Fault Identification in a Blood Pump Using Neural Networks

Bibtex entry:

```latex
@inproceedings{KBS+19,
  author = {Kühn, Jan and Buglowski, Mateusz and Stollenwerk, André and Kowalewski, Stefan and Walter, Marian and Leonhardt, Steffen and Petran, Jan and Kopp, Rüdger and Rossaint, Rolf and Janisch, Thorsten},
  title = {Fault Identification in a Blood Pump Using Neural Networks},
  booktitle = {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},
  publisher = {Springer Singapore},
  pages = {27-32},
  series = {IFMBE Proceedings},
  year = {2019},
  address = {Singapore},
  organization = {IUPESM World Congress on Medical Physics and Biomedical Engineering, Prague (Czech Republic), 2018-06-03 - 2018-06-08},
  doi = {10.1007/978-981-10-9038-7_6},
  typ = {PUB:(DE-HGF)7},
  reportid = {RWTH-2018-231048},
  cin = {533000-2 / 122810 / 120000 / 611010},
  url = {http://publications.rwth-aachen.de/record/751048},
}
```

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

**Bibtex entry:**

```bibtex
@inproceedings { KTF19,
  author = { Khan, Adnan and Th"{o}nnessen, David and Fabian, Martin },
  title = { On-the-fly conformance testing of safety PLC code using QuickCheck },
  year = { 2019 },
  organization = { 17th IEEE International Conference on Industrial Informatics, INDIN'19 Industrial Applications of Artificial Intelligence, Helsinki (Finland), 2019-07-22 - 2019-07-25 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-2019-04271 },
  cin = { 122810 / 120000 },
}
```

[PAS+19]


**Deep Learning of Arrhythmia Analysis Based on Convolutional Neural Network**

**Bibtex entry:**

```bibtex
@article { PAS+19,
  author = { Pomprapa, Anake and Ahmed, Waqar and Stollenwerk, André and Kowalewski, Stefan and Leonhardt, Steffen },
  title = { Deep Learning of Arrhythmia Analysis Based on Convolutional Neural Network },
  journal = { International journal of bioelectromagnetism : IJBEM },
  publisher = { International Society for Bioelectromagnetism },
  pages = { 48-58 },
  volume = { 21 },
  number = { 1 },
  year = { 2019 },
  address = { Tampere },
}
```

**Testing Safety PLCs Using QuickCheck**

Bibtex entry:

```bibtex
@inproceedings { TSF+19,
    author = { Thönnnessen, David and Smallbone, Nick and Fabian, Martin
               and Claessen, Koen and Kowalewski, Stefan },
    title = { Testing Safety PLCs Using QuickCheck },
    year = { 2019 },
    organization = { IEEE 15th International Conference on Automation
                    Science and Engineering, Vancouver (Canada), 2019-08-22
                    - 2019-08-26 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-2019-04632 },
    cin = { 122810 / 120000 }.
}
```


**Real-time Trajectory optimization for Autonomous Vehicle Racing using Sequential Linearization**

Bibtex entry:

```bibtex
@inproceedings { AM18,
    author = { Alrifaee, Bassam and Maczijewski, Janis },
    title = { Real-time Trajectory optimization for Autonomous Vehicle Racing using Sequential Linearization },
    booktitle = { 2018 IEEE Intelligent Vehicles Symposium (IV) : 26-30 June
                     2018 / [sponsored by the IEEE Intelligent Transportation Systems Society (ITSS)] },
}
```
VDI Status Report Testing of Networked Systems for Industrie 4.0

Bibtex entry:

```bibtex
@techreport { BFH+18,
    title = { VDI Status Report Testing of Networked Systems for Industrie 4.0 },
    pages = { 1-20 },
    year = { 2018 },
    typ = { PUB:(DE-HGF)29 },
    reportid = { RWTH-CONV-236295 },
    cin = { 122810 / 120000 },
    url = { https://m.vdi.de/vdi-status-report-testing-of-networked-systems-for-industrie40/ },
}
```

[BFH+18]
PDFBIB

Bohlender, D., Hamm, D., and Kowalewski, S., "Cycle-Bounded Model Checking of PLC Software..."

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

Bibtex entry:

```bibtex
@inproceedings { BHK18,
    author = { Bohlender, Dimitri and Hamm, Daniel and Kowalewski, Stefan },
    title = { Cycle-Bounded Model Checking of PLC Software via Dynamic Large-Block Encoding },
    booktitle = { Applied computing 2018 : the 33rd Annual ACM Symposium on Applied Computing : Pau, France, April 9-13, 2018 / sponsored by: ACM Special Interest Group on Applied Computing ; conference chairs: Hisham M. Haddad (Kennesaw State University, USA), Roger L. Wainwright (University of Tulsa, USA), Richard Chbeir (University of Pau & Pays Adour, France) },
    publisher = { ACM },
    pages = { 1891-1898 },
    year = { 2018 },
    address = { New York, NY },
    organization = { 33rd ACM Symposium on Applied Computing, Pau (France), 2018-04-09 - 2018-04-13 },
    doi = { 10.1145/3167132.3167334 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2018-231950 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/752221 },
}
```

[BK18]


**Compositional Verification of PLC Software using Horn Clauses and Mode Abstraction**

Bibtex entry:

```bibtex
@article { BK18,
    title = { Compositional Verification of PLC Software using Horn Clauses and Mode Abstraction },
    journal = { IFAC-PapersOnLine },
    volume = { 51 },
    number = { 7 },
    pages = { 428-433 },
    year = { 2018 },
    doi = { 10.1145/3167132.3167334 },
    typ = { PUB:(DE-HGF)7 },
    url = { http://publications.rwth-aachen.de/record/752221 },
}
```
Design and Verification of Restart-Robust Industrial Control Software

Bibtex entry:

@inproceedings { BK18a,
    author = { Bohlender, Dimitri and Kowalewski, Stefan },
    title = { Design and Verification of Restart-Robust Industrial Control Software },
    publisher = { Springer International Publishing },
    pages = { 47-68 },
    series = { Lecture Notes in Computer Science },
    year = { 2018 },
    address = { Cham },
    organization = { 14th International Conference on integrated Formal Methods },
    doi = { 10.1007/978-3-319-98938-9_4 },
    typ = { PUB:(DE-HGF)7 },
}
Chomicz, P., Müller-Lerwe, A., Wegner, G., Busch, R., and Kowalewski, S., "Controlled Natural Languages for Hazard Analysis and Risk Assessment", in Proc. Controlled Natural Language : Proceedings of the Sixth International Workshop, CNL 2018, Maynooth, Co. Kildare, Ireland, August 27-28, 2018 / edited by Brian Davis (Maynooth University, Ireland), C. Maria Keet (University of Cape Town, South Africa) and Adam Wyner (Swansea University, United Kingdom), Amsterdam, 2018 in Frontiers in artificial intelligence and applications, IOS Press, pp. 41-51.

Controlled Natural Languages for Hazard Analysis and Risk Assessment

Bibtex entry:

```latex
@inproceedings { CMW+18,
author = { Chomicz, Paul and Müller-Lerwe, Armin and Wegner, Götz-Philipp and Busch, Rainer and Kowalewski, Stefan },
title = { Controlled Natural Languages for Hazard Analysis and Risk Assessment },
booktitle = { Controlled Natural Language : Proceedings of the Sixth International Workshop, CNL 2018, Maynooth, Co. Kildare, Ireland, August 27-28, 2018 / edited by Brian Davis (Maynooth University, Ireland), C. Maria Keet (University of Cape Town, South Africa) and Adam Wyner (Swansea University, United Kingdom) },
publisher = { IOS Press },
pages = { 41-51 },
series = { Frontiers in artificial intelligence and applications },
year = { 2018 },
address = { Amsterdam },
organization = { 6th International Workshop on Controlled Natural Language, Kildare (Ireland), 2018-08-27 - 2018-08-28 },
doi = { 10.3233/978-1-61499-904-1-41 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-236286 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752264/files/752264.pdf },
}
```

**Applicability of supervisory control theory for the supervision of PLC programs**

Bibtex entry:

```bibtex
@inproceedings { GAK18,
    author = { G{"o}be, Florian and Aydin, Selin and Kowalewski, Stefan },
    title = { Applicability of supervisory control theory for the supervision of PLC programs },
    publisher = { IEEE },
    pages = { 8 Seiten },
    series = { IEEE International Conference on Emerging Technologies and Factory Automation-ETFA },
    year = { 2018 },
    address = { [Piscataway, NJ] },
    organization = { 22nd IEEE International Conference on Emerging Technologies and Factory Automation, Limassol (Cyprus), 2017-09-12 - 2017-09-15 },
    doi = { 10.1109/ETFA.2017.8247575 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2018-223454 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/722221 },
}
```

[GSA+18]

PDFBIB


**A GPS-aided Inertial Navigation System for Vehicular Navigation using a Smartphone**

Bibtex entry:

```bibtex
@article { GSA+18,
    title = { A GPS-aided Inertial Navigation System for Vehicular Navigation using a Smartphone },
    booktitle = { IFAC-PapersOnLine },
    volume = { 51 },
    issn = { 2405-8963 },
    year = { 2018 },
    pages = { 121-126 },
    doi = { 10.1016/j.ifacol.2018.09.072 },
    publisher = { Elsevier },
    organization = { IFAC-PapersOnLine },
    type = { article },
    cites = { 0 },
    url = { http://dx.doi.org/10.1016/j.ifacol.2018.09.072 },
    Cin = { 100111 / 100000 },
    Bib = { 123719 / 120000 },
    url = { http://dx.doi.org/10.1016/j.ifacol.2018.09.072 },
}
```

[GSA+18]

**Systems engineering with SysML: The path to the future?**

**Bibtex entry:**

```bibtex
@article{KRG+18,
  author = {Kriebel, Stefan and Richenhagen, Johannes Martin and Granrath, Christian and Kugler, Christopher},
  title = {Systems engineering with SysML: The path to the future?},
  journal = {MTZ worldwide},
  publisher = {Springer Fachmedien},
  pages = {44-47},
  volume = {79},
  number = {5},
  year = {2018},
  address = {Wiesbaden},
  issn = {2192-9114},
  doi = {10.1007/s38313-018-0030-8},
  typ = {PUB:(DE-HGF)16},
  reportid = {RWTH-2018-227692},
  cin = {412310 / 121510 / 122810 / 120000},
  url = {http://publications.rwth-aachen.de/record/731737},
}
```

**Systems Engineering mit SysML: Der Weg in die Zukunft?**

**Bibtex entry:**

```latex
@article { KRG+18a,
    author = { Kriebel, Stefan and Richenhagen, Johannes Martin and Granrath, Christian and Kugler, Christopher },
    title = { Systems Engineering mit SysML: Der Weg in die Zukunft? },
    journal = { Motortechnische Zeitschrift: MTZ },
    publisher = { Springer Fachmedien },
    pages = { 48-53 },
    volume = { 79 },
    number = { 5 },
    year = { 2018 },
    address = { Wiesbaden },
    issn = { 2192-8843 },
    doi = { 10.1007/s35146-018-0025-7 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-2018-227695 },
    cin = { 412310 / 122810 / 120000 / 121510 },
    url = { http://publications.rwth-aachen.de/record/731745 },
}
```


**A long-term setup for kidney perfusion**

**Bibtex entry:**

```latex
@inproceedings { KSK+18,
    author = { K{"u}hn, Jan and Stollenwerk, André and Kowalewski, Stefan and Fabry, Gregor and Grzanna, Tim and Doorschotd, Benedict and Tolba, René H. and Rossaint, Rolf and Bleilevens, Christian },
    title = { A long-term setup for kidney perfusion },
    year = { 2018 },
    organization = { 52nd Annual Conference of the German Society for }
}
```
[MVC+18]


**Efficient Realization of Householder Transform Through Algorithm-Architecture Co-Design for Acceleration of QR Factorization**

Bibtex entry:

```latex
@article { MVC+18,
  author = { Merchant, Farhad and Vatwani, Tarun and Chattopadhyay, Anupam and Raha, Soumyendu and Nandy, S. K. and Narayan, Ranjani },
  title = { Efficient Realization of Householder Transform Through Algorithm-Architecture Co-Design for Acceleration of QR Factorization },
  journal = { IEEE transactions on parallel and distributed systems },
  publisher = { IEEE },
  pages = { 1707-1720 },
  volume = { 29 },
  number = { 8 },
  year = { 2018 },
  address = { New York, NY },
  issn = { 1045-9219 },
  doi = { 10.1109/TPDS.2018.2803820 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-2018-227400 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/731326 },
}
```

[OK18]

A live static code analysis architecture for PLC software

Bibtex entry:

@inproceedings { OK18,
    author = { Obster, Mathias and Kowalewski, Stefan },
    title = { A live static code analysis architecture for PLC software },
    booktitle = { 2017 22nd IEEE International Conference on Emerging
        Technologies and Factory Automation : September 12-15, 2017,
        Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus },
    publisher = { IEEE },
    pages = { 4 Seiten },
    series = { IEEE International Conference on Emerging Technologies
        and Factory Automation-ETFA },
    year = { 2018 },
    address = { [Piscataway, NJ] },
    organization = { 22nd IEEE International Conference on Emerging
        Technologies and Factory Automation, Limassol (Cyprus), 2017-09-12
        - 2017-09-15 },
    doi = { 10.1109/ETFA.2017.8247707 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2018-223453 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/722219 },
}

Arrhythmia Analysis in a Non-contact cECG Chair using Convolutional Neural Network

Bibtex entry:

@article { PAS+18,
    author = { Pomprapa, Anake and Ahmed, Waqar and Stollenwerk, André
        and Kowalewski, Stefan and Ugu\,z, Durmus Umutcan and Leonhardt,
        Steffen },
    title = { Arrhythmia Analysis in a Non-contact cECG Chair using
        Convolutional Neural Network },
    journal = { International journal of bioelectromagnetism : IJBE\,M },
    vol. = { 20 },
    iss. = { 1 },
    pp. = { 47-50 },
    year = { 2018 }
}

**Classification of Obstructive Sleep Apnea Using Machine Learning**

**Bibtex entry:**

```bibtex
@article { PAS+18a,  
  author = { Pomprapa, Anake and Ahmed, W. and Sayani, M. S. and Stollenwerk, André and Kowalewski, Stefan and Leonhardt, Steffen },  
  title = { Classification of Obstructive Sleep Apnea Using Machine Learning },  
  journal = { American journal of respiratory and critical care medicine },  
  publisher = { American Thoracic Society },  
  pages = { 1 Seite },  
  volume = { 197 },  
  number = { Abstract Issue },  
  year = { 2018 },  
  address = { New York, NY },  
  issn = { 0003-0805 },  
  typ = { PUB:(DE-HGF)1 },  
  reportid = { RWTH-2018-231113 },  
  cin = { 611010 / 122810 / 120000 },}
```
[SBK18]  
Stollenwerk, A., Buglowski, M., and Kühn, J., "Mock loop for bubble generation in a centrifugal blood pump for fault simulation", *Current Directions in Biomedical Engineering*, vol. 4, iss. 1, pp. 33-36, 2018

**Mock loop for bubble generation in a centrifugal blood pump for fault simulation**

Bibtex entry:

```bibtex
@article {SBK18,
author = {Stollenwerk, André and Buglowski, Mateusz and K"uhn, Jan},
title = {Mock loop for bubble generation in a centrifugal blood pump for fault simulation},
journal = {Current Directions in Biomedical Engineering},
publisher = {de Gruyter},
pages = {33-36},
volume = {4},
number = {1},
year = {2018},
address = {Berlin},
issn = {2364-5504},
doi = {10.1515/cdbme-2018-0009},
typ = {PUB:(DE-HGF)16},
reportid = {RWTH-CONV-236285},
cin = {122810 / 120000},
url = {http://publications.rwth-aachen.de/record/752262/files/752262.pdf},
}
```

[SGT+18]  

**Ground Surface Pattern Recognition with Hidden Markov Models for Low Cost Positioning Improvement**
Bibtex entry:

@inproceedings { SGT+18,
    author = { Schweigler, Martin and Grochowski, Marco and Tamrakar, Sujan
        and Kowalewski, Stefan },
    title = { Ground Surface Pattern Recognition with Hidden Markov Models
        for Low Cost Positioning Improvement },
    booktitle = { 8th International Conference on Pattern Recognition Systems
        (ICPRS 2017) : 11-13 July 2017 },
    publisher = { IET },
    pages = { 1-6 },
    year = { 2018 },
    address = { [Stevenage] },
    organization = { 8th International Conference of Pattern Recognition Systems,
        Madrid (Spain), 2017-07-11 - 2017-07-13 },
    doi = { 10.1049/cp.2017.0166 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-236283 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/752258 },
}

[SHS+18]


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

Bibtex entry:

@inproceedings { SHS+18,
    author = { Smieschek, Manfred Thomas and Hinrichs, Timo and
        Stollenwerk, André and Kowalewski, Stefan and Preu\"u\diger },
    title = { A New Condition Indicator for Slow-Rotating Roller Chains
        based on the Angle and Torque of the Driving Motor },
    booktitle = { 2018 IEEE 14th International Conference on Automation
        Science and Engineering (CASE) : Munich, Germany, August 20-24, 2018 },
    publisher = { IEEE },
    pages = { 642-644 },
}
Mode-Aware Concolic Testing for PLC Software

Bibtex entry:

@inproceedings { SK18,
   author = { Simon, Hendrik and Kowalewski, Stefan },
   title = { Mode-Aware Concolic Testing for PLC Software },
   booktitle = { Integrated formal methods : 14th International Conference, IFM 2018, Maynooth, Ireland, September 5-7, 2018 : proceedings / Carlo A. Furia, Kirsten Winter (eds.) },
   publisher = { Springer },
   pages = { 367-376 },
   series = { Lecture notes in computer science },
   year = { 2018 },
   address = { Cham },
   organization = { 14th International Conference, Maynooth (Ireland), 2018-09-05 - 2018-09-07 },
   typ = { PUB:(DE-HGF)7 },
   reportid = { RWTH-CONV-236289 },
   cin = { 122810 / 120000 },
   url = { https://doi.org/10.1007/978-3-319-98938-9 },
}

[STK18]

Structural Concolic Testing for Sequential Function Chart

Bibtex entry:

@article { STK18,
  author = { Simon, Hendrik and Triefenbach, Lucas and Kowalewski, Stefan },
  title = { Structural Concolic Testing for Sequential Function Chart },
  journal = { IFAC-PapersOnLine },
  publisher = { Elsevier },
  pages = { 422-427 },
  volume = { 51 },
  number = { 7 },
  year = { 2018 },
  address = { Frankfurt ; München [u.a.] },
  issn = { 2405-8963 },
  organization = { 14th IFAC Workshop on Discrete Event Systems, Castellammare di Stabia (Italy), 2018-05-30 - 2018-06-01 },
  doi = { 10.1016/j.ifacol.2018.06.335 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-236291 },
  url = { http://publications.rwth-aachen.de/record/752265 },
}

[Ter18]
PDF BIB


Real-world deployment and evaluation of synchronous programming in reactive embedded systems

Bibtex entry:

@phdthesis { Ter18,
  author = { Terber, Matthias },
  title = { Real-world deployment and evaluation of synchronous programming in reactive embedded systems },
  publisher = { RWTH Aachen University, Department of Computer Science },
  school = { RWTH Aachen University },
  pages = { 1 Online-Ressource (xvi, 134 Seiten) : Illustrationen },
  series = { Aachener Informatik-Berichte },
}
Agiles Testen von cyber-physischen Produktionssystemen: Einsatz von SPS-Sprachen zur Testfallbeschreibung

Bibtex entry:

@article {  TK18,
  author = { Th"onnessen, David and Kowalewski, Stefan },
  title = { Agiles Testen von cyber-physischen Produktionssystemen: Einsatz von SPS-Sprachen zur Testfallbeschreibung },
  journal = { Atp-Edition: automatisierungstechnische Praxis },
  publisher = { DIV Dt. Industrieverl. },
  pages = { 46-55 },
  volume = { 60 },
  number = { 3 },
  year = { 2018 },
  address = { M"unchen },
  issn = { 2364-3137 },
  doi = { 10.17560/atp.v58i03.1917 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-2018-225395 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/727012 },
}

[TK18a]

Using PLC Programming Languages for Test-Case Specification of Hardware-in-the-loop Tests

Bibtex entry:

@inproceedings { TK18a,
    author = { Th{"o}nnessen, David and Kowalewski, Stefan },
    title = { Using PLC Programming Languages for Test-Case Specification of Hardware-in-the-loop Tests },
    publisher = { fortiss Technischer Bericht },
    pages = { 41-50 },
    year = { 2018 },
    organization = { Modellbasierte Entwicklung eingebetteter Systeme, Hamburg (Germany), 2018-04-16 - 2018-04-18 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-236290 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/752269 },
}


A concept for PLC hardware-in-the-loop testing using an extension of structured text

Bibtex entry:

@inproceedings { TRR+18,
    author = { Th{"o}nnessen, David and Reinker, Niklas and Rakel, Stefan and Kowalewski, Stefan },
    title = { A concept for PLC hardware-in-the-loop testing using an extension of structured text },
    publisher = { IEEE },
    pages = { 8 Seiten },
}

**Matching Discrete Signals for Hardware-in-the-Loop-Testing of PLCs**

Bibtex entry:

```
@article { TRR+18a,  
  author = { Thönnesen, David and Rakel, Stefan and Reinker, Niklas  
    and Kowalewski, Stefan },  
  title = { Matching Discrete Signals for Hardware-in-the-Loop-Testing  
    of PLCs },  
  journal = { IFAC-PapersOnLine },  
  pages = { 229-234 },  
  volume = { 51 },  
  number = { 10 },  
  year = { 2018 },  
  address = { Laxenburg },  
  issn = { 2405-8963 },  
  organization = { 3rd IFAC Conference on Embedded Systems, Computational  
    Intelligence and Telematics in Control },  
  doi = { 10.1016/j.ifacol.2018.06.267 },  
  typ = { PUB:(DE-HGF)16 },  
  reportid = { RWTH-2018-227582 },  
  cin = { 122810 / 110000 / 120000 },  
  url = { http://publications.rwth-aachen.de/record/731576 },  
}
```

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

Bibtex entry:

```bibtex
@inproceedings { TRR+18b,  
  author = { Th{"o}nnessen, David and Reinker, Niklas and Rakel, Stefan  
                        and Svetlakov, Andrei and Kowalewski, Stefan },  
  title = { Correctness Properties and Exemplified Applicability of a Signal Matching Algorithm with Multidimensional Tolerance Specifications },  
  booktitle = { 2018 IEEE 14th International Conference on Automation Science and Engineering (CASE) : Munich, Germany, August 20-24, 2018 },  
  publisher = { IEEE },  
  pages = { 1197-1202 },  
  year = { 2018 },  
  address = { Piscataway, NJ },  
  organization = { 2018 IEEE 14th International Conference on Automation Science and Engineering, Munich (Germany), 2018-08-20 - 2018-08-24 },  
  doi = { 10.1109/COASE.2018.8560407 },  
  typ = { PUB:(DE-HGF)7 },  
  reportid = { RWTH-2019-00319 },  
  cin = { 122810 / 120000 },  
  url = { http://publications.rwth-aachen.de/record/752982/files/752982.pdf },
}
```

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

Bibtex entry:

```bibtex
@inproceedings { UVS+18, 
  author = { Ulewicz, Sebastian and Vogel-Heuser, Birgit and Simon, Hendrik and Bohlender, Dimitri and Obster, Mathias and Kowalewski, Stefan }, 
  title = { A priori test coverage estimation for automated production systems: Using generated behavior models for coverage calculation }, 
  publisher = { IEEE }, 
  pages = { 4 Seiten }, 
  series = { IEEE International Conference on Emerging Technologies and Factory Automation-ETFA }, 
  year = { 2018 }, 
  address = { [Piscataway, NJ] }, 
  organization = { 22nd IEEE International Conference on Emerging Technologies and Factory Automation, Limassol (Cyprus), 2017-09-12 - 2017-09-15 }, 
  doi = { 10.1109/ETFA.2017.8247704 }, 
  typ = { PUB:(DE-HGF)7 }, 
  reportid = { RWTH-2018-223451 }, 
  cin = { 122810 / 120000 }, 
  url = { http://publications.rwth-aachen.de/record/722217 }, 
}
```

[WKJ+18] PDFBIB


Cooperative automation of extracorporeal gas exchange and artificial ventilation

Bibtex entry:

```bibtex
@inproceedings { WKJ+18, 
  author = { Walter, Marian and Kühn, J. and Janisch, Thorsten }, 
```
and

Petran, Jan and Kopp, Rüdiger and Leonhardt, Steffen },
title = { Cooperative automation of extracorporeal gas exchange and artificial ventilation },
booktitle = { World Congress on Medical Physics & Biomedical Engineering :
June 3-8, 2018, Prague, Czech Republic : IUPESM Pague 2018 : Book of Abstracts },
pages = { 663-664 },
year = { 2018 },
organization = { World Congress on Medical Physics & Biomedical Engineering, Prague (Czech Republic), 2018-06-03 - 2018-06-08 },
typ = { PUB:(DE-HGF)1 },
reportid = { RWTH-2019-01150 },
cin = { 611010 / 122810 / 9210120 / 120000 },
}

[WL+18]

Woopen, T., Lampe, B., Böddeker, T., Eckstein, L., Kampmann, A., Alrifaee, B., Kowalewski, S.,
Moormann, D., Stolte, T., Jatzkowski, I., Maurer, M., Möstl, M., Ernst, R., Ackermann, S.,
Amersbach, C., Winner, H., Püllen, D., Katzenbeissler, S., Leinen, S., Becker, M., Stiller, C.,
Furmans, K., Bengler, K., Diermeyer, F., Lienkamp, M., Keilhoff, D., Reuss, H., Buchholz, M.,
Dietmayer, K., Lategahn, H., Siepenköttler, N., Elbs, M., v. Hinüber, E., Dupuis, M., and Hecker,
C., "UNICARagil - Disruptive Modular Architectures for Agile, Automated Vehicle Concepts", in
Proc. { 27. Aachener Kolloquium Fahrzeug- und Motorentechnik : October 8th - 10th, 2018 -
663-694.

UNICARagil - Disruptive Modular Architectures for Agile, Automated Vehicle Concepts

Bibtex entry :

@inproceedings { WLB+18,
  author = { Woopen, Timo and Lampe, Bastian and Böddeker, Torben and
  Eckstein, Lutz and Kampmann, Alexandru and Alrifaee, Bassam and
  Kowalewski, Stefan and Moormann, Dieter and Stolte, Torben and
  Jatzkowski, Inga and Maurer, Markus and
  Möstl, Mischa and Ernst, Rolf and Ackermann, Stefan and
  Amersbach, Christian and Winner, Hermann and Püllen, Dominik and
  Katzenbeissler, Stefan and Leinen, Stefan and
  Becker, Matthias and Stiller, Christoph and Furmans, Kai and
  Bengler, Klaus and Diermeyer, Frank and Lienkamp, Markus and
  Keilhoff, Dan and Reuss, Hans-Christian and Buchholz, Michael and
  Dietmayer, Klaus and Lategahn, Henning and

Siepenkötter, Norbert and Elbs, Martin and v. Hinüber, Edgar and Dupuis, Marius and Hecker, Christian },
title = { UNICARagil - Disruptive Modular Architectures for Agile, Automated Vehicle Concepts },
booktitle = { 27. Aachener Kolloquium Fahrzeug- und Motorentechnik : October 8th - 10th, 2018 - Eurogress Aachen },
germany = { 27. Aachen Colloquium Automobile and Engine Technology. - 1 }
publisher = { Aachener Kolloquium Fahrzeug- und Motorentechnik GbR },
pages = { 663-694 },
year = { 2018 },
address = { Aachen },
organization = { 27th Aachen Colloquium Automobile and Engine Technology 2018, Aachen (Germany), 2018-10-08 - 2018-10-10 },
doi = { 10.18154/RWTH-2018-229909 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2018-229909 },
cin = { 414110 / 122810 / 415410 / 120000 },
url = { http://publications.rwth-aachen.de/record/749158/files/749158_Liste%20der%20Partner%20.pdf }
}

[WSA+18]

[WSA+18]

Smart Medical Information Technology for Healthcare (SMITH) : Data Integration based on Interoperability Standards

Bibtex entry :

@article { WSA+18,
  author = { Winter, Alfred and Stäubert, Sebastian and Ammon, Danny
  and Aiche, Stephan and Beyan, Oya Deniz and Bischoff, Verena
  and Daumke, Philipp and Decker, Stefan Josef and Funkat, Gert and Gewehr, Jan E. and de Greiff, Armin and Haferkamp,
"Smart Medical Information Technology for Healthcare (SMITH) : Data Integration based on Interoperability Standards", Methods of information in medicine, vol. 57, iss. S 01, p. e92-e105, 2018

Smart Medical Information Technology for Healthcare (SMITH) : Data Integration based on Interoperability Standards

Bibtex entry :
Silke Dorothee and Hahn, Udo and Henkel, Andreas and Kirsten, Toralf and Klöss, Thomas and Lippert, Jörg and Lobe, Matthias and Lowitsch, Volker and Maassen, Oliver and Maschmann, Jens and Meister, Sven and Mikolajczyk, Rafael and Nüchter, Matthias and Pletz, Mathias W. and Rahm, Erhard and Riedel, Morris and Saleh, Kutaiba and Schuppert, Andreas and Smers, Stefan and Stollenwerk, André and Uhlig, Stefan and Wendt, Thomas and Zenker, Sven and Fleig, Wolfgang and Marx, Gernot and Scherag, André and Löffler, Markus,

title = {Smart Medical Information Technology for Healthcare (SMITH): Data Integration based on Interoperability Standards},
journal = {Methods of information in medicine},
pages = {e92-e105},
volume = {57},
number = {S 01},
year = {2018},
issn = {2511-705X},
doi = {10.3414/ME18-02-0004},
typ = {PUB:(DE-HGF)16},
reportid = {RWTH-CONV-237913},
cin = {528500-2533000-2 / 122810 / 120000 / 121810},
url = {http://publications.rwth-aachen.de/record/757852/files/757852.pdf},

[AMA17]

Sequential Convex Programming MPC for Dynamic Vehicle Collision Avoidance

Bibtex entry:

@inproceedings {AMA17,
  author = {Alrifaee, Bassam and Maczijewski, Janis and Abel, Dirk},
  title = {Sequential Convex Programming MPC for Dynamic Vehicle Collision Avoidance},
  publisher = {IEEE},
}

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

Bibtex entry:

```bibtex
@inproceedings { BHK17,
  author = { Ben Makhlouf, Ibtissem and Hansen, Norman and Kowalewski, Stefan },
  title = { HyReach: A Reachability Tool for Linear Hybrid Systems Based on Support Functions },
  booktitle = { ARCH16. 3rd International Workshop on Applied Verification for Continuous and Hybrid Systems / Editors: Goran Frehse and Matthias Althoff },
  pages = { 68-79 },
  series = { EPiC Series in Computing },
  year = { 2017 },
  organization = { 3rd International Workshop on Applied Verification 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]

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

Bibtex entry:

```bibtex
@article { BMK+17,  
    author = { Brendle, Christian and M"{u}lders, Thorsten and K"{u}hn, Jan and Janisch, Thorsten and Kopp, R"{u}dger and Rossaint, Rolf and Stollenwerk, Andr"{e} and Kowalewski, Stefan and Misgeld, Berno Johannes Engelbert and Leonhardt, Steffen and Walter, Marian },  
    title = { Physiological closed-loop control of mechanical ventilation and extracorporeal membrane oxygenation },  
    journal = { Biomedizinische Technik },  
    publisher = { de Gruyter },  
    pages = { 199-212 },  
    volume = { 62 },  
    number = { 2 },  
    year = { 2017 },  
    address = { Berlin [u.a.] },  
    issn = { 1862-278X },  
    doi = { 10.1515/bmt-2016-0077 },  
    typ = { PUB:(DE-HGF)16 },  
    reportid = { RWTH-2017-09475 },  
    cin = { 611010 / 122810533000-2 },  
    url = { http://publications.rwth-aachen.de/record/707843 },
}
```


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

Bibtex entry:

```bibtex
@inproceedings { CMW+17,  
    title = { Towards the Use of Controlled Natural Languages in Hazard Analysis and Risk Assessment },
}
```
author = { Chomicz, Paul and Müller-Lerwe, Armin and Wegner, Götz-Philipp and Busch, Rainer and Kowalewski, Stefan },
title = { Towards the Use of Controlled Natural Languages in Hazard Analysis and Risk Assessment },
booktitle = { Automotive - Safety & Security 2017 },
publisher = { Gesellschaft f"ur Informatik },
pages = { 163-174 },
series = { Lecture Notes in Informatics },
year = { 2017 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-236312 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752283 },

[DDK+17]

PDF

BIB


RapidCoop - Robuste Architektur durch geeignete Paradigmen für Kooperativ Interagierende Automobile

Bibtex entry :

@inproceedings { DDK+17,
    author = { Dankert, Jens and Dernehl, Christian and Kusmenko, Evgeny and Eckstein, Lutz and Kowalewski, Stefan and Rumpe, Bernhard Dieter },
    title = { RapidCoop - Robuste Architektur durch geeignete Paradigmen f"ur Kooperativ Interagierende Automobile },
    publisher = { ITS automotive nord e.V. },
    pages = { 225-244 },
    year = { 2017 },
    address = { Braunschweig },
    organization = { 18. Braunschweiger Symposium AAET - Automatisiertes und Vernetztes Fahren, Braunschweig (Germany), 2017-02-08 - 2017-02-09 },
}
[DKK17]  

**Case studies on automated verification with slope boundaries for block diagrams**

**Bibtex entry:**

```bibtex
@article{DKK17,  
author = { Dernehl, Christian and K"uhn, Jan and Kowalewski, Stefan },  
title = { Case studies on automated verification with slope boundaries for block diagrams },  
journal = { Computer Languages, Systems & Structures },  
publisher = { Elsevier Science },  
pages = { 528-543 },  
volume = { 54 },  
year = { 2017 },  
address = { Amsterdam [u.a.] },  
issn = { 1477-8424 },  
doi = { 10.1016/j.cl.2017.09.001 },  
typ = { PUB:(DE-HGF)16 },  
reportid = { RWTH-CONV-236294 },  
cin = { 122810 / 120000 },  
url = { http://publications.rwth-aachen.de/record/752271 },  
}
```

[DNS+17]  

**Multimodales Dynamisches Routen mit eNav**
Bibtex entry:

@inproceedings { DNS+17,
        author = { Dzafic, Dzenan and Nicolas, Wagener and Schoonbrood, Peter
                        and Franke, Dominik and Kowalewski, Stefan },
        title = { Multimodales Dynamisches Routen mit eNav },
        booktitle = { AGIT Journal f{"u}r Angewandte Geoinformatik },
        publisher = { Herbert Wichmann Verlag, VDE VERLAG GMBH, Berlin/Offenbach. },
        pages = { 278-287 },
        year = { 2017 },
        typ = { PUB:(DE-HGF)7 },
        reportid = { RWTH-CONV-236300 },
        cin = { 122810 / 120000 },
        url = { http://publications.rwth-aachen.de/record/752276 },
}

[DSF+17]
PDF


eNav: A Suitable Navigation System for the Disabled

Bibtex entry:

@inproceedings { DSF+17,
        author = { Dzafic, Dzenan and Schoonbrood, Pierre and Franke, Dominik
                        and Kowalewski, Stefan },
        title = { eNav: A Suitable Navigation System for the Disabled },
        booktitle = { Ambient Assisted Living : 9. AAL-Kongress, Frankfurt/M, Germany, April 20 - 21, 2016 / edited by Reiner Wichert, Beate Mand },
        publisher = { Springer International Publishing ; Imprint: Springer },
        pages = { 133-150 },
        series = { Advanced Technologies and Societal Change },
        year = { 2017 },
        address = { Cham ; s.l. },
        organization = { 9th Congress on Ambient Assisted Living, Frankfurt/M (Germany), 2016-04-20 - 2016-04-21 },
        doi = { 10.1007/978-3-319-52322-4_9 },
        typ = { PUB:(DE-HGF)7 },
        reportid = { RWTH-2018-222675 },
}

**Multimodal Dynamic Routing for Wheelchairs and Pedestrians**

Bibtex entry:

```bibtex
@inproceedings {DWS+17,
    author = {Dzafic, Dzenan and Wagener, Nicolas and Schoonbrood, Peter and Franke, Dominik and Kowalewski, Stefan },
    title = {Multimodal Dynamic Routing for Wheelchairs and Pedestrians},
    publisher = {Elsevier B.V.},
    pages = {1-10},
    year = {2017},
    organization = {International Conference on Intelligent Transport Systems in Munich (Germany), 2017-07-04 - 2017-07-05 },
    typ = {PUB:(DE-HGF)8},
    reportid = {RWTH-CONV-236301},
    cin = {122810 / 120000 / 414110},
    url = {http://publications.rwth-aachen.de/record/752277},
}
```


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

Bibtex entry:

```bibtex
@phdthesis {Ger17,
    author = {Gerlitz, Thomas },
    othercontributors = {Kowalewski, Stefan and Schaefer, Ina },
}
```
title = { Incremental Integration and Static Analysis of Model-Based Automotive Software Artifacts },
publisher = { RWTH Aachen University, Department of Computer Science },
school = { RWTH Aachen University },
pages = { 1 Online-Ressource (xv, 191 Seiten) : Diagramme },
series = { Aachener Informatik Berichte },
year = { 2017 },
address = { Aachen },
doi = { 10.18154/RWTH-2017-08881 },
typ = { PUB:(DE-HGF)11 },
reportid = { RWTH-2017-08881 },
cin = { 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/706814/files/706814.pdf },
}

[HWK+17]


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

Bibtex entry :

@inproceedings { HWK+17,
  author = { Hansen, Norman and Wiechowski, Norbert and Kugler, Alexander and Kowalewski, Stefan and Rambow, Thomas and Busch, Rainer },
  title = { Model-in-the-Loop and Software-in-the-Loop Testing of Closed-Loop Automotive Software with Arttest },
  booktitle = { INFORMATIK 2017 },
  publisher = { Maximilian Eibl, Martin Gaedke },
  pages = { 1537-1549 },
  year = { 2017 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-236306 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752274 },
}

[Kal17]

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

Bibtex entry:

@phdthesis { Kal17,
  author = { Kalkov, Igor },
  othercontributors = { Kowalewski, Stefan and A\text{"{s}}mann, Uwe },
  title = { A real-time capable, open-source-based platform for off-the-shelf embedded devices },
  publisher = { RWTH Aachen University, Department of Computer Science },
  school = { RWTH Aachen University },
  pages = { 1 Online-Ressource (xx, 114 Seiten) : Illustrationen, Diagramme },
  series = { Aachener Informatik-Berichte },
  year = { 2017 },
  address = { Aachen },
  doi = { 10.18154/RWTH-2018-222005 },
  typ = { PUB:(DE-HGF)3 },
  reportid = { RWTH-2018-222005 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/719343/files/719343.pdf },
}

[KBS+17]

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, Andr{\text{"{e}}} and Schweigler, Martin and Kowalewski, Stefan and Janisch, Thorsten and Rossaint, Rolf and Leonhardt, Steffen and Walter, Marian and Kopp, R{"{u}}dger },
  title = { Decentralized safety concept for closed-loop controlled intensive care : Supervision of a blood pump during extracorporeal circulation },
  journal = { Biomedizinische Technik },
}
Explicit prioritization of parallel Intent broadcasts in real-time Android

Bibtex entry:

```bibtex
@inproceedings { KGK17,
  author = { Kalkov, Igor and Gurghian, Alexandru and Kowalewski, Stefan },
  title = { Explicit prioritization of parallel Intent broadcasts in real-time Android },
  booktitle = { Concurrency and computation },
  publisher = { Wiley },
  volume = { 29 },
  number = { 22 },
  year = { 2017 },
  address = { Chichester },
  issn = { 1532-0626 },
  organization = { 12th International workshop on Java Technologies for Real-Time and Embedded systems, Niagara Falls, NY (USA), 2014-10-13 - 2014-10-14 },
  doi = { 10.1002/cpe.4122 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-2017-09553 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/707959 },
}
```

Metrics-based

# Metrics-based strategies for quality assurance of automotive embedded software

Bibtex entry:

```bibtex
@inproceedings { KKR+17,  
    author = { Kugler, Christopher and Kowalewski, Stefan and Richenhagen, Johannes and Maquet, Ralf and Schlo\{s}er, Axel },  
    title = { Metrics-based strategies for quality assurance of automotive embedded software },  
    publisher = { Springer Vieweg },  
    pages = { 711-730 },  
    series = { Proceedings },  
    year = { 2017 },  
    address = { Wiesbaden },  
    doi = { 10.1007/978-3-658-16988-6_56 },  
    typ = { PUB:(DE-HGF)7 },  
    reportid = { RWTH-CONV-236302 },  
    cin = { 122810 / 120000 / 412310 },  
    url = { http://publications.rwth-aachen.de/record/752278 },
}  
```

[Leo17]


# Special Issue: Smart Life Support

Bibtex entry:

```bibtex
@book { Leo17,  
    author = { Leonhardt, Steffen },  
    title = { Special Issue: Smart Life Support },  
    booktitle = { Biomedizinische Technik },  
    publisher = { de Gruyter },  
    pages = { 109-233 },
}  
```
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},
    title = {Continuous process for the validation of transmission controls},
    booktitle = {16. CTI Symposium},
    year = {2017},
    typ = {PUB:(DE-HGF)8},
    reportid = {RWTH-CONV-236303},
    cin = {122810 / 120000},
    url = {http://publications.rwth-aachen.de/record/752279},
}

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, Ibtissem and Kowalewski, Stefan},
    title = {HyPro: A C++ Library of State Set Representations for Hybrid Systems Reachability Analysis},
    booktitle = {Cham: Springer, 2017},
    year = {2017},
    pages = {288-294},
}


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

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 },
year = { 2017 },
address = { Cham },
organization = { NASA Formal Methods (NFM) Symposium, Moffett Field, CA (USA), 2017-05-16 - 2017-05-18 },
doi = { 10.1007/978-3-319-57288-8_20 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2017-06600 },
cin = { 123420 / 120000 / 122810 / 080060 },
url = { http://publications.rwth-aachen.de/record/696076 },

[SKS+17]


Tauchcomputerunterstützung durch vernetzte Smart Wearables

Bibtex entry:

@article { SKS+17,
author = { Stollenwerk, André and Kopp, Rüdger and Sehl, Florian and Janisch, Thorsten },
title = { Tauchcomputerunterstützung durch vernetzte Smart Wearables },
journal = { Caisson: Mitteilungen der GTÜM e.V. },
publisher = { GTÜM },
volume = { 32 },
number = { 4 },
year = { 2017 },
address = { Murnau },
issn = { 0933-3991 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-2018-00117 },
cin = { 122810 / 9210120 / 120000533000-3 },
url = { https://www.publications.embedded.rwth-aachen.de/file/79 },
[SPD+17]

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

**Bibtex entry :**

```latex
@inproceedings {  SPD+17,  
author = { Schmidt, Teresa and Philipsen, Ralf Theo and Dzafic, Dzenan and Ziefle, Martina },  
title = { Watch Out! : User-Centered Feedback Design for a V2X-Smartphone App },  
publisher = { Springer International Publishing },  
pages = { 365-383 },  
series = { Lecture Notes in Computer Science },  
year = { 2017 },  
address = { Cham },  
opublisher = { 19th International Conference on Human-Computer Interaction, Vancouver (Canada), 2017-07-09 - 2017-07-14 },  
doi = { 10.1007/978-3-319-58466-9_33 },  
typ = { PUB:(DE-HGF)7 },  
reportid = { RWTH-2018-222740 },  
cin = { 792310 / 080013 / 122810 / 120000 },  
url = { http://publications.rwth-aachen.de/record/720296 },
}
```

[SSK+17]

**Unterstützte Handerkennung in Thermographiebildern zur Validierung der hygienischen Händedesinfektion**

**Bibtex entry :**

```latex
@inproceedings {  SSK+17,  
author = { Smieszek, M. T., Stollenwerk, A., Kowalewski, S., Orlikowsky, T., and Schoberer, M. },  
title = { Unterstützte Handerkennung in Thermographiebildern zur Validierung der hygienischen Händedesinfektion },  
```

Unterstützte Handerkennung in Thermographiebildern zur Validierung der hygienischen Händedesinfektion

Bibtex entry:

@inproceedings {SSK+17,
    author = { Smieschek, Manfred Thomas and Stollenwerk, André and Kowalewski, Stefan and Orlikowsky, Thorsten and Schoberer, Mark },
    title = { Unterstützung der hygienischen Händedesinfektion },
    publisher = { Springer Berlin Heidelberg },
    pages = { 147-152 },
    series = { Informatik aktuell },
    year = { 2017 },
    address = { Berlin, Heidelberg },
    organization = { Bildverarbeitung für die Medizin 2017: Algorithmen - Systeme - Anwendungen, Heidelberg (Germany), 2017-03-12 - 2017-03-14 },
    doi = { 10.1007/978-3-662-54345-0_35 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-236348 },
    cin = { 122810 / 120000537500-3 },
    url = { http://publications.rwth-aachen.de/record/752321 },
}

[SSM+17]

Enrichment of a diving computer with body sensor network data

Bibtex entry:


Enrichment of a diving computer with body sensor network data

Bibtex entry:
@inproceedings { SSM+17,
  author = { Stollenwerk, André and Sehl, Florian and Marx, Gernot and Kowalewski, Stefan and Janisch, Thorsten },
  title = { Enrichment of a diving computer with body sensor network data },
  booktitle = { 2017 IEEE 14th International Conference on Wearable and Implantable Body Sensor Networks (BSN) : 9-12 May 2017 / sponsors: IEEE, EMB },
  publisher = { IEEE },
  pages = { 169-172 },
  year = { 2017 },
  address = { Piscataway, NJ },
  doi = { 10.1109/BSN.2017.7936034 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2018-221262 },
  cin = { 122810 / 12000533000-3 },
  url = { http://publications.rwth-aachen.de/record/717241 },
}

[WKK+17]
PDF

Walter, M., Kunczik, J., Kühn, J., Janisch, T., Kopp, R., and Leonhardt, S., "Robust control of extracorporeal gas exchange", in Proc. Abstract Book at EMBEC'17 & NBC'17: the 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 / Editors: Jennika Karvinen, Janne Koivisto, Sampo Tuukkanen, Jari Viik, Finland, 2017, BioMediTech Institute and Faculty of Biomedical Sciences and Engineering Tampere University of Technology, p. 365, 150-150.

Robust control of extracorporeal gas exchange

Bibtex entry:

@inproceedings { WKK+17,
  author = { Walter, Marian and Kunczik, Janosch and K"uhn, Jan and Janisch, Thorsten and Kopp, R"uder and Leonhardt, Steffen },
  title = { Robust control of extracorporeal gas exchange },
  booktitle = { Abstract Book at EMBEC'17 & NBC'17: the 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 / Editors: Jennika Karvinen, Janne Koivisto, Sampo Tuukkanen, Jari Viik, Finland, 2017, BioMediTech Institute and Faculty of Biomedical Sciences and Engineering Tampere University of Technology, p. 365, 150-150.
}

**Arttest - a New Test Environment for Model-Based Software Development**

**Bibtex entry:**

```bibtex
@inproceedings { WRB+17,
  author = { Wiechowski, Norbert and Rambow, Thomas and Busch, Rainer and Kugler, Alexander and Hansen, Norman and Kowalewski, Stefan },
  title = { Arttest - a New Test Environment for Model-Based Software Development },
  booktitle = { SAE Technical Paper },
  publisher = { SAE International },
  pages = { 11 },
  year = { 2017 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-236304 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752280 },
}
```


**Bibtex entry:**

```bibtex
[AA16]
```
Non-convex MPC for Vehicle Collision Avoidance

Bibtex entry:

@inproceedings { AA16,
  author = { Alrifaee, Bassam and Abel, Dirk },
  title = { Non-convex MPC for Vehicle Collision Avoidance },
  booktitle = { European Conference on Computational Optimization (EUCCO) },
  year = { 2016 },
  organization = { European Conference on Computational Optimization, Leuven (Belgium), 2016-09-12 - 2016-09-14 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-213287 },
  cin = { 416610 / 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/689048 },
}

[Ben16]

PDF BIB


Comparative evaluation and improvement of computational approaches to reachability analysis of linear hybrid systems

Bibtex entry:

@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 },
  series = { Aachener Informatik-Berichte },
  year = { 2016 },
  address = { Aachen },
  isbn = { 978-3-8440-4376-1 },
  typ = { PUB:(DE-HGF)3 },
  reportid = { RWTH-2016-02174 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/571624/files/571624.pdf },
}
Closed-loop control of extracorporeal oxygen and carbon dioxide gas transfer

Bibtex entry:

@article { BHK+16,
  title = {Closed-loop control of extracorporeal oxygen and carbon dioxide gas transfer},
  journal = {Control engineering practice},
  publisher = {Elsevier Science},
  pages = {10 Seiten},
  year = {2016},
  address = {Amsterdam [u.a.]},
  issn = {0967-0661},
  doi = {10.1016/j.conengprac.2016.09.016},
  typ = {PUB:(DE-HGF)16},
  reportid = {RWTH-2016-10175},
  cin = {611010 / 122810533000-2 / 120000},
  url = {http://publications.rwth-aachen.de/record/678130},
}

Continuous gas transfer monitoring during extracorporeal membrane oxygenation

Bibtex entry:

@article { BHK+16a,
  title = {Continuous gas transfer monitoring during extracorporeal membrane oxygenation},
  journal = {Biomedical signal processing and control},
  volume = {31},
  pages = {321-330},
  year = {2016},
  doi = {10.1016/j.bspc.2016.09.011},
  typ = {PUB:(DE-HGF)16},
  reportid = {RWTH-2016-10175},
  cin = {611010 / 122810533000-2 / 120000},
  url = {http://publications.rwth-aachen.de/record/678130},
}
Wardeh, M. N. and Janisch, T. and Kopp, R 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 membrane oxygenation },
journal = { Biomedical signal processing and control },
publisher = { Elsevier },
pages = { 321-330 },
volume = { 31 },
year = { 2016 },
address = { Amsterdam [u.a.] },
issn = { 1746-8094 },
doi = { 10.1016/j.bspc.2016.08.023 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-2016-10177 },
cin = { 611010 / 122810 / 120000533000-2 },
url = { http://publications.rwth-aachen.de/record/678132 },

[Bia16]


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

Bibtex entry:

@phdthesis { Bia16,
  author = { Biallas, Sebastian },
  othercontributors = { Kowalewski, Stefan and Fay, Alexander },
  title = { Verification of programmable logic controller code using model checking and static analysis },
  publisher = { Shaker Verlag },
  school = { RWTH Aachen University },
  pages = { 1 Online-Ressource (x, 153 Seiten) : Illustrationen, Diagramme },
  series = { Aachener Informatik Berichte },
  year = { 2016 },
  address = { Aachen },
  isbn = { 978-3-8440-4711-0 },
  typ = { PUB:(DE-HGF)29 },
  reportid = { RWTH-2016-06614 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/668156/files/668156.pdf },
}
Ein Ansatz zur automatisierten normgerechten Testplanung für sicherheitskritische eingebettete Software im Automobilbereich

Bibtex entry:

@inproceedings { BK16,
    author = { Banila, Madalina and Kowalewski, Stefan },
    title = { Ein Ansatz zur automatisierten normgerechten Testplanung für sicherheitskritische eingebettete Software im Automobilbereich },
    publisher = { Institut f"{u}r Automation und Kommunikation e.V. Magdeburg (An-Institut der Otto-von-Guericke-Universität Magdeburg) },
    pages = { 1-10 },
    year = { 2016 },
    address = { Magdeburg },
    organization = { 14. Fachtagung Entwurf komplexer Automatisierungssysteme, Magdeburg (Germany), 2016-05-24 - 2016-05-25 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2017-05172 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/690534 },
}

Concolic test generation for PLC programs using coverage metrics

Bibtex entry:

@inproceedings { BSF+16,
author = { Bohlender, Dimitri and Simon, Hendrik and Friedrich, Nico and Kowalewski, Stefan and Hauck-Stattelmann, Stefan },
title = { Concolic test generation for PLC programs using coverage metrics },
booktitle = { 2016 13th International Workshop on Discrete Event Systems (WODES) : May 30-June 1, 2016, Xi'an, China / edited by Christos G. Cassandras, Alessandro Giua, Zhiwu Li ; sponsored by IEEE - Control Systems Society },
publisher = { IEEE },
pages = { 432-437 },
year = { 2016 },
address = { Piscataway, NJ },
organization = { 13th International Workshop on Discrete Event Systems, Xi'an (Peoples R China), 2016-05-30 - 2016-06-01 },
doi = { 10.1109/WODES.2016.7497884 },
typ = { PUB:(DE-HGF)7 }
reportid = { RWTH-2016-11193 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/679431 },
}

[BSK+16]

Symbolische Ausführung zum Testen von SPS-Programmen

Bibtex entry:

@inproceedings { BSK+16,
author = { Bohlender, Dimitri and Simon, Hendrik and Kowalewski, Stefan and Hauck-Stattelmann, S. },
title = { Symbolische Ausführung zum Testen von SPS-Programmen },
Symbolic verification of PLC safety-applications based on PLCopen automata

Bibtex entry:

@inproceedings { BSK16,
    author = { Bohlender, Dimitri and Simon, Hendrik and Kowalewski, Stefan },
    title = { Symbolic verification of PLC safety-applications based on PLCopen automata },
    publisher = { Albert-Ludwigs-Universität },
    pages = { 33-45 },
    year = { 2016 },
    address = { Freiburg im Breisgau },
    organization = { 19. GI/ITG/GMM-Workshop "Methoden und Beschreibungsprachen zur Modellierung und Verifikation von Schaltungen und Systemen", Freiburg im Breisgau (Germany), 2016-03-01 - }
}

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

Bibtex entry :

```bibtex
@inproceedings { Der16,
    author = { Dernehl, Christian },
    title = { Automatic invariant checking for discrete block diagrams using Lyapunov functions with sat modulo theory solvers },
    booktitle = { 2016 European Control Conference (ECC) : June 29-July 1,
        2016, Aalborg, Denmark / [European Control Association (EUCA)] },
    publisher = { IEEE },
    pages = { 441-446 },
    year = { 2016 },
    address = { [Piscataway, NJ] },
    organization = { 2016 European Control Conference, Aalborg (Denmark),
        2016-06-29 - 2016-07-01 },
    doi = { 10.1109/ECC.2016.7810324 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2017-06691 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/696194 },
}
```

Abstract Interpretation of MATLAB Code with Interval Sets

Bibtex entry:

@inproceedings { DHK16,
    author = { Dernehl, Christian and Hansen, Norman and Kowalewski, Stefan },
    title = { Abstract Interpretation of MATLAB Code with Interval Sets },
    publisher = { Springer International Publishing },
    pages = { 25-38 },
    series = { Lecture Notes in Computer Science },
    year = { 2016 },
    address = { Cham },
    organization = { 21st International Workshop on Formal Methods for Industrial Critical Systems, Pisa (Italy), 2016-09-26 - 2016-09-28 },
    doi = { 10.1007/978-3-319-45943-1 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2016-12021 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/680837 },
}

[DHK16a]


Combining Abstract Interpretation with Symbolic Execution for a Static Value Range Analysis of Block Diagrams
Abstract Interpretation for Block Diagrams - Two Case Studies

Bibtex entry:

@inproceedings { DKK16,
    author = { Dernehl, Christian and K{"u}hn, Jan and Kowalewski, Stefan },
    title = { Abstract Interpretation for Block Diagrams - Two Case Studies },
Model-Driven Engineering, Verification and Validation
co-located with ACM/IEEE 19th International Conference on
Model Driven Engineering Languages and Systems (MODELS 2016)
: Saint-Malo, France, October 3, 2016 / edited by Michalis
Famelis, Daniel Ratiu, Gehan M. K. Selim },
publisher = { [Verlag nicht ermittelbar] },
pages = { 20-29 },
series = { CEUR workshop proceedings },
year = { 2016 },
address = { [Erscheinungsort nicht ermittelbar] },
organization = { 13th Workshop on Model Design, Verification and
Validation,
Saint-Malo (France), 2016-10-03 - 2016-10-03 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2017-00640 },
cin = { 122810 / 120000 },
}

[DKS+16]

Dzafic, D., Klein-Ridder, D., Schoonbrood, P., Franke, D., and Kowalewski, S., "Der Bodenbelag-
Detektor des eNav-Systems", in Proc. agit_2016 - open:spatial:interfaces / Herausgeber: Prof.
Dr. Josef Strobl, Dr. Bernhard Zagel, Mag. Gerald Griesebner, Prof. Dr. Thomas Blaschke, Berlin,
2016 in AGIT : Journal für Angewandte Geoinformatik, Wichmann, eine Marke der VDE Verlag
GmbH, pp. 318-327.

Der Bodenbelag-Detektor des eNav-Systems

Bibtex entry :

@inproceedings {  DKS+16,
  author = { Dzafic, Dzenan and Klein-Ridder, Daniel and Schoonbrood,
Pierre and Franke, Dominik and Kowalewski, Stefan },
title = { Der Bodenbelag-Detektor des eNav-Systems },
booktitle = { agit_2016 - open:spatial:interfaces / Herausgeber: Prof.
Dr. Josef Strobl, Dr. Bernhard Zagel, Mag. Gerald Griesebner, Prof. Dr. Thomas Blaschke },
publisher = { Wichmann, eine Marke der VDE Verlag GmbH },
pages = { 318-327 },
series = { AGIT : Journal f{"u}r Angewandte Geoinformatik },
year = { 2016 },
address = { Berlin },
organization = { 28. AGIT-Symposium, Salzburg (Austria), 2016-07-06
- 2016-07-08 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2016-12052 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/680869 },
}
Das Barrierenerkennungssystem von eNav

Bibtex entry:

@inproceedings { DLS+16,
    author = { Dzafic, Dzenan and Lahr, Florian and Schoonbrood, Pierre and Franke, Dominik and Kowalewski, Stefan },
    title = { Das Barrierenerkennungssystem von eNav },
    booktitle = { agit_2016 - open:spatial:interfaces / Herausgeber: Prof. Dr. Josef Strobl, Dr. Bernhard Zagel, Mag. Gerald Griesebner, Prof. Dr. Thomas Blaschke },
    publisher = { Wichmann, eine Marke der VDE Verlag GmbH },
    pages = { 298-307 },
    series = { AGIT : Journal für Angewandte Geoinformatik },
    year = { 2016 },
    address = { Berlin },
    organization = { 28. AGIT-Symposium, Salzburg (Austria), 2016-07-06 - 2016-07-08 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2016-12055 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/680872 },
}

artshop: A Continuous Integration and Quality Assessment Framework for Model-Based Software Artifacts

Artifacts

Bibtex entry:

@inproceedings{GHD+16,
  author = { Gerlitz, Thomas and Hansen, Norman and Dernehl, Christian and Kowalewski, Stefan },
  title = { artshop: A Continuous Integration and Quality Assessment Framework for Model-Based Software Artifacts },
  publisher = { fortiss Technischer Bericht },
  pages = { 13-22 },
  year = { 2016 },
  organization = { Modellbasierte Entwicklung eingebetteter Systeme, Dagstuhl (Germany), 2016-03-30 - 2016-04-01 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-207908 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/573828 },
}

[GK16]

PDF  BIB


Architectural Analysis of MATLAB/Simulink Models with art shop

Bibtex entry:

@inproceedings{GK16,
  author = { Gerlitz, Thomas and Kowalewski, Stefan },
  title = { Architectural Analysis of MATLAB/Simulink Models with art shop },
  publisher = { IEEE },
  pages = { 307-310 },
  year = { 2016 },
}

**Architectural Analysis of MATLAB/Simulink Models with Artshop**

Bibtex entry :

```latex
@inproceedings { GK16a,
  author = { Gerlitz, Thomas and Kowalewski, Stefan },
  title = { Architectural Analysis of MATLAB/Simulink Models with Artshop },
  publisher = { IEEE },
  pages = { 307-310 },
  year = { 2016 },
  address = { Piscataway, NJ },
  organization = { 2016 13th Working IEEE/IFIP Conference on Software Architecture, Venice (Italy), 2016-04-05 - 2016-04-08 },
  doi = { 10.1109/WICSA.2016.54 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2017-01123 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/682945 },
}
```

Flow Sensitive Slicing for MATLAB/Simulink Models

Bibtex entry:

@inproceedings { GK16b,
    author = { Gerlitz, Thomas and Kowalewski, Stefan },
    title = { Flow Sensitive Slicing for MATLAB/Simulink Models },
    publisher = { IEEE },
    pages = { 81-90 },
    year = { 2016 },
    address = { Piscataway, NJ },
    organization = { 2016 13th Working IEEE/IFIP Conference on Software Architecture, Venice (Italy), 2016-04-05 - 2016-04-08 },
    doi = { 10.1109/WICSA.2016.23 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2017-01171 },
    url = { http://publications.rwth-aachen.de/record/682999 },
}

[GNK16]


Reusability and Modularity of Safety Specifications for Supervisory Control

Bibtex entry:

@inproceedings { GNK16,
    author = { Göbe, Florian and Ney, Oliver and Kowalewski, Stefan },
    title = { Reusability and Modularity of Safety Specifications for Supervisory Control },
    booktitle = { 2016 IEEE 21st International Conference on Emerging Technologies and Factory Automation (ETFA) : September 6-9, 2016 Berlin, Germany / IEEE, IES, Fraunhofer IOSB-INA, InIT },
    publisher = { IEEE },
    pages = { 1-8 },
    year = { 2016 },
    address = { Piscataway, NJ },
    organization = { 21st International Conference on Emerging Technologies and }
Synthesis Tool for Automation Controller Supervision

Bibtex entry :

@inproceedings { GTN+16,
    author = { G{"o}be, Florian and Timmermanns, Thomas and Ney, Oliver and Kowalewski, Stefan },
    title = { Synthesis Tool for Automation Controller Supervision },
    booktitle = { 2016 13th International Workshop on Discrete Event Systems (WODES) : May 30-June 1, 2016, Xi'an, China / edited by Christos G. Cassandras, Alessandro Giua, Zhiwu Li ; sponsored by IEEE - Control Systems Society },
    publisher = { IEEE },
    pages = { 424-431 },
    year = { 2016 },
    address = { Piscataway, NJ },
    organization = { 2016 13th International Workshop on Discrete Event Systems (WODES), Xi'an (Peoples R China), 2016-05-30 - 2016-06-01 },
    doi = { 10.1109/WODES.2016.7497883 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2016-11199 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/679437 },
}
Automatic Control of Veno-Venous Extracorporeal Lung Assist: Presented in part at the 13th Congress of DIVI held December 4-6, 2013 in Leipzig, Germany

Bibtex entry:

```latex
@article{KBS+16,
  author = {Kopp, R"udger and Bensberg, Ralf and Stollenwerk, Andr"e and Arens, Jutta and Grottke, Oliver and Walter, Marian and Rossaint, Rolf },
  title = {Automatic Control of Veno-Venous Extracorporeal Lung Assist: Presented in part at the 13th Congress of DIVI held December 4-6, 2013 in Leipzig, Germany },
  journal = {Artificial organs },
  publisher = {Wiley-Blackwell },
  pages = {992-998 },
  volume = {40 },
  number = {10 },
  year = {2016 },
  address = {Oxford [u.a. ] },
  issn = {0160-564X },
  doi = {10.1111/aor.12664 },
  typ = {PUB:(DE-HGF)16 },
  reportid = {RWTH-2016-01084 },
  cin = {61101053000-2533000-3 / 122810811001-1 / 120000811001-4 },
  url = {http://publications.rwth-aachen.de/record/567958 },
}
```

[KSB+16]

PDF


Sensor Supervision and Control Value Limitations in Networked Intensive Care

Bibtex entry:

```latex
@inbook{KSB+16,
  author = {K"uhn, Jan and Stollenwerk, Andr"e and Brendle, Christian and Janisch, Thorsten and Walter, Marian and Rossaint, Rolf and Leonhardt, Steffen and Kowalewski, Stefan and Kopp, R"udger },
  title = {Sensor Supervision and Control Value Limitations in Networked Intensive Care },
}
```
Eingebettete Rezirkulationsmessung für eine ECLA-Therapie

Bibtex entry:

@inproceedings { KVS+16,
  author = { Kühn, Jan and Vaitl, Lorenz and Stollenwerk, André and
             Brendle, Christian and Walter, Marian and Leonhardt, Steffen
             and Kowalewski, Stefan and Rossaint, Rolf and Kopp, Rüdiger
             and Janisch, Thorsten },
  title = { Eingebettete Rezirkulationsmessung für eine ECLA-Therapie },
Simanski, Dr. Olaf Hagendorf, Jörg Zucknik },
publisher = { Hochschule Wismar, Fakultät f"ur Ingenieurwissenschaften, Fachgebiet Automatisierungstechnik/Mechatronik },
pages = { 2 Seiten },
year = { 2016 },
address = { Wismar },
organization = { Automatisierungsverfahren f"ur die Medizin 2016, Wismar (Germany), 2016-09-22 - 2016-09-23 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2017-00655 },
cin = { 611010 / 122810533000-2 / 120000533000-3 },

[SK16]


**Static Analysis of Sequential Function Charts using Abstract Interpretation**

Bibtex entry :

```latex
@inproceedings { SK16,
    author = { Simon, Hendrik and Kowalewski, Stefan },
    title = { Static Analysis of Sequential Function Charts using Abstract Interpretation },
    booktitle = { 2016 IEEE 21st International Conference on Emerging Technologies and Factory Automation (ETFA) : September 6-9, 2016 Berlin, Germany / IEEE, IES, Fraunhofer IOSB-INA, InIT },
    publisher = { IEEE },
    pages = { 1-4 },
    year = { 2016 },
    address = { Piscataway, NJ },
    organization = { 21st International Conference on Emerging Technologies and Factory Automation, Berlin (Germany), 2016-09-06 - 2016-09-09 },
    doi = { 10.1109/ETFA.2016.7733648 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2016-12029 },
    cin = { 120000 / 122810 },
}```
Evaluating Hand Disinfection with Alcohol-Based Hand Sanitizers Using Thermal Imaging

Bibtex entry:

@inbook { SSJ+16,
author = { Smieschek, Manfred and Stollenwerk, André and Jüptner, Patrick and Kowalewski, Stefan and Orlikowsky, Thorsten and Schoberer, Mark },
title = { Evaluating Hand Disinfection with Alcohol-Based Hand Sanitizers Using Thermal Imaging },
publisher = { RWTH },
pages = { 174-181 },
volume = { 1559 },
series = { CEUR Workshop Proceedings },
year = { 2016 },
address = { Aachen },
organization = { 2nd Workshop on Fail Safety in Medical Cyber-Physical Systems, Wien (Austria), 2016-02-26 - 2016-02-26 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-207900 },
cin = { 122810 / 120000537500-3 },
}

informatics, Gesellschaft für Informatik, pp. 127-128.

**FS-MCPS: 2nd Workshop on Fail Safety in Medical Cyber-Physical Systems**

Bibtex entry:

```latex
@inproceedings {SSS16,
  author = {Schlaefer, Alexander and Schupp, Sibylle and Stollenwerk, André },
  title = {FS-MCPS: 2nd Workshop on Fail Safety in Medical Cyber-Physical Systems},
  publisher = {Gesellschaft für Informatik},
  pages = {127-128},
  series = {GI-Edition : lecture notes in informatics},
  year = {2016},
  address = {Bonn},
  organization = {Software Engineering 2016, Wien (Austria), 2016-02-23 - 2016-02-26},
  typ = {PUB:(DE-HGF)7},
  reportid = {RWTH-CONV-207904},
  cin = {122810 / 120000 / 080017},
  url = {http://publications.rwth-aachen.de/record/573824},
}
```


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

Bibtex entry:

```latex
@inproceedings {SSS16a,
  author = {Schlaefer, Alexander and Schupp, Sibylle and Stollenwerk, André },
```

[SSS16a]

PDF BIB
Conveying system with an automatic tethering function

Bibtex entry:

@techreport { TSN+16,
    author = { Thönnessen, David and Schweigler, Martin and Ney, Oliver and Kugelmeier, Mirko },
    title = { Conveying system with an automatic tethering function },
    pages = { 1-7 },
    year = { 2016 },
    typ = { PUB:(DE-HGF)23 },
    reportid = { RWTH-CONV-236287 },
}

[WBK+16]

Conveying system with an automatic tethering function

"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**

**Bibtex entry:**

```
@inproceedings {WBK+16,
    author = { Walter, Marian and Brendle, Christian and K{"u}hn, Jan
                and Janisch, Thorsten and Kopp, R{"u}dger and Stollenwerk,
                André and Leonhardt, Steffen },
    title = { Assistive Control of Extracorporeal Oxygenation Systems
              },
    booktitle = { [Proceedings of the 12th Russian-German Conference on
                 Biomedical Engineering] },
    pages = { 222-226 },
    year = { 2016 },
    organization = { 12th Russian-German Conference on Biomedical
                    Engineering,
                    Suzdal (Russia), 2016-07-04 - 2016-07-07 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2017-00562 },
    cin = { 611010533000-2 / 122810 / 120000 },
    url = { http://bit.ly/2uN1hRR },
}
```

[ZAB+16]


**Bibtex entry:**

```
@proceedings { ZAB+16,
    editor = { Zimmermann, Wolf and Alperowitz, Lukas and Brügge,
               Bernd
               and Fahsel, J{"o}rg and Herrmann, Andrea and Hoffmann, Anne
               and Krall, Andreas and Landes, Dieter and Lichter, Horst and
               Riehle, Dirk and Schaefer, Ina and Scheuermann, Constantin
               and Schlaefer, Alexander and Schupp, Sibylle and Seitz,
               Andreas and Steffens, Andreas and Stollenwerk, André and
```
Weißbach, Rüdiger,

publisher = { RWTH },
pages = { 219 Seiten },
volume = { 1559 },
series = { CEUR workshop proceedings },
year = { 2016 },
address = { Aachen },
organization = { Gemeinsamer Tagungsband der Workshops der Tagung Software Engineering 2016, Wien (Austria), 2016-02-23 - 2016-02-26 },
typ = { PUB:(DE-HGF)26 },
reportid = { RWTH-2016-03787 },
cin = { 122810 / 120000 / 121620 },
url = { http://publications.rwth-aachen.de/record/573915 },

[BFS+15]


Automatic Error Cause Localization of Faulty PLC Programs

Bibtex entry :

@article { BFS+15,
  author = { Biallas, Sebastian and Friedrich, Nico and Simon, Hendrik and Kowalewski, Stefan },
  title = { Automatic Error Cause Localization of Faulty PLC Programs },
  journal = { IFAC-PapersOnLine },
  publisher = { IFAC },
  pages = { 79-84 },
  volume = { 48 },
  number = { 7 },
  year = { 2015 },
  address = { Laxenburg },
  issn = { 2405-8963 },
  organization = { 5th IFAC International Workshop on Dependable Control of Discrete Systems, Cancun (Mexico), 2015-05-27 - 2015-05-29 },
  doi = { 10.1016/j.ifacol.2015.06.476 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-2016-03746 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/573801 },
A Study on Solving Guard and Invariant Set Intersection in Zonotope-based Reachability of Linear Hybrid Systems

Bibtex entry:

```latex
@article {BGK15,
author = {Ben Makhlouf, Ibtissem and Gan, Jonathan and Kowalewski, Stefan},
title = {A Study on Solving Guard and Invariant Set Intersection in Zonotope-based Reachability of Linear Hybrid Systems},
journal = {IFAC-PapersOnLine},
publisher = {IFAC},
pages = {13-20},
volume = {48},
number = {27},
year = {2015},
address = {Laxenburg},
issn = {2405-8963},
organization = {Analysis and Design of Hybrid Systems, Atlanta GA (USA)},
doi = {10.1016/j.ifacol.2015.11.146},
typ = {PUB:(DE-HGF)8},
reportid = {RWTH-2015-07851},
cin = {122810 / 120000},
url = {http://publications.rwth-aachen.de/record/565384},
}
```

In silico evaluation of gas transfer estimation during extracorporeal membrane oxygenation

Bibtex entry:

```latex
@article {BHK+15,
title = {In silico evaluation of gas transfer estimation during extracorporeal membrane oxygenation},
journal = {IFAC-PapersOnLine},
publisher = {IFAC},
pages = {13-20},
volume = {48},
number = {27},
year = {2015},
address = {Laxenburg},
issn = {2405-8963},
organization = {Analysis and Design of Hybrid Systems, Atlanta GA (USA)},
doi = {10.1016/j.ifacol.2015.11.146},
typ = {PUB:(DE-HGF)8},
reportid = {RWTH-2015-07851},
cin = {122810 / 120000},
url = {http://publications.rwth-aachen.de/record/565384},
}```
Bibtex entry:

@article {BHK+15,
    author = {Brendle, Christian and Hackmack, Kay-Florian and
              K{"u}hn, Jan and Wardeh, Markus Nabil and Kopp, R{"u}dger and
              Rossaint, Rolf and Stollenwerk, Andr{e} and Kowalewski,
              Stefan and Misgeld, Berno and Leonhardt, Steffen and Walter,
              Marian },
    title = {In silico evaluation of gas transfer estimation during
             extracorporeal membrane oxygenation },
    journal = {IFAC-PapersOnLine},
    publisher = {Elsevier},
    volume = {48},
    number = {20},
    year = {2015},
    address = {Laxenburg},
    issn = {2405-8963},
    organization = {9th IFAC Symposium on Biological and Medical
                   Systems, Berlin (Germany), 2015-08-31 - 2015-09-02 },
    doi = {10.1016/j.ifacol.2015.10.190},
    typ = {PUB:(DE-HGF)16},
    reportid = {RWTH-CONV-207911},
    cin = {122810 / 120000 / 61101053000-2},
}

[BK15]

Networked Cooperative Platoon of Vehicles for Testing
Methods and Verification Tools

Bibtex entry:

@inbook {BK15,
    author = {Ben Makhlouf, Ibtissem and Kowalewski, Stefan},
    title = {Networked Cooperative Platoon of Vehicles for Testing
             Methods and Verification Tools},
    booktitle = {[ARCH14-15. 1st and 2nd International Workshop on
                   Applied veRification for Continuous and Hybrid Systems / Goran
                   Frehse and Matthias Althoff (editors)]},
    publisher = {EasyChair},
    pages = {37-42},
    volume = {34},
}

**Optimizing Safe Control of a Networked Platoon of Trucks Using Reachability**

Bibtex entry:

```latex
@inbook {  BK15a,  
  author = { Ben Makhlouf, Ibtissem and Kowalewski, Stefan },  
  title = { Optimizing Safe Control of a Networked Platoon of Trucks Using Reachability },  
  booktitle = { [ARCH14-15. 1st and 2nd International Workshop on Applied VeRification for Continuous and Hybrid Systems / Goran Frehse and Matthias Althoff (editors)] },  
  publisher = { EasyChair },  
  pages = { 169-179 },  
  volume = { 34 },  
  series = { EPiC Series in Computing },  
  year = { 2015 },  
  organization = { 1st and 2nd International Workshop on Applied VeRification for Continuous and Hybrid Systems },  
  typ = { PUB:(DE-HGF)8 },  
  reportid = { RWTH-CONV-207910 },  
  cin = { 122810 / 120000 },  
}
```


**Automatische Testfallgenerierung für SPS-Programme mittels Zeilenüberdeckung**

Bibtex entry:

```bibtex
@inbook { BSK+15,
    author = { Biallas, Sebastian and Simon, Hendrik and Kowalewski, Stefan and Hauck-Stattelmann, Stefan and Schlich, Bastian },
    title = { Automatische Testfallgenerierung für SPS-Programme mittels Zeilenüberdeckung },
    publisher = { VDI },
    pages = { 95-106 },
    volume = { 2258,2 },
    series = { VDI-Berichte },
    year = { 2015 },
    address = { Düsseldorf },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-207912 },
    cin = { 122810 / 120000 },
    url = { http://publications.embedded.rwth-aachen.de/file/5r },
}
```

[CSB+15]

PDF BIB


**A Benchmark Suite for Hybrid Systems Reachability Analysis**

Bibtex entry:

```bibtex
@inbook { CSB+15,
    author = { Chen, Xin and Schupp, Stefan and Ben Makhlouf, Ibtissem and
```
Ábrahám, Erika and Frehse, Goran and Kowalewski, Stefan },
title = { A Benchmark Suite for Hybrid Systems Reachability Analysis },
booktitle = { NASA Formal Methods ; 7th International Symposium, NFM 2015,
Pasadena, Calif., USA, April 27-29, 2015, Proceedings / edited by Klaus Havelund, Gerard Holzmann, Rajeev Joshi },
publisher = { Springer },
pages = { 408-414 },
volume = { 9058 },
series = { Lecture Notes in Computer Science },
year = { 2015 },
address = { Cham },
organization = { 7th International Symposium Formal Methods, Pasadena, Calif.
(Germany), 2015-04-27 - 2015-04-29 },
doi = { 10.1007/978-3-319-17524-9_29 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-207695 },
cin = { 123420 / 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/541100 },

[DHG+15]
PDFBIB

Static Value Range Analysis for Matlab/Simulink-Models

Bibtex entry :

@inbook { DHG+15,
author = { Dernehl, Christian and Hansen, Norman and Gerlitz, Thomas
and Kowalewski, Stefan },
title = { Static Value Range Analysis for Matlab/Simulink-Models },
Oktober
2015 in Cottbus / Douglas W. Cunningham ... (Hrsg.) },
publisher = { Ges. f"{u}r Informatik },
pages = { 1649-1660 },
volume = { 246 },
series = { GI-Edition : lecture notes in informatics },
year = { 2015 },
address = { [Bonn] },
organization = { 45. Jahrestagung der Gesellschaft f"{u}r Informatik,
Cottbus (Germany), 2015-09-28 - 2015-10-02 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-207913 },


**Experimental validation and mathematical analysis of cooperative vehicles in a platoon**

**Bibtex entry**:

```bibtex
@phdthesis { Dia15,
    author = { Diab, Hilal },
    othercontributors = { Kowalewski, Stefan and Abel, Dirk },
    title = { Experimental validation and mathematical analysis of cooperative vehicles in a platoon },
    publisher = { Fachgruppe Informatik, RWTH Aachen University },
    school = { RWTH Aachen University },
    pages = { X, 131 S. : Ill., graph. Darst. },
    series = { Aachener Informatik-Berichte },
    year = { 2015 },
    address = { Aachen },
    typ = { PUB:(DE-HGF)29 },
    reportid = { RWTH-2015-01635 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/573834/files/573834.pdf },
}
```


**Routing über Flächen mit SpiderWebGraph**

**Bibtex entry**:

```bibtex
@inproceedings { DKF+15,
    author = { Dzafic, Dzenan and Klug, Stefan and Franke, Dominik and Kowalewski, Stefan },
    title = { Routing über Flächen mit SpiderWebGraph },
    booktitle = { Journal f"ur angewandte Geoinformatik 1-2015 },
    pages = { 516-252 },
    year = { 2015 },
    organization = { Journal f"ur angewandte Geoinformatik 1-2015 },
    typ = { PUB:(DE-HGF)8 },
}
```

**Dynamische Studie zum Einfluss von negativem Druck auf Hämolyse**

Bibtex entry:

```latex
@article {dMK+15,
    author = {de Brouwer, P. and Mager, Ilona and Kopp, R"udger and Walter, Marian and Stollenwerk, Andre and Schmitz-Rode, Thomas and Steinseifer, Ulrich and Arens, Jutta},
    title = {Dynamische Studie zum Einfluss von negativem Druck auf H"amolyse},
    journal = {Kardiotechnik},
    publisher = {Deutsche Ges. f"ur Kardiotechnik},
    pages = {3-6},
    volume = {24},
    number = {1},
    year = {2015},
    address = {[S.l.]},
    issn = {0941-2670},
    typ = {PUB:(DE-HGF)16},
    reportid = {RWTH-2015-04718},
    cin = {611010811001-1533000-2 / 122810811001-4},
    url = {http://ezb.uni-regensburg.de/?2083549},
}
```


**Testing life cycle-related properties of mobile applications**

Bibtex entry:

```latex
@techreport {FKL15,
    author = {Franke, Dominik and Kowalewski, Stefan and Lichter, Horst},
    title = {Testing life cycle-related properties of mobile}

**Testing life cycle-related properties of mobile applications = Testen von Lebenszykluseigenschaften mobiler Anwendungen**

Bibtex entry:

```latex
@phdthesis{"Fra15",
author = {Franke, D.},
title = {Testing life cycle-related properties of mobile applications = Testen von Lebenszykluseigenschaften mobiler Anwendungen},
year = {2015},
typ = {PUB:(DE-HGF)11},
reportid = {RWTH-CONV-236318},
cin = {122810 / 120000},
url = {http://publications.rwth-aachen.de/record/752293},
}
```


**Duplikatserkennung und Refactoring in Matlab/Simulink-**
Modellen

Bibtex entry :

@inproceedings { GSK15,
author = { Gerlitz, Thomas and Schake, Stefan and Kowalewski, Stefan },
title = { Duplikatserkennung und Refactoring in Matlab/Simulink-Modellen },
booktitle = { Tagungsband Dagstuhl-Workshop MBEES: Modelbasierte Entwicklungeingebetteter Systeme XI / Matthias Riebisch, Michaela Huhn, Jan Philipps, Bernhard Sch{"a}tz },
pages = { 17-27 },
year = { 2015 },
organization = { Dagstuhl-Workshop MBEES, Dagstuhl (Germany), 2015-03-22 - 2015-03-25 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-207909 },
cin = { 122810 / 120000 },
url = { http://publications.embedded.rwth-aachen.de/file/60 }
}

[GTD15]

Detection and Handling of Model Smells for MATLAB/Simulink Models

Bibtex entry :

@inproceedings { GTD15,
author = { Gerlitz, Thomas and Tran, Quang Minh and Dziobek, Christian },
title = { Detection and Handling of Model Smells for MATLAB/Simulink Models },

Detection and Handling of Model Smells for MATLAB/Simulink Models
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, USA) },

publisher = { CEUR },

pages = { 13-22 },

series = { CEUR Workshop Proceedings },

year = { 2015 },


typ = { PUB:(DE-HGF)8 },

reportid = { RWTH-2016-03745 },

cin = { 122810 / 120000 },


[HBS+15]

[PDF] BIB


Analyzing the Restart Behavior of Industrial Control Applications

Bibtex entry:

@inbook { HBS+15,

author = { Hauck-Stattelmann, Stefan and Biallas, Sebastian and Schlich, Bastian and Kowalewski, Stefan and Jetley, Raoul },

title = { Analyzing the Restart Behavior of Industrial Control Applications },

booktitle = { FM 2015: formal methods : 20th international 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 },

address = { Springer International Publishing },


}
Jawawi, D. N. A., Mamat, R., Ridzuan, F., Khatibsyarbini, M., Zulkifli, M., and Zaki, M. J., "Introducing computer programming to secondary school students using mobile robots", in Proc.

Introducing computer programming to secondary school students using mobile robots

Bibtex entry:

@inproceedings {JMR+15,
  author = {Jawawi, Dayang N. A. and Mamat, Rosbi and Ridzuan, Fakhitah and Khatibsyarbini, Muhammad and Zulkifli, M. and Zaki, Mohammed Javeed },
  title = {Introducing computer programming to secondary school students using mobile robots },
  booktitle = {2015 10th Asian Control Conference (ASCC 2015) : Kota Kinabalu, Malaysia, 31 May - 3 June 2015; proceedings / ed.: Azura Che Soh ... },
  publisher = {IEEE },
  year = {2015},
  address = {Piscataway, NJ },
  organization = {2015 10th Asian Control Conference, Kota Kinabalu (Malaysia), 2015-05-31 - 2015-06-03 },
  doi = {10.1109/ASCC.2015.7244750},
  typ = {PUB:(DE-HGF)7 },
  reportid = {RWTH-2016-12202},
  cin = {122810 / 120000},
  url = {http://publications.rwth-aachen.de/record/681097},
}
Priority Inheritance during Remote Procedure Calls in Real-Time Android using Extended Binder Framework

Bibtex entry:

@inproceedings { KGK15,
    author = { Kalkov, Igor and Gurghian, Alexandru and Kowalewski, Stefan },
    title = { Priority Inheritance during Remote Procedure Calls in Real-Time Android using Extended Binder Framework },
    publisher = { ACM Press New York, New York, USA },
    pages = { 5, 10 Seiten },
    year = { 2015 },
    doi = { 10.1145/2822304.2822311 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-2016-03747 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/573802 },
}

KKO+15

Echtzeiterweiterung für Android: SPS inside

Bibtex entry:

@article { KKO+15,
    author = { Kowalewski, Stefan and Kalkov, Igor and Obster, Mathias and Thönnessen, David },
    title = { Echtzeiterweiterung f{"u}r Android: SPS inside },
    journal = { IEE - Elektrische Automatisierung + Antriebstechnik },
    publisher = { IEE },
    pages = { 58-61 },
    year = { 2015 },
    issn = { 1434-2898 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-236305 },
    cin = { 122810 / 120000 },
}

**Embedded Safety Measures for Extracorporeal Blood Circulation**

**Bibtex entry :**

```bibtex
@inproceedings { KSB+15,
    author = { K{"u}hn, Jan and Stollenwerk, André and Brendle, Christian 
    and Walter, Marian and Wardeh, Markus Nabil and Kopp, R{"u}dger and Kowalewski, Stefan },
    title = { Embedded Safety Measures for Extracorporeal Blood Circulation },
    booktitle = { [Proceedings of the 11th German-Russian-Conference on Biomedical Engineering, GRC, 17.06.2015-19.06.2015, Aachen, Germany] },
    pages = { 169-170 },
    year = { 2015 },
    organization = { 11th German-Russian-Conference on Biomedical Engineering, Aachen (Germany), 2015-06-17 - 2015-06-19 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-2015-07467 },
    cin = { 611010 / 122810 },
    url = { http://publications.rwth-aachen.de/record/564784 },
}
```


**Pulsatile Ansteuerung einer Diagonalblutpumpe**

**Bibtex entry :**

```bibtex
@article { KSK+15,
    author = { K{"u}hn, Jan and Stollenwerk, André and Kowalewski, Stefan 
    and Brendle, Christian and Walter, Marian and Leonhardt, 
    }
```
Steffen and Wardeh, Markus Nabil and Kopp, Rüdger and Rossaint, Rolf,

title = { Pulsatile Ansteuerung einer Diagonalblutpumpe },

doi = { Atp-Edition },

pages = { 52-59 },

volume = { 57 },

number = { 10 },

year = { 2015 },

address = { M{"u}nchen },

issn = { 0178-2320 },

typ = { PUB:(DE-HGF)16 },

reportid = { RWTH-2015-05802 },

cin = { 61101053000-2 / 122810 / 120000 },


[KSM15]


Fast Identification of Obfuscation and Mobile Advertising in Mobile Malware

Bibtex entry :

@inproceedings { KSM15,
    author = { Kühnel, Marián and Smieschek, Manfred Thomas and Meyer, Ulrike },

title = { Fast Identification of Obfuscation and Mobile Advertising in Mobile Malware },


publisher = { IEEE },

pages = { 214-221 },

year = { 2015 },

address = { Piscataway, NJ },

organization = { IEEE International Conference on Trust, Security and Privacy }

https://embedded.rwth-aachen.de/  Printed on 2019/07/04 01:20
Safety Conflict Analysis in Medical Cyber-Physical Systems Using an SMT-Solver

Bibtex entry:

```latex
@inproceedings { KSS+15,
    author = { K{"u}hn, Jan and Schoonbrood, Pierre and Stollenwerk, André and Brendle, Christian and Wardeh, Markus Nabil and Walter, Marian and Roissant, Rolf and Leonhardt, Steffen and Kowalewski, Stefan and Kopp, R{"u}dger },
    title = { Safety Conflict Analysis in Medical Cyber-Physical Systems Using an SMT-Solver },
    publisher = { M. Jeusfeld c/o Redaktion Sun SITE, Informatik V, RWTH Aachen },
    pages = { 19-23 },
    year = { 2015 },
    address = { Aachen },
    organization = { Software Engineering 2015, Dresden (Germany), 2015-03-17 - 2015-03-18 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-2015-01765 },
    cin = { 611010 / 122810533000-2 / 120000 },
    url = { http://nbn-resolving.de/urn:nbn:de:0074-1337-4 },
}
```
Pulsatile Ansteuerung einer Diagonalblutpumpe

Bibtex entry:

@inproceedings {  KWS+15,
    author = { K{"u}hn, Jan and W{"u}bbels, Nico and Stollenwerk, André and Kowalewski, Stefan and Brendle, Christian and Walter, Marian and Leonhardt, Steffen and Wardeh, Markus and Kopp, Rolf },
    title = { Pulsatile Ansteuerung einer Diagonalblutpumpe },
    publisher = { VDI Verlag },
    pages = { 325-339 },
    series = { VDI-Berichte },
    year = { 2015 },
    address = { D{"u}sseldorf },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2015-05806 },
    cin = { 611010 / 122810 / 120000533000-2 },
    url = { http://publications.embedded.rwth-aachen.de/file/65 },
}

Ansatz zur variantenreichen und modellbasierten...
Entwicklung von eingebetteten Systemen unter Berücksichtigung regelungs- und softwaretechnischer Anforderungen = Model-based product-line development of embedded systems considering requirements form control- and software engineering

Bibtex entry:

@phdthesis { Pol15,
  author = { Polzer, A. },
  title = { Ansatz zur variantenreichen und modellbasierten Entwicklung von eingebetteten Systemen unter Berücksichtigung regelungs- und softwaretechnischer Anforderungen = Model-based product-line development of embedded systems considering requirements form control- and software engineering },
  year = { 2015 },
  typ = { PUB:(DE-HGF)11 },
  reportid = { RWTH-CONV-236320 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752294 },
}

[Pol15a]


Ansatz zur variantenreichen und modellbasierten Entwicklung von eingebetteten Systemen unter Berücksichtigung regelungs- und softwaretechnischer Anforderungen

Bibtex entry:

@phdthesis { Pol15a,
  author = { Polzer, Andreas },
  title = { Ansatz zur variantenreichen und modellbasierten Entwicklung von eingebetteten Systemen unter Berücksichtigung regelungs- und softwaretechnischer Anforderungen },
  publisher = { Fachgruppe Informatik, RWTH Aachen University },
  school = { Zugl.: Aachen, Techn. Hochsch. },
  series = { Aachener Informatik-Berichte },
}

Current Challenges in the Verification of Hybrid Systems

Bibtex entry:

```bibtex
@inproceedings { SAC+15,
  author = { Schupp, Stefan and Ábrahám, Erika and Chen, Xin and Ben Makhlouf, Ibtissem and Frehse, Goran and Sankaranarayanan, Sriram and Kowalewski, Stefan },
  title = { Current Challenges in the Verification of Hybrid Systems },
  booktitle = { Cyber physical systems : design, modeling, and evaluation ; 5th international workshop, CyPhy 2015, Amsterdam, The Netherlands, October 8, 2015 ; proceedings / Christian Berger ... (eds.) },
  publisher = { Springer International Publishing },
  pages = { 8-24 },
  series = { Lecture Notes in Computer Science },
  year = { 2015 },
  address = { Cham },
  organization = { 5th Workshop on Design, Modeling, and Evaluation of Cyber Physical Systems, Amsterdam (Netherlands), 2015-10-08 - 2015-10-08 },
  doi = { 10.1007/978-3-319-25141-7_2 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-2015-07355 },
  cin = { 121310 / 120000 / 123420 / 121330 / 122810 },
  url = { http://publications.rwth-aachen.de/record/564375 },

**Automatic test case generation for PLC programs using coverage metrics**

**Bibtex entry**:

```latex
@inproceedings { SFB+15,
  author = { Simon, Hendrik and Friedrich, Nico and Biallas, Sebastian and Hauck-Stattelmann, Stefan and Schlich, Bastian and Kowalewski, Stefan },
  title = { Automatic test case generation for PLC programs using coverage metrics },
  booktitle = { 2015 IEEE 20th Conference on Emerging Technologies & Factory Automation (ETFA) : 8 - 11 Sept. 2015, City of Luxembourg, Luxembourg / co-sponsored by IEEE ... },
  publisher = { IEEE },
  pages = { 4 S. },
  year = { 2015 },
  address = { Piscataway, NJ },
  doi = { 10.1109/ETFA.2015.7301602 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-2015-07849 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/565382 },
}
```

[SKW+15]

**PDF**


**Software-based Prediction of Cannula Occlusion during Extracorporeal Blood Circulation through Networked Medical Data**
Bibtex entry:

@inproceedings { SKW+15,
  author = { Stollenwerk, André and K"uhn, Jan and Walter, Marian and Brendle, Christian and Wardeh, Markus Nabil and Rossaint, Rolf and Leonhardt, Steffen and Kowalewski, Stefan and Kopp, R"u
gger },
  title = { Software-based Prediction of Cannula Occlusion during Extracorporeal Blood Circulation through Networked Medical Data },
  pages = { 1-6 },
  series = { CEUR workshop proceedings },
  year = { 2015 },
  organization = { Software Engineering 2015, Dresden (Germany), 2015-03-17 - 2015-03-18 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-2015-01764 },
  cin = { 611010 / 122810533000-2 / 120000 },
  url = { http://nbn-resolving.de/urn:nbn:de:0074-1337-4 },
}

[SLR+15]

PDFBIB


Advancing Intensive Care by Networked Medical Systems

Bibtex entry:

@inproceedings { SLR+15,
  author = { Stollenwerk, André and Leonhardt, Steffen and Rossaint, Rolf and Kowalewski, Stefan },
  title = { Advancing Intensive Care by Networked Medical Systems },
  booktitle = { Proceedings of the 11th German-Russian-Conference on Biomedical Engineering, GRC, 17.06.2015-19.06.2015, Aachen, Germany },
  pages = { 211-213 },
  year = { 2015 },
  organization = { 11th German-Russian-Conference on Biomedical Engineering, Aachen (Germany), 2015-06-17 - 2015-06-19 },
}

**An Approach for Using Mobile Devices In Industrial Safety-Critical Embedded Systems**

Bibtex entry:

```
@inbook {AFK+14,
    author = { Armoush, Ashraf and Franke, Dominik and Kalkov, Igor and Kowalewski, Stefan },
    title = { An Approach for Using Mobile Devices In Industrial Safety-Critical Embedded Systems },
    publisher = { Springer },
    pages = { 294-297 },
    volume = { 130 },
    series = { Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering },
    year = { 2014 },
    address = { Cham },
    doi = { 10.1007/978-3-319-05452-0_27 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-203202 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/225590 },
}
```


**Networked Cooperative Platoon of Vehicles for Testing Methods and Verification Tools**

Bibtex entry:

```
@inproceedings {BK14,
    author = { Ben Makhlouf, I. and Kowalewski, S. },
    title = { Networked Cooperative Platoon of Vehicles for Testing Methods and Verification Tools },
    booktitle = { Proc. ARCH14 CPSWeek 2014 : Berlin, Germany, April 14 - 17, 2014 },
    year = { 2014 },
    pages = { 6 },
    address = { Berlin },
    doi = { 10.1007/978-3-319-05452-0_27 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-203202 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/225590 },
}
```
Efficient Handling of States in Abstract Interpretation of Industrial Programmable Logic Controller Code

Bibtex entry:

```
@inproceedings {BKS+14,
  author = {Biallas, Sebastian and Kowalewski, Stefan and Stattelmann, Stefan and Schlich, Bastian},
  title = {Efficient Handling of States in Abstract Interpretation of Industrial Programmable Logic Controller Code},
  publisher = {IFAC},
  pages = {400-405},
  year = {2014},
  address = {Cachan, France},
  doi = {10.3182/20140514-3-FR-4046.00065},
  typ = {PUB:(DE-HGF)8},
  reportid = {RWTH-CONV-205968},
  cin = {120000 / 122810},
  url = {http://publications.rwth-aachen.de/record/443854},
}
```
Towards an Indoor Traffic Report - Requirements for Dynamic Route Planning for Wheelchair Users

Bibtex entry:

```
@inproceedings{DBB+14,
  author = {Dzafic, Dzenan and Bitsch, Jó Ágila and Baumeister, Danni and Kowalewski, Stefan and Wehrle, Klaus },
  title = {Towards an Indoor Traffic Report - Requirements for Dynamic Route Planning for Wheelchair Users},
  booktitle = {International Conference on Indoor Positioning and Indoor Navigation (IPIN), 2012 : 13 - 15 Nov. 2012, Sydney, Australia ; conference proceedings / organized by UNSW Australia, the University of New South Wales, Australia. Ed. by Chris Rizos ... },
  publisher = {IEEE },
  year = {2014},
  address = {Piscataway, NJ },
  organization = {Fifth International Conference on Indoor Positioning and Indoor Navigation, Busan (Korea), 2014-10-27 - 2014-10-30 },
  typ = {PUB:(DE-HGF)8 },
  reportid = {RWTH-2015-00727 },
  cin = {122810 / 121710 / 120000 },
}
```

Integration von Informationen über die Bodenbeschaffenheit in das eNav-System: [Zusammenfassung der ] Masterarbeit

Bibtex entry:

@inbook { DF14,
  author = { Dzafic, Dzenan and Franke, Dominik },
  title = { Integration von Informationen "uber die Bodenbeschaffenheit in das eNav-System : [Zusammenfassung der ] Masterarbeit },
  booktitle = { Informatiktage 2014 / Fachwissenschaftlicher Informatik-Kongress, 27. und 28. M"arz 2014, Hasso-Plattner-Institut der Universit"at Potsdam ... },
  publisher = { Ges. f"ur Informatik },
  pages = { 123-126 },
  volume = { S-13 },
  series = { GI-Edition : lecture notes in informatics / Seminars },
  year = { 2014 },
  address = { Bonn },
  url = { http://publications.embedded.rwth-aachen.de/file/59 },
}

[DFB+14]


Integration von Bodenbelagsinformationen zum energieeffizienten Routen von Elektrorollst"hlen

Bibtex entry:

@inproceedings { DFB+14,
  author = { Dzafic, Dzenan and Franke, Dominik and Baumeister, Danni and Kowalewski, Stefan },
  title = { Integration von Bodenbelagsinformationen zum energieeffizienten Routen von Elektrorollst"hlen },
  booktitle = { Angewandte Geoinformatik 2014 : Beitr"age zum 26. AGIT-Symposium Salzburg / Strobl/ Blaschke/Griesebner/Zagl (Hrsg.) },
  publisher = { Wichmann },
  pages = { 451-460 },
  year = { 2014 },
  address = { Berlin [u.a. ] },
  url = { http://publications.embedded.rwth-aachen.de/file/59 },
}

**Semantic interfaces for automotive software components: exemplary development & validation of a practical specification language**

Bibtex entry:

```
@techreport {FAK+14,
    author = {Förster, 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},
    pages = {1-100},
    year = {2014},
    typ = {PUB:(DE-HGF)29},
    reportid = {RWTH-CONV-236315},
    cin = {122810 / 120000},
    url = {http://publications.rwth-aachen.de/record/752291},
}
```


**Concept and Experiences on Using a Wiki-Based System for Software-Related Seminar Papers**

Bibtex entry:

```
@inbook {FK14,
    author = {Franke, Dominik and Kowalewski, Stefan},
    title = {Concept and Experiences on Using a Wiki-Based System for Software-Related Seminar Papers},
    booktitle = {Information technology and open source: applications for education, innovation, and sustainability: SEFM 2012 Satellite Events, InSuEdu, MoKMaSD, and OpenCert, Thessaloniki, Greece, October 1 - 2, 2012; revised selected papers / Antonio Cerone; Donatella Persico; Sara Fernandes;}
```

Evaluating Embedded-Software Specifications -- Quantitative and Structured Assessment of Declarative Interface Descriptions

Bibtex entry :

@inproceedings { For14,
  author = { F{"o}rster, Marc },
  title = { Evaluating Embedded-Software Specifications -- Quantitative and Structured Assessment of Declarative Interface Descriptions },
  booktitle = { IEEE International Symposium on Software Reliability Engineering workshops (ISSREW), 2014 : 3 - 6 Nov. 2014, Naples, Italy ; proceedings },
  publisher = { IEEE },
  pages = { 142-143 },
  year = { 2014 },
  address = { Piscataway, NJ },
  organization = { 2014 IEEE International Symposium on Software Reliability Engineering Workshops, Naples (Italy), 2014-11-03 - 2014-11-06 },
  doi = { 10.1109/ISSREW.2014.74 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-2015-00716 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/462802 },

**Synthesis of state space generators for model checking microcontroller code**

Bibtex entry:

```bibtex
@phdthesis { Guc14,
    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 },
    address = { Aachen },
    typ = { PUB:(DE-HGF)11 },
    reportid = { RWTH-CONV-207070 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/464374/files/5296.pdf },
}
```


**Generating Inductive Predicates for Symbolic Execution of Pointer-Manipulating Programs**

Bibtex entry:

```bibtex
@inbook { JGN14,
    author = { Jansen, Christina and G{"o}be, Florian and Noll, Thomas },
    title = { Generating Inductive Predicates for Symbolic Execution of Pointer-Manipulating Programs },
    booktitle = { Graph transformation : 7th international conference, ICGT 2014, held as part of STAF 2014, York, UK, July 22 - 24,}
```

Predictable Broadcasting of Parallel Intents in Real-Time Android

Bibtex entry:

```latex
@inbook { KGK14,
  author = { Kalkov, Igor and Gurghian, Alexandru and Kowalewski, Stefan },
  title = { Predictable Broadcasting of Parallel Intents in Real-Time Android },
  publisher = { ACM },
  pages = { 57-66 },
  series = { ACM international conference proceedings series },
  year = { 2014 },
  address = { New York, New York },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-205503 },
  cin = { 120000 / 122810 },
  url = { http://publications.embedded.rwth-aachen.de/file/5g },
}
```

**Editorial for the Software Engineering 2013 Conference**

Bibtex entry:

```latex
@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},
  address = {Berlin},
  issn = {1865-2034},
  doi = {10.1007/s00450-014-0274-8},
  typ = {PUB:(DE-HGF)16},
  reportid = {RWTH-2015-03183},
  cin = {121510 / 120000 / 122810},
}
```

[Mer14]


**Integration und Analyse von Artefakten in der modellbasierten Entwicklung eingebetteter Software**

Bibtex entry:

```latex
@phdthesis {Mer14,
  author = {Merschen, Daniel},
  othercontributors = {Kowalewski, Stefan},
  title = {Integration und Analyse von Artefakten in der modellbasierten Entwicklung eingebetteter Software},
  publisher = {Shaker},
  year = {2014},
  address = {Aachen},
  isbn = {978-3-8440-2601-6},
  typ = {PUB:(DE-HGF)11},
  reportid = {RWTH-CONV-144218},
  cin = {120000 / 122810},
  url = {http://...}
}
```
Development and Execution of PLC Programs on Real-Time Capable Mobile Devices

Bibtex entry:

@inproceedings { OKK14,
    author = { Obster, Mathias and Kowalewski, Stefan and Kalkov, Igor },
    title = { Development and Execution of PLC Programs on Real-Time Capable Mobile Devices },
    publisher = { IEEE },
    pages = { 8 Seiten },
    year = { 2014 },
    address = { Piscataway, NJ },
    doi = { 10.1109/ETFA.2014.7005218 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-206433 },
    cin = { 120000 / 122810 },
    url = { http://publications.embedded.rwth-aachen.de/file/5e },
}

Time continuous behaviour comparison based on abstract models

Bibtex entry:

@phdthesis { Pal14,
author = { Palczynski, Jacob },
othercontributors = { Kowalewski, Stefan },
title = { Time continuous behaviour comparison based on abstract models },
publisher = { Fachgruppe Informatik, RWTH Aachen University },
pages = { II-XI, 126 S. },
series = { Aachener Informatik-Berichte },
year = { 2014 },
address = { Aachen },
typ = { PUB:(DE-HGF)11 },
reportid = { RWTH-CONV-144280 },
cin = { 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/229310/files/4941.pdf },
}

[RBH+14]
PDFBIB


Runtime verification of microcontroller binary code

Bibtex entry:

@article { RBH+14,
author = { Reinbacher, Thomas and Brauer, J{"o}rg and Horauer, Martin and Steininger, Andreas and Kowalewski, Stefan },
title = { Runtime verification of microcontroller binary code },
journal = { Science of computer programming },
publisher = { Elsevier },
pages = { 109-129 },
volume = { 80 },
year = { 2014 },
address = { Amsterdam },
issn = { 0167-6423 },
doi = { 10.1016/j.scico.2012.10.015 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-CONV-080463 },
cin = { 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/231479 },
}

[RFB14]
PDFBIB

Runtime verification of embedded real-time systems

Bibtex entry:

@article { RFB14,
    author = { Reinbacher, Thomas and Fuegger, Matthias and Brauer, J{"o}rg },
    title = { Runtime verification of embedded real-time systems },
    journal = { Formal methods in system design },
    publisher = { Springer Science + Business Media B.V },
    pages = { 203-239 },
    volume = { 44 },
    number = { 3 },
    year = { 2014 },
    address = { Dordrecht },
    issn = { 0925-9856 },
    doi = { 10.1007/s10703-013-0199-z },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-089599 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/446689 },
}

[SKB+14]

Applying Static Code Analysis on Industrial Controller Code

Bibtex entry:

@inproceedings { SKB+14,
    author = { Stattelmann, Stefan and Kowalewski, Stefan and Biallas, Sebastian and Schlich, Bastian },
    title = { Applying Static Code Analysis on Industrial Controller Code },
    publisher = { IEEE },
    pages = { 4 Seiten },
    year = { 2014 },
    address = { Piscataway, NJ },
}

Model-based supervision of a blood pump

Bibtex entry:

```bibtex
@inproceedings { SKB+14a,
  author = { Stollenwerk, André and K"uhn, Jan and Brendle, Christian and Walter, Marian and Arens, Jutta and Wardeh, Markus Nabil and Kowalewski, Stefan and Kopp, R"udger },
  title = { Model-based supervision of a blood pump },
  booktitle = { Proceedings of the 19th World Congress of the International Federation of Automatic Control, Cape Town, South Africa, 2014, 24-29 August 2014: Promoting automatic control for the benefit of humankind },
  publisher = { IFAC },
  pages = { 6593-6598 },
  series = { IFAC-PapersOnLine },
  year = { 2014 },
  address = { Laxenburg },
  organization = { 19th World Congress of the International-Federation-of-Automatic-Control, Cape Town (South Africa), 2014-08-24 - 2014-08-29 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-205733 },
  cin = { 120000 / 122810 },
  url = { http://publications.embedded.rwth-aachen.de/file/5d }},
```

Challenges for Software Engineering in Automation

Bibtex entry:

@article {VDF+14,
    author = {Vogel-Heuser, Birgit and Diedrich, Christian and Fay, Alexander and Jeschke, Sabina and Kowalewski, Stefan and Wollschlaeger, Martin and Göhner, Peter},
    title = {Challenges for Software Engineering in Automation},
    journal = {Journal of software engineering and applications : JSEA},
    publisher = {Scientific Research Publ.},
    pages = {440-451},
    volume = {7},
    number = {5},
    year = {2014},
    address = {Irvine, Calif.},
    issn = {1945-3116},
    doi = {10.4236/jsea.2014.75041},
    typ = {PUB:(DE-HGF)16},
    reportid = {RWTH-CONV-083260},
    cin = {051500 / 416910 / 023000 / 122810},
    url = {http://publications.rwth-aachen.de/record/234400},
}


SCandal: SystemC Analysis for Nondeterminism Anomalies

Bibtex entry:

@inbook {WSL+14,
    author = {Weinstock, Jan Henrik and Schumacher, Christoph and Leupers, Rainer and Ascheid, Gerd},
    title = {SCandal: SystemC Analysis for Nondeterminism Anomalies},
    booktitle = {Models, Methods, and Tools for Complex Chip Design : Selected Contributions from FDL 2012 / edited by Jan Haase},
    publisher = {Springer International Publishing [u.a.]},
    pages = {69-88},
    volume = {265},
    series = {Lecture Notes in Electrical Engineering},
    year = {2014},
}
Boolean and Modular Abstractions for Programmable Logic Controllers

Bibtex entry:

@inproceedings { BBK13,
  author = { Biallas, Sebastian and Bohlender, Dimitri and Kowalewski, Stefan },
  title = { Boolean and Modular Abstractions for Programmable Logic Controllers },
  booktitle = { Dependable Control of Discrete Systems : DCDS13. - Vol. 4, P. 1 },
  publisher = { IFAC },
  pages = { 97-102 },
  year = { 2013 },
  address = { Laxenburg },
  doi = { 10.3182/20130904-3-UK-4041.00011 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-203363 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/225788 },
}

[BDK13]

Reachability Analysis for Managing Platoons at Intersections

Bibtex entry:

@inproceedings { BDK13,
    author = { Ben Makhlouf, Ibtissem and Diab, Hilal and Kowalewski, Stefan },
    title = { Reachability Analysis for Managing Platoons at Intersections },
    publisher = { IEEE },
    pages = { 1141-1147 },
    year = { 2013 },
    address = { Piscataway, NJ },
    doi = { 10.1109/MED.2013.6608864 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-204343 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/226951 },
}

[BGK13]

Predicate Abstraction for Programmable Logic Controllers

Bibtex entry:

@inbook { BGK13,
    author = { Biallas, Sebastian and Giacobbe, Mirco and Kowalewski, Stefan },
    title = { Predicate Abstraction for Programmable Logic Controllers },
    publisher = { Springer Berlin Heidelberg ; Imprint: Springer },
}

**Comparison of Reachability Methods for Uncertain Linear Time-Invariant Systems**

**Bibtex entry**

```bibtex
@inproceedings { BHK13,
   author = { Ben Makhlouf, Ibtissem and H{"a}nsch, Paul and Kowalewski, Stefan },
   title = { Comparison of Reachability Methods for Uncertain Linear Time-Invariant Systems },
   booktitle = { Proceedings of the 12th European Control Conference (ECC) : July 17 -19, 2013, Zuerich, Switzerland },
   publisher = { Omnipress },
   pages = { 1101-1106 },
   year = { 2013 },
   address = { Z{"u}rich },
   typ = { PUB:(DE-HGF)8 },
   reportid = { RWTH-CONV-203367 },
   cin = { 120000 / 122810 },
   url = { http://publications.rwth-aachen.de/record/225793 },
}
```

Automatic abstraction for bit vectors using decision procedures

Bibtex entry:

@techreport { BK13,
author = { Brauer, Jörg and Kowalewski, Stefan },
title = { Automatic abstraction for bit vectors using decision procedures },
publisher = { Fachgruppe Informatik, RWTH Aachen University },
pages = { IV, 207 S. : graph. Darst. },
volume = { 2013,14 },
number = { AIB 2013 14 },
series = { Aachener Informatik-Berichte },
year = { 2013 },
address = { Aachen },
typ = { PUB:(DE-HGF)11 },
reportid = { RWTH-CONV-010470 },
cin = { 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/229199/files/4836.pdf },
}

[BKK+13]

PDF BIB


Verifikation von sicherheitsgerichteten SPS-Programmen mit Hilfe von Safety-Automaten

Bibtex entry:

@inbook { BKK+13,
author = { Biallas, Sebastian and Kamin, Volker and Kowalewski, Stefan and Schlich, Bastian and Sehestedt, Stephan and Stattelmann, Stefan },
title = { Verifikation von sicherheitsgerichteten SPS-Programmen mit Hilfe von Safety-Automaten },
publisher = { VDI-Verl. },
pages = { 75-79 },
volume = { 2209 },
}

**Abstract interpretation of microcontroller code: Intervals meet congruences**

**Bibtex entry:**

```bibtex
@article{BKK13,
    author = {Brauer, Jörg and King, Andy and Kowalewski, Stefan},
    title = {Abstract interpretation of microcontroller code: Intervals meet congruences},
    journal = {Science of computer programming},
    publisher = {Elsevier},
    pages = {862-883},
    volume = {78},
    number = {7},
    year = {2013},
    address = {Amsterdam [u.a.]},
    issn = {0167-6423},
    doi = {10.1016/j.scico.2012.06.001},
    typ = {PUB:(DE-HGF)16},
    reportid = {RWTH-CONV-086725},
    cin = {120000 / 122810},
    url = {http://publications.rwth-aachen.de/record/238031},
}
```

PtrTracker: Pragmatic pointer analysis

Bibtex entry:

@inproceedings{BMC+13,
  author = { Biallas, Sebastian and Mads, Chr. Olesen and Cassez, Franck and Huuck, Ralf },
  title = { PtrTracker: Pragmatic pointer analysis },
  publisher = { IEEE },
  pages = { 69-73 },
  year = { 2013 },
  address = { Piscataway, NJ },
  doi = { 10.1109/SCAM.2013.6648186 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-236321 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752296 },
}

[DF13]

Entwicklung und Evaluation eines Navigationssystems für Elektrorollstühle

Bibtex entry:

@inbook{DF13,
  author = { Dzafic, Dzenan and Franke, Dominik },
  title = { Entwicklung und Evaluation eines Navigationssystems für Elektrorollstühle },
}

**Modifikation des A*-Algorithmus für energieeffizientes 3D-Routing**

Bibtex entry:

```
@inproceedings {DFB+13,
    author = {Dzafic, Dzenan and Franke, Dominik and Baumeister, Danni and Kowalewski, Stefan },
    title = {Modifikation des A*-Algorithmus für energieeffizientes 3D-Routing },
    booktitle = {Angewandte Geoinformatik 2013: Beiträge zum 25. AGIT-Symposium Salzburg / Strobl; Blaschke; Griesebner; Zagel (Hrsg.) },
    publisher = {Wichmann },
    pages = {414-423 },
    year = {2013 },
    address = {Berlin ; Offenbach },
    typ = {PUB:(DE-HGF)8 },
    reportid = {RWTH-CONV-205272 },
    cin = {120000 / 122810 },
    url = {http://publications.rwth-aachen.de/record/228156 },
}
```

Specifying Life Cycle Requirements in a Natural-like Language and ptLTL

Bibtex entry:

@inproceedings { FHK13,
  author = { Franke, Dominik and Hempel, Stefan and Kowalewski, Stefan },
  title = { Specifying Life Cycle Requirements in a Natural-like Language and ptLTL },
  booktitle = { 2013 IEEE Sixth International Conference on Software Testing, Verification and Validation Workshops (ICSTW), Luxembourg 18-22 March 2013 },
  publisher = { IEEE Computer Society },
  pages = { 120-121 },
  year = { 2013 },
  address = { Piscataway, NJ },
  doi = { 10.1109/ICSTW.2013.72 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-203748 },
  url = { http://publications.rwth-aachen.de/record/226262 },
}

[For13]


Conditional software specification & assurance : A practical assessment of contract-based approaches

Bibtex entry:

@inproceedings { For13,
  author = { Förster, Marc },
  title = { Conditional software specification & assurance : A practical assessment of contract-based approaches },
  publisher = { IEEE },
  pages = { 36-36 },
  year = { 2013 },
  address = { Piscataway, NJ },
  doi = { 10.1109/ISSREW.2013.6688860 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-202934 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/225271 },
}
Non-Blocking Garbage Collection for Real-Time Android

Bibtex entry:

```latex
@inbook { GKS+13,
  author = { Gerlitz, Thomas and Kalkov, Igor and Schommer, John F. and Franke, Dominik and Kowalewski, Stefan },
  title = { Non-Blocking Garbage Collection for Real-Time Android },
  publisher = { ACM },
  pages = { 108-117 },
  series = { ACM Digital Library },
  year = { 2013 },
  address = { New York, NY },
  doi = { 10.1145/2512989.2512999 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-202515 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/224782 },
}
```

Reachability Analysis of Linear Systems with Stepwise Constant Inputs

Bibtex entry:

```latex
@article { HDB+13,
  author = { Hänsch, Paul and Diab, Hilal and Ben Makhlouf, Ibtissem and Kowalewski, Stefan },
  title = { Reachability Analysis of Linear Systems with Stepwise Constant Inputs },
  journal = { Electronic notes in theoretical computer science : ENTCS },
  publisher = { Elsevier },
  pages = { 61-74 },
}
```

Reverse Engineering des Windows Phone Process Execution Models

Bibtex entry:

@inbook { HF13,
    author = { Hansen, Norman and Franke, Dominik },
    title = { Reverse Engineering des Windows Phone Process Execution Models },
    publisher = { Gesellschaft f{"u}r Informatik e.V. },
    pages = { 83-86 },
    volume = { 12 },
    series = { GI-Edition : lecture notes in informatics },
    year = { 2013 },
    address = { Bonn },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-204143 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/226725 },
}
Model checking and abstract interpretation as building blocks of advanced program analysis techniques

Bibtex entry:

```bibtex
@article{KPB13,
  author = {Kowalewski, Stefan and Philippou, A. and Brauer, J.},
  title = {Model checking and abstract interpretation as building blocks of advanced program analysis techniques},
  journal = {International journal on software tools for technology transfer: STTT},
  publisher = {Springer},
  pages = {287-289},
  volume = {15},
  number = {4},
  year = {2013},
  address = {Berlin ; Heidelberg [u.a.]},
  issn = {1433-2787},
  organization = {15th International Conference, TACAS 2009, York (UK),
                  2009-03-22 - 2009-03-29},
  doi = {10.1007/s10009-013-0280-3},
  typ = {PUB:(DE-HGF)16},
  reportid = {RWTH-CONV-236324},
  cin = {122810 / 120000},
  url = {http://publications.rwth-aachen.de/record/752289},
}
```

[KR13]


Bibtex entry:

```bibtex
@proceedings{KR13,
  editor = {Kowalewski, Stefan and Rumpe, Bernhard},
  publisher = {Ges. f"ur Informatik},
  pages = {379 S. : Ill., graph. Darst.},
  volume = {213},
  series = {GI-Edition: Proceedings},
}
```
[MGP+13]


Analysis of Simulink Models Using Databases and Model Transformations

Bibtex entry :

@inproceedings { MGP+13,
author = { Merschen, Daniel and Gleis, Robert and Pott, Julian and Kowalewski, Stefan },
title = { Analysis of Simulink Models Using Databases and Model Transformations },
publisher = { Springer },
pages = { 69-84 },
series = { Lecture Notes in Computer Science },
year = { 2013 },
address = { Berlin, Heidelberg },
organization = { Model-Based Methodologies for Pervasive and Embedded Software : 8th International Workshop, Essen (Germany), 2012-09-04 - 2012-09-04 },
doi = { 10.1007/978-3-642-38209-3_5 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-236314 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752299 },
}

[NHM13]

Neugebauer, J., Hanrath, M., and Mitric, R., "Theoretische Chemie 2012", Nachrichten aus der...
Theoretische Chemie 2012

Bibtex entry:

@article { NHM13,
  author = { Neugebauer, Johannes and Hanrath, Michael and Mitric, Roland },
  title = { Theoretische Chemie 2012 },
  journal = { Nachrichten aus der Chemie },
  publisher = { de Gruyter [u.a.] },
  pages = { 320-329 },
  volume = { 61 },
  number = { 3 },
  year = { 2013 },
  address = { Berlin },
  issn = { 0341-5163 },
  doi = { 10.1002/nadc.201390090 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-086856 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/238164 },
}


Robust Control of End-Tidal CO2 using the $H_\infty$ Loop-Shaping Approach

Bibtex entry:

@article { PMS+13,
  author = { Pomprapa, Anake and Misgeld, Berno and Sorgato, Veronica and Stollenwerk, André and Walter, Marian and Leonhardt, Steffen },
  title = { Robust Control of End-Tidal CO2 using the $H_\infty$ Loop-Shaping Approach },
  journal = { Acta polytechnica = Journal of advanced engineering },
  publisher = { Univ. },
  pages = { 895-900 },
  volume = { 53 },
  year = { 2013 },
  address = { Prague },
  issn = { 1210-2709 },
}

Modellbasierte Entwicklung automobiler Steuerungssysteme in kleinen und mittelständischen Unternehmen

Bibtex entry:

```bibtex
@phdthesis {  Rek13,
    author = { Reke, Michael },
    othercontributors = { Kowalewski, Stefan },
    title = { Modellbasierte Entwicklung automobiler Steuerungssysteme in kleinen und mittelständischen Unternehmen },
    publisher = { Shaker },
    pages = { IX, 171 S. : Ill., graph. Darst. },
    series = { Aachener Informatik-Berichte },
    year = { 2013 },
    address = { Aachen },
    typ = { PUB:(DE-HGF)11 },
    reportid = { RWTH-CONV-143805 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/211920/files/4545.pdf },
}
```


Modellbasierte Entwicklung automobiler Steuerungssysteme in kleinen und mittelständischen Unternehmen = Model-based development of automotive control systems in small and medium
enterprises

Bibtex entry :

@phdthesis {Rek13a,
author = {Reke, Michael},
title = {Modellbasierte Entwicklung automobiler Steuerungssysteme in kleinen und mittelständischen Unternehmen = Model-based development of automotive control systems in small and medium enterprises },
year = {2013},
typ = {PUB:(DE-HGF)11},
reportid = {RWTH-CONV-236322},
cin = {122810 / 120000},
url = {http://publications.rwth-aachen.de/record/752297},
}

Optimizing Image Processing on OMAP3 with driver-level frame buffering and color space conversion

Bibtex entry :

@inproceedings {SDK13,
author = {Schellen, Johannes and Dernehl, Christian and Kowalewski, Stefan},
title = {Optimizing Image Processing on OMAP3 with driver-level frame buffering and color space conversion },
booktitle = {International Micro Air Vehicle Conference and Flight Competition (IMAV)},
publisher = {IMAV},
pages = {1-8},
year = {2013},
typ = {PUB:(DE-HGF)8},
reportid = {RWTH-CONV-204138},
cin = {120000 / 122810},
url = {http://www.youtube.com/watch?v=4HUwtUy-mFc},
}

Schommer, J. F., Gerlitz, T., and Kowalewski, S., "Load and Quality Cooperation for Distributed

**Load and Quality Cooperation for Distributed Embedded Systems Using Different Modes of Operation**

Bibtex entry:

```bibtex
@inproceedings{SGK13,
  author = { Schommer, John F. and Gerlitz, Thomas and Kowalewski, Stefan },
  title = { Load and Quality Cooperation for Distributed Embedded Systems Using Different Modes of Operation },
  pages = { 45-48 },
  year = { 2013 },
  address = { Sophia Antipolis, France },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-204855 },
  cin = { 120000 / 122810 },
  url = { http://jrwrtc.science.uva.nl/JRWRTC13_proceedings.pdf },
}
```

[Sto13]


**Ein modellbasiertes Sicherheitskonzept für die extrakorporale Lungenunterstützung**

Bibtex entry:

```bibtex
@phdthesis{Sto13,
  author = { Stollenwerk, André },
  othercontributors = { Kowalewski, Stefan },
  title = { Ein modellbasiertes Sicherheitskonzept für die extrakorporale Lungenunterstützung },
  publisher = { Shaker },
  pages = { XX, 183 S. : Ill., graph. Darst. },
  series = { Aachener Informatik-Berichte },
  year = { 2013 },
  address = { Aachen },
  typ = { PUB:(DE-HGF)11 },
  reportid = { RWTH-CONV-144193 },
  cin = { 120000 / 122810 },
}
```

**Cyber-physical Systems**

**Bibtex entry:**

```latex
@article { VK13,
  author = { Vogel-Heuser, Birgit and Kowalewski, Stefan },
  title = { Cyber-physical Systems },
  journal = { Automatisierungstechnik : at },
  publisher = { Oldenbourg },
  pages = { 667-668 },
  volume = { 61 },
  number = { 10 },
  year = { 2013 },
  address = { M"unchen },
  issn = { 0178-2312 },
  doi = { 10.1515/auto.2013.9010 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-085437 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/236678 },
}
```


**Patient oriented closed loop control of extracorporeal lung assist**

**Bibtex entry:**

```latex
@inproceedings { WBS+13,
  author = { Walter, Marian and Brendle, Christian and Stollenwerk, André and Kopp, R"udiger and Arens, Jutta and Bensberg, Ralf and Leonhardt, Steffen },
  title = { Patient oriented closed loop control of extracorporeal lung assist },
  booktitle = { Journal of critical care },
}
```
Ein Ansatz zum merkmalsbasierten Konsistenzmanagement in der Produktlinienentwicklung

Bibtex entry:

@inbook {  WGM+13,
    author = { Wiechowski, Norbert and Gerlitz, Thomas and Merschen, Daniel and Kowalewski, Stefan },
    title = { Ein Ansatz zum merkmalsbasierten Konsistenzmanagement in der Produktlinienentwicklung },
    publisher = { Gesellschaft f{"u}r Informatik e.V. },
    pages = { 2502-2516 },
    volume = { 12 },
    series = { GI-Edition : lecture notes in informatics },
    year = { 2013 },
    address = { Bonn },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-204229 },
    cin = { 120000 / 122810 / 611010 },
    url = { http://publications.rwth-aachen.de/record/226820 },
}

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

**Bibtex entry:**

```bibtex
@article { WSB+13,
author = { Walter, Marian and Stollenwerk, André and Bensberg, Ralf and Kopp, R"udger and Leonhardt, Steffen },
title = { Smart ECLA—closed loop control of O2 and CO2 for management of extracorporeal lung assist },
journal = { Journal of critical care },
publisher = { Elsevier },
pages = { e41-e42 },
volume = { 28 },
year = { 2013 },
address = { New York, NY },
issn = { 0883-9441 },
doi = { 10.1016/j.jcrc.2013.07.038 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-CONV-080592 },
cin = { 120000 / 122810 / 611010 },
url = { http://publications.rwth-aachen.de/record/231618 },}
```

**[BBK+12]**


**Loop Leaping with Closures**

**Bibtex entry:**

```bibtex
@inproceedings { BBK+12,
author = { Biallas, Sebastian and Brauer, Jørg and King, Andy and Kowalewski, Stefan },
title = { Loop Leaping with Closures },
publisher = { Springer },}
```
Static Analysis of Lockless Microcontroller C Programs

Bibtex entry:

```latex
@inproceedings { BBK12,
  author = { Beckschulze, Eva and Biallas, Sebastian and Kowalewski, Stefan },
  title = { Static Analysis of Lockless Microcontroller C Programs },
  booktitle = { Proceedings Seventh Conference on Systems Software Verification (SSV 2012) : Sydney, Australia, 28-30 November 2012 / Franck Cassez, Ralf Huuck, Gerwin Klein and Bastian Schlich },
  pages = { 103-114 },
  series = { Electronic proceedings in theoretical computer science : EPTCS },
  year = { 2012 },
  address = { Sydney, Australia },
  doi = { 10.4204/EPTCS.102.10 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-195461 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/124829 },
}
```

Access-Based Localization for Octagons

Bibtex entry:

@article { BBK12a,
    author = { Beckschulze, Eva and Brauer, J"org and Kowalewski, Stefan },
    title = { Access-Based Localization for Octagons },
    journal = { Electronic notes in theoretical computer science : ENTCS },
    publisher = { Elsevier Science },
    pages = { 29-40 },
    volume = { 287 },
    year = { 2012 },
    address = { Amsterdam [u.a.] },
    issn = { 1571-0661 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-043099 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/165238 },
}

[BBK12b]

PDF

BibTeX


Arcade.PLC : a Verification Platform for Programmable Logic Controllers

Bibtex entry:

@inproceedings { BBK12b,
    author = { Biallas, Sebastian and Brauer, J"org and Kowalewski, Stefan },
    title = { Arcade.PLC : a Verification Platform for Programmable Logic Controllers },
    booktitle = { 2012 proceedings of the 27th IEEE/ACM International Conference on Automated Software Engineering (ASE 2012) : Essen, Germany, 3 - 7 September 2012 },
    publisher = { IEEE },
    pages = { 338-341 },
    year = { 2012 },
    address = { Piscataway, NJ },
    doi = { 10.1145/2351676.2351741 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-170936 },
}

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

Bibtex entry:

```latex
@inproceedings { BDK12,
  author = { Ben Makhlouf, Ibtissem and Diab, Hilal and Kowalewski, Stefan },
  title = { Safety Verification of a Controlled Cooperative Platoon Under Loss of Communication Using Zonotopes },
  booktitle = { Inproceeding of the 4th IFAC Conference on Analysis and Design of Hybrid Systems (ADHS 12), Eindhoven, NL },
  pages = { 333-338 },
  year = { 2012 },
  doi = { 10.3182/20120606-3-NL-3011.00053 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-200116 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/197942 },
}
```


**Adaptable Value-Set Analysis for Low-Level Code**

Bibtex entry:

```latex
@inproceedings { BHK+12,
  author = { Brauer, J{"o}rg and Hansen, Rene Rydhof and Kowalewski, Stefan and Larsen, Kim G. and Olesen, Mads Chr. },
  title = { Adaptable Value-Set Analysis for Low-Level Code },
}
```
Verification (SSV 2011) [Elektronische Ressource] / Hrsg.: Jörg Brauer; Marco Roveri; Hendrik Tews,
publisher = { Schloss Dagstuhl - Leibniz-Zentrum für Informatik },
pages = { 32-43 },
series = { OASIcs - OpenAccess Series in Informatics },
year = { 2012 },
address = { Wadern },
doi = { 10.4230/OASIcs.SSV.2011.32 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-198838 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/128784 },
}

[BK12]
PDF BIB

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

Bibtex entry :

@inproceedings { BK12,
author = { Barakat, Kamal and Kowalewski, Stefan },
title = { Modeling and Verification of Network Protocol Specs using Timed Pi-Calculus },
publisher = { IEEE },
pages = { 884-891 },
year = { 2012 },
address = { Piscataway, NJ },
doi = { 10.1109/ICUMT.2012.6459786 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-200920 },
cin = { 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/207475 },
}

[BK12a]
PDF BIB
Brauer, J. and King, A., "Transfer function synthesis without quantifier elimination", Logical
Transfer function synthesis without quantifier elimination

Bibtex entry:

```latex
@article { BK12a,
  author = { Brauer, Jörg and King, Andy },
  title = { Transfer function synthesis without quantifier elimination },
  journal = { Logical methods in computer science : LMCS },
  publisher = { Department of Theoretical Computer Science, TU [u.a.] },
  volume = { 8 },
  number = { 3 },
  year = { 2012 },
  address = { Braunschweig },
  issn = { 1860-5974 },
  doi = { 10.2168/LMCS-8(3:17)2012 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-079893 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/218122/files/218122.pdf },
}
```

BKN12


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

Bibtex entry:

```latex
@inproceedings { BKN12,
  author = { Barakat, Kamal and Kowalewski, Stefan and Noll, Thomas },
  title = { A Native Approach to Modeling Timed Behavior in the Pi-Calculus },
  booktitle = { 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 },
}
```
Automatische Wertebereichsanalyse von SPS-Programmen

Bibtex entry:

```bibtex
@inproceedings {BKS12,
   author = {Biallas, Sebastian and Kowalewski, Stefan and Schlich, Bastian},
   title = {Automatische Wertebereichsanalyse von SPS-Programmen},
   publisher = {VDI-Verl.},
   pages = {79-83},
   series = {VDI-Berichte},
   year = {2012},
   address = {D{"u}sseldorf},
   typ = {PUB:(DE-HGF)8},
   reportid = {RWTH-CONV-191631},
   cin = {122810 / 120000},
   url = {http://publications.rwth-aachen.de/record/120638},
}
```

Automatische Wertebereichsanalyse -- Formale Verifikation für SPS-Programme

Bibtex entry:

```bibtex
@article { BKS12a,
  author = { Biallas, Sebastian and Kowalewski, Stefan and Schlich, Bastian },
  title = { Automatische Wertebereichsanalyse -- Formale Verifikation f"{u}r SPS-Programme },
  journal = { Automatisierungstechnische Praxis : atp },
  publisher = { Oldenbourg Industrieverl. },
  pages = { 68-74 },
  volume = { 54 },
  number = { 7/8 },
  year = { 2012 },
  address = { M{"u}nchen },
  issn = { 0178-2320 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-015025 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/133988 },
}
```


Range and Value-Set Analysis for Programmable Logic Controllers

Bibtex entry:

```bibtex
@inproceedings { BKS12b,
  author = { Biallas, Sebastian and Kowalewski, Stefan and Schlich, Bastian },
  title = { Range and Value-Set Analysis for Programmable Logic Controllers },
  booktitle = { Proceedings of the 11th International Workshop on Discrete Event Systems },
  publisher = { IFAC },
  pages = { 378-383 },
  year = { 2012 },
  address = { Guadalajara, Mexico },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-236327 },
}
```
Inferring Definite Counterexamples Through Under-Approximation

Bibtex entry :

@inproceedings { BS12,
    author = { Brauer, J{"o}rg and Simon, Axel },
    title = { Inferring Definite Counterexamples Through Under-Approximation },
    booktitle = { NASA formal methods : 4th international symposium, NFM 2012, Norfolk, VA, USA, April 3 - 5, 2012 ; proceedings / Alwyn E. Goodloe; Suzette Person (ed.) },
    publisher = { Springer },
    pages = { 54-69 },
    series = { Lecture Notes in Computer Science },
    year = { 2012 },
    address = { Berlin ; Heidelberg [u.a.] },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-194497 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/123648 },
}

Parallel and distributed invariant checking of microcontroller software

Bibtex entry :

@article { BSK12,
    author = { Brauer, J{"o}rg and Schlich, Bastian and Kowalewski, Stefan },
    title = { Parallel and distributed invariant checking of microcontroller software },
}

A Platoon of Vehicles Approaching an Intersection: A Testing Platform for Safe Intersections

Bibtex entry:

@inproceedings { DBK12,
    author = { Diab, Hilal and Ben Makhlouf, Ibtissem and Kowalewski, Stefan },
    title = { A Platoon of Vehicles Approaching an Intersection: A Testing Platform for Safe Intersections },
}
Energieeffizientes Routing für Elektrorollstühle

Bibtex entry:

@inproceedings { FDB+12,
    author = { Franke, Dominik and Dzafic, Dzenan and Baumeister, Danni and Kowalewski, Stefan },
    title = { Energieeffizientes Routing für Elektrorollstühle },
    booktitle = { 13. Aachener Kolloquium Mobilität und Stadt (AMUS/ACMOTE) },
    publisher = { RWTH Aachen },
    pages = { 65-68 },
    year = { 2012 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-236333 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/752300 },
}

Reverse Engineering and Testing Service Life Cycles of Mobile Platforms

Bibtex entry:

@inproceedings { FEK12,
    author = { Franke, Dominik and Elsemann, Corinna and Kowalewski, Stefan },
    title = { Reverse Engineering and Testing Service Life Cycles of Mobile Platforms },
    pages = { 16-20 },
    year = { 2012 },


**Testing Conformance of Life Cycle Dependent Properties of Mobile Applications**

Bibtex entry:

```latex
@inproceedings { FKW+12,
  author = { Franke, Dominik and Kowalewski, Stefan and Weise, C. and Prakobkosol, N. },
  title = { Testing Conformance of Life Cycle Dependent Properties of Mobile Applications },
  publisher = { IEEE },
  pages = { 241-250 },
  year = { 2012 },
  address = { Piscataway, NJ },
  doi = { 10.1109/ICST.2012.104 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-198895 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/128852 },
}
```

A Mobile Software Quality Model

Bibtex entry:

@inproceedings {FKW12,
  author = { Franke, Dominik and Kowalewski, Stefan and Weise, Carsten },
  title = { A Mobile Software Quality Model },
  booktitle = { 12th International Conference on Quality Software (QSIC), 2012 : Xi'an, Shaanxi, China, 27 - 29 August 2012 ; proceedings; [including workshop papers] / technical sponsor: IEEE Reliability Society. Ed. by Antony Tang ... },
  publisher = { IEEE },
  pages = { 154-157 },
  year = { 2012 },
  address = { Piscataway, NJ },
  organization = { 12th International Conference on Quality Software, Xi'an, Shaanxi (Peoples R China), 2012-08-27 - 2012-08-29 },
  doi = { 10.1109/QSIC.2012.49 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-236328 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752303 },
}

Dependable reuse & guarded integration of automotive software components - approaches to conditional specification & assurance

Bibtex entry:

@techreport {For12,
  author = { Förster, Marc },
  title = { Dependable reuse & guarded integration of automotive software components - approaches to conditional specification & assurance },
  pages = { 1-78 },
  year = { 2012 },
  typ = { PUB:(DE-HGF)29 },
  reportid = { RWTH-CONV-236319 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752295 },
}

**Softwarequalität in der Mobilen Welt: Testen von Lebenszyklen Mobiler Applikationen**

**Bibtex entry :**

@inproceedings { FSK12,
    author = { Franke, Dominik and Schommer, John and Kowalewski, Stefan },
    title = { Softwarequalität in der Mobilen Welt: Testen von Lebenszyklen Mobiler Applikationen },
    booktitle = { Embedded Software Engineering Kongress (ESE) },
    publisher = { ELEKTRONIKPRAXIS },
    pages = { 478-482 },
    year = { 2012 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-236334 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/752301 },
}


**AndroLIFT: A Tool for Android Application Life Cycles**

**Bibtex entry :**

@inproceedings { FTK12,
    author = { Franke, Dominik and Tobias, Royé and Kowalewski, Stefan },
    title = { AndroLIFT: A Tool for Android Application Life Cycles },
    booktitle = { 4th International Conference on Advances in System Testing and Validation Lifecycle (VALID) },
    publisher = { Xpert },
    pages = { 28-33 },
    year = { 2012 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-199950 },
}

An integrated vision aided GPS/INS Navigation System for ultra-low-cost MAVs

Bibtex entry :

```bibtex
@inproceedings { GDF+12,
  author = { Gathmann, Felix and Dernehl, Christian and Franke, Dominik and Kowalewski, Stefan },
  title = { An integrated vision aided GPS/INS Navigation System for ultra-low-cost MAVs },
  booktitle = { International Micro Air Vehicle Conference (IMAV) },
  publisher = { IMAV },
  pages = { 1-8 },
  year = { 2012 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-236329 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752304 },
}
```


Invariants for LTI Systems with Uncertain Input

Bibtex entry :

```bibtex
@inproceedings { HK12,
  author = { Hänsch, Paul and Kowalewski, Stefan },
  title = { Invariants for LTI Systems with Uncertain Input },
}
```

A Real-time Extension to the Android Platform

Bibtex entry :

@inproceedings { KFS+12,
    author = { Kalkov, Igor and Franke, Dominik and Schommer, John F. and Kowalewski, Stefan },
    title = { A Real-time Extension to the Android Platform },
    booktitle = { JTRES 2012 : proceedings of the 10th International Workshop on Java Technologies for Real-time and Embedded Systems, October 24-26, 2012, Copenhagen, Denmark / Andy Wellings ... },
    publisher = { ACM Press },
    pages = { 105-114 },
    series = { ACM conference proceedings series },
    year = { 2012 },
    address = { New York, N.Y. },
    doi = { 10.1145/2388936.2388955 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-199219 },
    cin = { 120000 / 129215 },
    url = { http://publications.rwth-aachen.de/record/129215 },
}


[BIB]
https://embedded.rwth-aachen.de/
Cyber-Physical Systems - eine Herausforderung an die Automatisierungstechnik?

Bibtex entry:

```latex
@inproceedings { KRS12,
    author = { Kowalewski, Stefan and Rumpe, Bernhard and Stollenwerk, André },
    title = { Cyber-Physical Systems - eine Herausforderung an die Automatisierungstechnik? },
    publisher = { VDI-Verl. },
    pages = { 113-116 },
    series = { VDI-Berichte },
    year = { 2012 },
    address = { D"usseldorf },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-194506 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/123658 },
}
```

[MDH+12]


Evolutionsunterstützung für komplexe, modellbasierte Software-Produktlinien

Bibtex entry:

```latex
@inproceedings { MDH+12,
    author = { Merschen, Daniel and Duhr, Yves and Hedenetz, Bernd and Kowalewski, Stefan },
    title = { Evolutionsunterst{"u}tzung f{"u}r komplexe, modellbasierte Software-Produktlinien },
    booktitle = { Embedded-Software-Engineering-Kongress (ESE) },
    publisher = { ELEKTRONIKPRAXIS und MicroConsult },
}
```

Model-Based Analysis of Design Artefacts Applying an Annotation Concept

Bibtex entry :

@inproceedings { MDR+12,
  author = { Merschen, Daniel and Duhr, Yves and Ringler, Thomas and Hedenetz, Bernd and Kowalewski, Stefan },
  title = { Model-Based Analysis of Design Artefacts Applying an Annotation Concept },
  publisher = { Gesellschaft für Informatik e.V. },
  pages = { 169-180 },
  series = { GI-Edition : Proceedings },
  year = { 2012 },
  address = { Bonn },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-198213 },
  cin = { 120000 / 122810 },
  url = { http://subs.emis.de/LNI/Proceedings/Proceedings198/article6657.html },
}

Synchronization for Hybrid MPSoC Full-System Simulation

Bibtex entry:

@inproceedings { MEJ+12,
    author = { Murillo, Luis Gabriel and Eusse, Juan Fernando and Jovic, Jovana and Yakoushkin, Sergey and Leupers, Rainer and Ascheid, Gerd },
    title = { Synchronization for Hybrid MPSoC Full-System Simulation },
    booktitle = { 2012 49th ACM/EDAC/IEEE Design Automation Conference (DAC 2012) : San Francisco, California, USA, 3 - 7 June 2012. - Vol. 1 },
    publisher = { IEEE },
    pages = { 121-126 },
    year = { 2012 },
    address = { Piscataway, NJ },
    doi = { 10.1145/2228360.2228383 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-200852 },
    cin = { 122810 / 611910 / 080004 / 120000 },
    url = { http://publications.rwth-aachen.de/record/207392 },
}

[MHL+12]
PDFBIB


Scalable and Retargetable Debugger Architecture for Heterogeneous MPSoCs

Bibtex entry:

@inproceedings { MHL+12,
    author = { Murillo, Luis Gabriel and Harnath, Julian and Leupers, Rainer and Ascheid, Gerd },
    title = { Scalable and Retargetable Debugger Architecture for Heterogeneous MPSoCs },
    booktitle = { System, Software, SoC and Silicon Debug Conference (S4D), [Vienna, Austria, 19-20 Sept. 2012] },
    publisher = { IEEE },
    pages = { 45-50 },
    year = { 2012 },
}

Konzepte für eine virtuelle Integration von AUTOSAR-konformer Fahrzeug-Software in frühen Entwicklungsphasen

Bibtex entry:

```latex
@phdthesis {Mic12,
    author = {Michailidis, Alexander A.},
    othercontributors = {Kowalewski, Stefan},
    title = {Konzepte für eine virtuelle Integration von AUTOSAR-konformer Fahrzeug-Software in frühen Entwicklungsphasen},
    publisher = {Shaker},
    pages = {IX, 178 S. : Ill., graph. Darst.},
    series = {Berichte aus der Informatik},
    year = {2012},
    address = {Aachen},
    isbn = {978-3-8440-0761-9},
    typ = {PUB:(DE-HGF)11},
    reportid = {RWTH-CONV-125655},
    cin = {100000 / 122810},
    url = {http://publications.rwth-aachen.de/record/64327},
}
```


Applied timed testing: Testautomatisierung in industriellen Testprozessen von eingebetteten Systemen

Bibtex entry:

```latex
@phdthesis {Mit12,
    author = {Mitsching, Ralf},
```

https://embedded.rwth-aachen.de/ Printed on 2019/07/04 01:20
othercontributors = { Kowalewski, Stefan },
title = { Applied timed testing: Testautomatisierung in industriellen Testprozessen von eingebetteten Systemen },
pages = { 108 S . Ill., graph. Darst. },
year = { 2012 },
address = { Aachen },
typ = { PUB:(DE-HGF)11 },
reportid = { RWTH-CONV-143663 },
cin = { 100000 / 122810 },
url = { http://publications.rwth-aachen.de/record/210819 },

[MPK12]
PDF
BIB


Integration and Analysis of Design Artefacts in Embedded Software Development

Bibtex entry :

@inproceedings { MPK12,
author = { Merschen, Daniel and Pott, Julian and Kowalewski, Stefan },
title = { Integration and Analysis of Design Artefacts in Embedded Software Development },
publisher = { IEEE },
pages = { 503-508 },
year = { 2012 },
address = { Piscataway, NJ },
organization = { IEEE 36th Annual Computer Software and Applications Conference workshops, Izmir (Turkey), 2012-07-16 - 2012-07-20 },
doi = { 10.1109/COMPSACW.2012.94 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-236330 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752306 },
}
Model-driven support for product line evolution on feature level

Bibtex entry:

```bibtex
@article { PBD+12,
    author = { Pleuss, Andreas and Botterweck, G{"o}tz and Dhungana, Deepak and Polzer, Andreas and Kowalewski, Stefan },
    title = { Model-driven support for product line evolution on feature level },
    journal = { The journal of systems and software : JSS },
    publisher = { Elsevier [u.a.] },
    pages = { 2261-2274 },
    volume = { 85 },
    number = { 10 },
    year = { 2012 },
    address = { Amsterdam },
    issn = { 0164-1212 },
    doi = { 10.1016/j.jss.2011.08.008 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-074140 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/211937 },
}
```

Design and implementation of a vehicle dynamics control system by means of torque vectoring for an autonomous vehicle

Bibtex entry:

```bibtex
@inproceedings { RKH+12,
    author = { Reuter, Sebastian and Kowalewski, Stefan and Hauck, Eckart },
    title = { Design and implementation of a vehicle dynamics control system by means of torque vectoring for an autonomous vehicle },
    pages = { 1691-1696 },
    year = { 2012 },
}
```
and Diab, Hilal and Jeschke, Sabina },

```
title = { Design and implementation of a vehicle dynamics control system by means of torque vectoring for an autonomous vehicle },
publisher = { IEEE },
pages = { 1691-1696 },
year = { 2012 },
address = { Piscataway, NJ },
doi = { 10.1109/ROBIO.2012.6491211 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-203323 },
cin = { 122810 / 416910 },
url = { http://publications.rwth-aachen.de/record/225742 },
```}

[SFL+12]

**Load Balancing for Cross Layer Communication**

**Bibtex entry :**

```
@inproceedings { SFL+12,
author = { Schommer, John F. and Franke, Dominik and Lange, Tim and Kowalewski, Stefan },
title = { Load Balancing for Cross Layer Communication },
publisher = { IEEE },
pages = { 476-481 },
year = { 2012 },
address = { Piscataway, NJ },
doi = { 10.1109/COMPSACW.2012.90 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-204446 },
cin = { 122810 / 122810 },
url = { http://publications.rwth-aachen.de/record/227070 },
}```

[SWL+12]
SCandal: SystemC analysis for nondeterminism anomalies

Bibtex entry:

```latex
@inproceedings { SWL+12,
    author = { Schumacher, Christoph and Weinstock, Jan Henrik and Leupers, Rainer and Ascheid, Gerd },
    title = { SCandal: SystemC analysis for nondeterminism anomalies },
    publisher = { IEEE },
    pages = { 112-119 },
    year = { 2012 },
    address = { Piscataway, NJ },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-199946 },
    cin = { 120000 / 122810 / 611910 },
    url = { http://publications.rwth-aachen.de/record/197739 },
}
```

[FWS+12]

FIFO Exploration in Mapping Streaming Applications onto the TI OMAP3530 Platform: Case Study and Optimizations

Bibtex entry:

```latex
@inproceedings { SWS+12,
    author = { Sheng, Weihua and Wiebe, Artur and Stulova, Anastasia and Leupers, Rainer and Kienhuis, Bart and Walters, Johan and Ascheid, Gerd },
    title = { FIFO Exploration in Mapping Streaming Applications onto the TI OMAP3530 Platform: Case Study and Optimizations },
}
```
Closed loop physiological ECMO control

Bibtex entry:

```bibtex
@inproceedings{WBB+12,
  author = {Walter, Marian and Brendle, Christian and Bensberg, Ralf and Kopp, R"udger and Arens, Jutta and Stollenwerk, André and Leonhardt, Steffen},
  title = {Closed loop physiological ECMO control},
  booktitle = {5th European Conference of the International Federation for Medical and Biological Engineering : 14 - 18 September 2011, Budapest, Hungary ; [EMBEC] / Ákos Jobbágy (ed.)},
  publisher = {Springer},
  pages = {319-322},
  series = {IFMBE Proceedings},
  year = {2012},
  address = {[Berlin]},
  doi = {10.1007/978-3-642-23508-5_83},
  typ = {PUB:(DE-HGF)8},
  reportid = {RWTH-CONV-191334},
  cin = {120000 / 122810 / 225000},
  url = {http://publications.rwth-aachen.de/record/120299},
}
```

[WBS+12]

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. 11th International Conference on Complexity in Acute Illness (ICCAI)*, Ottawa, Canada, September 6 - 9, 2012,
2012, pp. 51-51.

**Patient oriented closed loop control of extracorporeal lung assist**

**Bibtex entry:**

```latex
@inproceedings { WBS+12,
  author = { Walter, Marian and Brendle, Christian and Stollenwerk, André and Kopp, Rüdger and Arens, Jutta and Bensberg, Ralf and Leonhardt, Steffen },
  title = { Patient oriented closed loop control of extracorporeal lung assist },
  booktitle = { 11th International Conference on Complexity in Acute Illness (ICCAI), Ottawa, Canada, September 6 - 9, 2012 },
  pages = { 51-51 },
  year = { 2012 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-004925 },
  cin = { 611010 / 122810 },
  url = { http://www.scai-med.org/meetings/2012Iccai/2012iccaiprogram.pdf },
}
```

[Bar11]

Barakat, K., "Introducing Timers to Pi-Calculus", 2011.

**Introducing Timers to Pi-Calculus**

**Bibtex entry:**

```latex
@techreport { Bar11,
  author = { Barakat, Kamal },
  title = { Introducing Timers to Pi-Calculus },
  pages = { 31 },
  year = { 2011 },
  typ = { PUB:(DE-HGF)29 },
  reportid = { RWTH-CONV-236331 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752307 },
}
```

[BBD+11]

Zuverlässigkeit von automotive embedded Systems

Bibtex entry:

@proceedings {  BBD+11,
    title = { Zuverlässigkeit von automotive embedded Systems },
    publisher = { FAT-Schriftenreihe },
    year = { 2011 },
    typ = { PUB:(DE-HGF)26 },
    reportid = { RWTH-CONV-236311 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/752288 },
}

[BBK+11]


Automatically Deriving Symbolic Invariants for PLC Programs Written in IL

Bibtex entry:

@inproceedings {  BBK+11,
    author = { Biallas, Sebastian and Brauer, Jörg and Kowalewski, Stefan and Schlich, Bastian },
    title = { Automatically Deriving Symbolic Invariants for PLC Programs Written in IL },
    booktitle = { Formal methods for automation and safety in railway and automotive systems: FORMS/FORMAT 2010; [8th symposium; proceedings] / Eckehard Schnieder; Géza Tarnai, eds. },
    publisher = { Springer },
    pages = { 237-245 },
    year = { 2011 },
    address = { Heidelberg [u.a.] },
    doi = { 10.1007/978-3-642-14261-1 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-196797 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/126461 },
}

**SAT-Based Abstraction Refinement for Programmable Logic Controllers**

Bibtex entry:

```latex
@inproceedings { BBK11,
    author = { Biallas, Sebastian and Brauer, J{"o}rg and Kowalewski, Stefan },
    title = { SAT-Based Abstraction Refinement for Programmable Logic Controllers },
    booktitle = { 3rd International Workshop on Dependable Control of Discrete Systems 2011, DCDS 2011, Saarbr{"u}cken, Germany, 15th-17th June 2011 },
    publisher = { IEEE },
    pages = { 96-101 },
    year = { 2011 },
    address = { Piscataway, NJ },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-194508 },
    cin = { 122810 / 120000 },
    url = { http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=05970325 },
}
```


**Analyzing Embedded Systems Code for Mixed-Critical Systems Using Hybrid Memory Representations**

Bibtex entry:

```latex
@inproceedings { BBS+11,
    author = { Beckschulze, Eva and Brauer, J{"o}rg and Stollenwerk, André and Kowalewski, Stefan },
    pages = { 33-40 },
    year = { 2011 },
    publisher = { IEEE },
    address = { Piscataway, NJ },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-194508 },
    cin = { 122810 / 120000 },
    url = { http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=05970325 },
}
```

**Patient Orientated Automation of the Therapy with the Extracorporeal Membrane Oxygenation (ECMO)**

**Bibtex entry:**

```bibtex
@inproceedings { BBS+11a,
  author = { Brendle, Christian and Bensberg, Ralf and Stollenwerk, Andre and Arens, Jutta and Walter, Marian },
  title = { Patient Orientated Automation of the Therapy with the Extracorporeal Membrane Oxygenation (ECMO) },
  booktitle = { 45. Jahrestagung der Deutschen Gesellschaft f"{u}r Biomedizinische Technik },
  publisher = { DGBMT },
  year = { 2011 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-236325 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752308 },
}
```

Brauer, J. and King, A., "Approximate Quantifier Elimination for Propositional Boolean Formulae".
Approximate Quantifier Elimination for Propositional Boolean Formulae

Bibtex entry:

```bibtex
@inproceedings { BK11,
    author = { Brauer, J{"o}rg and King, Andy },
    title = { Approximate Quantifier Elimination for Propositional Boolean Formulae },
    booktitle = { NASA formal methods : third international symposium, NFM 2011, Pasadena, CA, USA, April 18-20, 2011 ; proceedings / Mihaela Bobaru ... (eds.) },
    publisher = { Springer },
    pages = { 73-88 },
    series = { Lecture Notes in Computer Science },
    year = { 2011 },
    address = { Heidelberg [u.a.] },
    doi = { 10.1007/978-3-642-20398-5 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-194773 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/124043 },
}
```

Transfer Function Synthesis without Quantifier Elimination

Bibtex entry:

```bibtex
@inproceedings { BK11a,
    author = { Brauer, J. and King, A. },
    title = { Transfer Function Synthesis without Quantifier Elimination },
    booktitle = { Programming languages and systems : 20th European Symposium on Programming, ESOP 2011, held as part of the Joint European Conference on Theory and Practice of Software, ETAPS 2011, Saarbr{"u}cken, Germany, March 26-April 3, 2011 ; proceedings / Gilles Barthe (ed.) },
    publisher = { Springer },
    pages = { 97-115 },
    year = { 2011 },
    address = { Heidelberg [u.a.] },
    doi = { 10.1007/978-3-642-19696-8_7 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-160400 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/119468 },
}
```
on Programming, ESOP 2011, held as part of the Joint European Conference on Theory and Practice of Software, ETAPS 2011, Saarbrücken, Germany, March 26-April 3, 2011 ; proceedings / Gilles Barthe (ed.) },
publisher = { Springer },
pages = { 97-115 },
series = { Lecture notes in computer science },
year = { 2011 },
address = { Heidelberg [u.a.] },
doi = { 10.1007/978-3-642-19718-5 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-196794 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/126458 },
}

[BKK11]


**Existential Quantification as Incremental SAT**

Bibtex entry :

```latex
@inproceedings { BKK11, 
  author = { Brauer, Jörg and King, Andy and Kriener, Jael },
  title = { Existential Quantification as Incremental SAT },
  booktitle = { Computer aided verification : 23rd international conference, CAV 2011, Snowbird, UT, USA, July 14-20, 2011 ; proceedings / Ganesh Gopalakrishnan; Shaz Qadeer (eds.) },
  publisher = { Springer },
  pages = { 191-207 },
  series = { Lecture notes in computer science },
  year = { 2011 },
  address = { Heidelberg [u.a.] },
  doi = { 10.1007/978-3-642-22110-1 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-196588 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/126209 },
}
```

[BKS11]

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

Bibtex entry:

@inproceedings { BKS11,
author = { Biallas, Sebastian and Kowalewski, Stefan and Schlich, Bastian },
title = { Leistungsfähige Verifikation von industriellen SPS-Programmen mittels Model-Checking und statischer Analyse },
publisher = { VDI-Verl. },
pages = { 67-72 },
series = { VDI-Berichte },
year = { 2011 },
address = { Düsseldorf },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-189475 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/118212 },
}

[BMH+11]

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

Bibtex entry:

@inproceedings { BMH11,
author = { Ben Makhlouf, Ibtissem and Maschuw, Jan P. and Hänsch, Paul and Diab, Hilal and Kowalewski, Stefan and Abel, Dirk },
title = { Safety Verification of a Cooperative Vehicle Platoon with Uncertain Inputs Using Zonotopes },
booktitle = { Proc. Proceedings of the 18th IFAC World Congress, 2011 : August 28 - September 2, 2011, Università Cattolica del Sacro Cuore, Milano Italy / Ed.: Sergio Bittanti ... },
publisher = { Milano, Italy, 2011 in IFAC-PapersOnLine, Curran },
cin = { 9769-9774 },
}

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

Bibtex entry:

@techreport { BRT11,
  author = { Brauer, Jörg and Roveri, Marco and Tews, Hendrik },
  title = { Proceedings of the 6th International Workshop on Systems Software Verification (SSV 2011) },
  publisher = { TU },
  pages = { 101 S. },
  number = { TUD–FI11–02–August 2011 },
  year = { 2011 },
  address = { Dresden },
  typ = { PUB:(DE-HGF)26 },
  reportid = { RWTH-CONV-008161 },
  cin = { 122810 / 120000 },
}

An Architecture with Integrated Image Processing for Autonomous Micro Aerial Vehicles

Bibtex entry:

@inproceedings { DFD+11,
          author = { Dernehl, Christian and Franke, Dominik and Diab, Hilal
          and Kowalewski, Stefan },
          title = { An Architecture with Integrated Image Processing for
          Autonomous Micro Aerial Vehicles },
          booktitle = { International Micro Air Vehicle conference and
          competitions 2011 (IMAV 2011), 't Harde, The Netherlands, September
          12-15, 2011 },
          publisher = { IMAV },
          pages = { 138-145 },
          year = { 2011 },
          doi = { 10.4233/uuid:19adedb6-e3d9-4cff-8ebc-6497b026adfe },
          typ = { PUB:(DE-HGF)8 },
          reportid = { RWTH-CONV-198392 },
          cin = { 122810 / 120000 },
          url = { http://publications.rwth-aachen.de/record/128268 },
          }

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

Bibtex entry:

@inproceedings { FDW+11,
          author = { Franke, Dominik and Dzafic, Dzenan and Weise, Carsten
          and Kowalewski, Stefan },
          title = { Entwicklung eines mobilen Navigationssystems für Elektrofahrzeuge auf Basis von OpenStreetMap-Daten },
          pages = { 92-99 },
          year = { 2011 },
          url = { },
          }


Konzept eines Mobilen OSM-Navigationssystems für Elektrofahrzeuge

Bibtex entry:

@inproceedings { FDW+11a,  
author = { Franke, Dominik and Dzafic, Dzenan and Weise, Carsten and Kowalewski, Stefan },  
title = { Konzept eines Mobilen OSM-Navigationssystems für Elektrofahrzeuge },  
booktitle = { Angewandte Geoinformatik 2011 - Beiträge zum 23. AGIT-Symposium (AGIT) },  
publisher = { Wichmann Verlag },  
pages = { 148-157 },  
year = { 2011 },  
typ = { PUB:(DE-HGF)7 },  
reportid = { RWTH-CONV-236326 },  
cin = { 122810 / 120000 },  
url = { http://publications.rwth-aachen.de/record/752310 },}


Reverse Engineering of Mobile Application Lifecycles

Bibtex entry:

@inproceedings { FEW+11,  
author = { Franke, Dominik and Elsemann, Christoph and Weise, Carsten and Kowalewski, Stefan },  
title = { Reverse Engineering of Mobile Application Lifecycles },  
year = { 2011 },  
typ = { PUB:(DE-HGF)7 },  
reportid = { RWTH-CONV-194738 },  
cin = { 122810 / 120000 },  
url = { http://www.mapmedia.de/jthomsen/FOSSGIS_Tagungsband/2011_FOSSGIS_Tagungsband.pdf },}

[FDW+11a] PDFBIB

[F EW+11] PDFBIB

**Providing a Software Quality Framework for Testing of Mobile Applications**

Bibtex entry:

```bibtex
@inproceedings { FW11,
  author = { Franke, Dominik and Weise, Carsten },
  title = { Providing a Software Quality Framework for Testing of Mobile Applications },
  publisher = { IEEE },
  pages = { 431-434 },
  year = { 2011 },
  address = { Piscataway, NJ },
  doi = { 10.1109/ICST.2011.18 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-196799 },
  cin = { 122810 / 120000 },
} 
```

Automatic Derivation of Abstract Semantics From Instruction Set Descriptions

Bibtex entry :

@inproceedings {GK11,
   author = {G{"u}ckel, Dominique and Kowalewski, Stefan },
   title = {Automatic Derivation of Abstract Semantics From Instruction Set Descriptions},
   publisher = {TU, Fak. Informatik},
   pages = {18-32},
   year = {2011},
   address = {Dresden},
   typ = {PUB:(DE-HGF)8},
   reportid = {RWTH-CONV-198497},
   cin = {122810 / 120000},
   url = {http://publications.rwth-aachen.de/record/128380},
}


Using Timed Automata in Requirements Analysis for Engine Control Units

Bibtex entry :

@inproceedings {GKK+11,
   author = {Grobosch, Sebastian and Kamin, Volker and Krirkkawin, Kriengkrai and Kowalewski, Stefan },
   title = {Using Timed Automata in Requirements Analysis for Engine Control Units},
   booktitle = {Proceedings of the 18th IFAC World Congress, 2011 : August 28 - September 2, 2011, Università Cattolica del Sacro Cuore, Milano Italy / Ed.: Sergio Bittanti ... },
   publisher = {IFAC-PapersOnLine, Curran},
   pages = {12503-12508},
   year = {2011},
   address = {Milano, Italy},
   typ = {PROC:18th IFAC WORLDCONG},
   reportid = {IFAC-PapersOnLine:12503-12508},
   url = {http://publications.rwth-aachen.de/record/128380},
}

Lehrstuhl Informatik 11 - Embedded Software Laboratory - https://embedded.rwth-aachen.de/
Self-balancing Controllable Robots in Education: A Practical Course for Bachelor Students

Bibtex entry:

@inproceedings { HSK11,
    author = { Hänsch, Paul and Schommer, John F. and Kowalewski, Stefan },
    title = { Self-balancing Controllable Robots in Education: A Practical Course for Bachelor Students },
    booktitle = { Intelligent robotics and applications : 4th international conference, ICIRA 2011, Aachen, Germany, December 6 - 8, 2011 ; proceedings / Sabina Jeschke; Honghai Liu; Daniel Schilberg (eds.) },
    publisher = { Springer Verlag },
    pages = { 297-306 },
    series = { Lecture notes in computer science : Lecture notes in artificial intelligence },
    year = { 2011 },
    address = { Berlin, Heidelberg },
    doi = { 10.1007/978-3-642-25489-5_29 },
    typ = { PUB:(DE-HGF)8 },
}
Automation of extracorporeal membrane oxygenation using a combined safety and control concept

Bibtex entry:

@inproceedings { KBW+11,
    author = { Kopp, R{"u}dger and Bensberg, Ralf and Walter, Marian and Arens, Jutta and Rossaint, Rolf and Stollenwerk, André },
    title = { Automation of extracorporeal membrane oxygenation using a combined safety and control concept },
    booktitle = { Intensive care medicine },
    publisher = { Springer },
    pages = { 230-230 },
    volume = { 37 },
    number = { S1 },
    year = { 2011 },
    address = { Berlin [u.a.] },
    issn = { 0340-0964 },
    doi = { 10.1007/s00134-011-2322-1 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-003313 },
    cin = { 122810 / 611010 / 120000 },
    url = { http://publications.rwth-aachen.de/record/156873 },
}

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


A Miniaturized Extracorporeal Membrane Oxygenator with Integrated Rotary Blood Pump: Preclinical In Vivo Testing
Supporting Evolving Requirements in CPS by Abstraction Layers in the Architecture

Bibtex entry:

@conference { KS11,
  author = { Kowalewski, Stefan and Stollenwerk, Andre },
  title = { Supporting Evolving Requirements in CPS by Abstraction Layers in the Architecture },
  booktitle = { Workshop on Architectures for Cyber-Physical Systems, Chicago, IL, USA },
  year = { 2011 },
  typ = { PUB:(DE-HGF)5 },
  reportid = { RWTH-CONV-236332 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752309 },
}

[MDA+11]

PDF BIB


**Control Design for Generalized Platoon Problems**

**Bibtex entry:**

```latex
@article { MDA+11,
    author = { Maschuw, Jan P. and Diab, Hilal and Abel, Dirk and Kowalewski, Stefan },
    title = { Control Design for Generalized Platoon Problems },
    journal = { Automatisierungstechnik: at },
    publisher = { Oldenbourg },
    pages = { 721-729 },
    volume = { 59 },
    number = { 12 },
    year = { 2011 },
    address = { M{"u}nchen },
    issn = { 0178-2312 },
    doi = { 10.1524/auto2011.0965 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-043232 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/165377 },
}
```

[MPB+11]

**Experiences of Applying Model-based Analysis to Support the Development of Automotive Software Product Lines**

**Bibtex entry:**

```latex
@inproceedings { MPB+11,
    author = { Merschen, Daniel and Polzer, Andreas and Botterweck, Götz and Kowalewski, Stefan },
    title = { Experiences of Applying Model-based Analysis to Support the Development of Automotive Software Product Lines },
}
```

**TripleT: Improving Test Responsiveness for High Performance Embedded Systems**

Bibtex entry :

```bibtex
@inproceedings {MWB+11,
  author = {Mitsching, Ralf and Weise, Carsten and Bohnenkamp, Henrik and Fiedler, Frank and Kowalewski, Stefan },
  title = {TripleT: Improving Test Responsiveness for High Performance Embedded Systems },
  publisher = {IEEE },
  pages = {67-74 },
  year = {2011 },
  address = {Piscataway, NJ },
  doi = {10.1109/ICSTW.2011.86 },
  typ = {PUB:(DE-HGF)8 },
  reportid = {RWTH-CONV-196906 },
  cin = {122810 / 120000 },
  url = {http://publications.rwth-aachen.de/record/126597 },
}
```

[PDF]BIB

[PDF]BIB

Coping with Complexity of Testing Models for Real-Time Embedded Systems

Bibtex entry :

@inproceedings { MWF+11,
author = { Mitsching, Ralf and Weise, Carsten and Franke, Dominik and Gerlitz, Thomas and Kowalewski, Stefan },
title = { Coping with Complexity of Testing Models for Real-Time Embedded Systems },
booktitle = { 2011 Fifth International Conference on Secure Software Integration and Reliability Improvement – Companion : SSIRI-C 2011 ; 27-29 June 2011, Jeju Island, Korea },
publisher = { IEEE },
pages = { 128-135 },
year = { 2011 },
address = { Los Alamitos },
doi = { 10.1109/SSIRI-C.2011.27 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-194620 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/123848 },
}

[OBY11]


Access Analysis-based Tight Localization of Abstract Memories

Bibtex entry :

@inproceedings { OBY11,
author = { Oh, Hakjoo and Brutschy, Lucas and Yi, Kwangkeun },
title = { Access Analysis-based Tight Localization of Abstract Memories },
booktitle = { Verification, model checking, and abstract
interpretation:

[PMB+11]
PDFBIB

Managing Complexity and Variability of a Model-based Embedded Software Product Line

Bibtex entry:

@article {PMB+11,
  author = {Polzer, Andreas and Merschen, Daniel and Botterweck, G"otz and Pleuss, Andreas and Thomas, Jacques and Hedenetz, Bernd and Kowalewski, Stefan },
  title = {Managing Complexity and Variability of a Model-based Embedded Software Product Line },
  journal = {Innovations in systems and software engineering },
  publisher = {Springer },
  pages = {1-15 },
  volume = {2011 },
  year = {2011 },
  address = {London },
  issn = {1614-5054 },
  doi = {10.1007/s11334-011-0174-z },
  typ = {PUB:(DE-HGF)16 },
  reportid = {RWTH-CONV-066950 },
  cin = {122810 / 121310 / 120000 },
  url = {http://publications.rwth-aachen.de/record/191115 },
}

[PWK+11]
PDFBIB
Palczynski, J., Weise, C., Kowalewski, S., and Ulmer, D., "Estimation of Clock Drift in HiL Testing
Estimation of Clock Drift in HiL Testing by Property-Based Conformance Check

Bibtex entry:

@inproceedings { PWK+11,
  author = { Palczynski, Jacob and Weise, Carsten and Kowalewski, Stefan and Ulmer, Daniel },
  title = { Estimation of Clock Drift in HiL Testing by Property-Based Conformance Check },
  publisher = { IEEE },
  pages = { 590-595 },
  year = { 2011 },
  address = { Piscataway, NJ },
  doi = { 10.1109/ICSTW.2011.101 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-196810 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/126479 },
}

[PWM+11]


Comparing Continuous Behaviour in Model-based Development of Embedded Software

Bibtex entry:

@inproceedings { PWM+11,
  author = { Palczynski, Jacob and Weise, Carsten and Moj, Sebastian and Kowalewski, Stefan },
}
title = { Comparing Continuous Behaviour in Model-based Development of Embedded Software },
publisher = { fortiss },
pages = { 61-70 },
year = { 2011 },
address = { M{"u}nchen },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-196792 },
cin = { 122810 / 120000 },

[RB11]
PDF
BIB

Precise Control Flow Reconstruction Using Boolean Logic

Bibtex entry :

@inproceedings { RB11,
    author = { Reinbacher, Thomas and Brauer, J{"o}rg },
    title = { Precise Control Flow Reconstruction Using Boolean Logic },
    booktitle = { EMSOFT '11 : Proceedings of the ninth ACM international conference on Embedded software ; October 9-14, 2011, Taipei, Taiwan },
    publisher = { ACM },
    pages = { 117-126 },
    year = { 2011 },
    address = { New York, NY },
    doi = { 10.1145/2038642.2038662 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-198496 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/128379 },
}

[RBH+11]
PDF
BIB
Past Time LTL Runtime Verification for Microcontroller Binary Code

Bibtex entry:

@inproceedings{RBH+11,
  author = { Reinbacher, Thomas and Brauer, J{"o}rg and Horauer, Martin and Steininger, Andreas and Kowalewski, Stefan },
  title = { Past Time LTL Runtime Verification for Microcontroller Binary Code },
  booktitle = { Formal methods for industrial critical systems : 16th international workshop, FMICS 2011, Trento, Italy, August 29 - 30, 2011 ; proceedings / Gwen Sala{"u}n; Bernhard Sch{"a}tz (eds.) },
  publisher = { Springer },
  pages = { 37-51 },
  series = { Lecture notes in computer science },
  year = { 2011 },
  address = { Heidelberg [u.a.] },
  doi = { 10.1007/978-3-642-24431-5 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-194606 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/123834 }
}

Automated Test-Trace Inspection for Microcontroller Binary Code

Bibtex entry:

@inproceedings{RBS+11,
  author = { Reinbacher, Thomas and Brauer, J{"o}rg and Schachinger, Daniel and Steininger, Andreas and Kowalewski, Stefan },
  title = { Automated Test-Trace Inspection for Microcontroller Binary Code },
  publisher = { Berlin ; Heidelberg, 2011 in Lecture notes in computer science, Springer },
  pages = { 239-244 },
  doi = { 10.1007/978-3-642-24431-5 },
}


Testing Microcontroller Software Simulators

Bibtex entry :

@inproceedings {  RGH+11,
  author = { Reinbacher, Thomas and G{"u}ckel, Dominique and Horauer, Martin and Kowalewski, Stefan },
  title = { Testing Microcontroller Software Simulators },
  booktitle = { INFORMATIK 2011 : Informatik schafft Communities ; Beiträge der 41. Jahrestagung der Gesellschaft für Informatik e.V. (GI) 4.-7.10.2011 in Berlin / Hans-Ulrich Heiß, Peter Pepper, Holger Schlingloff, Jörg Schneider (Hrsg.) },
  publisher = { Ges. f{"u}r Informatik },
  pages = { 15 S. },
  series = { GI-Edition : Lecture Notes in Informatics : Proceedings },
  year = { 2011 },
  address = { Bonn },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-198689 },
  cin = { 120000 / 122810 },
  url = { http://www.user.tu-berlin.de/komm/CD/paper/061433.pdf },
}
[RHS+11]


**Model checking embedded software of an industrial knitting machine**

**Bibtex entry:**

```bibtex
@article {RHS+11,
author = {Reinbacher, Thomas and Horauer, Martin and Schlich, Bastian and Brauer, Jörg and Scheuer, Florian },
title = {Model checking embedded software of an industrial knitting machine},
journal = {International journal of information technology, communications and convergence},
publisher = {Inderscience Publishers},
pages = {186-205},
volume = {1},
number = {2},
year = {2011},
address = {Geneva},
issn = {2042-3217},
doi = {10.1504/IJITCC.2011.039285},
typ = {PUB:(DE-HGF)16},
reportid = {RWTH-CONV-052838},
cin = {122810 / 120000},
url = {http://www.inderscience.com/IJITCC},
}
```

[RSM+11]

Hardware Support for Efficient Testing of Embedded Software

Bibtex entry:

```
@inproceedings { RSM+11,
    author = { Reinbacher, Thomas and Steininger, Andreas and
               M"uller, Tobias and Horauer, Martin and Brauer, J"org and
               Kowalewski, Stefan },
    title = { Hardware Support for Efficient Testing of Embedded
             Software },
    booktitle = { Proceedings of the ASME International Design
                 Engineering Technical Conferences and Computers and
                 Information in Engineering Conference - 2011 : presented
                 at ASME 2011 International Design Engineering Technical
                 Conferences and Computers and Information in Engineering
                 by the Design Engineering Division, ASME; the Computers and
                 Information in Engineering Division, ASME. - Vol. 3: ASME/IEEE
                 International Conference on Mechatronic and Embedded Systems
                 and Applications, Pt. A },
    publisher = { ASME },
    pages = { 3-12 },
    year = { 2011 },
    address = { New York, NY },
    doi = { 10.1115/DETC2011-47139 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-195986 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/125522 },
}
```

[SA11]


A combined belief propagation and mean field algorithm for soft carrier phase estimation

Bibtex entry:

```
@inproceedings { SA11,
    author = { Senst, Martin and Ascheid, Gerd },
    title = { A combined belief propagation and mean field algorithm
              for soft carrier phase estimation },
}
```
for soft carrier phase estimation },
booktitle = { 2011 8th International Symposium on Wireless
Communication
Systems (ISWCS 2011) : Aachen, Germany, 6 - 9 November 2011
/ IEEE },
publisher = { IEEE },
pages = { 512-516 },
year = { 2011 },
address = { Piscataway, NJ },
doi = { 10.1109/ISWCS.2011.6125359 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-195649 },
cin = { 080006 / 122810 / 611810 / 080004 / 120000 },
url = { http://publications.rwth-aachen.de/record/125111 },
}

[SBK11]

PDF

[SGA+11]

2, pp. 100-118, 2011

Application of Static Analyses for State-Space Reduction
to the Microcontroller Binary Code

Bibtex entry :

@article { SBK11,
    author = { Schlich, Bastian and Brauer, J{"o}rg and Kowalewski, Stefan },
    title = { Application of Static Analyses for State-Space Reduction to
the Microcontroller Binary Code },
    journal = { Science of computer programming },
    publisher = { Elsevier },
    pages = { 100-118 },
    volume = { 76 },
    number = { 2 },
    year = { 2011 },
    address = { Amsterdam [u.a.] },
    issn = { 0167-6423 },
    doi = { 10.1016/j.scico.2010.03.006 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-062661 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/186222 },
}

Safety Aware Pump-Control for a Rotary ECMO Blood Pump

Bibtex entry:

@inproceedings { SGA+11,
    author = { Stollenwerk, André and Gathmann, Felix and Arens, Jutta and Bensberg, Ralf and Walter, Marian and Kopp, Rüdger and Kowalewski, Stefan },
    title = { Safety Aware Pump-Control for a Rotary ECMO Blood Pump },
    booktitle = { The international journal of artificial organs },
    publisher = { Wichtig },
    pages = { 617-617 },
    volume = { 34 },
    number = { 8 },
    year = { 2011 },
    address = { Milano [u.a.] },
    issn = { 0391-3988 },
    doi = { 10.5301/IJAO.2011.8701 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-002194 },
    cin = { 120000 / 122810 / 611010 },
    url = { http://publications.rwth-aachen.de/record/135553 },
} [SGB+11]

A model-based safety concept for a rotary blood pump

Bibtex entry:

@article { SGB+11,
    author = { Stollenwerk, André and Gathmann, Felix and Bensberg, Ralf and Walter, Marian and Arens, Jutta and Kopp, Rüdger and Kowalewski, Stefan },
    title = { A model-based safety concept for a rotary blood pump },
    journal = { Biomedizinische Technik = Biomedical engineering },
    publisher = { de Gruyter },
    volume = { 56 },
}

Smart Data Provisioning for Model-Based Generated Code in an Intensive Care Application

Bibtex entry:

```bibtex
@inproceedings { SGW+11,
    author = { Stollenwerk, André and G{"o}be, F. and Walter, Marian and Arens, Jutta and Kopp, R{"u}dger and Kowalewski, Stefan },
    title = { Smart Data Provisioning for Model-Based Generated Code in an Intensive Care Application },
    booktitle = { 3rd Joint Workshop On High Confidence Medical Devices, Software, and Systems & Medical Device Plug-and-Play Interoperability : HCMDSS/MDPnP 2011 ; in conjunction with CPSweek 2011 ; April 11, 2011 Chicago, USA },
    pages = { 8 S. },
    year = { 2011 },
    address = { 3rd Joint Workshop On High Confidence Medical Devices, Software, and Systems & Medical Device Plug-and-Play Interoperability : HCMDSS/MDPnP 2011 ; in conjunction with CPSweek 2011 ; April 11, 2011 Chicago, USA },
    typ = { PUB:(DE-HGF)6 },
    reportid = { RWTH-CONV-006017 },
    cin = { 611010 / 122810 },
    url = { http://www.seas.upenn.edu/~rahulm/Shared/HCMDSS/hcmdss11_aachen.pdf },
}```
Reduction of Interrupt Handler Executions for Model Checking Embedded Software

Bibtex entry:

```bibtex
@inproceedings {SNB+11,
  author = {Schlich, Bastian and Noll, Thomas and Brauer, Jörg and Brutschy, Lucas},
  title = {Reduction of Interrupt Handler Executions for Model Checking Embedded Software},
  booktitle = {Hardware and software: verification and testing : 5th International Haifa Verification Conference, HCV 2009, Haifa, Israel, October 19-22, 2009 : revised selected papers / Kedar Namjoshi ... (eds.)},
  publisher = {Springer},
  series = {Lecture Notes in Computer Science},
  year = {2011},
  address = {Heidelberg [u.a.]},
  doi = {10.1007/978-3-642-19237-1_5},
  typ = {PUB:(DE-HGF)8},
  reportid = {RWTH-CONV-187757},
  cin = {122810 / 121310 / 120000},
  url = {http://publications.rwth-aachen.de/record/116214},
}
```

Scalable symbolic execution of distributed systems

Bibtex entry:

```bibtex
@inproceedings {SSK+11,
  author = {Sasnauskas, Raimondas and Soria Dustmann, Oscar and Kaminski, Benjamin Lucien and Wehrle, Klaus and Weise, ...},
  title = {Scalable symbolic execution of distributed systems},
  publisher = {Piscataway, NJ, 2011},
  year = {2011},
  pages = {333-342},
}
```
Carsten and Kowalewski, Stefan },

title = { Scalable symbolic execution of distributed systems },

booktitle = { 2011 31st International Conference on Distributed Computing

publisher = { IEEE },

pages = { 333-342 },

year = { 2011 },

address = { Piscataway, NJ },

doi = { 10.1109/ICDCS.2011.28 },

typ = { PUB:(DE-HGF)8 },

reportid = { RWTH-CONV-196998 },

cin = { 121710 / 120000 / 122810 },

url = { http://publications.rwth-aachen.de/record/126707 },

}[WBA+11]

PDF


Physiological target control in long term extracorporeal oxygenation

Bibtex entry :

@inproceedings { WBA+11,

  author = { Walter, Marian and Brendle, Christian and Arens, Jutta

and Stollenwerk, André and Kopp, R{"u}dger and Bensberg, Ralf and

Leonhardt, Steffen },

title = { Physiological target control in long term extracorporeal oxygenation },

booktitle = { The international journal of artificial organs },
publisher = { Wichtig },

pages = { 625-625 },

volume = { 34 },

number = { 8 },

series = { 2011 },

year = { 2011 },

address = { Milano [u.a.] },

issn = { 0391-3988 },

typ = { PUB:(DE-HGF)16 },

reportid = { RWTH-CONV-004690 },

cin = { 120000 / 122810 / 611010 },

url = { http://dx.doi.org/10.5301/IJA0.2011.8701 },

**A dynamic study on the hemolytic effect of negative pressure on blood**

**Bibtex entry:**

```latex
@inproceedings { AdM+10,
    author = { Arens, Jutta and de Brouwer, Petra and Mager, Ilona and Kopp, R"udger and Walter, Marian and Stollenwerk, Andre and Schmitz-Rode, Thomas and Steinseifer, Ulrich },
    title = { A dynamic study on the hemolytic effect of negative pressure on blood },
    booktitle = { ASAIO journal },
    publisher = { Lippincott },
    pages = { 96-96 },
    volume = { 56 },
    number = { 2 },
    year = { 2010 },
    address = { Hagerstown, Md. },
    issn = { 0162-1432 },
    doi = { 10.1097/01.mat.0000369377.65122.a3 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-003576 },
    cin = { 122810 / 611010 / 120000 },
    url = { http://publications.rwth-aachen.de/record/165220 },
}
```


**Design patterns for safety-critical embedded systems**

**Bibtex entry:**

```latex
@phdthesis { Arm10,
    author = { Armoush, Ashraf },
    othercontributors = { Kowalewski, Stefan },
    title = { Design patterns for safety-critical embedded systems },
    publisher = { Publikationsserver der RWTH Aachen University },
    pages = { XIV, 181 S. : graph. Darst. },
}
```
On-The-Fly Path Reduction

Bibtex entry:

@inproceedings { BBG+10,
  author = { Biallas, Sebastian and Brauer, J"{o}rg and G"{u}ckel, Dominique and Kowalewski, Stefan },
  title = { On-The-Fly Path Reduction },
  booktitle = { 4th International Workshop on Harnessing Theories for Tool Support in Software : TTSS'10 ; East China Normal University, Shanghai, China, November 15, 2010 ; Preliminary Proceedings / Eds.: Min Zhang and Volker Stolz },
  publisher = { UNU-IIST },
  pages = { 108-122 },
  series = { UNU-IIST Report },
  year = { 2010 },
  address = { Macau },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-190152 },
  cin = { 122810 / 120000 },
  url = { http://i.unu.edu/unu/u/publication/000/001/286/report444.pdf },
}

Counterexample-Guided Abstraction Refinement for PLCs

Bibtex entry:

@inproceedings { BBK10,
  author = { Biallas, S., Brauer, J., and Kowalewski, S. },
  title = { Counterexample-Guided Abstraction Refinement for PLCs },
  booktitle = { Proc. 5th International Workshop on Systems Software Verification (SSV 2010), Vancouver, Canada, 2010 },
  publisher = { },
  pages = { },
  series = { },
  year = { 2010 },
  address = { },
  typ = { PUB:(DE-HGF)},
  reportid = { },
  cin = { 122810 / 120000 },
  url = { }
}
PLCs

Bibtex entry :

@inproceedings { BBK10,
   author = { Biallas, Sebastian and Brauer, Jörg and Kowalewski, Stefan },
   title = { Counterexample-Guided Abstraction Refinement for PLCs },
   booktitle = { 5th International Workshop on Systems Software Verification
     (SSV 2010), Vancouver, Canada },
   year = { 2010 },
   typ = { PUB:(DE-HGF)8 },
   reportid = { RWTH-CONV-189856 },
   cin = { 122810 / 120000 },
}

[BFK+10]


Formale Verifikation von Sicherheits-Funktionsbausteinen der PLCopen auf Modell- und Code-Ebene

Bibtex entry :

@inproceedings { BFK+10,
   author = { Biallas, Sebastian and Frey, Georg and Kowalewski, Stefan
   and Schlich, Bastian and Soliman, Doaa },
   title = { Formale Verifikation von Sicherheits-Funktionsbausteinen der
   PLCopen auf Modell- und Code-Ebene },
   booktitle = { Entwurf komplexer Automatisierungssysteme : EKA 2010 ; Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen ; 11. Fachtagung mit Tutorium, 25. bis 27. Mai 2010 in Magdeburg, Denkfabrik im Wissenschaftshafen / ifak, Institut für Automation und Kommunikation e.V., Magdeburg; }
Proceedings of the Joint Workshop of the German Research Training Groups in Computer Science: May 31 - June 2, 2010

BibTex entry:

@proceedings { BGL+10,
    editor = { Bollue, Kai and G"uckel, Dominique and Loup, Ulrich and Sp"onemann, Jacob and Winkler, Melanie },
    title = { Proceedings of the Joint Workshop of the German Research Training Groups in Computer Science: May 31 - June 2, 2010 },
    publisher = { Verlagshaus Mainz },
    pages = { 213 Seiten },
    year = { 2010 },
    organization = { Joint Workshop of the German Research Training Groups in Computer Science, Wadern (Germany), 2010-05-31 - 2010-06-02 },
    typ = { PUB:(DE-HGF)26 },
    reportid = { RWTH-CONV-236345 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/752313 },
}

[BK10]

Automatic Abstraction for Intervals using Boolean Formulae

Bibtex entry:

@inproceedings { BK10,
    author = { Brauer, J{"o}rg and King, Andy },
    title = { Automatic Abstraction for Intervals using Boolean Formulae },
    booktitle = { Static analysis : 17th international symposium, SAS 2010, Perpignan, France, September 14-16, 2010 ; proceedings / Radhia Cousot; Matthieu Martel (eds.) },
    publisher = { Springer },
    pages = { 167-183 },
    series = { Lecture notes in computer science },
    year = { 2010 },
    address = { Berlin [u.a.] },
    doi = { 10.1007/978-3-642-15769-1_11 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-190302 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/119140 },
}


Loop Refinement using Octagons and Satisfiability

Bibtex entry:

@inproceedings { BKK+10,
    author = { Brauer, J{"o}rg and Kamin, Volker and Kowalewski, Stefan and Noll, Thomas },
    title = { Loop Refinement using Octagons and Satisfiability },
    booktitle = { SSV'10 : Proceedings of the 5th international conference on Systems software verification },
    publisher = { ACM },
    pages = { 9 S. },
    year = { 2010 },
    address = { New York, NY },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-196798 },
    cin = { 122810 / 121310 / 120000 },
}

Range Analysis of Microcontroller Code using Bit-Level Congruences

Bibtex entry :

@inproceedings { BKK10,
    author = { Brauer, J{"o}rg and King, Andy and Kowalewski, Stefan },
    title = { Range Analysis of Microcontroller Code using Bit-Level Congruences },
    booktitle = { Formal methods for industrial critical systems : 15th international workshop, FMICS 2010, Antwerp, Belgium, September 20 - 21, 2010 ; proceedings / Stefan Kowalewski; Marco Roveri (eds.) },
    publisher = { Springer },
    pages = { 82-98 },
    series = { Lecture notes in computer science },
    year = { 2010 },
    address = { Berlin [u.a.] },
    doi = { 10.1007/978-3-642-15898-8_6 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-190303 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/119141 },
}


Interval Analysis of Microcontroller Code using Abstract Interpretation of Hardware and Software

Bibtex entry :

@inproceedings { BNS10,
    author = { Brauer, J and Noll, T and Schlich, B },
    title = { Interval Analysis of Microcontroller Code using Abstract Interpretation of Hardware and Software },
    publisher = { ACM },
    year = { 2010 },
    url = { http://doi.org/10.1145/1806886.1806905 },
    doi = { 10.1145/1806886.1806905 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-190303 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/119141 },
}
author = { Brauer, Jörg and Noll, Thomas and Schlich, Bastian },
title = { Interval Analysis of Microcontroller Code using Abstract Interpretation of Hardware and Software },
publisher = { ACM },
series = { ACM Digital Library },
year = { 2010 },
address = { New York, NY },
doi = { 10.1145/1811212.1811216 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-191119 },
cin = { 122810 / 121310 / 120000 },
url = { http://publications.rwth-aachen.de/record/120063 },

[BPD+10]
PDF


EvoFM: Feature-driven Planning of Product-line Evolution

Bibtex entry :
@inproceedings {  BPD+10,
    author = { Botterweck, Götz and Pleuss, Andreas and Dhungana, Deepak and Polzer, Andreas and Kowalewski, Stefan },
    title = { EvoFM: Feature-driven Planning of Product-line Evolution },
    booktitle = { PLEASE '10 : Proceedings of the 2010 ICSE Workshop on Product Line Approaches in Software Engineering ; May, Cape Town, South Africa },
    publisher = { ACM },
    pages = { 24-31 },
    year = { 2010 },
    address = { New York, NY },
    doi = { 10.1145/1808937.1808941 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-196793 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/126457 },}

**Variability and Evolution in Model-based Engineering of Embedded Systems**

**Bibtex entry :**

```plaintext
@inproceedings { BPK10,
  author = { Botterweck, G{"o}tz and Polzer, Andreas and Kowalewski, Stefan },
  title = { Variability and Evolution in Model-based Engineering of Embedded Systems },
  booktitle = { Tagungsband / Dagstuhl-Workshop MBEES: Modellbasierte Entwicklung eingebetteter Systeme VI : Model-Based Development of Embedded Systems (MBEES 2010) ; 03.02.2010 - 05.02.2010 / Holger Giese ... [Hrsg.] },
  publisher = { fortiss },
  pages = { 87-96 },
  year = { 2010 },
  address = { M"unchen },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-190301 },
  cin = { 122810 / 120000 },
}
```


**On the Effects of Network Delays on an Energy-based Controller**

**Bibtex entry :**

```plaintext
@techreport { CBD+10,
  author = { Chávez Grunewald, Martin Guillermo and Ben Makhlouf, Ibtissem and Diab, Hilal and Abel, Dirk and Kowalewski, Stefan },
  title = { On the Effects of Network Delays on an Energy-based Controller },
  institution = { RWTH-Aachen University },
  type = { Technical Report },
  number = { TuPO11.1 },
  month = { April },
  year = { 2010 },
}
```
Controller,
booktitle = { NecSys'10 : 2nd IFAC Workshop on Distributed Estimation and Control in Networked Systems ; 13-14 September, 2010, Centre de Congrès de L'Impérial Palace, Annecy, France },
pages = { 169-174 },
number = { TuPO11.1 },
year = { 2010 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-009571 },
cin = { 122810 / 416610 / 120000 },
url = { http://publications.rwth-aachen.de/record/118448 },
}

[CBD+10a]

PDF
BIB


Regelung und Sicherheitsanalyse einer Gruppe Massenpunktfahrzeuge mit Hilfe energiebasierter Methoden

Bibtex entry :

@inproceedings { CBD+10a,
author = { Chávez Grunewald, Martin Guillermo and Ben Makhlouf, Ibtissem and Diab, Hilal and Mut, Vicente and Kowalewski, Stefan and Abel, Dirk },
title = { Regelung und Sicherheitsanalyse einer Gruppe Massenpunktfahrzeuge mit Hilfe energiebasierter Methoden },
booktitle = { Automatisierungstechnik : at },
publisher = { Oldenbourg },
pages = { 227-235 },
volume = { 58 },
number = { 4 },
year = { 2010 },
address = { München },
issn = { 0178-2312 },
doi = { 10.1524/auto.2010.0829 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-CONV-002157 },
cin = { 122810 / 416610 / 120000 },
url = { http://publications.rwth-aachen.de/record/133927 },
}

[DCB+10]

PDF
BIB

A testing platform for cooperative vehicle platoon controllers

Bibtex entry :

@inproceedings { DCB+10,
  author = { Diab, Hilal and Chávez Grunewald, Martin Guillermo and Ben Makhlouf, Ibtissem and Abel, Dirk and Kowalewski, Stefan },
  title = { A testing platform for cooperative vehicle platoon controllers },
  publisher = { IEEE },
  pages = { 1718-1723 },
  year = { 2010 },
  address = { Piscataway, NJ },
  doi = { 10.1109/ITSC.2010.5625258 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-189667 },
  cin = { 122810 / 416610 / 120000 },
  url = { http://publications.rwth-aachen.de/record/118439 },
}

[FK10]


Verifikation der Java-Echtzeitfähigkeit für den Einsatz in zeitkritischen Systemen

Bibtex entry :

@inproceedings { FK10,
  author = { Franke, Dominik and Kowalewski, Stefan },
  title = { Verifikation der Java-Echtzeitfähigkeit für den Einsatz in zeitkritischen Systemen },
  booktitle = { Informatiktage 2010 : Fachwissenschaftlicher

A System for Synthesizing Abstraction-Enabled Simulators for Binary Code Verification

Bibtex entry :

@inproceedings { GBK10,
    author = { G"uckel, Dominique and Brauer, J"org and Kowalewski, Stefan },
    title = { A System for Synthesizing Abstraction-Enabled Simulators for Binary Code Verification },
    publisher = { IEEE },
    pages = { 118-127 },
    year = { 2010 },
    address = { Piscataway, NJ },
    doi = { 10.1109/SIES.2010.5551382 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-190384 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/119226 },
}
Synthesizing Simulators for Model Checking Microcontroller Binary

Bibtex entry:

```bibtex
@inproceedings { GSB+10,
    author = { G{"u}ckel, Dominique and Schlich, Bastian and Brauer, J{"o}rg and Kowalewski, Stefan },
    title = { Synthesizing Simulators for Model Checking Microcontroller Binary },
    publisher = { IEEE },
    pages = { 313-316 },
    year = { 2010 },
    address = { Piscataway, NJ },
    doi = { 10.1109/DDECS.2010.5491761 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-190385 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/119227 },
}
```


Bibtex entry:

```bibtex
@proceedings { KR10,
    editor = { Kowalewski, S. and Roveri, M., Eds. },
    publisher = { Berlin, Heidelberg: Springer Berlin Heidelberg, 2010. },
}
```
[MRH+10]


**Virtuelle Integration modellbasierter Fahrzeugfunktionen unter AUTOSAR**

Bibtex entry:

```latex
@article{MRH+10,
  author = {Michailidis, Alexander A. and Ringler, Thomas and Hedenetz, Bernd and Kowalewski, Stefan},
  title = {Virtuelle Integration modellbasierter Fahrzeugfunktionen unter AUTOSAR},
  journal = {ATZ-Elektronik},
  publisher = {Vieweg},
  pages = {32-37},
  volume = {1},
  year = {2010},
  address = {Wiesbaden},
  issn = {1862-1791},
  typ = {PUB:(DE-HGF)16},
  reportid = {RWTH-CONV-043239},
  cin = {122810 / 120000},
  url = {http://publications.rwth-aachen.de/record/165385},
}
```

[MSH+10]

Test Front Loading in Early Stages of Automotive Software Development Based on AUTOSAR

Bibtex entry:

@inproceedings { MSH+10,
author = { Michailidis, Alexander A. and Spieth, Uwe and Hedenetz, Bernd and Ringler, Thomas and Kowalewski, Stefan },
title = { Test Front Loading in Early Stages of Automotive Software Development Based on AUTOSAR },
booktitle = { 2010 Design, Automation & Test in Europe Conference & Exhibition : DATE 2010 ; Dresden, Germany, 8 - 12 March 2010 / [European Design and Automation Association]. - 1 },
publisher = { IEEE },
pages = { 435-440 },
year = { 2010 },
address = { Piscataway, NJ },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-189182 },
cin = { 122810 / 120000 },
url = { http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5457166 },
}


Low Effort Evaluation of Real-Time and Reliability Requirements

Bibtex entry:

@inproceedings { MWG+10,
author = { Mitsching, Ralf and Weise, Carsten and Gatterdam, Thomas }
Kowalewski, Stefan },
title = { Low Effort Evaluation of Real-Time and Reliability
Requirements },
booktitle = { 2010 IEEE 10th International Conference on Computer
and
Information Technology (CIT 2010) : Bradford, United
Kingdom, 29 June - 1 July 2010 ; [in conjunction with the
7th IEEE International Conference on Embedded Software and
Systems (ICESS 2010) and the 10th IEEE International
Conference on Scalable Computing and Communications (ScalCom
2010) ; proceedings ; including their workshops/symposia] / 
[sponsored by the University of Bradford; IEEE; IEEE
Computer Society; IEEE TCSC ...] },
publisher = { IEEE Computer Society },
pages = { 2433-2440 },
year = { 2010 },
doi = { 10.1109/CIT.2010.418 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-190154 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/118981 },
}

[MWK10]

Mitsching, R., Weise, C., and Kowalewski, S., "Design Patterns for Integrating Variability in
Timed Automata", in Proc. Proceedings / 2010 Fourth International Conference on Secure
Software Integration and Reliability Improvement : SSIRI 2010 ; 9-11 June 2010, Singapore,

Design Patterns for Integrating Variability in Timed
Automata

Bibtex entry :

@inproceedings { MWK10,
    author = { Mitsching, Ralf and Weise, Carsten and Kowalewski, Stefan },
    title = { Design Patterns for Integrating Variability in Timed
Automata },
    booktitle = { Proceedings / 2010 Fourth International Conference on
Secure
Software Integration and Reliability Improvement : SSIRI
2010 ; 9-11 June 2010, Singapore, Singapore / IEEE },
    publisher = { IEEE },
    pages = { 38-45 },
    year = { 2010 },
    address = { Piscataway, NJ },
    doi = { 10.1109/SSIRI-C.2010.21 },
}

**Featureoriented modelling of product line evolution**

**Bibtex entry:**

```latex
@techreport { PBD+10,
  title = { Featureoriented modelling of product line evolution },
  pages = { 25 Seiten },
  year = { 2010 },
  typ = { PUB:(DE-HGF)29 },
  reportid = { RWTH-CONV-236309 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752286 },
}
```


**View-Supported Rollout and Evolution of Model-Based ECU Applications**

**Bibtex entry:**

```latex
@inproceedings { PMT+10,
  author = { Polzer, Andreas and Merschen, Daniel and Thomas, Jacques and Hedenetz, Bernd and Kowalewski, Stefan },
  title = { View-Supported Rollout and Evolution of Model-Based ECU Applications },
  booktitle = { 7th International Workshop on Model-based Methodologies for Pervasive },
  publisher = { ACM },
  pages = { 37-44 },
}
```

Testing Continuous Systems Conformance Using Cross Correlation

Bibtex entry:

@inproceedings { PWK10,
    author = { Palczynski, Jacob and Weise, Carsten and Kowalewski, Stefan },
    title = { Testing Continuous Systems Conformance Using Cross Correlation },
    booktitle = { Proceedings of the 22nd IFIP International Conference on Testing Software and Systems: Short Papers; October, 2010 / Eds.: Alexandre Petrenko ... },
    publisher = { CRIM },
    pages = { 31-36 },
    series = { CRIM : Documentation/Communications },
    year = { 2010 },
    address = { Montreal },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-190350 },
    cin = { 122810 / 120000 },
}

Test-Case Generation for Embedded Binary Code Using Abstract Interpretation

Bibtex entry:

@inproceedings { RBH+10,
  author = { Reinbacher, Thomas and Brauer, J{"o}rg and Horauer, Martin
             and Steininger, Andreas and Kowalewski, Stefan },
  title = { Test-Case Generation for Embedded Binary Code Using
            Abstract Interpretation },
  booktitle = { Sixth Doctoral Workshop on Mathematical and
               Engineering Methods in Computer Science (Selected Papers) (MEMICS 2010)
               [Elektronische Ressource] / Hrsg.: Ludek Matyska ; Michal
               Kozubek ; Tomáš Vojnar ; Pavel Zemčík ; David Antos },
  publisher = { Schloss Dagstuhl - Leibniz-Zentrum für Informatik
               },
  pages = { 101-108 },
  series = { OASIcs - OpenAccess Series in Informatics },
  year = { 2010 },
  address = { Wadern },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-196795 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/126459 },
}

Model Checking Embedded Software of an Industrial Knitting Machine

Bibtex entry:

@article { RHS+10,
  author = { Reinbacher, Thomas and Horauer, Martin and Schlich, Bastian
            and Brauer, J{"o}rg and Scheuer, Florian },
  title = { Model Checking Embedded Software of an Industrial
            Knitting Machine },

Model Checking of Software for Microcontrollers

Bibtex entry:

```
@article{Sch10,
  author = {Schlich, Bastian},
  title = {Model Checking of Software for Microcontrollers},
  journal = {ACM transactions on embedded computing systems: TECS},
  publisher = {ACM Press},
  pages = {27 S.},
  volume = {9},
  number = {4},
  year = {2010},
  address = {New York, NY},
  issn = {1539-9087},
  doi = {10.1145/1721695.1721702},
  typ = {PUB:(DE-HGF)16},
  reportid = {RWTH-CONV-047530},
  cin = {122810 / 120000},
  url = {http://publications.rwth-aachen.de/record/169982},
}
```

A Modular, Robust and Open Source Microcontroller Platform

Bibtex entry:

@inproceedings { SDK10,
  author = { Stollenwerk, André and Derks, Andreas and Kowalewski, Stefan },
  title = { A Modular, Robust and Open Source Microcontroller Platform },
  booktitle = { Proceedings / 2010 Workshop on Embedded Systems Education : WESE 2010 ; Scottsdale, AZ, USA, October 28th, 2010 / Eds.: Peter Marwedel ... },
  publisher = { ACM },
  pages = { 48-54 },
  year = { 2010 },
  address = { New York, NY },
  doi = { 10.1145/1930277.1930285 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-190509 },
  cin = { 122810 / 120000 },
}

[SJA+10]

PDFBIB


Model Based Diagnosis for Extracorporeal Membrane Oxygenation

Bibtex entry:

@inproceedings { SJA+10,
  author = { Stollenwerk, André and Jörgens, Jutta and Walter, Marian and Kopp, Rüdger and Kowalewski, Stefan },
  title = { Model Based Diagnosis for Extracorporeal Membrane Oxygenation },
  booktitle = { The international journal of artificial organs },
  publisher = { Wichtig Ed. },
  pages = { 447-447 },
  volume = { 33 },
  number = { 7 },
}
Modellbasierte Fehlerdiagnose eines Membranoxygenators

Bibtex entry:

```latex
@article { SJW+10,
  author = { Stollenwerk, André and Jörgens, Jörg and Walter, Marian and Arens, Jutta and Kopp, Rüdger and Kowalewski, Stefan },
  title = { Modellbasierte Fehlerdiagnose eines Membranoxygenators },
  journal = { Proceedings : Jahrestagung der Deutschen Gesellschaft für Biomedizinische Technik (DGBMT) im VDE },
  publisher = { de Gruyter },
  pages = { 174-177 },
  volume = { 55 },
  number = { S 1 },
  year = { 2010 },
  address = { Berlin [u.a.] },
  issn = { 0939-4990 },
  doi = { 10.515/BMT.2010.713 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-003744 },
  cin = { 122810533000-2 / 611010811001-1 / 120000 },
  url = { http://publications.rwth-aachen.de/record/169676 },
}
```

KleeNet: discovering insidious interaction bugs in wireless sensor networks before deployment

Bibtex entry:

```latex
@article { SLA+10,
  title = { KleeNet: discovering insidious interaction bugs in wireless sensor networks before deployment },
  publisher = { ACM },
  pages = { 186-196 },
  year = { 2010 },
  doi = { 10.1145/1866025.1866051 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-047243 },
  cin = { 611010 / 122810 },
  url = { http://publications.rwth-aachen.de/record/169679 },
}
```
KleeNet: discovering insidious interaction bugs in wireless sensor networks before deployment

Bibtex entry:

@inproceedings { SLA+10,
  title = { KleeNet: discovering insidious interaction bugs in wireless sensor networks before deployment },
  booktitle = { Proceedings of the 9th ACM/IEEE International Conference on Information Processing in Sensor Networks },
  publisher = { ACM },
  pages = { 186--196 },
  year = { 2010 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-236310 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752287 },
}

[SLW+10]


Sicherheitskonzept für eine intensivmedizinische Anwendung am Beispiel der EMCO

Bibtex entry:

@inproceedings { SLW+10,
  author = { Stollenwerk, André and Lang, Martin and Walter, Marian and Arens, Jutta and Kopp, R"udger and Kowalewski, Stefan },
  title = { Sicherheitskonzept f"ur eine intensivmedizinische Anwendung am Beispiel der EMCO },
  booktitle = { Entwurf komplexer Automatisierungssysteme: EKA 2010; Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen; },
Automatisierung und Fehlerdiagnose bei der extrakorporalen Membranoxygenierung

Bibtex entry:

@article { WLK+10,
  author = { Walter, Marian and Leonhardt, Steffen and Kopp, Rüdger and Wartzek, Tobias and Arens, Jutta and Stollenwerk, André },
  title = { Automatisierung und Fehlerdiagnose bei der extrakorporalen Membranoxygenierung },
  journal = { Automatisierungstechnik : at },
  publisher = { Oldenbourg },
  pages = { 277-285 },
  volume = { 58 },
  number = { 5 },
  year = { 2010 },
  address = { München },
  issn = { 0178-2312 },
  doi = { 10.1524/auto.2010.0838 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-014968 },
  cin = { 120000 / 122810533000-2 / 611010811001-6hsbk080061 },
  url = { http://publications.rwth-aachen.de/record/133926 },
}

**A physiological model for extracorporeal oxygenation controller design**

Bibtex entry :

```bibtex
@inproceedings { WLK+10a,
  author = { Walter, Marian and Leonhardt, Steffen and Kopp, Rüdger and Arens, Jutta and Weyer, Sören and Stollenwerk, André },
  title = { A physiological model for extracorporeal oxygenation controller design },
  publisher = { IEEE },
  pages = { 434-437 },
  series = { Annual international conference of the IEEE Engineering in Medicine and Biology Society },
  year = { 2010 },
  address = { Piscataway, NJ },
  doi = { 10.1109/IEMBS.2010.5627416 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-047104 },
  cin = { 120000 / 122810533000-2533000-3 / 611010811001-4 },
  url = { http://publications.rwth-aachen.de/record/169533 },
}
```

Safety assessment of design patterns for safety-critical embedded systems

Bibtex entry:

```
@inproceedings { ABK09,
  author = { Armoush, Ashraf and Beckschulze, Eva and Kowalewski, Stefan },
  title = { Safety assessment of design patterns for safety-critical embedded systems },
  booktitle = { 35th Euromicro Conference on Software Engineering and Advanced Applications : SEAA 2009 ; August 27-29, 2009 in Patras, Greece },
  publisher = { IEEE },
  pages = { 523-527 },
  year = { 2009 },
  address = { Piscataway, NJ },
  doi = { 10.1109/SEAA.2009.12 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-172396 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/99430 },
}
```

[AK09]


Safety recommendations for safety-critical design patterns

Bibtex entry:

```
@inproceedings { AK09,
  author = { Armoush, Ashraf and Kowalewski, Stefan },
  title = { Safety recommendations for safety-critical design patterns },
```

https://embedded.rwth-aachen.de/

**Design pattern representation for safety-critical embedded systems**

Bibtex entry :

```bibtex
@article { ASK09,
    author = { Armoush, Ashraf and Salewski, Falk and Kowalewski, Stefan },
    title = { Design pattern representation for safety-critical embedded systems },
    journal = { Journal of software engineering and applications : JSEA },
    publisher = { Scientific Research Publ. },
    pages = { 1-12 },
    volume = { 2 },
    number = { 1 },
    year = { 2009 },
    issn = { 1945-3116 },
    doi = { 10.4236/jsea.2009.21001 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-013185 },
    cin = { 122810 / 120000 },
    url = { http://www.scirp.org/journal/jsea },
}
```

Interprocedural pointer analysis in Goanna

Bibtex entry:

@article { BHS09,
        author = { Brauer, J{"o}rg and Huuck, Ralf and Schlich, Bastian },
        title = { Interprocedural pointer analysis in Goanna },
        journal = { Electronic notes in theoretical computer science : ENTCS },
        publisher = { Elsevier Science },
        pages = { 65-83 },
        volume = { 254 },
        year = { 2009 },
        address = { Amsterdam [u.a.] },
        issn = { 1571-0661 },
        doi = { 10.1016/j.entcs.2009.09.060 },
        typ = { PUB:(DE-HGF)16 },
        reportid = { RWTH-CONV-013641 },
        cin = { 122810 / 120000 },
        url = { http://publications.rwth-aachen.de/record/132532 },
}

[BKC+09]

Safety assessment of networked vehicle platoon controllers: practical experiences with available tools

Bibtex entry:

@inproceedings { BKC+09,
        author = { Ben Makhlouf, Ibtissem and Kowalewski, Stefan and Chávez Grunewald, Martin Guillermo and Abel, Dirk },
        title = { Safety assessment of networked vehicle platoon controllers: practical experiences with available tools },
        booktitle = { ADHS'09: 3rd IFAC Conference on Analysis and Design of Hybrid: September 16, 17 - 18, University of Zaragoza, Spain / Aragón Institute for Engineering Research },
        publisher = { University of Zaragoza },
        year = { 2009 },
        address = { Zaragoza, Spain },
        typ = { PUB:(DE-HGF)8 },
        reportid = { RWTH-CONV-172519 },
}

Using higher-order transformations to derive variability mechanism

Bibtex entry:

```latex
@inproceedings { BPK09,
  author = { Botterweck, G"o{\v{z}}t and Polzer, Andreas and Kowalewski, Stefan },
  title = { Using higher-order transformations to derive variability mechanism },
  booktitle = { ACES-MB 2009: Model Based Architecting and Construction of Embedded Systems; Proceedings of the 2nd International Workshop on Model Based Architecting and Construction of Embedded Systems; held as part of the 2009 International Conference on Model Driven Engineering Languages and Systems (MoDELS'09); Denver, Colorado, USA, October 6, 2009 / Ed. by: Stefan Van Baelen ... },
  publisher = { Sun SITE Central Europe },
  pages = { 107-121 },
  series = { CEUR Workshop Proceedings },
  year = { 2009 },
  address = { Aachen [u.a.] },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-172337 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/99369 },
}
```

Interactive configuration of embedded systems product lines

Bibtex entry:

```
@inproceedings { BPK09a,
    author = { Botterweck, G"otz and Polzer, Andreas and Kowalewski, Stefan },
    title = { Interactive configuration of embedded systems product lines },
    publisher = { IEEE },
    pages = { 52-58 },
    year = { 2009 },
    address = { Piscataway, NJ },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172338 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/99370 },
}
```

Using Higher-Order Transformations to Derive Variability Mechanism for Embedded Systems

Bibtex entry:

```
@inproceedings { BPK09b,
    author = { Botterweck, G"otz and Polzer, Andreas and Kowalewski, Stefan },
    title = { Using Higher-Order Transformations to Derive Variability Mechanism for Embedded Systems },
    booktitle = { Models in software engineering : workshops and symposia at MODELS 2009, Denver, CO, USA, October 4 - 9, 2009 ; reports and revised selected papers / Sudipto Ghosh (ed.) },
    publisher = { Springer },
    pages = { 68-82 },
}
```
Towards Feature-driven Planning of Product-Line Evolution

Bibtex entry:

@inproceedings { BPP+09,
  author = { Botterweck, G"otz and Pleuss, Andreas and Polzer, Andreas and Kowalewski, Stefan },
  title = { Towards Feature-driven Planning of Product-Line Evolution },
  booktitle = { Proceedings of the first International Workshop on Feature-Oriented Software Development (FOSD) : October 6, 2009 Denver, Colorado, USA / eds.: Sven Apel ... },
  publisher = { ACM },
  pages = { 109-116 },
  year = { 2009 },
  address = { New York, NY },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-173256 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/100436 },
}

A Comparison of Dual-Core Approaches for Safety-Critical Automotive Applications

A Comparison of Dual-Core Approaches for Safety-Critical Automotive Applications

Bibtex entry:

@inproceedings { BSK09,
  author = { Beckschulze, Eva and Salewski, Falk and Kowalewski, Stefan },
  title = { A Comparison of Dual-Core Approaches for Safety-Critical Automotive Applications },
  booktitle = { Safety-critical systems, 2009 : [held during the SAE world congress, held April 20 - 23, 2009 in Detroit, Michigan, USA] / SAE International },
  publisher = { SAE Intern. },
  pages = { 209-216 },
  series = { SAE-SP },
  year = { 2009 },
  address = { Warrendale, Pa. },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-191094 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/120032 },
}

[BSR+09]
PDF
BIB


Stack bounds analysis of microcontroller assembly code

Bibtex entry:

@inproceedings { BSR+09,
  author = { Brauer, J\{\"o\}rg and Schlich, Bastian and Reinbacher, Thomas and Kowalewski, Stefan },
  title = { Stack bounds analysis of microcontroller assembly code },
  booktitle = { Embedded Systems Week 2009 : CODES+ISSS’09, CASES’09, EMSOFT’09 ; Proceedings of the 2009 international conference on Compilers, architecture, and synthesis for embedded systems ; 2009, Grenoble, France, October 11 - 16, 2009 },
  publisher = { ACM Press },
  year = { 2009 },
  address = { New York, NY },
}

**Control and Safety Analysis of a Platoon under Communication Constraints**

Bibtex entry:

```bibtex
@inproceedings {DBK+09,
    author = {Diab, Hilal and Ben Makhlouf, Ibtissem and Kowalewski, Stefan and Chávez, Martin and Abel, Dirk},
    title = {Control and Safety Analysis of a Platoon under Communication Constraints},
    booktitle = {NE[S/T]COC, Sept. 28/29, Stuttgart, Priority Program 1305 Posters S.5},
    pages = {70-71},
    year = {2009},
    typ = {PUB:(DE-HGF)8},
    reportid = {RWTH-CONV-173123},
    cin = {416610 / 122810},
    url = {http://publications.rwth-aachen.de/record/100238},
}
```


**A real-time test and simulation environment based on standard FPGA hardware**

Bibtex entry:

```bibtex
@inproceedings {DSK09,
    author = {Duelks, Ramona and Salewski, Falk and Kowalewski, Stefan},
    title = {A real-time test and simulation environment based on standard FPGA hardware},
    year = {2009},
    typ = {PUB:(DE-HGF)8},
    reportid = {RWTH-CONV-173123},
    cin = {416610 / 122810},
    url = {http://publications.rwth-aachen.de/record/100238},
}
```
Automatic bug detection in microcontroller software by static program analysis

Bibtex entry:

@inbook {FHS+09,
  author = {Fehnker, Ansgar and Huuck, Ralf and Schlich, Bastian and Tapp, Michael },
  title = {Automatic bug detection in microcontroller software by static program analysis},
  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 },
  reportid = {RWTH-CONV-095395 },
  cin = {122810 / 120000 },
  url = {http://publications.rwth-aachen.de/record/83459 },
}
Gückel, D., "Retargeting a hardware-dependent model checker by using architecture description languages", in Proc. Doctoral Symposium on Systems Software Verification (DS SSV'09): Real Software, Real Problems, Real Solutions; proceedings; held during the 4th International Workshop on Systems Software Verification (SSV'09) in Aachen, Germany, June 22\[24, 2009 / Ralf Huuck, Gerwin Klein, and Bastian Schlich (eds.), Aachen, 2009 in Aachener Informatik Berichte: AIB, RWTH Aachen, Department of Computer Science, pp. 7-9.

Retargeting a hardware-dependent model checker by using architecture description languages

Bibtex entry:

```bibtex
@inproceedings { Guc09,
  author = { G"{u}ckel, Dominique },
  title = { Retargeting a hardware-dependent model checker by using architecture description languages },
  booktitle = { Doctoral Symposium on Systems Software Verification (DS SSV'09): Real Software, Real Problems, Real Solutions; proceedings; held during the 4th International Workshop on Systems Software Verification (SSV'09) in Aachen, Germany, June 22\[24, 2009 / Ralf Huuck, Gerwin Klein, and Bastian Schlich (eds.) },
  publisher = { RWTH Aachen, Department of Computer Science },
  pages = { 7-9 },
  series = { Aachener Informatik Berichte: AIB },
  year = { 2009 },
  address = { Aachen },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-172525 },
  cin = { 122810 / 120000 },
}
```


Bibtex entry :

@proceedings { HKK+09,
  editor = { Hutchison, David and Kanade, Takeo and Kittler, Josef and
            Kleinberg, Jon M. and Mattern, Friedemann and Mitchell, John C. and Naor, Moni and Nierstrasz, Oscar and Rangan, C. Pandu and Steffen, Bernhard and Sudan, Madhu and Terzopoulos, Demetri and Tygar, Doug and Vardi, Moshe Y. and Weikum, Gerhard and Kowalewski, Stefan and Philippou, Anna },
  publisher = { Springer Berlin Heidelberg },
  series = { LNCS },
  year = { 2009 },
  address = { Berlin, Heidelberg },
  organization = { 15th International Conference, TACAS 2009, York (UK), 2009-03-22 - 2009-03-29 },
  doi = { 10.1007/978-3-642-00768-2 },
  typ = { PUB:(DE-HGF)26 },
  reportid = { RWTH-CONV-236344 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752316 },
}

[KGG+09]


Hybrid automata

Bibtex entry :

@inbook { KGG+09,
  author = { Kowalewski, Stefan and Garavello, Mauro and Guéguen, Hervé

https://embedded.rwth-aachen.de/
and Herberich, Gerlind and Langerak, Rom and Piccoli, Benedetto and Jan, Willem Polderman and Weise, Carsten },
title = { Hybrid automata },
booktitle = { Handbook of hybrid systems control : theory, tools, applications / edited by Jan Lunze, Françoise Lamnabhi-Lagarrigue },
pages = { 57-86 },
year = { 2009 },
address = { Cambridge },
doi = { 10.1017/CBO9780511807930.004 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-236342 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752315 },

[KHS09]
PDF BIB

Operating System Verification

Bibtex entry :

@article { KHS09,
    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 },
    reportid = { RWTH-CONV-065212 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/188901 },
}

[KLK09]
PDF BIB
Extracorporeal Membrane Oxygenation for Cardiac and Pulmonary Indications: Improving Patient Safety

Bibtex entry:

@inbook { KLK09,
    author = { Kopp, R"udger and Leonhardt, Steffen and Kowalewski, Stefan },
    title = { Extracorporeal Membrane Oxygenation for Cardiac and Pulmonary Indications: Improving Patient Safety },
    booktitle = { Yearbook of Intensive Care and Emergency Medicine : 2009 /
        ed. by Jean-Louis Vincent },
    publisher = { Springer },
    pages = { 341-349 },
    volume = { 2009 },
    series = { Yearbook of Intensive Care and Emergency Medicine },
    year = { 2009 },
    address = { Berlin [u.a.] },
    doi = { 10.1007/978-0-387-92278-2_33 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-095468 },
    cin = { 120000533000-3533000-2 / 122810 / 611010 },
    url = { http://publications.rwth-aachen.de/record/83542 },
}

[Klu09]


Entwurf eingebetteter Software mit abstrakten Zustandsmaschinen und business object notation

Bibtex entry:

@phdthesis { Klu09,
    author = { Kl"uder, 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 },
    address = { Aachen },
    typ = { PUB:(DE-HGF)11 },
    reportid = { RWTH-CONV-114049 },
    cin = { 122810 / 120000 },
}

Bibtex entry:

```latex
@proceedings { KP09,
  editor = { Kowalewski, Stefan and Philippou, Anna },
  title = { Tools and algorithms for the construction and analysis of systems: 15th international conference, TACAS 2009, held as part of the Joint European Conferences on Theory and Practice of Software, ETAPS 2009, York, UK, March 22-29, 2009; proceedings / Stefan Kowalewski; Anna Philippou (eds.) },
  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 },
  reportid = { RWTH-CONV-093514 },
  cin = { 122810 / 120000 },
  url = { http://www.springer.com/computer/theoretical+computer+science/book/978-3-540-41865-8 },
}
```

Lungenunterstützung”, *Biomedizinische Technik = Biomedical engineering*, vol. 54, iss. 5, pp. 289-297, 2009

**Regelungs- und Sicherheitskonzepte für extrakorporale zur Lungenunterstützung**

Bibtex entry:

```plaintext
@article { KWA+09,
    author = { Kopp, R"udger and Walter, Marian and Arens, Jutta and Stollenwerk, André and Leonhardt, Steffen and Schmitz-Rode, Thomas and Kowalewski, Stefan and Rossaint, Rolf },
    title = { Regelungs- und Sicherheitskonzepte f"ur extrakorporale zur Lungenunterst"utzung },
    journal = { Biomedizinische Technik = Biomedical engineering },
    publisher = { de Gruyter },
    pages = { 289-297 },
    volume = { 54 },
    number = { 5 },
    year = { 2009 },
    address = { Berlin [u.a.] },
    issn = { 0013-5585 },
    doi = { 10.1515/BMT.2009.036 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-013750 },
    cin = { 120000533000-3811001-1533000-2 / 122810 / 611010811001-4 },
    url = { http://publications.rwth-aachen.de/record/132651 },
}
```

[LWW+09]


**Regelung des Gasaustauschs für die extrakorporale Oxygenierung**

Bibtex entry:

```plaintext
@inproceedings { LWW+09,
    author = { Leonhardt, Steffen and Walter, Marian and Wartzek, Tobias and Kashefi, Ali and Stollenwerk, André and Kopp, R"udger },
    title = { Regelung des Gasaustauschs f"ur die extrakorporale Oxygenierung },
}
```

https://embedded.rwth-aachen.de/

**Testing in the Industrial Development Process for Embedded Systems**

Bibtex entry:

```latex
@techreport { Mit09,
    author = { Mitsching, Ralf },
    title = { Testing in the Industrial Development Process for Embedded Systems },
    booktitle = { Doctoral Symposium on Systems Software Verification (DS SSV'09) Real Software, Real Problems, Real Solutions ; Proceedings },
    publisher = { RWTH Aachen, Department of Computer Science },
    pages = { 23-25 },
    volume = { 2009,14 },
    number = { AIB-2009-14 },
    series = { Aachener Informatik-Berichte : AIB },
    year = { 2009 },
    address = { Aachen },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-009584 },
    cin = { 122810 / 120000 },
}
```

Towards an industrial strength process for timed testing

Bibtex entry :

@inproceedings { MWK+09,
  author = { Mitsching, Ralf and Weise, Carsten and Kolbe, André and Bohnenkamp, Henrik and Berzen, Norbert },
  title = { Towards an industrial strength process for timed testing },
  booktitle = { International Conference on Software Testing, Verification and Validation Workshops, 2009: ICSTW '09 : April 1, 2009, Denver, Colorado, USA },
  publisher = { IEEE },
  pages = { 29-38 },
  year = { 2009 },
  address = { Piscataway, NJ },
  doi = { 10.1109/ICSTW.2009.42 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-172513 },
  cin = { 122810 / 121310 / 120000 },
  url = { http://publications.rwth-aachen.de/record/99554 },
}

[PBW+09]


Variabilität im modellbasierten Engineering von eingebetteten Systemen

Bibtex entry :

@inproceedings { PBW+09,
  author = { Polzer, Andreas and Botterweck, G"otz and Wagnerin, Iris and Kowalewski, Stefan },
  title = { Variabilitä"at im modellbasierten Engineering von eingebetteten Systemen },
Early Behaviour Modelling for Control Systems

Bibtex entry:

@inproceedings { PK09,
  author = { Palczynski, Jacob and Kowalewski, Stefan },
  title = { Early Behaviour Modelling for Control Systems },
  booktitle = { 2009 Third UKSim European Symposium on Computer Modeling and Simulation : EMS 2009 ; Athens, Greece, 25 - 27 November 2009 / [technical sponsors: IEEE United Kingdom and Republic of Island [i.e. Ireland] Section ...]. Ed.: David Al-Dabass ... },
  publisher = { IEEE },
  pages = { 148-153 },
  year = { 2009 },
  address = { Piscataway, NJ },
  doi = { 10.1109/EMS.2009.69 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-171883 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/98844 },
}

Polzer, A., Kowalewski, S., and Botterweck, G., "Applying software product line techniques in model-based embedded systems engineering", in Proc. 2009 ICSE Workshop on Model-Based Methodologies for Pervasive and Embedded Software : (MOMPES 2009) ; May 16, 2009, Vancouver, Canada ; in conjunction with the 2009 IEEE 31st International Conference on
Applying software product line techniques in model-based embedded systems engineering

Bibtex entry:

@inproceedings { PKB09,
    author = { Polzer, Andreas and Kowalewski, Stefan and Botterweck, Götz },
    title = { Applying software product line techniques in model-based embedded systems engineering },
    booktitle = { 2009 ICSE Workshop on Model-Based Methodologies for Pervasive and Embedded Software : (MOMPES 2009) ; May 16, 2009, Vancouver, Canada ; in conjunction with the 2009 IEEE 31st International Conference on Software Engineering (ICSE 2009); May 16-24, 2009 },
    publisher = { IEEE },
    pages = { 2-10 },
    year = { 2009 },
    address = { Piscataway, NJ },
    doi = { 10.1109/MOMPES.2009.5069132 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172393 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/99427 },
}

Refining assembly code static analysis for the Intel MCS-51 microcontroller

Bibtex entry:

@inproceedings { RBH+09,
    author = { Reinbacher, Thomas and Brauer, Jörg and Horauer, Martin and Schlich, Bastian },
    title = { Refining assembly code static analysis for the Intel MCS-51 microcontroller },
    publisher = { Piscataway, NJ, 2009, IEEE },
    pages = { 161-170 },
    doi = { 10.1109/SIES.2009.5193199 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172393 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/99427 },
}

Model checking assembly code of an industrial knitting machine

Bibtex entry:

```
@inproceedings { RHS+09,
    author = { Reinbacher, Thomas and Horauer, Martin and Schlich, Bastian
    and Brauer, Jörg and Scheuer, Florian },
    title = { Model checking assembly code of an industrial knitting machine },
    booktitle = { Proceedings of the 2009 Fourth International Conference on
    Embedded and Multimedia Computing : EM-Com 2009 : [December
    10-12, 2009, Jeju Island, Korea] },
    publisher = { IEEE },
    pages = { 8 S. },
    year = { 2009 },
    address = { Piscataway, NJ },
    doi = { 10.1109/EM-COM.2009.5402986 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-199048 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/129021 },
}
```

Reinbacher, T., Horauer, M., and Schlich, B., "Using 3-valued memory representation for state
Using 3-valued memory representation for state space reduction in embedded assembly code model checking

Bibtex entry:

@inproceedings { RHS09,
    author = { Reinbacher, Thomas and Horauer, Martin and Schlich, Bastian },
    title = { Using 3-valued memory representation for state space reduction in embedded assembly code model checking },
    publisher = { IEEE },
    pages = { 114-119 },
    year = { 2009 },
    address = { Piscataway, N.J. },
    doi = { 10.1109/DDECS.2009.5012109 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172518 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/99559 },
}

[SBW+09]


Direct Model Checking of {PLC} Programs in {IL}

Bibtex entry:

@inproceedings { SBW+09,
    author = { Schlich, Bastian and Brauer, J and Wernerus, J and Kowalewski, Stefan },
    title = { Direct Model Checking of {PLC} Programs in {IL} },
    booktitle = { Dependable Control of Discrete Systems (DCDS'09), Bari, Italy },
    pages = { 28-33 },
    year = { 2009 },
    typ = { PUB:(DE-HGF)7 },
}

**Evaluation of the real-time Java runtime environment for deployment in time-critical systems**

Bibtex entry:

```bibtex
@inproceedings{SFK+09,
  author = {Schommer, John F. and Franke, Dominik and Kowalewski, Stefan
    and Weise, Carsten},
  title = {Evaluation of the real-time Java runtime environment for
    deployment in time-critical systems},
  booktitle = {7th International Workshop on Java Technologies for
    Real-Time and Embedded Systems: JTRES 09; Universidad
    Complutense de Madrid, Facultad de Informatica, 23-25
    September 2009, Madrid, Spain / Workshop Chair: M. Teresa
    Higuera-Toledano ...},
  publisher = {Curran},
  pages = {51-60},
  series = {ACM international conference proceedings series},
  year = {2009},
  address = {Red Hook, NY},
  doi = {10.1145/1620405.1620413},
  typ = {PUB:(DE-HGF)8},
  reportid = {RWTH-CONV-172370},
  cin = {122810 / 120000},
  url = {http://publications.rwth-aachen.de/record/99404},
}
```

An undergraduate embedded software laboratory for the masses

Bibtex entry:

@inproceedings { SJK09,
    author = { Stollenwerk, André and Jongdee, Chate and Kowalewski, Stefan },
    title = { An undergraduate embedded software laboratory for the masses },
    booktitle = { Workshop on Embedded Systems Education (WESE09), Grenoble, France },
    publisher = { ACM },
    pages = { 34-41 },
    year = { 2009 },
    address = { Grenoble, France },
    doi = { 10.1145/1719010.1719017 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-173254 },
    url = { http://publications.rwth-aachen.de/record/100434 },
}

[SK09]

Model checking C source code for embedded systems

Bibtex entry:

@article { SK09,
    author = { Schlich, Bastian and Kowalewski, Stefan },
    title = { Model checking C source code for embedded systems },
    journal = { International journal on software tools for technology transfer : STTT },
    publisher = { Springer },
    pages = { 187-202 },
    volume = { 11 },
    number = { 3 },
    year = { 2009 },
    address = { Berlin [u.a.] },
    issn = { 1433-2779 },
    doi = { 10.1007/s10009-009-0106-5 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-013187 },
    cin = { 122810 / 120000 },
}
Verifikation von SPS-Programmen in AWL mit Hilfe von direktem Model-Checking

Bibtex entry:

@inproceedings { SKW09,
    author = { Schlich, Bastian and Kowalewski, Stefan and Wernerus, J{"o}rg },
    title = { Verifikation von SPS-Programmen in AWL mit Hilfe von direktem Model-Checking },
    publisher = { VDI-Verl. },
    pages = { 13-16 },
    series = { VDI-Berichte },
    year = { 2009 },
    address = { D{"u}sseldorf },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172091 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/99088 },
}

Embedded Contributions to an Intensive Care Safety Concept

Bibtex entry:

@conference { SL09,
    author = { Stollenwerk, Andre and Lang, Martin },
    title = { Embedded Contributions to an Intensive Care Safety Concept },
}
A safety and control concept for extracorporeal membrane oxygenation

Bibtex entry :

@article { SWW+09,
    author = { Stollenwerk, André and Walter, Marian and Wartzek, Tobias and Kopp, R"udger and Arens, Jutta and Kowalewski, Stefan },
    title = { A safety and control concept for extracorporeal membrane oxygenation },
    journal = { The international journal of artificial organs },
    publisher = { Wichtig Ed. },
    pages = { 428-428 },
    volume = { 32 },
    number = { 7 },
    year = { 2009 },
    address = { Milano [u.a.] },
    issn = { 0391-3988 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-013747 },
    cin = { 122810533000-2 / 611010811001-1 / 120000 },
}

[SZR+09]

Mapping Requirement Models to Mathematical Models in Control System Development

Bibtex entry:

@inproceedings {SZR+09,
  author = {Schmitz, Dominik and Zhang, Ming and Rose, Thomas and Jarke, Matthias and Polzer, Andreas and Palczynski, Jacob and Kowalewski, Stefan and Reke, Michael},
  title = {Mapping Requirement Models to Mathematical Models in Control System Development},
  booktitle = {Model driven architecture - foundations and applications: 5th European conference, ECMDA-FA 2009, Enschede, The Netherlands, June 23 - 26, 2009 ; proceedings / Richard F. Paige; Alan Hartman; Arend Rensink (eds.)},
  publisher = {Springer},
  series = {Lecture notes in computer science},
  year = {2009},
  address = {Berlin [u.a.]},
  doi = {10.1007/978-3-642-02674-4_18},
  typ = {PUB:(DE-HGF)8},
  reportid = {RWTH-CONV-172397},
  cin = {122810 / 121810 / 120000},
  url = {http://publications.rwth-aachen.de/record/99431},
}

[TBG+09]

DFG Research Training Group 'Algorithmic synthesis of reactive and discrete-continuous systems (AlgoSyn)'

Bibtex entry:

@article {TBG+09,
  author = {Thomas, Wolfgang and Bollue, Kai and Gückel, Dominique and Quirós, Gustavo and Slaats, Michaela and Ummels, Michael},
}

**Automation of long term extracorporeal oxygenation systems**

Bibtex entry:

```bibtex
@inproceedings { WLK+09,
    author = { Walter, Marian and Leonhardt, Steffen and Kopp, Rüdger and Kashefi, Ali and Wartzek, Tobias and Stollenwerk, André },
    title = { Automation of long term extracorporeal oxygenation systems },
    booktitle = { ECC 09 : Proceedings of the European Control Conference 2009 ; the 10th in the EUCA Series ; 23-26 August 2009, Budapest, Hungary / General Chair: László Keviczky ... },
    publisher = { EUCA },
    year = { 2009 },
    address = { Budapest },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-172394 },
    cin = { 120000 / 122810533000-3 / 611010811001-1 },
    url = { http://publications.rwth-aachen.de/record/99428 },
}
```

Automatisierung der extrakorporalen Membranoxygenierung

Bibtex entry:

@inproceedings { WWS+09,
  author = { Wartzek, Tobias and Walter, Marian and Stollenwerk, André and Kopp, R"u
der and Kashefi, Ali and Leonhardt, Steffen },
  title = { Automatisierung der extrakorporalen Membranoxygenierung },
  booktitle = { Automatisierungstechnische Verfahren f"ur die Medizin : 8. Workshop ; Tagungsband / Thomas Schauer ... (eds.) },
  publisher = { VDI-Verlag },
  pages = { 25-26 },
  series = { Fortschritt-Berichte VDI : Reihe 17, Biotechnik/Medizintechnik },
  year = { 2009 },
  address = { D"usseldorf },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-172395 },
  cin = { 122810 / 611010 / 120000 },
  url = { http://publications.rwth-aachen.de/record/99429 },
}

[WWS+09a]


In Vivo Validation of an Automatic Controlled Extracorporeal Membrane Oxygenator

Bibtex entry:

@inproceedings { WWS+09a,
  author = { Wartzek, Tobias and Walter, Marian and Schmitz-Rode, Thomas

and Kowalewski, Stefan and Rossaint, Rolf },
title = { In Vivo Validation of an Automatic Controlled Extracorporeal Membrane Oxygenator },
booktitle = { World Congress on Medical Physics and Biomedical Engineering : 7 - 12 September, 2009, Munich, Germany / Olaf Dössel; Wolfgang C. Schlegel (eds.). - 7. Diagnostic and therapeutic instrumentation, clinical engineering },
publisher = { Springer },
pages = { 118-121 },
series = { IFMBE proceedings },
year = { 2009 },
address = { Berlin [u.a.] },
doi = { 10.1007/978-3-642-03885-3_34 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-172852 },
cin = { 122810 / 611010 / 120000 },
url = { http://publications.rwth-aachen.de/record/99922 },

[AM08]
PDFBIB


Design Review of Satellite Telemetry based on CCSDS standards and Proposed Hardware Implementation of CanSat

Bibtex entry :

@inproceedings { AM08,
author = { Afzal, Waqas and Mahmood, Adnan },
title = { Design Review of Satellite Telemetry based on CCSDS standards and Proposed Hardware Implementation of CanSat },
booktitle = { International MultiConference of Engineers and Computer Scientists, IMECS 2008 : 19 - 21 March, 2008, Regal Knowloon Hotel, Knowloon, Hong Kong / Eds.: S. I. Ao ... },
publisher = { IAENG },
pages = { 1444-1447 },
series = { Lecture notes in engineering and computer science },
year = { 2008 },
address = { Hong Kong },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-197547 },}
A hybrid fault tolerance method for recovery block with a weak acceptance test

Bibtex entry:

@inproceedings { ASK08,
    author = { Armoush, Ashraf and Salewski, Falk and Kowalewski, Stefan },
    title = { A hybrid fault tolerance method for recovery block with a weak acceptance test },
    publisher = { IEEE Computer Society },
    pages = { 484-491 },
    year = { 2008 },
    address = { Los Alamitos, Calif. },
    doi = { 10.1109/EUC.2008.102 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-171798 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/98742 },
}

Effective pattern representation for safety critical 

Bibtex entry:

@inproceedings { ASK08a,
    author = { Armoush, A., Salewski, F., and Kowalewski, S. },
    title = { Effective pattern representation for safety critical embedded systems },
    publisher = { IEEE Computer Society },
    pages = { 91-97 },
    year = { 2008 },
    address = { Los Alamitos, Calif. },
    doi = { 10.1109/CSSE.2008.162 },
    typ = { PUB: (DE-HGF)8 },
    reportid = { RWTH-CONV-171797 },
    cin = { 122809 / 120000 },
    url = { http://publications.rwth-aachen.de/record/98743 },
}
embedded systems

Bibtex entry :

@inproceedings { ASK08a,
    author = { Armoush, Ashraf and Salewski, Falk and Kowalewski, Stefan },
    title = { Effective pattern representation for safety critical embedded systems },
    publisher = { IEEE Computer Society },
    pages = { 91-97 },
    year = { 2008 },
    address = { Los Alamitos, Calif. },
    doi = { 10.1109/CSSE.2008.739 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-171799 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/98743 },
}

[ASK08b]

PDFBIB


Recovery block with backup voting : a new pattern with extended representation for safety critical embedded systems

Bibtex entry :

@inproceedings { ASK08b,
    author = { Armoush, Ashraf and Salewski, Falk and Kowalewski, Stefan },
    title = { Recovery block with backup voting : a new pattern with extended representation for safety critical embedded systems },
    booktitle = { 11th International Conference on Information Technology : ICIT 2008 ; Proceedings ; December 17–20, 2008, Bhubaneswar, India / Edited by B. S. Panda and Abhaya Nayak. Organized by Orissa Information Technology Society ... },
    doi = { 10.1109/ICIT.2008.551972 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-171799 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/98743 },
}

**Direct support for model checking abstract state machines by utilizing simulation**

Bibtex entry:

```bibtex
@inbook { BKK+08,
  author = { Beckers, J{"o}rg and Kl{"u}nder, Daniel and
          Kowalewski, Stefan and Schlich, Bastian },
  title = { Direct support for model checking abstract state machines
           by utilizing simulation },
  booktitle = { Abstract state machines, B and Z : first international
               proceedings / Egon B{"o}rger ... (eds.) },
  publisher = { Springer },
  pages = { 112-124 },
  volume = { 5238 },
  series = { Lecture Notes in Computer Science },
  year = { 2008 },
  address = { Berlin [u.a.] },
  doi = { 10.1007/978-3-540-87603-8_10 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-095396 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/83460 },
}
```

Beckschulze, E., Salewski, F., Siegbert, T., and Kowalewski, S., "Fault handling approaches on dual-core microcontrollers in safety-critical automotive applications", in *Proc. Leveraging*
applications of formal methods, verification and validation: third international symposium, ISOIA 2008, Porto Sani, Greece, October 13 - 15, 2008; proceedings / Tiziana Margaria ... (ed.), Berlin [u.a], 2008 in Communications in computer and information science, Springer, pp. 82-92.

**Fault handling approaches on dual-core microcontrollers in safety-critical automotive applications**

Bibtex entry:

```bibtex
@inproceedings { BSS+08,
  author = { Beckschulze, Eva and Salewski, Falk and Siegbert, Thomas and Kowalewski, Stefan },
  title = { Fault handling approaches on dual-core microcontrollers in safety-critical automotive applications },
  booktitle = { Leveraging applications of formal methods, verification and validation: third international symposium, ISOIA 2008, Porto Sani, Greece, October 13 - 15, 2008; proceedings / Tiziana Margaria ... (ed.) },
  publisher = { Springer },
  pages = { 82-92 },
  series = { Communications in computer and information science },
  year = { 2008 },
  address = { Berlin [u.a] },
  doi = { 10.1007/978-3-540-88479-8_7 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-171611 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/98522 },
}
```

[DHH+08]

**Entwicklung einer Luftpfadregelung am Dieselmotor unter Berücksichtigung nichtfunktionaler Anforderungen**

Bibtex entry:

```bibtex
@inproceedings { DHH+08,
  author = { Drews, Peter and Hesseler, Frank and Hoffmann, Kai and Abel, }
  title = { Entwicklung einer Luftpfadregelung am Dieselmotor unter Berücksichtigung nichtfunktionaler Anforderungen },
}
```
Dirk and Schmitz, Dominik and Polzer, Andreas and Kowalewski, Stefan },
title = { Entwicklung einer Luftpfadregelung am Dieselmotor unter Ber"ucksichtigung nichtfunktionaler Anforderungen },
publisher = { VDI-Verl. },
pages = { 91-102 },
series = { VDI-Berichte },
year = { 2008 },
address = { D{"u}sseldorf },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-170548 },
cin = { 122810 / 416610 / 120000 },
url = { http://publications.rwth-aachen.de/record/97317 },

[DHS+08]


Entwicklungsprozess für eine Luftpfadregelung am Dieselmotor unter Berücksichtigung nichtfunktionaler Anforderungen

Bibtex entry :

@inproceedings { DHS+08,
  author = { Drews, Peter and He\{ss\}eler, Frank-Josef and Schmitz, Dominik and Polzer, Andreas and Kowalewski, Stefan and Abel, Dirk },
  title = { Entwicklungsprozess f{"u}r eine Luftpfadregelung am Dieselmotor unter Ber{"u}cksichtigung nichtfunktionaler Anforderungen },
  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 München (i.e. Dresden!) / Bernard B\{a\}ker (Hrsg.) u. 46 Mitautoren },
  publisher = { Expert-Verl. },
  pages = { 167-179 },

**Goanna: syntactic software model checking**

**Bibtex entry:**

```bibtex
@inbook {  HFS+08,
    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 },
    year = { 2008 },
    address = { Berlin [u.a.] },
    organization = { 6th International Symposium on Automated Technology for Verification and Analysis, Seoul (South Korea), 2008-10-20 - 2008-10-23 },
    doi = { 10.1007/978-3-540-88387-6_17 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-095469 },
}
```

Proving correctness of an efficient abstraction for interrupt handling

Bibtex entry:

@article { HSW+08,
author = { Herberich, Gerlind and Schlich, Bastian and Weise, Carsten
and Noll, Thomas },
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 },
cin = { 122810 / 121310 / 120000 },
url = { http://publications.rwth-aachen.de/record/130980 },
}

Nahtloser Entwurf sicherheitskritischer, eingebetteter Softwaresysteme mit abstrakten Zustandsmaschinen und Business Object Notation

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 },
}
Design-by-Contract for Embedded Systems

Bibtex entry:

@inproceedings { KLK08,
  author = { Kl"under, Daniel and Li, J. and Kowalewski, Stefan },
  title = { Design-by-Contract for Embedded Systems },
  booktitle = { International Symposium on Software Variability: a Programmers' Perspective (SVPP 2008) },
  year = { 2008 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-171804 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/98748 },
}

Modellierung und Analyse von Fahrzeugsoftware mit Abstract State Machines

Bibtex entry:

@inproceedings { Klu08,
  author = { Kl"under, Daniel },
  title = { Modellierung und Analyse von Fahrzeugsoftware mit Abstract State Machines },
  pages = { 225-228 },
}
title = {Modellierung und Analyse von Fahrzeugsoftware mit State Machines},
booktitle = {Modellierung 2008 : 12. - 14. M"{a}rz 2008, Berlin / Thomas K"{u}hne ... (Hrsg.)},
publisher = {Ges. f. Informatik},
pages = {225-228},
series = {GI-Edition : Proceedings},
year = {2008},
address = {Bonn:},
typ = {PUB:(DE-HGF)8},
reportid = {RWTH-CONV-171802},
cin = {122810 / 120000},
url = {http://subs.emis.de/LNI/Proceedings/Proceedings127/gi-proc-127-017.pdf},

[MHR+08]


Virtuelle Integration von vernetzten Funktionen in fr"{u}hen Entwicklungsphasen

Bibtex entry :

@inproceedings { MHR+08, 
author = {Michailidis, Alexander A. and Hedenetz, Bernd and Ringler, Thomas and Kowalewski, Stefan },
title = {Virtuelle Integration von vernetzten Funktionen in fr{"u}hen Entwicklungsphasen },
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},
address = {Renningen },}

**Delayed nondeterminism in model checking embedded systems assembly code**

**Bibtex entry:**

```bibtex
@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.]},
  doi = {10.1007/978-3-540-77966-7_16},
  typ = {PUB:(DE-HGF)7},
  reportid = {RWTH-CONV-095397},
  cin = {120000 / 122810 / 121310},
  url = {http://publications.rwth-aachen.de/record/83461},
}
```


**Motivating model checking for embedded systems software**
Challenges in embedded model checking: a simulator for the [mc]square model checker

Bibtex entry:

@inproceedings { RKH+08a,
    author = { Reinbacher, Thomas and Kramer, Michael and Horauer, Martin
    and Schlich, Bastian },
    title = { Challenges in embedded model checking: a simulator for the [mc]square model checker },
    publisher = { IEEE },
    pages = { 245-248 },
    year = { 2008 },
    address = { Piscataway, NJ },
}

**Empirical evaluations of safety critical embedded systems**

**Bibtex entry:**

```latex
@phdthesis {Sal08,
    author = {Salewski, Falk },
    othercontributors = {Kowalewski, Stefan },
    title = {Empirical evaluations of safety critical embedded systems },
    publisher = {Publikationsserver der RWTH Aachen University },
    pages = {X, 175 S. : graph. Darst. },
    series = {Aachener Informatik-Berichte },
    year = {2008 },
    address = {Aachen },
    typ = {PUB:(DE-HGF)11 },
    reportid = {RWTH-CONV-145380 },
    cin = {120000 / 122810 },
    url = {http://publications.rwth-aachen.de/record/459474/files/Salewski_Falk.pdf },
}
```


**Model checking of software for microcontrollers**

**Bibtex entry:**

```latex
@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 },
}
```

Bibtex entry :

```latex
@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 für softwarebasierte Regelungen },  
  publisher = { Ges. f\{\"u\}r Informatik },  
  pages = { 257-271 },  
  series = { GI-Edition : Proceedings },  
  year = { 2008 },  
  address = { Bonn },  
  typ = { PUB:(DE-HGF)8 },  
  reportid = { RWTH-CONV-170551 },  
  cin = { 120000 / 122810 / 121810 / 416610 },  
  url = { http://publications.rwth-aachen.de/record/97321 },
}
```

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

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

Bibtex entry:

```
@inproceedings { SGK08,
  author = { Schlich, Bastian and G"uckel, Dominique and Kowalewski, Stefan },
  title = { Modeling the environment of microcontrollers to tackle the state-explosion problem in model checking },
  booktitle = { 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.) },
  publisher = { L Harmattan },
  year = { 2008 },
  address = { Budapest },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-171805 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/98749 },
}
```

[SK08]

**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 },
}
```

IEEE },
publisher = { IEEE },
pages = { 141-148 },
year = { 2008 },
address = { Piscataway, NJ },
doi = { 10.1109/SIES.2008.4577692 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-171803 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/98747 },
}

[SK08a]
PDF BIB

**Hardware/software design considerations for automotive embedded systems**

Bibtex entry :

@article { SK08a,
    author = { Salewski, Falk and Kowalewski, Stefan },
    title = { Hardware/software design considerations for automotive embedded systems },
    journal = { IEEE transactions on industrial informatics },
    publisher = { IEEE },
    pages = { 156-163 },
    volume = { 4 },
    number = { 3 },
    year = { 2008 },
    address = { New York, NY },
    issn = { 1551-3203 },
    doi = { 10.1109/TII.2008.2002919 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-012502 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/131366 },
}

[SLK08]
PDF BIB

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

**Bibtex entry:**

```bibtex
@inbook { SLK08,
    author = { Schlich, Bastian and L"oll, Jann and Kowalewski, Stefan },
    title = { Application of static analyses for state space reduction 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. ] },
    doi = { 10.1007/978-3-540-79707-4_4 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-095398 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/83462 },
}
```

[ST08]

**Systematic considerations for the application of FPGAs in industrial applications**

**Bibtex entry:**

```bibtex
@inproceedings { ST08,
    author = { Salewski, Falk and Taylor, Adam },
    title = { Systematic considerations for the application of FPGAs in industrial applications },
    publisher = { IEEE },
    pages = { 2009-2015 },
    year = { 2008 },
}
```

**Empirical studies for the application of agile methods to embedded systems**

Bibtex entry:

```
@phdthesis { Wil08,
    author = { Wilking, Dirk },
    othercontributors = { Kowalewski, Stefan },
    title = { Empirical studies for the application of agile methods to embedded systems },
    publisher = { Fachgruppe Informatik, RWTH Aachen },
    pages = { XIV, 157 S. : graph. Darst. },
    series = { Aachener Informatik-Berichte },
    year = { 2008 },
    address = { Aachen },
    typ = { PUB:(DE-HGF)11 },
    reportid = { RWTH-CONV-114604 },
    cin = { 122810 / 120000 },
}
```


**Measuring the human factor with the Rasch Model**

Bibtex entry:

```
@inproceedings { WSK08,
    author = { Wilking, Dirk and Schilli, David and Kowalewski, Stefan
```

**Significance of the automation engineering**

**Bibtex entry:**

```latex
@article { BKK07,
    author = { Bettenhausen, Kurt D. and Kowalewski, Stefan and Kugi, Andreas },
    title = { Significance of the automation engineering },
    journal = { Automatisierungstechnik : at },
    publisher = { Oldenbourg },
    pages = { 269-271 },
    volume = { 55 },
    number = { 5 },
    year = { 2007 },
    address = { M{"u}nchen },
    issn = { 0178-2312 },
    doi = { 10.1524/auto.2007.55.5.269 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-070610 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/195234 },
}
```

Chen, X., Salewski, F., Kowalewski, S., and Spisic, K., "Concept and prototyping of a fault

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

**Bibtex entry:**

```latex
@inbook { CSK+07,
  author = { Chen, Xi and Salewski, Falk and Kowalewski, Stefan and Spisic, Kresimir },
  title = { Concept and prototyping of a fault management framework for automotive safety relevant systems },
  booktitle = { Moderne Elektronik im Kraftfahrzeug II : Systeme von morgen - technische Innovationen und Entwicklungstrends ; und 19 Tabellen / Hrsg.: Bernard B{"a}ker },
  publisher = { expert Verl. },
  volume = { 82 },
  series = { Haus der Technik - Fachbuchreihe },
  year = { 2007 },
  address = { Renningen },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-101338 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/89875 },
}
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[KK07]

PDF


**Scenario-based evaluation of abstract state machines**

**Bibtex entry:**

```latex
@inproceedings { KK07,
  author = { Kl{"u}nder, Daniel and Kowalewski, Stefan },
  title = { Scenario-based evaluation of abstract state machines },
  booktitle = { The 14th International ASM Workshop (ASM'07) / (Ed.) Prinz, Andreas },
  year = { 2007 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-188521 },
  cin = { 122810 / 120000 },
  url = { http://ikt.hia.no/asm07/Proceedings/Papers/Klunder_Kowalewski.pdf },
}
```

**Achieving highly reliable embedded software : an empirical evaluation of different approaches**

Bibtex entry:

```latex
@inbook { SK07,  
    author = { Salewski, Falk and Kowalewski, Stefan },  
    title = { Achieving highly reliable embedded software : an empirical evaluation of different approaches },  
    booktitle = { Computer safety, reliability, and security : 26th International Conference, SAFECOMP 2007, Nuremberg, Germany, September 18-21, 2007 ; proceedings / Francesca Saglietti ; Norbert Oster (Eds.) },  
    publisher = { Springer },  
    pages = { 270-275 },  
    volume = { 4680 },  
    series = { Lecture notes in computer science },  
    year = { 2007 },  
    address = { Berlin [u.a.] },  
    doi = { 10.1007/978-3-540-75101-4_26 },  
    reportid = { RWTH-CONV-101607 },  
    cin = { 122810 / 120000 },  
    url = { http://publications.rwth-aachen.de/record/90177 },
}
```


Bibtex entry:

```latex
@inproceedings { SK07a,  
    author = { Salewski, Falk and Kowalewski, Stefan },  
```
The effect of hardware platform selection on safety-critical software in embedded systems: empirical evaluations

Bibtex entry:

@inproceedings { SK07b,
author = { Salewski, Falk and Kowalewski, Stefan },
title = { The effect of hardware platform selection on safety-critical software in embedded systems: empirical evaluations },
publisher = { IEEE },
pages = { 78-85 },
year = { 2007 },
address = { Piscataway, NJ },
doi = { 10.1109/SIES.2007.4297320 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-188516 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/117075 },
}
systematic teaching approach", *ACM SIGBED review*, vol. 4, iss. 1, pp. 27-35, 2007

**Hardware platform design decisions in embedded systems : a systematic teaching approach**

Bibtex entry :

```latex
@article { SK07c,
    author = { Salewski, Falk and Kowalewski, Stefan },
    title = { Hardware platform design decisions in embedded systems : a systematic teaching approach },
    journal = { ACM SIGBED review },
    publisher = { Association for Computing Machinery },
    pages = { 27-35 },
    volume = { 4 },
    number = { 1 },
    year = { 2007 },
    address = { New York, NY },
    issn = { 1551-3688 },
    doi = { 10.1145/1217809.1217814 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-038217 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/160044 },
}
```

[SK07d]

PDFBIB


**An extendable architecture for model checking hardware-specific automotive microcontroller code**

Bibtex entry :

```latex
@inproceedings { SK07d,
    author = { Schlich, Bastian and Kowalewski, Stefan },
    title = { An extendable architecture for model checking hardware-specific automotive microcontroller code },
```

https://embedded.rwth-aachen.de/ Printed on 2019/07/04 01:20
Géza Tarnai (Eds.),
publisher = { GZVB },
pages = { 202-212 },
year = { 2007 },
address = { Braunschweig },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-188508 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/117067 },
}

[SSK07]
PDFBIB

Applying model checking to an automotive microcontroller application

Bibtex entry :

@inproceedings { SSK07,
author = { Schlich, Bastian and Salewski, Falk and Kowalewski, Stefan },
title = { Applying model checking to an automotive microcontroller application },
publisher = { IEEE },
pages = { 209-216 },
year = { 2007 },
address = { Piscataway, NJ },
doi = { 10.1109/SIES.2007.4297337 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-188512 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/117071 },
}

[ST07]
PDFBIB

**Fault handling in FPGAs and microcontrollers in safety-critical embedded applications: a comparative survey**

**Bibtex entry:**

```bibtex
@inproceedings { ST07,
    author = { Salewski, Falk and Taylor, Adam },
    title = { Fault handling in FPGAs and microcontrollers in safety-critical embedded applications: a comparative survey },
    publisher = { IEEE Computer Soc. },
    pages = { 124-131 },
    year = { 2007 },
    address = { Los Alamitos, Calif. [u.a.] },
    doi = { 10.1109/DSD.2007.4341459 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-188509 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/117068 },
}
```

**[WK07]**

**Analyzing software engineering processes on source code level**

**Bibtex entry:**

```bibtex
@inproceedings { WK07,
    author = { Wilking, Dirk and Kowalewski, Stefan },
    title = { Analyzing software engineering processes on source code level },
    booktitle = { New trends in software methodologies, tools and techniques : [proceedings of the sixth SoMeT 07] / ed. by Hamido Fujita ... },
    publisher = { IOS Press },
    year = { 2007 },
    address = { Amsterdam [u.a.] },
    pages = { 305-314 },
}
```

**An empirical evaluation of refactoring**

Bibtex entry:

```bib
@article {WKK07,
    author = {Wilking, Dirk and Khan, Umar Farooq and Kowalewski, Stefan },
    title = {An empirical evaluation of refactoring},
    journal = {e-informatica : software engineering journal},
    publisher = {Oficyna Wydawn. Politechn.},
    pages = {29-44},
    volume = {1},
    number = {1},
    year = {2007},
    address = {Wroclaw},
    issn = {1897-7979},
    typ = {PUB:(DE-HGF)16},
    reportid = {RWTH-CONV-031477},
    cin = {120000 / 122810},
    url = {http://publications.rwth-aachen.de/record/153013},
}
```


**An evaluation of two recent reachability analysis tools for hybrid systems**
Bibtex entry:

@inproceedings { BK06,
author = { Ben Makhlouf, Ibtissem and Kowalewski, Stefan },
title = { An evaluation of two recent reachability analysis tools for hybrid systems },
booktitle = { Preprints / ADHS '06, 2nd IFAC Conference on Analysis and Design of Hybrid Systems : Alghero, Italy, June 7 - 9, 2006 / IFAC, International Federation of Automatic Control; DIEE, Dipartimento di Ingegneria Elettrica ed Elettronica, Università di Cagliari. Ed.: C. G. Cassandras ... },
pages = { 377-382 },
year = { 2006 },
address = { Alghero },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-188518 },
cin = { 122810 / 120000 },
url = { http://www.ifac-papersonline.net/cgi-bin/links/page.cgi?g=Detailed/30190.html;d=1 },
}

[Klu06]

PDFBIB


An approach to resolving contradictions in software architecture design

Bibtex entry:

@inproceedings { Klu06,
author = { Klünder, Daniel },
title = { An approach to resolving contradictions in software architecture design },
booktitle = { Perspectives in software architecture quality : short papers of the 2nd International Conference on the Quality of Software Architectures (QoSA 2006), June 27 - 29, 2006, Västeras, Sweden / Hrsg.: Christine Hofmeister ... Universität Karlsruhe, Fakultät für Informatik },
publisher = { Univ., Fak. für Informatik, Bibliothek },
series = { Interner Bericht / Universität Karlsruhe, },

TRIZ for Software Architecture

Bibtex entry:

@inproceedings { Klu06a,
    author = { Kl{"u}nder, Daniel },
    title = { TRIZ for Software Architecture },
    booktitle = { ETRIA TRIZ future 06: proceedings of the ETRIA TRIZ Future Conference 2006; creativity, quality and efficiency building an innovation culture; held in Kortrijk, Belgium, October 9th - 11th, 2006 / ETRIA; CREAX; Katholieke Universiteit Leuven. Ed.: Joost R. Duflou .... - Vol. 1-2 },
    publisher = { CREAX },
    year = { 2006 },
    address = { Leper, Belgium },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-183687 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/111738 },
}

An approach to resolving contradictions in software architecture design

Bibtex entry:

@inproceedings {Klu06b,
    author = {Kl{"u}nder, Daniel},
    title = {An approach to resolving contradictions in software architecture design},
    booktitle = {Perspectives in software architecture quality : short papers of the 2nd International Conference on the Quality of Software Architectures (QoSA 2006), June 27 - 29, 2006, V{"a}steras, Sweden / Hrsg.: Christine Hofmeister ... Universit{"a}t Karlsruhe, Fakult{"a}t f{"u}r Informatik },
    publisher = { Univ., Fak. f{"u}r Informatik, Bibliothek },
    pages = { 59-63 },
    series = { Interner Bericht / Universit{"a}t Karlsruhe, Fakult{"a}t f{"u}r Informatik },
    year = { 2006 },
    address = { Karlsruhe },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-188519 },
    cin = { 122810 / 120000 },
    url = { http://www.ubka.uni-karlsruhe.de/cgi-bin/psview?document=ira/2006/10 },
}

[MK06]


Coping with the Variability of Hybrid Models for Automotive Software

Bibtex entry:

@inproceedings {MK06,
    author = {Mitsching, Ralf and Kowalewski, Stefan},
    title = {Coping with the Variability of Hybrid Models for Automotive Software},
    booktitle = {Proceedings / HYCON & CEmACS Workshop on Automotive Systems and Control, Lund, June 1 2, 2006 },
    publisher = { University Lund, Dept. Automatic Control },
}
Eine Evaluationssuite zur schnellen Bewertung von Matlab/Simulink-Modelcheckern

Bibtex entry:

@inproceedings { PSK06,
  author = { Palczynski, Jacob and Schlich, Bastian and Kowalewski, Stefan },
  title = { Eine Evaluationssuite zur schnellen Bewertung von Matlab/Simulink-Modelcheckern },
  publisher = { Ges. f"{u}r Informatik },
  pages = { 751-755 },
  series = { GI-Edition : Proceedings },
  year = { 2006 },
  address = { Bonn },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-183701 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/111754 },
}
Exploring the differences of FPGAs and microcontrollers for their use in safety-critical embedded applications

Bibtex entry :

@inproceedings { SK06,
author = { Salewski, Falk and Kowalewski, Stefan },
title = { Exploring the differences of FPGAs and microcontrollers for their use in safety-critical embedded applications },
publisher = { IEEE Service Center },
year = { 2006 },
address = { Piscataway, NJ },
doi = { 10.1109/IES.2006.357483 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-185313 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/113553 },
}

[SK06a] PDF


[mc]square: A model checker for microcontroller code

Bibtex entry :

@inproceedings { SK06a,
author = { Schlich, Bastian and Kowalewski, Stefan },
title = { [mc]square: A model checker for microcontroller code },
publisher = { IEEE Computer Society Press },
pages = { 466-473 },
year = { 2006 },
address = { Paphos, Cyprus },
doi = { 10.1109/ISoLA.2006.62 },
typ = { PUB:(DE-HGF)8 },
}
Model checking software for microcontrollers

Bibtex entry:

@techreport {SRW+06,
  author = {Schlich, Bastian and Rohrbach, Michael and Weber, Michael and Kowalewski, Stefan},
  title = {Model checking software for microcontrollers},
  pages = {33 Bl. : graph. Darst.},
  volume = {2006,11},
  number = {AIB-2006-11},
  series = {Aachener Informatik-Berichte},
  year = {2006},
  address = {Aachen},
  typ = {PUB:(DE-HGF)29},
  reportid = {RWTH-CONV-008343},
  cin = {122810 / 120000},
}

The effect of diverse hardware platforms on n-version programming in embedded systems: an empirical evaluation

Bibtex entry:

@inproceedings {SWK06,
  author = {Salewski, Falk and Wilking, Dirk and Kowalewski, Stefan},
  title = {The effect of diverse hardware platforms on n-version programming in embedded systems: an empirical evaluation},
  booktitle = {Proc. 3rd Workshop on Dependable Embedded Systems: the workshop was held on October 1st, 2006 at the University of Leeds; Final Proceedings - November 16th / Ed. by Raimund Kirner ....},
  year = {2006},
  address = {Vienna, Vienna University of Technology: Technical Report, University of Technology, Real-Time Systems Group, pp. 61-66.},
}


The effect of diverse hardware platforms on n-version programming in embedded systems: an empirical evaluation


Architekturen für die Funktionsintegration

Bibtex entry:

@inproceedings {BCK+05,  
author = {Bollig, Alexander and Chevalier, Wolf and Kowalewski, Stefan and Florissen, G.},  
title = {Architekturen für die Funktionsintegration},  
publisher = {Expert-Verl.},  
year = {2005},  
address = {Renningen},  
}
Architekturen für die Funktionsintegration

@inproceedings { BKC+05,
    author = { Bollig, Alexander and Kowalewski, Stefan and Chevalier, Wolf 
        and Florissen, G. },
    title = { Architekturen für die Funktionsintegration },
    booktitle = { 14. Aachener Kolloquium Fahrzeug- und Motorentechnik 
        Automobile and Engine Technology / [Hrsg.: VKA, Lehrstuhl für 
        Verbrennungskraftmaschinen Aachen ...] Wiss. Leitung: 
        Stefan Pischinger .... - Bd. 1. 05. Oktober 2005, Aachen, 2005, 
        ika, pp. 551-562 },
    publisher = { ika },
    pages = { 551-562 },
    year = { 2005 },
    address = { Aachen },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-182116 },
    cin = { 416610 / 122810 },
    url = { http://publications.rwth-aachen.de/record/110043 },
}

Supporting empathy in online learning with artificial expressions

@article { LKT05,
    author = { Lyons, Michael J. and Klünder, Daniel and Tetsutani, Nobuji },
    title = { Supporting empathy in online learning with artificial 
        expressions },

Zuverlässigkeitssysteme für Eingebettete Systeme

Bibtex entry:

@inproceedings{SK05,
  author = {Salewski, Falk and Kowalewski, Stefan},
  title = {Zuverlässigkeitsmechanismen für Eingebettete Systeme},
  publisher = {Shaker},
  pages = {39-51},
  series = {Ada-Deutschland-Tagung ...},
  year = {2005},
  address = {Aachen},
  typ = {PUB:(DE-HGF)8},
  reportid = {RWTH-CONV-182396},
  cin = {122810 / 120000},
  url = {http://publications.rwth-aachen.de/record/110357},
}

[SK05a]

Zuverlässigkeitssysteme für Eingebettete Systeme:

Kurzfassung des Vortrags vom Workshop Zuverlässigkeit in eingebetteten Systemen,
Zuverlässigkeitsmechanismen für Eingebettete Systeme: Kurzfassung des Vortrags vom Workshop Zuverlässigkeit in eingebetteten Systemen

Bibtex entry:

@article { SK05a,
  author = { Salewski, Falk and Kowalewski, Stefan },
  title = { Zuverlässigkeit für Eingebettete Systeme: Kurzfassung des Vortrags vom Workshop Zuverlässigkeit in eingebetteten Systemen },
  journal = { Softwaretechnik-Trends },
  publisher = { Köllen },
  volume = { 25 },
  number = { 4 },
  year = { 2005 },
  address = { Bonn },
  issn = { 0720-8928 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-029262 },
  cin = { 122810 / 120000 },
  url = { http://pi.informatik.uni-siegen.de/stt/25_4/01_Fachgruppenberichte/Ada/03_Salewski_Kowalewski.pdf },
}

[SK05b]

PDF BIB


Model checking C source code for embedded systems

Bibtex entry:

@techreport { SK05b,
  author = { Schlich, Bastian and Kowalewski, Stefan },
  title = { Model checking C source code for embedded systems },
  booktitle = { IEEE/NASA Workshop on Leveraging Applications of Formal Methods, Verification, and Validation: IEEE/NASA ISoLA 2005; proceedings of a workshop held at the Loyola College Graduate Center, Columbia, Maryland, USA, 23 - 24 September 2005; with a special track on the theme of formal methods in human and robotic space exploration / National Aeronautics and Space Administration, Goddard Space Flight

Lehrstuhl Informatik 11 - Embedded Software Laboratory - https://embedded.rwth-aachen.de/
Diverse hardware platforms in embedded systems lab courses: A way to teach the differences

Bibtex entry:

@article { SWK05,  
author = { Salewski, Falk and Wilking, Dirk and Kowalewski, Stefan },  
title = { Diverse hardware platforms in embedded systems lab courses: A way to teach the differences },  
journal = { ACM SIGBED review },  
publisher = { Association for Computing Machinery },  
pages = { 70-74 },  
volume = { 2 },  
number = { 4 },  
year = { 2005 },  
address = { New York, NY },  
issn = { 1551-3688 },  
doi = { 10.1145/1121812.1121825 },  
typ = { PUB:(DE-HGF)16 },  
reportid = { RWTH-CONV-038218 },  
cin = { 122810 / 120000 },  
url = { http://publications.rwth-aachen.de/record/160045 },  
}

Agile methods for embedded systems

Bibtex entry:

@inbook { WK05,
author = { Wilking, Dirk and Kowalewski, Stefan },
title = { Agile methods for embedded systems },
booktitle = { Extreme programming and agile processes in software engineering : 6th international conference, XP 2005, Sheffield, UK, June 18 - 23, 2005 ; proceedings / Hubert Baumeister ... (ed.) },
publisher = { Springer },
pages = { 319-320 },
volume = { 3556 },
series = { Lecture notes in computer science },
year = { 2005 },
address = { Berlin [u.a.] },
doi = { 10.1007/11499053_66 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-099898 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/88301 },
}

[WR05]


Realtime Object Recognition Using Decision Tree Learning

Bibtex entry:

@inproceedings { WR05,
author = { Wilking, Dirk and Röfer, Thomas },
title = { Realtime Object Recognition Using Decision Tree Learning },
booktitle = { RoboCup 2004: Robot Soccer World Cup VIII / Daniele Nardi ... (ed.) },
publisher = { Springer },
pages = { 556-563 },
series = { Lecture notes in computer science : Lecture notes in artificial intelligence },
year = { 2005 },
address = { Heidelberg [u.a.] },
doi = { 10.1007/978-3-540-32256-6_52 },
typ = { PUB:(DE-HGF)8 },
}

C Model Checker: Eine Übersicht

Bibtex entry:

```latex
@inbook { SK04,
  author = { Schlich, Bastian and Kowalewski, Stefan },
  title = { C Model Checker: Eine "{U}"bersicht },
  year = { 2004 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-101608 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/90178 },
}
```


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

Bibtex entry:

```latex
@inproceedings { SG94,
  author = { Sedlacek, Gerhard and Grotmann, Dietmar },
  title = { Stability aspects for hollow section columns, beams and beam-columns },
  booktitle = { Tubular structures VI: proceedings sixth International Symposium on Tubular Structures, Melbourne, Australia, 14 - 16 December 1994 / ed. by Paul Grundy ... },
  publisher = { Balkema },
  pages = { 151-158 },
  year = { 1994 },
  address = { Rotterdam [u.a.] },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-193706 },
  cin = { 311710 / 122810533000-2 },
}
```
http://publications.embedded.rwth-aachen.de/browse

From: https://embedded.rwth-aachen.de/ - Lehrstuhl Informatik 11 - Embedded Software Laboratory

Permanent link: https://embedded.rwth-aachen.de/doku.php?id=forschung:publikationen

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