-Interagierende-
Automobile.pdf?PHPSESSID=eb66ba2042d9500e5135d33f6b7575af },
}

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[DKK17]

PDFBIB

Dernehl, C., Kühn, J., and Kowalewski, S., "Case studies on automated verification with slope boundaries for block diagrams", *Computer Languages, Systems & Structures*, vol. 54, pp. 528-543, 2017

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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    journal = { Computer Languages, Systems & Structures },
    publisher = { Elsevier Science },
    pages = { 528-543 },
    volume = { 54 },
    year = { 2017 },
    address = { Amsterdam [u.a.] },
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    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/752271 },
}

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[DSF+17]

[PDFBIB](#)

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eNav: A Suitable Navigation System for the Disabled

Bibtex entry :

```
@inproceedings { DSF+17,
  author = { Dzafic, Dzenan and Schoonbrood, Pierre and Franke,
Dominik
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  booktitle = { Ambient Assisted Living : 9. AAL-Kongress,
Frankfurt/M,
    Germany, April 20 - 21, 2016 / edited by Reiner Wichert,
    Beate Mand },
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},
  pages = { 133-150 },
  series = { Advanced Technologies and Societal Change },
  year = { 2017 },
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Frankfurt/M
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[DWS+17]

[PDFBIB](#)

Dzafic, D., Wagener, N., Schoonbrood, P., Franke, D., and Kowalewski, S., "Multimodales Dynamisches Routen mit eNav", in *Proc. agit_2017 geospatialonline / Herausgeber: Prof. Dr. Josef Strobl, Dr. Bernhard Zagel, Mag. Gerald Griesebner, Prof. Dr. Thomas Blaschke*, Berlin ; Offenbach, 2017 in *AGIT : Journal für angewandte Geoinformatik*, Wichmann, pp. 278-287.

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Bibtex entry :

```
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  author = { Dzafic, Dzenan and Wagener, Nicolas and Schoonbrood,
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Peter
    and Franke, Dominik and Kowalewski, Stefan },
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Josef
    Strobl, Dr. Bernhard Zageł, Mag. Gerald Griesebner, Prof.
    Dr. Thomas Blaschke },
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    year = { 2017 },
    address = { Berlin ; Offenbach },
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Salzburg
    (Austria), 2017-07-05 - 2017-07-07 },
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[DWS+17a]

[PDFBIB](#)

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Bibtex entry :

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@inproceedings { DWS+17a,
    author = { Dzafic, Dzenan and Wagener, Nicolas and Schoonbrood,
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    title = { Multimodal Dynamic Routing for Wheelchairs and
Pedestrians },
    booktitle = { Proceedings International Conference on Intelligent
    Transport Systems in Theory and Practice, mobil.TUM 2017 },
    publisher = { Elsevier B.V. },
    pages = { 1-10 },
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    organization = { International Conference on Intelligent Transport
Systems in
    Theory and Practice, M{"u}nchen (Germany), 2017-07-04 -
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url = { http://publications.rwth-aachen.de/record/752277 },  
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[Ger17]

[PDFBIB](#)

Gerlitz, T., "Incremental Integration and Static Analysis of Model-Based Automotive Software Artifacts", PhD Thesis, Aachen, 2017.

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

Bibtex entry :

```
@phdthesis { Ger17,  
  author = { Gerlitz, Thomas },  
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  pages = { 1 Online-Ressource (xv, 191 Seiten) : Diagramme },  
  series = { Aachener Informatik Berichte },  
  year = { 2017 },  
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http://publications.rwth-aachen.de/record/706814/files/706814.pdf },  
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[HWK+17]

[PDFBIB](#)

Hansen, N., Wiechowski, N., Kugler, A., Kowalewski, S., Rambow, T., and Busch, R., "Model-in-the-Loop and Software-in-the-Loop Testing of Closed-Loop Automotive Software with Arttest", in *Proc. Informatik 2017 - Bände I-III : Tagung vom 25.-29. September 2017 in Chemnitz / Maximilian Eibl, Martin Gaedke (Hrsg.)*, Bonn, 2017 in GI-Edition : lecture notes in informatics. Proceedings, Gesellschaft für Informatik, pp. 1537-1549.

Model-in-the-Loop and Software-in-the-Loop Testing of Closed-Loop Automotive Software with Arttest

Bibtex entry :

```
@inproceedings { HWK+17,  
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Alexander
  and Kowalewski, Stefan and Rambow, Thomas and Busch, Rainer },
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25.-29.
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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 :

```

@phdthesis { Kal17,
  author = { Kalkov, Igor },
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  title = { A real-time capable, open-source-based platform for
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Science },
  school = { RWTH Aachen University },
  pages = { 1 Online-Ressource (xx, 114 Seiten) : Illustrationen,
    Diagramme },
  series = { Aachener Informatik-Berichte },
  year = { 2017 },
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http://publications.rwth-aachen.de/record/719343/files/719343.pdf },  
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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", *Biomedizinische Technik*, vol. 62, iss. 2, pp. 213-224, 2017

Decentralized safety concept for closed-loop controlled intensive care : Supervision of a blood pump during extracorporeal circulation

Bibtex entry :

```
@article { KBS+17,  
  author = { K{"u}hn, Jan and Brendle, Christian and Stollenwerk,  
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  pages = { 213-224 },  
  volume = { 62 },  
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  year = { 2017 },  
  address = { Berlin [u.a.] },  
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  url = { http://publications.rwth-aachen.de/record/707857 },  
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```

[KGK17]

[PDFBIB](#)

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.

Explicit prioritization of parallel Intent broadcasts in

real-time Android

Bibtex entry :

```
@inproceedings { KGK17,
  author = { Kalkov, Igor and Gurghian, Alexandru and Kowalewski,
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for
  Real-Time and Embedded systems, Niagara Falls, NY (USA),
2014-10-13 - 2014-10-14 },
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```

[KKR+17]

[PDFBIB](#)

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Metrics-based strategies for quality assurance of automotive embedded software

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  author = { Kugler, Christopher and Kowalewski, Stefan and
Richenhagen,
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Automobil- und
Motorentechnik, Stuttgart (Germany), 2017-03-14 - 2017-03-15 },
doi = { 10.1007/978-3-658-16988-6_56 },
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url = { http://publications.rwth-aachen.de/record/752278 },
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[Leo17]

[PDFBIB](#)

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author = { Leonhardt, Steffen },
title = { Special Issue: Smart Life Support },
booktitle = { Biomedizinische Technik },
publisher = { de Gruyter },
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volume = { 62 },
number = { 2 },
year = { 2017 },
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https://www.degruyter.com/view/j/bmte.2017.62.issue-2/issue-files/bmte.2017.62.issue-2.xml },
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[NKM+17]

[PDFBIB](#)

Nowack, J., Kugler, C., Maquet, R., Richenhagen, J., and Remelhe, F., "Continuous process for the validation of transmission controls." 2017.

Continuous process for the validation of transmission controls

Bibtex entry :

```
@inproceedings { NKM+17,  
  author = { Nowack, Jan and Kugler, Christopher and Maquet, Ralf and  
    Richenhagen, Johannes and Remelhe, Filipe },  
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https://drivetrain-symposium.world/cn/continuous-process-validation-tra  
nsmission-controls/ },  
}
```

[SAB+17]

[PDFBIB](#)

Schupp, S., Ábrahám, E., Ben Makhlof, I., and Kowalewski, S., "HyPro: A C++ Library of State Set Representations for Hybrid Systems Reachability Analysis" Cham: Springer, 2017, vol. 10227, pp. 288-294.

HyPro: A C++ Library of State Set Representations for Hybrid Systems Reachability Analysis

Bibtex entry :

```
@inbook { SAB+17,  
  author = { Schupp, Stefan and Ábrahám, Erika and Ben Makhlof,  
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  title = { HyPro: A C++ Library of State Set Representations for  
Hybrid  
  Systems Reachability Analysis },  
  booktitle = { NASA formal methods : 9th international symposium,  
NFM 2017,  
  Moffett Field, CA, USA, May 16-18, 2017 : proceedings /  
  Clark Barrett, Misty Davies, Temesghen Kahsai (eds.) },  
  publisher = { Springer },  
  pages = { 288-294 },  
  volume = { 10227 },  
  series = { Lecture Notes in Computer Science },  
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[SKS+17]

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Bibtex entry :

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@article { SKS+17,
  author = { Stollenwerk, André and Kopp, R{"u}dger and Sehl,
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[SPD+17]

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Smartphone App

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@inproceedings { SPD+17,
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  booktitle = { Digital Human Modeling. Applications in Health,
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International Conference, DHM 2017, Held as Part of HCI
International 2017, Vancouver, BC, Canada, July 9-14, 2017,
Proceedings, Part II / edited by Vincent G. Duffy },
  publisher = { Springer International Publishing },
  pages = { 365-383 },
  series = { Lecture Notes in Computer Science },
  year = { 2017 },
  address = { Cham },
  organization = { 19th International Conference on Human-Computer
Interaction,
Vancouver (Canada), 2017-07-09 - 2017-07-14 },
  doi = { 10.1007/978-3-319-58466-9_33 },
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[SSK+17]

[PDFBIB](#)

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Kowalewski,
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title = { Unterst{"u}tzte Handerkennung in Thermographiebildern
zur
Validierung der hygienischen H{"a}ndedesinfektion },
booktitle = { Bildverarbeitung f{"u}r die Medizin 2017 :
Algorithmen -
Systeme - Anwendungen. Proceedings des Workshops vom 12. bis
14. M{"a}rz 2017 in Heidelberg / herausgegeben von Klaus
Hermann Maier-Hein, geb. Fritzsche, Thomas Martin Deserno,
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pages = { 147-152 },
series = { Informatik aktuell },
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Algorithmen -
Systeme - Anwendungen, Heidelberg (Germany), 2017-03-12 -
2017-03-14 },
doi = { 10.1007/978-3-662-54345-0_35 },
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url = { http://publications.rwth-aachen.de/record/752321 },
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[SSM+17]

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Enrichment of a diving computer with body sensor network data

Bibtex entry :

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@inproceedings { SSM+17,
author = { Stollenwerk, André and Sehl, Florian and Marx, Gernot
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Kowalewski, Stefan and Janisch, Thorsten },
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booktitle = { 2017 IEEE 14th International Conference on Wearable
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sponsors: IEEE, EMB },
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pages = { 169-172 },
year = { 2017 },

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address = { Piscataway, NJ },
organization = { 2017 IEEE 14th International Conference on
Wearable and
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2017-05-09 - 2017-05-12 },
doi = { 10.1109/BSN.2017.7936034 },
typ = { PUB:(DE-HGF)7 },
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cin = { 122810 / 120000533000-3 },
url = { http://publications.rwth-aachen.de/record/717241 },
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[WKK+17]

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@inproceedings { WKK+17,
author = { Walter, Marian and Kunczik, Janosch and K{"u}hn, Jan
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Janisch, Thorsten and Kopp, R{"o}dger and Leonhardt,
Steffen },
title = { Robust control of extracorporeal gas exchange },
booktitle = { Abstract Book at EMBEC'17 & NBC'17 : the Joint
conference of
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(EMBEC) and the Nordic-Baltic Conference on Biomedical
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Editors: Jennika Karvinen, Janne Koivisto, Sampo Tuukkanen,
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publisher = { BioMediTech Institute and Faculty of Biomedical
Sciences and
Engineering Tampere University of Technology },
pages = { 365, 150-150 },
year = { 2017 },
address = { Finland },
organization = { Joint conference of the European Medical and
Biological
Engineering Conference (EMBEC) and the Nordic-Baltic
Conference on Biomedical Engineering and Medical Physics
(NBC), Tampere (Finland), 2017-06-11 - 2017-06-15 },
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reportid = { RWTH-2018-221548 },
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[WRB+17]

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  author = { Wiechowski, Norbert and Rambow, Thomas and Busch, Rainer
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  title = { Arttest - a New Test Environment for Model-Based Software
Development },
  booktitle = { [WCX 17: SAE World Congress Experience] : [April 4-6,
2017,
  Detroit, Michigan, USA, Cobo Center] / SAE International },
  publisher = { SAE International },
  pages = { 11 Seiten },
  series = { SAE technical paper },
  year = { 2017 },
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(USA),
  2017-04-04 - 2017-04-06 },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752280 },
}
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[Ben16]

[PDFBIB](#)

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Bibtex entry :

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@phdthesis { Ben16,
  author = { Ben Makhlouf, Ibtissem },
  othercontributors = { Kowalewski, Stefan and Frehse, Goran },
  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 },
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  year = { 2016 },
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[BHK+16]

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Brendle, C., Hackmack, K. -F., Kühn, J., Wardeh, M. N., Janisch, T., Kopp, R., Rossaint, R., Stollenwerk, A., Kowalewski, S., Leonhardt, S., Walter, M., and Misgeld, B. J. E., "Closed-loop control of extracorporeal oxygen and carbon dioxide gas transfer", *Control engineering practice*, p. 10, 2016

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  author = { Brendle, Christian and Hackmack, K.-F. and K{"u}hn, Jan
and
  Wardeh, M. N. and Janisch, T. and Kopp, R{"o}dger and
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  Stefan and Leonhardt, Steffen and Walter, Marian and
  Misgeld, Berno Johannes Engelbert },
  title = { Closed-loop control of extracorporeal oxygen and carbon
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  journal = { Control engineering practice },
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address = { Amsterdam [u.a.] },
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[BHK+16a]

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  author = { Brendle, Christian and Hackmack, K.-F. and Kühn, Jan
and
  Wardeh, M. N. and Janisch, T. and Kopp, Rolf and
  Rossaint, Rolf and Stollenwerk, André and Kowalewski,
  Stefan and Misgeld, Berno Johannes Engelbert and Leonhardt,
  Steffen and Walter, Marian },
  title = { Continuous gas transfer monitoring during extracorporeal
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  publisher = { Elsevier },
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[Bia16]

[PDFBIB](#)

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Verification of programmable logic controller code using model checking and static analysis

Bibtex entry :

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@phdthesis { Bia16,
  author = { Biallas, Sebastian },
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    Diagramme },
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http://publications.rwth-aachen.de/record/668156/files/668156.pdf },
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[BK16]

[PDFBIB](#)

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  author = { Banila, Madalina and Kowalewski, Stefan },
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    f{"u}r sicherheitskritische eingebettete Software im
    Automobilbereich },
  booktitle = { Entwurf komplexer Automatisierungssysteme :
    Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen :
    EKA 2016 : 24.-25.05.2016, 14. Fachtagung mit Tutorium /
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    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.
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    pages = { 1-10 },
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    url = { http://publications.rwth-aachen.de/record/690534 },
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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,
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  publisher = { IEEE },
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typ = { PUB:(DE-HGF)7 },
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}

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[BSK+16]

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Bibtex entry :

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world :
  17. Branchentreff der Mess- und Automatisierungstechnik :
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  address = { D{\u}sseldorf },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/680852 },
}

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[BSK16]

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Bibtex entry :

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  author = { Bohlender, Dimitri and Simon, Hendrik and Kowalewski,
Stefan },
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PLCopen automata },
  booktitle = { MBMV 2016 : 19. GI/ITG/GMM-Workshop "Methoden und
Beschreibungsprachen zur Modellierung und Verifikation von
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(Herausgeber) },
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zur Modellierung und Verifikation von Schaltungen und
Systemen", Freiburg im Breisgau (Germany), 2016-03-01 -
2016-03-02 },
  doi = { 10.6094/UNIFR/10636 },
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  reportid = { RWTH-CONV-207902 },
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  url = {
http://publications.rwth-aachen.de/record/573821/files/573821.pdf },
}
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[Der16]

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Automatic invariant checking for discrete block diagrams using Lyapunov functions with sat modulo theory solvers

Bibtex entry :

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@inproceedings { Der16,
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title = { Automatic invariant checking for discrete block diagrams
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year = { 2016 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/696194 },
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[DHK16]

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Abstract Interpretation of MATLAB Code with Interval Sets

Bibtex entry :

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@inproceedings { DHK16,
author = { Dernehl, Christian and Hansen, Norman and Kowalewski,
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: Joint 21st International Workshop on Formal Methods for
Industrial Critical Systems and 16th International Workshop
on Automated Verification of Critical Systems, FMICS-AVoCS
2016, Pisa, Italy, September 26-28, 2016 : proceedings /
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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year = { 2016 },
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doi = { 10.1007/978-3-319-45943-1 },
typ = { PUB:(DE-HGF)7 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/680837 },
}
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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

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@inproceedings { DHK16a,
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[DKK16]

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[DKS+16]

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  organization = { 28. AGIT-Symposium, Salzburg (Austria), 2016-07-06  
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[DLS+16]

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[GK16]

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[GK16a]

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url = { http://publications.rwth-aachen.de/record/682945 },
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[GK16b]

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[GNK16]

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Synthesis Tool for Automation Controller Supervision

Bibtex entry :

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@inproceedings { GTN+16,
  author = { G{"o}be, Florian and Timmermanns, Thomas and Ney,
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[KBS+16]

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[KSB+16]

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Bibtex entry :

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  author = { Kühn, Jan and Stollenwerk, André and Brendle, Christian
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  booktitle = { [Gemeinsamer Tagungsband der Workshops der Tagung
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Edited by: Wolf Zimmermann, Lukas Alperowitz, Bernd
Br{u}gge, J{o}rn Fahsel, Andrea Herrmann, Anne Hoffmann,
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[KVS+16]

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  publisher = { Hochschule Wismar, Fakult{"a}t f{"u}r
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  address = { Wismar },
  organization = { Automatisierungsverfahren f{"u}r die Medizin
2016, Wismar
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http://automed2016.hs-wismar.de/wp-content/uploads/2017/02/Kuehn_Inform
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[SK16]

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[SSJ+16]

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[SSS16]

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[SSS16a]

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2nd Workshop on Fail Safety in Medical Cyber-Physical Systems (FS-MCPS)

Bibtex entry :

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@inproceedings { SSS16a,
  author = { Schlaefer, Alexander and Schupp, Sibylle and
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    Software
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      Edited by: Wolf Zimmermann, Lukas Alperowitz, Bernd
      Br{"u"}gge, J{"o"}rn Fahsel, Andrea Herrmann, Anne Hoffmann,
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[TSN+16]

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[WBK+16]

[PDFBIB](#)

Walter, M., Brendle, C., Kühn, J., Janisch, T., Kopp, R., Stollenwerk, A., and Leonhardt, S., "Assistive Control of Extracorporeal Oxygenation Systems", in *Proc. [Proceedings of the 12th Russian-German Conference on Biomedical Engineering]*, 2016, pp. 222-226.

Assistive Control of Extracorporeal Oxygenation Systems

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

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Zimmermann, W., Alperowitz, L., Brügge, B., Fahsel, J., Herrmann, A., Hoffmann, A., Krall, A., Landes, D., Lichter, H., Riehle, D., Schaefer, I., Scheuermann, C., Schlaefer, A., Schupp, S., Seitz, A., Steffens, A., Stollenwerk, A., and Weißbach, R., Eds., *Gemeinsamer Tagungsband der Workshops der Tagung Software Engineering 2016 (SE-WS 2016)*, Wien, 23.-26. Februar 2016, Aachen: RWTH, 2016.

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}
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[BFS+15]

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  author = { Biallas, Sebastian and Friedrich, Nico and Simon,  
Hendrik  
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[BGK15]

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  author = { Ben Makhlof, Ibtissem and Gan, Jonathan and Kowalewski,  
Stefan },  
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in  
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[BHK+15]

[PDFBIB](#)

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[BK15]

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Networked Cooperative Platoon of Vehicles for Testing Methods and Verification Tools

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@inbook { BK15,
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12. Juni 2015 / VDI/VDE-Gesellschaft Mess- und
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Automation 2015, Baden-Baden (Germany), 2015-06-11 -

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[CSB+15]

[PDFBIB](#)

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Analysis },
  booktitle = { NASA Formal Methods ; 7th International Symposium,
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  Pasadena, Calif., USA, April 27-29, 2015, Proceedings /
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  publisher = { Springer },
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  volume = { 9058 },
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[DHG+15]

[PDFBIB](#)

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Oktober  
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Informatik,  
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[Dia15]

[PDFBIB](#)

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Bibtex entry :

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@phdthesis { Dia15,  
  author = { Diab, Hilal },  
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[DKF+15]

[PDFBIB](#)

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[dMK+15]

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url = { http://ezb.uni-regensburg.de/?2083549 },
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[FKL15]

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Testing life cycle-related properties of mobile applications

Bibtex entry :

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@techreport { FKL15,
  author = { Franke, Dominik and Kowalewski, Stefan and Lichter,
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[GSK15]

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Michaela Huhn, Jan Philipps, Bernhard Sch{"a}tz },
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  year = { 2015 },
  organization = { Dagstuhl-Workshop MBEES, Dagstuhl (Germany),
2015-03-22 -
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[GTD15]

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@inproceedings { GTD15,
  author = { Gerlitz, Thomas and Tran, Quang Minh and Dziobek,
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Engineering :
Proceedings of the International Workshop on Modelling in
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Automotive Software Engineering co-located with ACM/IEEE
18th International Conference on Model Driven Engineering
Languages and Systems (MODELS 2015) : Ottawa, Canada.
September 27, 2015 / Edited by Michal Antkiewicz * Joanne
Atlee ** Juergen Dingel *** Ramesh S **** (* Electrical and
Computer Engineering, University of Waterloo, Waterloo,
Ontario, Canada ** School of Computer Science, University of
Waterloo, Waterloo, Ontario, Canada *** School of Computing,
Queen's University, Kingston, Ontario, Canada **** Global
Research and Development, General Motors, Warren, Michigan,
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    Applications },
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    symposium,
      Oslo, Norway, June 24 - 26, 2015 ; proceedings / Nikolaj
      Bjørner; Frank de Boer (eds.) },
  publisher = { Cham },
  pages = { 585-588 },
  volume = { 9109 },
  series = { Lecture Notes in Computer Science },
  year = { 2015 },
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organization = { 20th International Symposium Formal Methods, Oslo
(Norway),
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doi = { 10.1007/978-3-319-19249-9_38 },
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url = { http://publications.rwth-aachen.de/record/541096 },
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[JMR+15]

[PDFBIB](#)

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  author = { Jawawi, Dayang N. A. and Mamat, Rosbi and Ridzuan,
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    and Khatibsyarbini, Muhammad and Zulkifli, M. and Zaki,
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  title = { Introducing computer programming to secondary school
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(Malaysia), 2015-05-31 - 2015-06-03 },
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[KGK15]

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  author = { Kalkov, Igor and Gurghian, Alexandru and Kowalewski,
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  title = { Priority Inheritance during Remote Procedure Calls in
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  booktitle = { Proceedings of the 13th International Workshop on
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- ACM Press New York, New York, USA, 2015 },
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for
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- 2015-10-08 },
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  author = { Kowalewski, Stefan and Kalkov, Igor and Obster, Mathias
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[KSB+15]

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  pages = { 169-170 },
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[KSK+15]

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  author = { K{"u}hn, Jan and Stollenwerk, André and Kowalewski,
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Rossaint, Rolf },
title = { Pulsatile Ansteuerung einer Diagonalblutpumpe },
journal = { Atp-Edition },
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pages = { 52-59 },
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https://www.di-verlag.de/de/Zeitschriften/atp-edition/2015/10/Pulsatile-Ansteuerung-einer-Diagonalblutpumpe },
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    doi = { 10.1109/Trustcom.2015.377 },
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  title = { Safety Conflict Analysis in Medical Cyber-Physical
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[KWS+15]

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  Automation 2015, Baden-Baden (Germany), 2015-06-11 -
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  url = { http://publications.embedded.rwth-aachen.de/file/65 },
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[SAC+15]

[PDFBIB](#)

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  author = { Schupp, Stefan and Abraham, Erika and Chen, Xin and Ben
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  title = { Current Challenges in the Verification of Hybrid Systems
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url = { http://publications.rwth-aachen.de/record/564375 },
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[SFB+15]

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[SKW+15]

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  author = { Stollenwerk, André and K{"u}hn, Jan and Walter, Marian
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Data },
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Engineering 2015, Dresden, 17. - 18. M{"a}rz 2015 / hrsg.
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[SLR+15]

[PDFBIB](#)

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Systems

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  booktitle = { Mobile Computing, Applications, and Services : 5th  
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                November 7-8, 2013, Revised Selected Papers },  
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cin = { 120000 / 122810 },
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  year = { 2014 },
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pages = { 400-405 },
year = { 2014 },
address = { Cachan, France },
doi = { 10.3182/20140514-3-FR-4046.00065 },
typ = { PUB:(DE-HGF)8 },
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cin = { 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/443854 },
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[DBB+14]

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        Australia, the University of New South Wales, Australia. Ed.
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  author = { Dzafic, Dzenan and Franke, Dominik },
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    Bodenbeschaffenheit in das eNav-System : [Zusammenfassung
    der ] Masterarbeit },
  booktitle = { Informatiktage 2014 / Fachwissenschaftlicher
    Informatik-Kongress, 27. und 28. März 2014,
    Hasso-Plattner-Institut der Universität Potsdam ... },
  publisher = { Ges. für Informatik },
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  author = { Dzafic, Dzenan and Franke, Dominik and Baumeister, Danni
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AGIT-Symposium Salzburg / Strobl/ Blaschke/Griesebner/Zagl
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}
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  author = { F{"o}rster, Marc and Auerswald, Marko and Keldenich,
Phillip and Kowalewski, Stefan },
  title = { Semantic interfaces for automotive software components:
exemplary development & validation of a practical
specification language },
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  url = { http://publications.rwth-aachen.de/record/752291 },
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  author = { Franke, Dominik and Kowalewski, Stefan },
  title = { Concept and Experiences on Using a Wiki-Based System for
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  booktitle = { Information technology and open source: applications
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  education, innovation, and sustainability : SEFM 2012
  Satellite Events, InSuEdu, MoKMaSD, and OpenCert,
  Thessaloniki, Greece, October 1 - 2, 2012 ; revised selected
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  Alexeis Garcia-Perez; Panagiotis Katsaros; Siraj Ahmed
  Shaikh; Ioannis Stamelos (eds.) },
  publisher = { Springer },
  pages = { 140-146 },
  volume = { 7991 },
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  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/225247 },
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and Structured Assessment of Declarative Interface
Descriptions },
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Engineering workshops (ISSREW), 2014 : 3 - 6 Nov. 2014,
Naples, Italy ; proceedings },
publisher = { IEEE },
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Reliability
Engineering Workshops, Naples (Italy), 2014-11-03 -
2014-11-06 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/462802 },
}
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author = { G{"u"}ckel, Dominique },
othercontributors = { Kowalewski, Stefan and Leupers, Rainer },
title = { Synthesis of state space generators for model checking
microcontroller code },
publisher = { Fachgruppe Informatik, RWTH Aachen University },
school = { Aachen, Techn. Hochsch. },
pages = { XI, 181 S. : Ill., graph. Darst. },
series = { Aachener Informatik-Berichte Technical report /
Department
of Computer Science, RWTH Aachen },
year = { 2014 },
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http://publications.rwth-aachen.de/record/464374/files/5296.pdf },
}
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[JGN14]

[PDFBIB](#)

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  author = { Jansen, Christina and G{"o"}be, Florian and Noll, Thomas
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  booktitle = { Graph transformation : 7th international conference,
  ICGT
  2014, held as part of STAF 2014, York, UK, July 22 - 24,
  2014 ; proceedings / Holger Giese ... (eds.) },
  publisher = { Springer },
  pages = { 65-80 },
  volume = { 8571 },
  series = { Lecture notes in computer science },
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  url = { http://publications.rwth-aachen.de/record/444215 },
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  author = { Kalkov, Igor and Gurchian, Alexandru and Kowalewski,
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Technologies for Real-time and Embedded Systems : JTRES 2014
: Niagara Falls, NY, USA, October 13th-14th, 2014 },
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for
Real-time and Embedded Systems, Niagara Falls, NY (USA),
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Editorial for the Software Engineering 2013 Conference

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@article { KRR14,
author = { Kowalewski, Stefan and Ringert, Jan Oliver and Rumpe,
Bernhard },
title = { Editorial for the Software Engineering 2013 Conference },
journal = { Computer science - research and development },
publisher = { Springer },
year = { 2014 },
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issn = { 1865-2034 },
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url = {
http://www.se-rwth.de/publications/Editorial-for-the-Software-Engineeri
ng-2013-Conference.pdf },
}
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[Mer14]

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Bibtex entry :

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@phdthesis { Mer14,
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http://publications.rwth-aachen.de/record/229247/files/4967.pdf },
}
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[OKK14]

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  author = { Obster, Mathias and Kowalewski, Stefan and Kalkov, Igor },
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  publisher = { IEEE },
  pages = { 8 Seiten },
  year = { 2014 },
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url = { http://publications.embedded.rwth-aachen.de/file/5e },
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[Pal14]

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Time continuous behaviour comparison based on abstract models

Bibtex entry :

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@phdthesis { Pal14,
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http://publications.rwth-aachen.de/record/229310/files/4941.pdf },
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    and Steininger, Andreas and Kowalewski, Stefan },
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    author = { Reinbacher, Thomas and Fuegger, Matthias and Brauer,
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    journal = { Formal methods in system design },
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[SKB+14]

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Spain, 16 - 19 September 2014 / [co-sponsored by Universitat  
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Industrial Electronics Society] },  
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[SKB+14a]

[PDFBIB](#)

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}

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  author = { Vogel-Heuser, Birgit and Diedrich, Christian and Fay,
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    Wollschlaeger, Martin and G{"o}hner, Peter },
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  url = { http://publications.rwth-aachen.de/record/234400 },
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[WSL+14]

[PDFBIB](#)

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pp. 69-88.

SCandal: SystemC Analysis for Nondeterminism Anomalies

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    Selected Contributions from FDL 2012 / edited by Jan Haase },  
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}
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[BBK13]

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@inproceedings { BBK13,  
  author = { Biallas, Sebastian and Bohlender, Dimitri and  
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[BDK13]

[PDFBIB](#)

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  author = { Ben Makhlof, Ibtissem and Diab, Hilal and Kowalewski,
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      IEEE Control Systems Society; IEEE Robotics & Automation
      Society ... Ed. by Panos Antsaklis ...]. - 1-2 },
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}
```

[BGK13]

[PDFBIB](#)

Biallas, S., Giacobbe, M., and Kowalewski, S., "Predicate Abstraction for Programmable Logic Controllers" Berlin, Heidelberg ; s.l.: Springer Berlin Heidelberg ; Imprint: Springer, 2013, vol.

8187, pp. 123-138.

Predicate Abstraction for Programmable Logic Controllers

Bibtex entry :

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@inbook { BGK13,
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  booktitle = { Formal Methods for Industrial Critical Systems : 18th
                International Workshop, FMICS 2013, Madrid, Spain, September
                23-24, 2013. Proceedings / edited by Charles Pecheur,
                Michael Dierkes },
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  pages = { 123-138 },
  volume = { 8187 },
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  author = { Ben Makhlouf, Ibtissem and Hänsch, Paul and
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(ECC) :
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    July 17 -19, 2013, Zuerich, Switzerland },
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    url = { http://publications.rwth-aachen.de/record/225184 },
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  author = { Brauer, J{"o}rg and Kowalewski, Stefan },
  title = { Automatic abstraction for bit vectors using decision
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  publisher = { Fachgruppe Informatik, RWTH Aachen University },
  pages = { IV, 207 S. : graph. Darst. },
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26. Juni 2013 / VDI/VDE-Gesellschaft Mess- und
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Abstract interpretation of microcontroller code: Intervals meet congruences

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  url = { http://publications.rwth-aachen.de/record/752296 },
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  Information Technology, Bonn / Gesellschaft f{"u}r
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  publisher = { ACM },
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  organization = { 15th International Conference, TACAS 2009, York
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  url = { http://publications.rwth-aachen.de/record/752289 },
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  pages = { 379 S. : Ill., graph. Darst. },
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  booktitle = { Model-Based Methodologies for Pervasive and Embedded
    Software : 8th International Workshop, MOMPES 2012, Essen,
    Germany, September 4, 2012. Revised Papers / edited by
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publisher = { Springer },
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author = { Neugebauer, Johannes and Hanrath, Michael and Mitric,
Roland },
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}
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[SDK13]

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author = { Schommer, John F. and Gerlitz, Thomas and Kowalewski,
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url = { http://jrwrtc.science.uva.nl/JRWRTC13_proceedings.pdf },
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[Sto13]

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Stollenwerk, A., "Ein modellbasiertes Sicherheitskonzept für die extrakorporale Lungenunterstützung", PhD Thesis, Aachen, 2013.

Ein modellbasiertes Sicherheitskonzept für die extrakorporale Lungenunterstützung

Bibtex entry :

```
@phdthesis { Sto13,
  author = { Stollenwerk, André },
  othercontributors = { Kowalewski, Stefan },
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http://publications.rwth-aachen.de/record/229222/files/4764.pdf },
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```

[VK13]

[PDFBIB](#)

Vogel-Heuser, B. and Kowalewski, S., "Cyber-physical Systems", *Automatisierungstechnik : at*, vol. 61, iss. 10, pp. 667-668, 2013

Cyber-physical Systems

Bibtex entry :

```
@article { VK13,
  author = { Vogel-Heuser, Birgit and Kowalewski, Stefan },
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  journal = { Automatisierungstechnik : at },
  publisher = { Oldenbourg },
  pages = { 667-668 },
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}
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[WBS+13]

PDFBIB

Walter, M., Brendle, C., Stollenwerk, A., Kopp, R., Arens, J., Bensberg, R., and Leonhardt, S., "Patient oriented closed loop control of extracorporeal lung assist", in *Proc. Journal of critical care*, New York, NY, 2013, vol. 28, Elsevier, p. e8-e9.

Patient oriented closed loop control of extracorporeal lung assist

Bibtex entry :

```
@inproceedings { WBS+13,
  author = { Walter, Marian and Brendle, Christian and Stollenwerk,
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}
```

[WGM+13]

PDFBIB

Wiechowski, N., Gerlitz, T., Merschen, D., and Kowalewski, S., "Ein Ansatz zum merkmalsbasierten Konsistenzmanagement in der Produktlinienentwicklung"Bonn: Gesellschaft für Informatik e.V., 2013, vol. 12, pp. 2502-2516.

Ein Ansatz zum merkmalsbasierten Konsistenzmanagement in der Produktlinienentwicklung

Bibtex entry :

```
@inbook { WGM+13,
  author = { Wiechowski, Norbert and Gerlitz, Thomas and Merschen,
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der
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Produktlinienentwicklung },
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  fachwissenschaftlicher Informatik-Kongress 22. und 23.
  M{"a}rz 2013 B-IT Bonn-Aachen International Center for
  Information Technology, Bonn / Gesellschaft f{"u}r
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publisher = { Gesellschaft f{"u}r Informatik e.V. },
pages = { 2502-2516 },
volume = { 12 },
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[WSB+13]

[PDFBIB](#)

Walter, M., Stollenwerk, A., Bensberg, R., Kopp, R., and Leonhardt, S., "Smart ECLA—closed loop control of O₂ and CO₂ for management of extracorporeal lung assist", *Journal of critical care*, vol. 28, p. e41-e42, 2013

Smart ECLA—closed loop control of O₂ and CO₂ for management of extracorporeal lung assist

Bibtex entry :

```
@article { WSB+13,
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```

[BBK+12]

[PDFBIB](#)

Biallas, S., Brauer, J., King, A., and Kowalewski, S., "Loop Leaping with Closures", in *Proc. Static Analysis : 19th International Symposium, SAS 2012, Deauville, France, September 11-13, 2012. Proceedings / edited by Antoine Miné, David Schmidt*, Berlin, Heidelberg, 2012 in *Lecture Notes in Computer Science*, Springer, pp. 214-230.

Loop Leaping with Closures

Bibtex entry :

```
@inproceedings { BBK+12,
  author = { Biallas, Sebastian and Brauer, J{\o}rg and King, Andy
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2012,
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[BBK12]

[PDFBIB](#)

Beckschulze, E., Biallas, S., and Kowalewski, S., "Static Analysis of Lockless Microcontroller C Programs", in *Proc. Proceedings Seventh Conference on Systems Software Verification (SSV 2012) : Sydney, Australia, 28-30 November 2012 / Franck Cassez, Ralf Huuck, Gerwin Klein and Bastian Schlich*, Sydney, Australia, 2012 in *Electronic proceedings in theoretical computer science : EPTCS*, pp. 103-114.

Static Analysis of Lockless Microcontroller C Programs

Bibtex entry :

```
@inproceedings { BBK12,
  author = { Beckschulze, Eva and Biallas, Sebastian and Kowalewski,
Stefan },
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[BBK12a]

[PDFBIB](#)

Beckschulze, E., Brauer, J., and Kowalewski, S., "Access-Based Localization for Octagons", *Electronic notes in theoretical computer science : ENTCS*, vol. 287, pp. 29-40, 2012

Access-Based Localization for Octagons

Bibtex entry :

```
@article { BBK12a,
author = { Beckschulze, Eva and Brauer, J{"o}rg and Kowalewski,
Stefan },
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ENTCS },
publisher = { Elsevier Science },
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volume = { 287 },
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[BBK12b]

[PDFBIB](#)

Biallas, S., Brauer, J., and Kowalewski, S., "Arcade.PLC : a Verification Platform for Programmable Logic Controllers", in *Proc. 2012 proceedings of the 27th IEEE/ACM International Conference on Automated Software Engineering (ASE 2012) : Essen, Germany, 3 - 7 September 2012*, Piscataway, NJ, 2012, IEEE, pp. 338-341.

Arcade.PLC : a Verification Platform for Programmable Logic Controllers

Bibtex entry :

```
@inproceedings { BBK12b,  
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Logic  
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[BDK12]

[PDFBIB](#)

Ben Makhlof, I., Diab, H., and Kowalewski, S., "Safety Verification of a Controlled Cooperative Platoon Under Loss of Communication Using Zonotopes", in *Proc. Inproceeding of the 4th IFAC Conference on Analysis and Design of Hybrid Systems (ADHS 12)*, Eindhoven, NL, 2012, pp. 333-338.

Safety Verification of a Controlled Cooperative Platoon Under Loss of Communication Using Zonotopes

Bibtex entry :

```
@inproceedings { BDK12,  
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[BHK+12]

[PDFBIB](#)

Brauer, J., Hansen, R. R., Kowalewski, S., Larsen, K. G., and Olesen, M. C., "Adaptable Value-Set Analysis for Low-Level Code", in *Proc. 6th International Workshop on Systems Software Verification (SSV 2011) [Elektronische Ressource] / Hrsg.: Jörg Brauer ; Marco Roveri ; Hendrik Tews, Wadern, 2012 in OASICS - OpenAccess Series in Informatics, Schloss Dagstuhl - Leibniz-Zentrum für Informatik*, pp. 32-43.

Adaptable Value-Set Analysis for Low-Level Code

Bibtex entry :

```
@inproceedings { BHK+12,
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  url = { http://publications.rwth-aachen.de/record/128784 },
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```

[BK12]

[PDFBIB](#)

Barakat, K. and Kowalewski, S., "Modeling and Verification of Network Protocol Specs using Timed Pi-Calculus", in *Proc. 2012 IV International Congress on Ultra Modern Telecommunications and Control Systems (ICUMT 2012) : St. Petersburg, Russia, 3 - 5 October 2012 ; [including workshops] / IEEE, Piscataway, NJ, 2012, IEEE*, pp. 884-891.

Modeling and Verification of Network Protocol Specs using Timed Pi-Calculus

Bibtex entry :

```
@inproceedings { BK12,
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```

[BK12a]

[PDFBIB](#)

Brauer, J. and King, A., "Transfer function synthesis without quantifier elimination", *Logical methods in computer science : LMCS*, vol. 8, iss. 3, 2012

Transfer function synthesis without quantifier elimination

Bibtex entry :

```
@article { BK12a,
  author = { Brauer, J{"o}rg and King, Andy },
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http://publications.rwth-aachen.de/record/218122/files/218122.pdf },
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```

[BKN12]

[PDFBIB](#)

Barakat, K., Kowalewski, S., and Noll, T., "A Native Approach to Modeling Timed Behavior in the Pi-Calculus", in *Proc. IEEE Sixth International Symposium on Theoretical Aspects of Software Engineering : Beijing, China, 4 - 6 July 2012 ; proceedings / Edited by Tiziana Margaria, Zongyan Qiu, and Hongli Yang*, Piscataway, NJ, 2012, IEEE, pp. 253-256.

A Native Approach to Modeling Timed Behavior in the Pi-Calculus

Bibtex entry :

```
@inproceedings { BKN12,
  author = { Barakat, Kamal and Kowalewski, Stefan and Noll, Thomas
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[BKS12]

[PDFBIB](#)

Biallas, S., Kowalewski, S., and Schlich, B., "Automatische Wertebereichsanalyse von SPS-Programmen", in *Proc. Automation 2012 : der 13. Branchentreff der Mess- und Automatisierungstechnik / VDI/VDE-Gesellschaft Mess- und Automatisierungstechnik ; Kongress 'Automation 2012' ; 13 (Baden-Baden) ; 2011.06.13-14 Branchentreff der Mess- und Automatisierungstechnik*, Düsseldorf, 2012 in VDI-Berichte, VDI-Verl., pp. 79-83.

Automatische Wertebereichsanalyse von SPS-Programmen

Bibtex entry :

```
@inproceedings { BKS12,
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  Automatisierungstechnik ; Kongress 'Automation 2012' ; 13
  (Baden-Baden) ; 2011.06.13-14Branchentreff der Mess- und
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}

```

[BKS12a]

[PDFBIB](#)

Biallas, S., Kowalewski, S., and Schlich, B., "Automatische Wertebereichsanalyse -- Formale Verifikation für SPS-Programme", *Automatisierungstechnische Praxis : atp*, vol. 54, iss. 7/8, pp. 68-74, 2012

Automatische Wertebereichsanalyse -- Formale Verifikation für SPS-Programme

Bibtex entry :

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```

[BKS12b]

[PDFBIB](#)

Biallas, S., Kowalewski, S., and Schlich, B., "Range and Value-Set Analysis for Programmable

Logic Controllers", in *Proc. Proceedings of the 11th International Workshop on Discrete Event Systems*, Guadalajara, Mexico, 2012, IFAC, pp. 378-383.

Range and Value-Set Analysis for Programmable Logic Controllers

Bibtex entry :

```
@inproceedings { BKS12b,
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  url = { http://publications.rwth-aachen.de/record/752302 },
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[BS12]

[PDFBIB](#)

Brauer, J. and Simon, A., "Inferring Definite Counterexamples Through Under-Approximation", in *Proc. NASA formal methods : 4th international symposium, NFM 2012, Norfolk, VA, USA, April 3 - 5, 2012 ; proceedings / Alwyn E. Goodloe; Suzette Person (ed.)*, Berlin ; Heidelberg [u.a.], 2012 in *Lecture Notes in Computer Science*, Springer, pp. 54-69.

Inferring Definite Counterexamples Through Under-Approximation

Bibtex entry :

```
@inproceedings { BS12,
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url = { http://publications.rwth-aachen.de/record/123648 },
}
```

[BSK12]

[PDFBIB](#)

Brauer, J., Schlich, B., and Kowalewski, S., "Parallel and distributed invariant checking of microcontroller software", *Electronic notes in theoretical computer science : ENTCS*, vol. 287, pp. 45-63, 2012

Parallel and distributed invariant checking of microcontroller software

Bibtex entry :

```
@article { BSK12,
  author = { Brauer, J{\o}rg and Schlich, Bastian and Kowalewski, Stefan },
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[DBK12]

[PDFBIB](#)

Diab, H., Ben Makhoulf, I., and Kowalewski, S., "A Platoon of Vehicles Approaching an Intersection: A Testing Platform for Safe Intersections", in *Proc. 2012 15th International IEEE Conference on Intelligent Transportation Systems (ITSC) : 16 - 19 Sept. 2012, Anchorage, Alaska, USA*, Piscataway, NJ, 2012, IEEE, pp. 1918-1923.

A Platoon of Vehicles Approaching an Intersection: A

Testing Platform for Safe Intersections

Bibtex entry :

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@inproceedings { DBK12,  
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[FDB+12]

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Franke, D., Dzafic, D., Baumeister, D., and Kowalewski, S., "Energieeffizientes Routing für Elektrorollstühle", in *Proc. 13. Aachener Kolloquium Mobilität und Stadt (AMUS/ACMOTÉ)*, 2012, RWTH Aachen, pp. 65-68.

Energieeffizientes Routing für Elektrorollstühle

Bibtex entry :

```
@inproceedings { FDB+12,  
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}

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  author = { Franke, Dominik and Elsemann, Corinna and Kowalewski,
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    Mobile Applications },
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    author = { Franke, Dominik and Kowalewski, Stefan and Weise,
    Carsten },
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    booktitle = { 12th International Conference on Quality Software
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    2012 : Xi'an, Shaanxi, China, 27 - 29 August 2012 ;
    proceedings; [including workshop papers] / technical
    sponsor: IEEE Reliability Society. Ed. by Antony Tang ... },
    publisher = { IEEE },
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    year = { 2012 },
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    Xi'an,
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  title = { Dependable reuse & guarded integration of automotive
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  pages = { 1-78 },
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  url = { http://publications.rwth-aachen.de/record/752295 },
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  pages = { 137-148 },
  series = { Lecture Notes in Computer Science },
  year = { 2012 },
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[MHL+12]

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  author = { Michailidis, Alexander A. },
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  author = { Merschen, Daniel and Pott, Julian and Kowalewski, Stefan
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    2012-07-20 },
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  author = { Pleuss, Andreas and Botterweck, G{"o}tz and Dhungana,
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  url = { http://publications.rwth-aachen.de/record/197739 },
}

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  author = { Sheng, Weihua and Wiebe, Artur and Stulova, Anastasia
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  Leupers, Rainer and Kienhuis, Bart and Walters, Johan and
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  title = { FIFO Exploration in Mapping Streaming Applications onto
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  TI OMAP3530 Platform: Case Study and Optimizations },
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[WBB+12]

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  author = { Walter, Marian and Brendle, Christian and Bensberg, Ralf
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  title = { Closed loop physiological ECMO control },
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    Medical and Biological Engineering : 14 - 18 September 2011,
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typ = { PUB:(DE-HGF)8 },
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cin = { 120000 / 122810 / 611010 },
url = { http://publications.rwth-aachen.de/record/120299 },
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  author = { Barakat, Kamal },
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  pages = { 31 },
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  booktitle = { 'Zukunft verantwortungsvoll gestalten' : Automation
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  publisher = { VDI-Verl. },
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year = { 2011 },
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  url = { https://es.fbk.eu/events/ssv2011/papers/proceedings.pdf },
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  author = { Franke, Dominik and Dzafic, Dzenan and Weise, Carsten
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[GK11]

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[GKK+11]

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    2011 ; proceedings / Sabina Jeschke; Honghai Liu; Daniel
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  pages = { 297-306 },
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[KBW+11]

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[KRS+11]

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Embedded Software Product Line

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[PWK+11]

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[RBS+11]

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  author = { Reinbacher, Thomas and Steininger, Andreas and
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    Tobias and Horauer, Martin and Brauer, J{"o"}rg and
    Kowalewski, Stefan },
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  othercontributors = { Kowalewski, Stefan },
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  publisher = { Publikationsserver der RWTH Aachen University },
  pages = { XIV, 181 S. : graph. Darst. },
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  Magdeburg, Denkfabrik im Wissenschaftshafen / ifak, Institut
  f{"u}r Automation und Kommunikation e.V., Magdeburg;
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[SJA+10]

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[SJW+10]

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@article { SJW+10,
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Stefan },
title = { Modellbasierte Fehlerdiagnose eines Membranoxygenators },
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[SLA+10]

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[SLW+10]

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[ABK09]

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  year = { 2009 },
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Heidelberg ... },
  publisher = { Universit{"a"}t },
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ENTCS },  
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[BPK09]

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    by: Stefan Van Baelen ... },
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pages = { 107-121 },
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[BPK09a]

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Bibtex entry :

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[BPK09b]

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Bibtex entry :

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[DSK09]

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[FHS+09]

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  booktitle = { SOFSEM 2009: theory and practice of computer science
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    Computer Science, Špindlerův Mlýň, Czech Republic,
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    (eds.) },
  publisher = { Springer },
  pages = { 267-278 },
  volume = { 5404 },
  series = { Lecture notes in computer science },
  year = { 2009 },
  address = { Berlin [u.a.] },
  doi = { 10.1007/978-3-540-95891-8_26 },
  typ = { PUB:(DE-HGF)7 },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/83459 },
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  author = { G{"u}ckel, Dominique },
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    proceedings ; held during the 4th International Workshop on
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pages = { 7-9 },
series = { Aachener Informatik Berichte : AIB },
year = { 2009 },
address = { Aachen },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-172525 },
cin = { 122810 / 120000 },
url = {
http://sunsite.informatik.rwth-aachen.de/Publications/AIB/2009/2009-14.
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  editor = { Hutchison, David and Kanade, Takeo and Kittler, Josef
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  Kleinberg, Jon M. and Mattern, Friedemann and Mitchell, John
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Demetri and Tygar, Doug and Vardi, Moshe Y. and Weikum,
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  title = { Tools and Algorithms for the Construction and Analysis of
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2009. Proceedings },
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  series = { LNCS },
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address = { Berlin, Heidelberg },
organization = { 15th International Conference, TACAS 2009, York
(UK),
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doi = { 10.1007/978-3-642-00768-2 },
typ = { PUB:(DE-HGF)26 },
reportid = { RWTH-CONV-236344 },
cin = { 122810 / 120000 },
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    pages = { 57-86 },
    year = { 2009 },
    address = { Cambridge },
    doi = { 10.1017/CB09780511807930.004 },
    typ = { PUB:(DE-HGF)7 },
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    cin = { 122810 / 120000 },
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author = { Klein, Gerwin and Huuck, Ralf and Schlich, Bastian },
title = { Operating System Verification },
journal = { Journal of automated reasoning },
publisher = { Springer },
pages = { 123-124 },
volume = { 42 },
number = { 2/4 },
year = { 2009 },
address = { Dordrecht [u.a.] },
issn = { 0168-7433 },
doi = { 10.1007/s10817-009-9126-9 },
typ = { PUB:(DE-HGF)16 },
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  author = { Kopp, R{"u}dger and Leonhardt, Steffen and Kowalewski,
    Stefan },
  title = { Extracorporeal Membrane Oxygenation for Cardiac and
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  booktitle = { Yearbook of Intensive Care and Emergency Medicine :
    2009 /
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  publisher = { Springer },
  pages = { 341-349 },
  volume = { 2009 },
  series = { Yearbook of Intensive Care and Emergency Medicine },
  year = { 2009 },
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  url = { http://publications.rwth-aachen.de/record/83542 },
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  author = { Kl{\\"u}nder, Daniel },
  othercontributors = { Kowalewski, Stefan },
  title = { Entwurf eingebetteter Software mit abstrakten
    Zustandsmaschinen und business object notation },
  publisher = { RWTH Aachen, Department of Computer Science },
  pages = { X, 131 S. : graph. Darst. },
  series = { Aachener Informatik-Berichte },
  year = { 2009 },
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  cin = { 122810 / 120000 },
  url = {
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publisher = { Springer },
pages = { XVI, 456 S. : graph. Darst. },
volume = { 5505 },
series = { Lecture notes in computer science : Theoretical computer
science and general issues },
year = { 2009 },
address = { Berlin [u.a.] },
typ = { PUB:(DE-HGF)26 },
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title = { Regelungs- und Sicherheitskonzepte f r extrakorporale
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journal = { Biomedizinische Technik = Biomedical engineering },
publisher = { de Gruyter },
pages = { 289-297 },
volume = { 54 },
number = { 5 },
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address = { Berlin [u.a.] },
issn = { 0013-5585 },
doi = { 10.1515/BMT.2009.036 },
typ = { PUB:(DE-HGF)16 },
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    volume = { 2009,14 },
    number = { AIB-2009-14 },
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    url = { http://aib.informatik.rwth-aachen.de/2009/2009-14.pdf },
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Bibtex entry :

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},
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    Denver, Colorado, USA },
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    pages = { 29-38 },
    year = { 2009 },
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    doi = { 10.1109/ICSTW.2009.42 },
    typ = { PUB:(DE-HGF)8 },
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    url = { http://publications.rwth-aachen.de/record/99554 },
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  author = { Polzer, Andreas and Botterweck, G{"o}tz and Wagnerin,
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  title = { Variabilit{"a}t im modellbasierten Engineering von
  eingebetteten Systemen },
  booktitle = { Informatik 2009 : im Focus das Leben ; Beitr{"a}ge
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    Jahrestagung der Gesellschaft f{"u}r Informatik e.V. (GI),
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  publisher = { Ges. f{"u}r Informatik },
  pages = { 331-331 },
  series = { GI-Edition : Proceedings },
  year = { 2009 },
  address = { L{"u}beck, Germany },
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  url = {
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publisher = { IEEE },
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cin = { 122810 / 120000 },
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  author = { Polzer, Andreas and Kowalewski, Stefan and Botterweck,
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  title = { Applying software product line techniques in model-based
embedded systems engineering },
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2009, Vancouver, Canada ; in conjunction with the 2009 IEEE
31st International Conference on Software Engineering (ICSE
2009); May 16-24, 2009 },
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  pages = { 2-10 },
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  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/99427 },
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  author = { Reinbacher, Thomas and Brauer, J{"o}rg and Horauer,
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  title = { Refining assembly code static analysis for the Intel
  MCS-51
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  booktitle = { 2009 IEEE International Symposium on Industrial
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    2009 / [sponsored by: IEEE Industrial Electronics Society
    (IES)] },
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  pages = { 161-170 },
  year = { 2009 },
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}
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[RHS+09]

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  author = { Reinbacher, Thomas and Horauer, Martin and Schlich,
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    and Brauer, J{"o}rg and Scheuer, Florian },
    title = { Model checking assembly code of an industrial knitting
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Conference on
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        10-12, 2009, Jeju Island, Korea] },
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    pages = { 8 S. },
    year = { 2009 },
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    doi = { 10.1109/EM-COM.2009.5402986 },
    typ = { PUB:(DE-HGF)8 },
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    url = { http://publications.rwth-aachen.de/record/129021 },
}

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[RHS09]

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        15-17, 2009, Liberec, Czech Republic / M. Renovell; IEEE
        Computer Society ... },
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    year = { 2009 },
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  year = { 2009 },
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  author = { Schommer, John F. and Franke, Dominik and Kowalewski,
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  booktitle = { 7th International Workshop on Java Technologies for
Real-Time and Embedded Systems : JTRES 09 ; Universidad
Complutense de Madrid, Facultad de Informatica, 23-25
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  author = { Stollenwerk, André and Walter, Marian and Wartzek,
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  author = { Huuck, Ralf and Fehnker, Ansgar and Seefried, Sean and
    Brauer, J{"o}rg },
  title = { Goanna: syntactic software model checking },
  booktitle = { Automated technology for verification and analysis :
6th
  international symposium, ATVA 2008, Seoul, Korea, October 20
  - 23, 2008 ; proceedings / Sungdeok (Steve) Cha; Jin-Young
  Choi; Moonzoo Kim; Insup Lee; Mahesh Viswanathan (eds.) },
  publisher = { Springer },
  pages = { 216-221 },
  volume = { 5311 },
  series = { Lecture notes in computer science },
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year = { 2008 },
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organization = { 6th International Symposium on Automated
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[HSW+08]

[PDFBIB](#)

Herberich, G., Schlich, B., Weise, C., and Noll, T., "Proving correctness of an efficient abstraction for interrupt handling", *Electronic notes in theoretical computer science : ENTCS*, vol. 217, pp. 133-150, 2008

Proving correctness of an efficient abstraction for interrupt handling

Bibtex entry :

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@article { HSW+08,
author = { Herberich, Gerlind and Schlich, Bastian and Weise,
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title = { Proving correctness of an efficient abstraction for
interrupt handling },
journal = { Electronic notes in theoretical computer science :
ENTCS },
publisher = { Elsevier Science },
pages = { 133-150 },
volume = { 217 },
year = { 2008 },
address = { Amsterdam [u.a.] },
issn = { 1571-0661 },
doi = { 10.1016/j.entcs.2008.06.046 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-CONV-012122 },
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url = { http://publications.rwth-aachen.de/record/130980 },
}
```

[KKK08]

[PDFBIB](#)

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Wissenschaftshafen / Ifak, Institut für Automation und Kommunikation e.V., Magdeburg ... Hrsg.: Ulrich Jumar; Eckehard Schneider; Christian Diedrich, Magdeburg, 2008, Universität.

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Bibtex entry :

```
@inproceedings { KKK08,
  author = { Kl{\\"u}nder, 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 f{\\"u}r Automation und
    Kommunikation e.V., Magdeburg ... Hrsg.: Ulrich Jumar;
    Eckehard Schneider; Christian Diedrich },
  publisher = { Universit{\\"a}t },
  year = { 2008 },
  address = { Magdeburg },
  typ = { PUB:(DE-HGF)8 },
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}
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[KLK08]

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Design-by-Contract for Embedded Systems

Bibtex entry :

```
@inproceedings { KLK08,
  author = { Kl{\\"u}nder, Daniel and Li, J. and Kowalewski, Stefan },
  title = { Design-by-Contract for Embedded Systems },
  booktitle = { International Symposium on Software Variability: a
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752319 },
}
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[Klu08]

[PDFBIB](#)

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Modellierung und Analyse von Fahrzeugsoftware mit Abstract State Machines

Bibtex entry :

```
@inproceedings { Klu08,
  author = { Kl{\u}nder, Daniel },
  title = { Modellierung und Analyse von Fahrzeugsoftware mit
Abstract
  State Machines },
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Thomas
  K{\u}hne ... (Hrsg.) },
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  cin = { 122810 / 120000 },
  url = {
http://subs.emis.de/LNI/Proceedings/Proceedings127/gi-proc-127-017.pdf
},
}
```

[MHR+08]

[PDFBIB](#)

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Virtuelle Integration von vernetzten Funktionen in frühen Entwicklungsphasen

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@inproceedings { MHR+08,
  author = { Michailidis, Alexander A. and Hedenetz, Bernd and
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  title = { Virtuelle Integration von vernetzten Funktionen in
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  booktitle = { Moderne Elektronik im Kraftfahrzeug III : Systeme von
  morgen
    - 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 },
  publisher = { Expert-Verl. },
  pages = { 151-167 },
  series = { Haus der Technik Fachbuch },
  year = { 2008 },
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  url = { http://publications.rwth-aachen.de/record/117851 },
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[NS08]

[PDFBIB](#)

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@inbook { NS08,
  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 },
  year = { 2008 },
  address = { Berlin [u.a.] },
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url = { http://publications.rwth-aachen.de/record/83461 },
}
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[RKH+08]

[PDFBIB](#)

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Bibtex entry :

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@inproceedings { RKH+08,
  author = { Reinbacher, Thomas and Kramer, Michael and Horauer,
    Martin
    and Schlich, Bastian },
  title = { Motivating model checking for embedded systems software
},
  booktitle = { 2008 IEEE/ASME International Conference on
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    Embedded Systems and Applications : MESA ; Beijing, China,
    12 - 15 October 2008 },
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  year = { 2008 },
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  url = { http://publications.rwth-aachen.de/record/99089 },
}
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for the [mc]square model checker

Bibtex entry :

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@inproceedings { RKH+08a,  
  author = { Reinbacher, Thomas and Kramer, Michael and Horauer,  
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  Systems  
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    IEEE },  
  publisher = { IEEE },  
  pages = { 245-248 },  
  year = { 2008 },  
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  doi = { 10.1109/SIES.2008.4577709 },  
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  url = { http://publications.rwth-aachen.de/record/99569 },  
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[Sal08]

[PDFBIB](#)

Salewski, F., "Empirical evaluations of safety critical embedded systems", PhD Thesis, Aachen, 2008.

Empirical evaluations of safety critical embedded systems

Bibtex entry :

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@phdthesis { Sal08,  
  author = { Salewski, Falk },  
  othercontributors = { Kowalewski, Stefan },  
  title = { Empirical evaluations of safety critical embedded systems  
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  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]

[PDFBIB](#)

Schlich, B., "Model checking of software for microcontrollers", PhD Thesis, Aachen, 2008.

Model checking of software for microcontrollers

Bibtex entry :

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@phdthesis { Sch08,
  author = { Schlich, Bastian },
  othercontributors = { Kowalewski, Stefan },
  title = { Model checking of software for microcontrollers },
  publisher = { RWTH Aachen, Department of Computer Science },
  pages = { IV, 159 S. : graph. Darst. },
  series = { Aachener Informatik-Berichte },
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  url = {
http://publications.rwth-aachen.de/record/63747/files/Schlich_Bastian.pdf },
}
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[SDH+08]

[PDFBIB](#)

Schmitz, D., Drews, P., Heßeler, F., Jarke, M., Kowalewski, S., Palczynski, J., Polzer, A., Reke, M., and Rose, T., "Modellbasierte Anforderungserfassung für softwarebasierte Regelungen", in *Proc. Software Engineering 2008 : Fachtagung des GI-Fachbereichs Softwaretechnik*, 18. - 22.02.2008 in München / *Gesellschaft für Informatik (GI). Korbinian Herrmann; Bernd Bruegge (Hrsg.)*, Bonn, 2008 in GI-Edition : Proceedings, Ges. für Informatik, pp. 257-271.

Modellbasierte Anforderungserfassung für softwarebasierte Regelungen

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 },
  title = { Modellbasierte Anforderungserfassung f{"u}r softwarebasierte Regelungen },
  booktitle = { Software Engineering 2008 : Fachtagung des GI-
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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.) },
publisher = { Ges. f{"u"}r Informatik },
pages = { 257-271 },
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}

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[SGK08]

[PDFBIB](#)

Schlich, B., Gückel, D., and Kowalewski, S., "Modeling the environment of microcontrollers to tackle the state-explosion problem in model checking", in *Proc. Formal methods for automation and safety in railway and automotive systems ; proceedings of Symposium FORMS/FORMAT 2008, Budapest, Hungary, October 9 - 10, 2008 / Géza Tarnai ... (ed.)*, Budapest, 2008, L Harmattan.

Modeling the environment of microcontrollers to tackle the state-explosion problem in model checking

Bibtex entry :

```

@inproceedings { SGK08,
  author = { Schlich, Bastian and G{"u"}ckel, Dominique and
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  title = { Modeling the environment of microcontrollers to tackle
the
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and
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    2008, Budapest, Hungary, October 9 - 10, 2008 / Géza Tarnai
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  url = { http://publications.rwth-aachen.de/record/98749 },
}

```

[SK08]

PDFBIB

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The effect of real-time software reuse in FPGAs and microcontrollers with respect to software faults

Bibtex entry :

```
@inproceedings { SK08,
  author = { Salewski, Falk and Kowalewski, Stefan },
  title = { The effect of real-time software reuse in FPGAs and
    microcontrollers with respect to software faults },
  booktitle = { 2008 International Symposium on Industrial Embedded
Systems
: [SIES'2008] ; La Grande Motte, France, 11 - 13 June 2008 /
IEEE },
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  pages = { 141-148 },
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  url = { http://publications.rwth-aachen.de/record/98747 },
}
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[SK08a]

PDFBIB

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Hardware/software design considerations for automotive embedded systems

Bibtex entry :

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@article { SK08a,
  author = { Salewski, Falk and Kowalewski, Stefan },
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embedded systems },
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  publisher = { IEEE },
  pages = { 156-163 },
  volume = { 4 },
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year = { 2008 },
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url = { http://publications.rwth-aachen.de/record/131366 },
}
```

[SLK08]

[PDFBIB](#)

Schlich, B., Löll, J., and Kowalewski, S., "Application of static analyses for state space reduction to microcontroller assembly code" Berlin [u.a.]: Springer, 2008, vol. 4916, pp. 21-37.

Application of static analyses for state space reduction to microcontroller assembly code

Bibtex entry :

```
@inbook { SLK08,
  author = { Schlich, Bastian and L{"o}ll, Jann and Kowalewski,
Stefan },
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to
  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 },
  series = { Lecture notes in computer science },
  year = { 2008 },
  address = { Berlin [u.a.] },
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  url = { http://publications.rwth-aachen.de/record/83462 },
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[ST08]

[PDFBIB](#)

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Bibtex entry :

```
@inproceedings { ST08,
  author = { Salewski, Falk and Taylor, Adam },
  title = { Systematic considerations for the application of FPGAs in
    industrial applications },
  booktitle = { 2008 IEEE International Symposium on Industrial
    Electronics
      : [ISIE 2008] ; Cambridge, United Kingdom, 30 June - 2 July
      2008. - Vol. 4 },
  publisher = { IEEE },
  pages = { 2009-2015 },
  year = { 2008 },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/98745 },
}
```

[Wil08]

[PDFBIB](#)

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Empirical studies for the application of agile methods to embedded systems

Bibtex entry :

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@phdthesis { Wil08,
  author = { Wilking, Dirk },
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  publisher = { Fachgruppe Informatik, RWTH Aachen },
  pages = { XIV, 157 S. : graph. Darst. },
  series = { Aachener Informatik-Berichte },
  year = { 2008 },
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    http://publications.rwth-aachen.de/record/52375/files/Wilking_Dirk.pdf
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[WSK08]

[PDFBIB](#)

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Measuring the human factor with the Rasch Model

Bibtex entry :

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@inproceedings { WSK08,  
  author = { Wilking, Dirk and Schilli, David and Kowalewski, Stefan  
},  
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  booktitle = { Balancing agility and formalism in software  
engineering :  
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  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 },  
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  url = { http://publications.rwth-aachen.de/record/127027 },  
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```

[BKK07]

[PDFBIB](#)

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Significance of the automation engineering

Bibtex entry :

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@article { BKK07,  
  author = { Bettenhausen, Kurt D. and Kowalewski, Stefan and Kugi,  
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  journal = { Automatisierungstechnik : at },
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publisher = { Oldenbourg },
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issn = { 0178-2312 },
doi = { 10.1524/auto.2007.55.5.269 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/195234 },
}
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[CSK+07]

[PDFBIB](#)

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Concept and prototyping of a fault management framework for automotive safety relevant systems

Bibtex entry :

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@inbook { CSK+07,
  author = { Chen, Xi and Salewski, Falk and Kowalewski, Stefan and
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  booktitle = { Moderne Elektronik im Kraftfahrzeug II : Systeme von
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    - technische Innovationen und Entwicklungstrends ; und 19
    Tabellen / Hrsg.: Bernard B{"a}ker },
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  volume = { 82 },
  series = { Haus der Technik - Fachbuchreihe },
  year = { 2007 },
  address = { Renningen },
  typ = { PUB:(DE-HGF)7 },
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  url = { http://publications.rwth-aachen.de/record/89875 },
}
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[KK07]

[PDFBIB](#)

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  pages = { 27-35 },
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R{"u}ckblick, Ausblick, Visionen ; [25. Tagung 'Elektronik  
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M{"u}nchen] / Bernard B{"a}ker (Hrsg.) u. 43 Mitautoren :  
2005.06.14-15. Electronics in Vehicles Conference ; 25  
(M{"u}nchen) : 2005.06.14-15 },  
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[BKC+05]

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Automobile and Engine Technology / [Hrsg.: VKA, Lehrstuhl  
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Lyons, M. J., Klünder, D., and Tetsutani, N., "Supporting empathy in online learning with artificial expressions", *Educational technology & society*, vol. 8, iss. 4, pp. 22-30, 2005

Supporting empathy in online learning with artificial expressions

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@inproceedings { SK05,
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http://pi.informatik.uni-siegen.de/stt/25_4/01_Fachgruppenberichte/Ada/
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; proceedings of a workshop held at the Loyola College
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Center. Ed.: Tiziana Margaria ... },
  pages = { 65-77 },
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@article { SWK05,
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[WK05]

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  author = { Wilking, Dirk and Kowalewski, Stefan },
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  booktitle = { Extreme programming and agile processes in software
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    Sheffield, UK, June 18 - 23, 2005 ; proceedings / Hubert
    Baumeister ... (ed.) },
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    url = { http://publications.rwth-aachen.de/record/90178 },
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[SG94]

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Stability aspects for hollow section columns, beams and beam-columns

Bibtex entry :

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@inproceedings { SG94,
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title = { Stability aspects for hollow section columns, beams and
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