Publications

[BBF+20]
PDF BIB
Buglowski, M., Bleilevens, C., Fabry, G., Kowalewski, S., and Stollenwerk, A., "Flussgesteuerte pH-Regulierung in einem automatisierten Nierenperfusionssystem", in Proc. 1, 2020, Proceedings on Automation in Medical Engineering.

Flussgesteuerte pH-Regulierung in einem automatisierten Nierenperfusionssystem

Bibtex entry :

```latex
@inproceedings { BBF+20,
  author = { Buglowski, Mateusz and Bleilevens, Christian and Fabry, Gregor and Kowalewski, Stefan and Stollenwerk, Andre },
  title = { Flussgesteuerte pH-Regulierung in einem automatisierten Nierenperfusionssystem },
  booktitle = { 1 },
  publisher = { Proceedings on Automation in Medical Engineering },
  year = { 2020 },
  organization = { Automation in Medical Engineering, L{"u}beck (Germany),
  2020-03-02 - 2020-03-03 },
  doi = { 10.18416/AUTOMED.2020 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2020-02624 },
  cin = { 122810 / 120000 },
  url = { https://www.journals.infinite-science.de/index.php/automed/article/view/329/188 },
}
```

[GSB+20]
PDF BIB

Formale Methoden für rekonfigurierbare cyber-physische Systeme in der Produktion

Bibtex entry :

```latex
@article { GSB+20,
  author = { Grochowski, Mateusz and Simon, Hartmut and Bohlender, Daniel and Kowalewski, Stefan and Löcklin, Andreas and Müller, Tobias and Jazdi, Nabil and Zeller, Andreas and Weyrich, Martin },
  title = { Formale Methoden für rekonfigurierbare cyber-physische Systeme in der Produktion },
  journal = { Automatisierungstechnik },
  volume = { 68 },
  number = { 1 },
  pages = { 3-14 },
  year = { 2020 },
  doi = { 10.3813/AT.2020-02202 },
  typ = { PUB:(DE-HGF)7 },
}
```

**An Embedded Graduate Lab Course with Spirit**

**Bibtex entry:**

```latex
@article { SCE+20,
    author = { Stollenwerk, André and Chamberlain, Roger and Edin Grimheden, Martin and Taha, Walid },
    title = { An Embedded Graduate Lab Course with Spirit },
    journal = { Lecture notes in computer science },
    publisher = { Springer },
    pages = { 247-263 },
    volume = { 11971 },
    year = { 2020 },
    address = { Heidelberg },
    issn = { 0302-9743 },
    organization = { Workshop on Embedded Systems and Cyber-Physical Systems Education, New York (USA) },
    doi = { 10.1007/978-3-030-41131-2_12 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-2020-02343 },
}```

A Remote Test Environment for a Large-Scale Microcontroller Laboratory Course

Bibtex entry:

```bibtex
@inproceedings { SRT+20,
    author = { Smieschek, Manfred and Rakel, Stefan and Th"onnessen, David and Derks, Andreas and Stollenwerk, Andr"e and Kowalewski, Stefan },
    title = { A Remote Test Environment for a Large-Scale Microcontroller Laboratory Course },
    publisher = { Springer },
    pages = { 231-246 },
    series = { Lecture Notes in Computer Science },
    year = { 2020 },
    address = { Cham },
    doi = { 10.1007/978-3-030-41131-2_11 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2020-02344 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/783169/files/Remote%20Pool%20Final.pdf }
}
```

On Explainability and its Characterization

Bibtex entry:

@article { BCK+19,  
    author = { Bohlender, Dimitri and Chiyah Garcia, Francisco J. and K{"o}hl, Maximilian and Menghi, Claudio and Wortmann, Andreas },  
    title = { On Explainability and its Characterization },  
    journal = { Explainable Software for Cyber-Physical Systems (ES4CPS) },  
    reportid = { RWTH-2020-01625 },  
    year = { 2019 },  
    doi = { 10.18154/RWTH-2020-01625 },  
    typ = { PUB:(DE-HGF)25 },  
    pages = { 4-7 },  
}

[BK19] 
PDFBIB

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

Leveraging Horn clause solving for compositional verification of PLC software

Bibtex entry:

@article { BK19,  
    author = { Bohlender, Dimitri and Kowalewski, Stefan },  
    title = { Leveraging Horn clause solving for compositional verification of PLC software },  
    journal = { Discrete event dynamic systems },  
    publisher = { Springer Science + Business Media B.V },  
    pages = { 1-24 },  
    volume = { 30 },  
    year = { 2019 },  
    address = { Dordrecht [u.a.] },  
    issn = { 1573-7594 },  
    doi = { 10.1007/s10626-019-00296-8 },  
    typ = { PUB:(DE-HGF)16 },
}
Towards a Characterization of Explainable Systems

Bibtex entry:

@article {BK19a,
    author = {Bohlender, Dimitri and Köhl, Maximilian A.},
    title = {Towards a Characterization of Explainable Systems},
    year = {2019},
    typ = {PUB:(DE-HGF)25},
    reportid = {RWTH-2020-01624},
    cin = {122810 / 120000},
}

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

Bibtex entry:

@phdthesis {Der19,
    author = { Dernehl, Christian Michael },
    othercontributors = { Kowalewski, Stefan and Moormann, Dieter },
    title = {Verification of embedded software models by combining abstract interpretation, symbolic execution and stability analysis },
    publisher = { RWTH Aachen University, Department of Computer Science },
    school = { RWTH Aachen University },
    pages = { 1 Online-Ressource (xxiii, 156 Seiten) : Illustrationen, Diagramme },
    series = { Aachener Informatik-Berichte },
    year = {2019},
    address = { Aachen },
    doi = {10.18154/RWTH-2019-05178},
    typ = {PUB:(DE-HGF)11},
}
Cold Preflush of Porcine Kidney Grafts Prior to Normothermic Machine Perfusion Aggravates Ischemia Reperfusion Injury

Bibtex entry:

@article {FDG+19,
  author = {Fabry, Gregor and Doorschodt, Benedict M. and Grzanna, Tim and Boor, Peter and Elliott, Aaron and Stollenwerk, André and Tolba, René H. and Rossaint, Rolf and Bleilevens, Christian },
  title = {Cold Preflush of Porcine Kidney Grafts Prior to Normothermic Machine Perfusion Aggravates Ischemia Reperfusion Injury },
  journal = {Scientific reports},
  publisher = {Macmillan Publishers Limited, part of Springer Nature},
  pages = {9 Seiten },
  volume = {9},
  year = {2019},
  address = {[London] },
  issn = {2045-2322 },
  doi = {10.18154/RWTH-2019-08778 },
  typ = {PUB:(DE-HGF)16 },
  reportid = {RWTH-2019-08778 },
  cin = {122810 / 120000531020-3533000-3533000-2533540-2 / 9770208 / 979029527000-2 },
  url = {http://publications.rwth-aachen.de/record/767376/files/767376.pdf },
}

Applying runtime monitoring to the industrial internet of things

Bibtex entry:

@proceedings { GKB+19,
    editor = { Grochowski, Marco and Kowalewski, Stefan and Buchsbaum, Melanie and Brecher, Christian },
    title = { Applying runtime monitoring to the industrial internet of things },
    publisher = { IEEE },
    year = { 2019 },
    doi = { 10.1109/ETFA.2019.8869447 },
    typ = { PUB:(DE-HGF)26 },
    reportid = { RWTH-2019-09795 },
    cin = { 122810 / 080067 / 417200 / 120000 },
}

[GKB+19a]

Applying Passive Testing to an Industrial Internet of Things Plant

Bibtex entry:

@proceedings { GKB+19a,
    editor = { Grochowski, Marco and Kowalewski, Stefan and Buchsbaum, Melanie Sarah Katharina and Brecher, Christian },
    title = { Applying Passive Testing to an Industrial Internet of Things Plant },
    year = { 2019 },
    typ = { PUB:(DE-HGF)3 },
    reportid = { RWTH-2019-11004 },
    cin = { 122810 / 417200 / 080067 / 120000 },

**Runtime supervision of PLC programs using discrete-event systems**

**Bibtex entry:**

```latex
@phdthesis {  Gob19,
    author = { G"obe, Florian },
    othercontributors = { Kowalewski, Stefan and Lunze, Jan },
    title = { Runtime supervision of PLC programs using discrete-event systems },
    publisher = { RWTH Aachen University, Department of Computer Science },
    school = { RWTH Aachen University },
    pages = { 1 Online-Ressource (xi, 170 Seiten) : Illustrationen, Diagramme },
    series = { Aachener Informatik-Berichte },
    year = { 2019 },
    address = { Aachen },
    doi = { 10.18154/RWTH-2019-11022 },
    typ = { PUB:(DE-HGF)11 },
    reportid = { RWTH-2019-11022 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/773311/files/773311.pdf },
}
```


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

**Bibtex entry:**

```latex
@phdthesis {  Gro19,
    author = { Grobosch, Sebastian },
    othercontributors = { Kowalewski, Stefan and Engell, Sebastian },
    title = { Formale Methoden für die Entwicklung von eingebetteter Software in kleinen und mittleren Unternehmen },
    address = { Aachen },
    doi = { 10.18154/RWTH-2019-11022 },
    typ = { PUB:(DE-HGF)11 },
    reportid = { RWTH-2019-11022 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/773311/files/773311.pdf },
}
```

**A Dynamic Service-Oriented Software Architecture for Highly Automated Vehicles**

**Bibtex entry :**

```latex
@inproceedings { KAK+19,
  author = { Kampmann, Alexandru and Alrifaee, Bassam and Kohout, Markus
    and W"ustenberg, Andreas and Woopen, Timo and Nolte, Marcus and Eckstein, Lutz and Kowalewski, Stefan },
  title = { A Dynamic Service-Oriented Software Architecture for Highly Automated Vehicles },
  booktitle = { 2019 IEEE Intelligent Transportation Systems Conference
    (ITSC) : [Proceedings] },
  publisher = { IEEE },
  pages = { 2101-2108 },
  year = { 2019 },
  organization = { IEEE Intelligent Transportation Systems Conference
  doi = { 10.1109/ITSC.2019.8916841 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2019-11214 },
}

**Explainability as a Non-Functional Requirement**

Bibtex entry:

```latex
@inproceedings { KBL+19,
author = { Köhl, Maximilian A. and Baum, Kevin and Langer, Markus and Oster, Daniel and Speith, Timo and Bohlender, Dimitri },
title = { Explainability as a Non-Functional Requirement },
booktitle = { 2019 IEEE 27th International Requirements Engineering Conference : 23-27 September 2019, Jeju Island, South Korea : proceedings / editors: Daniela Damian and Anna Perini (Program Chairs), Seok-Won Lee (General Chair) },
publisher = { IEEE },
pages = { 363-368 },
year = { 2019 },
address = { Piscataway, JN },
organization = { 2019 IEEE 27th International Requirements Engineering Conference, Jeju Island (South Korea), 2019-09-23 - 2019-09-27 },
doi = { 10.1109/RE.2019.00046 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2019-12206 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/775403 },
}
```

Fault Identification in a Blood Pump Using Neural Networks

Bibtex entry:

@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 },
}

[KKM+19]


Distributed Model Predictive Pose Control of Multiple Nonholonomic Vehicles

Bibtex entry:

@inproceedings { KKM+19,
  author = { Kloock, Maximilian and Kragl, Ludwig and Maczijewski, Janis and Alrifaee, Bassam and Kowalewski, Stefan },

title = { Distributed Model Predictive Pose Control of Multiple Nonholonomic Vehicles },
booktitle = { 2019 IEEE Intelligent Vehicles Symposium (IV) : [Proceedings] },
publisher = { IEEE },
pages = { 1620-1625 },
year = { 2019 },
address = { [Piscataway, NJ] },
organization = { 2019 IEEE Intelligent Vehicles Symposium (IV), Paris (France), 2019-06-09 - 2019-06-12 },
doi = { 10.1109/IVS.2019.8813980 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2019-08197 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/766610 },

[KNR+19]

PDF

BIB


UNICARagil - New architectures for disruptive vehicle concepts

Bibtex entry :

@inproceedings { KNR+19,
  author = { Keihoff, Dan and Niedballa, Dennis and Reuss, Hans-Christian and Buchholz, Michael and Gies, Fabian and Dietmayer, Klaus and Lauer, Martin and Stiller, Christoph and Ackermann, Stefan and Winner, Hermann and Kampmann, Alexandru and Alrifaee, Bassam and Kowalewski, Stefan and Klein, Fabian and Struth, Michael Manfred and Woopen, Timo and Eckstein, Lutz },
  title = { UNICARagil - New architectures for disruptive vehicle concepts },
  publisher = { Springer Fachmedien Wiesbaden },
  pages = { 830-842 },
  series = { Proceedings Springer eBooks },
  doi = { 10.1109/IVS.2019.8813980 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2019-08197 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/766610 },
}

**Networked Model Predictive Vehicle Race Control**

**Bibtex entry:**

```bibtex
@inproceedings {KSB+19,
    author = {Kloock, Maximilian Martin and Scheffe, Patrick and Botz, Lukas and Maczijewski, Janis and Alrifaee, Bassam and Kowalewski, Stefan},
    title = {Networked Model Predictive Vehicle Race Control},
    booktitle = {2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings]},
    publisher = {IEEE},
    pages = {1552-1557},
    year = {2019},
    doi = {10.1109/ITSC.2019.8917222},
    typ = {PUB:(DE-HGF)7},
    reportid = {RWTH-2019-11241},
    cin = {122810 / 120000 / 414110},
    url = {http://publications.rwth-aachen.de/record/773727},
}
```

Distributed Model Predictive Intersection Control of Multiple Vehicles

Bibtex entry:

@inproceedings { KSM+19,  
    author = { Kloock, Maximilian Martin and Scheffe, Patrick and Marquardt, Sascha and Maczijewski, Janis and Alrifae, Bassam and Kowalewski, Stefan },  
    title = { Distributed Model Predictive Intersection Control of Multiple Vehicles },  
    booktitle = { 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings] },  
    publisher = { IEEE },  
    pages = { 8917117, 1735-1740 },  
    year = { 2019 },  
    address = { Piscataway, NJ },  
    doi = { 10.1109/ITSC.2019.8917117 },  
    typ = { PUB:(DE-HGF)7 },  
    reportid = { RWTH-2019-11242 },  
    cin = { 122810 / 120000 },  
    url = { http://publications.rwth-aachen.de/record/773728 },
}

[KTF19]

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

Bibtex entry:

@inproceedings { KTF19,  
    author = { Khan, Adnan and Thönnessen, David and Fabian, Martin },  
    title = { On-the-fly conformance testing of safety PLC code using QuickCheck },  
    pages = { 419-424 },  
    year = { 2019 },
}

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

Bibtex entry:

@inproceedings { KWA+19,
  author = { Kampmann, Alexandru and W"ustenberg, Andreas and Alrifaee, Bassam and Kowalewski, Stefan },
  title = { A Portable Implementation of the Real-Time Publish-Subscribe Protocol for Microcontrollers in Distributed Robotic Applications },
  booktitle = { 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings] },
  publisher = { IEEE },
  pages = { 443-448 },
  year = { 2019 },
  doi = { 10.1109/ITSC.2019.8916835 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2019-11216 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/773701 },
}
Deep Learning of Arrhythmia Analysis Based on Convolutional Neural Network

Bibtex entry:

@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 },
  issn={1456-7857 },
  typ={PUB:(DE-HGF)16 },
  reportid={RWTH-2019-03336 },
  cin={611010 / 122810 / 120000 },
}

[SKS+19]


Aided Hand Detection in Thermal Imaging Using RGB Stereo Vision

Bibtex entry:

@inproceedings{SKS+19,
  author={Smieschek, Manfred and Kobsik, Gregor and Stollenwerk, André and Kowalewski, Stefan and Orlikowsky, Thorsten and Schoberer, Mark },
  title={Aided Hand Detection in Thermal Imaging Using RGB Stereo Vision },
  publisher={IEEE },
  pages={6314-6317 },
}

**Testi ng Safety PLCs Using QuickCheck**

**Bibtex entry :**

```latex
@inproceedings { TSF+19,
  author = { Th{"o}nnessen, David and Smallbone, Nick and Fabian, Martin and Claessen, Koen and Kowalewski, Stefan },
  title = { Testing Safety PLCs Using QuickCheck },
  booktitle = { 2019 IEEE 15th International Conference on Automation Science and Engineering : (CASE) : August 22-26, 2019, Vancouver, BC, Canada / sponsored by IEEE Robotics and Automation Society ; CASE editorial board: editor-in-chief: Spiridon (Spyros) Reveliotis ; editors: Cappelleri, David; Dimarogonas, Dimos V.; Dotoli, Mariagrazia; Fanti, Maria Pia; LUTZ, Philippe; Seatzu, Carla; Xie, Xiaolan },
  publisher = { IEEE },
  pages = { 1388-1393 },
  year = { 2019 },
  address = { Piscataway, NJ },
  organization = { 15th International Conference on Automation Science and Engineering, Vancouver (Canada), 2019-08-22 - 2019-08-26 },
  doi = { 10.1109/COASE.2019.8843227 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2019-04632 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/761173 },
}
A Change-Based Heuristic for Static Analysis with Policy Iteration

Bibtex entry:

```bibtex
@inproceedings { VK19,
  author = { Völker, Marcus and Kowalewski, Stefan },
  title = { A Change-Based Heuristic for Static Analysis with Policy Iteration },
  booktitle = { Static Analysis / Chang, Bor-Yuh Evan (Editor) },
  publisher = { Springer International Publishing },
  pages = { 73-95 },
  series = { Lecture Notes in Computer Science },
  year = { 2019 },
  address = { Cham },
  organization = { 26th Static Analysis Symposium, Porto (Portugal), - },
  doi = { 10.1007/978-3-030-32304-2_5 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2019-09500 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/768806/files/768806.pdf },
}
```

Verification of Cooperative Vehicle Behavior using Temporal Logic

Bibtex entry:

```bibtex
@article { VKR+19,
  author = { Völker, Marcus, Kloock, Maximilian, Rabanus, Leon, Alrifaee, Bassam and Kowalewski, Stefan },
  title = { Verification of Cooperative Vehicle Behavior using Temporal Logic },
  journal = { IFAC-PapersOnLine },
  volume = { 52 },
  iss = { 8 },
  pages = { 99-104 },
  year = { 2019 }
}
```

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

Bibtex entry :

@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)] },
    publisher = { IEEE },
    year = { 2018 },
    address = { Piscataway, NJ },
    organization = { 2018 IEEE Intelligent Vehicles Symposium, Changshu (Peoples R China), 2018-06-26 - 2018-06-30 },
    doi = { 10.1109/IVS.2018.8500634 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2018-229489 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/748563 },
}
[BFH+18]


**VDI Status Report Testing of Networked Systems for Industrie 4.0**

Bibtex entry:

```latex
@techreport { BFH+18,
  author = { Bordasch, Manuel and Facchi, Christian and Heidepriem, Sebastian and J"ahnert, J"urgen and Jung, Tobias and K"ollner, Christian and Kraas, Alexander and Krause, Jan and Kr"uning, Kai and Kugler, Alexander and Maschler, Benjamin and Schleicher, Christian and Siegrist, Daniel and Simon, Hendrik and St"ormer, Christoph and Th"onnessen, David and Wassermann, Erik and Weyrich, Michael and Wimmer, Thomas and Zeller, Andreas },
  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://www.vdi.de/ueber-uns/presse/publikationen/details?tx_vdipublications_publicationdetails%5Bpublication%5D=19&cHash=e6b4c230eafa31d95ceb75395274c78c },
}
```

[BHK18]


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

Bibtex entry:

```latex
@inproceedings { BHK18,
  title = { Cycle-Bounded Model Checking of PLC Software via Dynamic Large-Block Encoding },
  author = { Bohlender, Dirk and Hamm, Daniel and Kowalewski, Sebastian },
  year = { 2018 },
  pages = { 1891-1898 },
  publisher = { ACM },
}
```

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

Bibtex entry:

```bibtex
@article { BK18,
    author = { Bohlender, Dimitri and Kowalewski, Stefan },
    title = { Compositional Verification of PLC Software using Horn Clauses and Mode Abstraction },
    journal = { IFAC-PapersOnLine },
    pages = { 428-433 },
    volume = { 51 },
    number = { 7 },
    year = { 2018 },
    address = { Laxenburg },
    issn = { 2405-8963 },
    organization = { 14th IFAC International Workshop on Discrete Event Systems },
}
Design and Verification of Restart-Robust Industrial Control Software

Bibtex entry:

```latex
@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 },
  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 },
  reportid = { RWTH-2018-231948 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752219 },
}
```

[CMW+18]
Controlled Natural Languages for Hazard Analysis and Risk Assessment

Bibtex entry:

```bibtex
@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},
}
```

[CMW+18a]

PDF

BIB

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 [u.a.], 2018 in Frontiers in Artificial Intelligence and Applications, IOS Press, pp. 41-51.

Controlled Natural Languages for Hazard Analysis and
Risk Assessment

Bibtex entry:

@inproceedings { CMW+18a,
  author = { Chomicz, Paul and M{"u}ller-Lerwe, Armin and Wegner, G{"o}tz-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 [u.a.] },
  organization = { 6th International Workshop on Controlled Natural Language, Maynooth, Co. Kildare (Ireland), 2018-08-27 - 2018-08-28 },
  doi = { 10.18154/RWTH-2019-11756 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2019-11756 },
  cin = { 122810 / 120000 },
  url = { http://ebooks.iospress.nl/volumearticle/49768 },
}

[GAK18]

Applicability of supervisory control theory for the supervision of PLC programs

Bibtex entry:

@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 },
}
A GPS-aided Inertial Navigation System for Vehicular Navigation using a Smartphone

Bibtex entry:

@article { GSA+18,
    author = { Grochowski, Marco and Schweigler, Martin and Alrifaee, Bassam and Kowalewski, Stefan },
    title = { A GPS-aided Inertial Navigation System for Vehicular Navigation using a Smartphone },
    journal = { IFAC-PapersOnLine },
    pages = { 121-126 },
    volume = { 51 },
    number = { 10 },
    year = { 2018 },
    address = { Laxenburg },
    issn = { 2405-8963 },
    organization = { 3rd IFAC Conference on Embedded Systems, Computational Intelligence and Telematics in Control, Farod (Portugal), 2018-06-06 - 2018-06-08 },
    doi = { 10.1016/j.ifacol.2018.06.247 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-2018-227583 },
}

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

**Bibtex entry:**

```latex
@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},
}
```
A long-term setup for kidney perfusion

Bibtex entry:

@inproceedings { KSK+18,
   author = { Kuhn, Jan and Stollenwerk, Andre and Kowalewski, Stefan
   and Fabry, Gregor and Grzanna, Tim and Doorshodt, Benedict
   and Tolba, Rene 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 Biomedical Engineering, Aachen (Germany), 2018-09-26 - 2018-09-28 },
   typ = { PUB:(DE-HGF)6 },
   reportid = { RWTH-CONV-236288 },
   cin = { 122810 / 120000527000-2 / 9210105 },
   url = { http://publications.rwth-aachen.de/record/752261 },
}

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:

```latex
@inproceedings { OK18,
    author = { Obster, Mathias and Kowalewski, Stefan },
    title = { A live static code analysis architecture for PLC software },
    publisher = { IEEE },
    pages = { 4 Seiten },
    series = { 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 },

[PAS+18]

Pomprapa, A., Ahmed, W., Stollenwerk, A., Kowalewski, S., Uguz, D. U., and Leonhardt, S., "Arrhythmia Analysis in a Non-contact cECG Chair using Convolutional Neural Network", in Proc. Proceedings of the 11th International Conference on Bioelectromagnetism : 23-25 May 2018, Aachen, Germany / Organizing Committee for ICBEM 2018 in Aachen: Prof. Steffen Leonhardt, RWTH Aachen University, Germany, Prof. Jaakko Malmivuo, Technische Universität Berlin, Germany, Dr. Marian Walter, RWTH Aachen University, Germany, Benjamin Hentze, RWTH Aachen University, Germany, Markus Lüken, RWTH Aachen University, Germany ; Scientific Committee for ICBEM 2018 in Aachen: Prof. Catherine Disselhorst-Klug, RWTH Aachen University, Germany [und 27 weitere], Aachen, 2018, p. 4.

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

Bibtex entry:

```bibtex
@inproceedings { PAS+18,
    author = { Pomprapa, Anake and Ahmed, Waqar and Stollenwerk, André and Kowalewski, Stefan and Uguz, Durmus Umutcan and Leonhardt, Steffen },
    title = { Arrhythmia Analysis in a Non-contact cECG Chair using Convolutional Neural Network },
    booktitle = { Proceedings of the 11th International Conference on Bioelectromagnetism : 23-25 May 2018, Aachen, Germany / Organizing Committee for ICBEM 2018 in Aachen: Prof. Steffen Leonhardt, RWTH Aachen University, Germany, Prof. Jaakko Malmivuo, Technische Universität Berlin, Germany, Dr. Marian Walter, RWTH Aachen University, Germany, Benjamin Hentze, RWTH Aachen University, Germany ; Scientific Committee for ICBEM 2018 in Aachen: Prof. Catherine Disselhorst-Klug, RWTH Aachen University, Germany [und 27 weitere] },
    pages = { 4 Seiten },
}```
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 },
}
```
[PAS+18b]  

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

**Bibtex entry:**

```latex
@article { PAS+18b,  
    author = { Pomprapa, Anake and Ahmed, Waqar and Stollenwerk, André and Kowalewski, Stefan and Uguz, Durmus Umutcan and Leonhardt, Steffen },  
    title = { Arrhythmia Analysis in a Non-contact cECG Chair using Convolutional Neural Network },  
    journal = { International journal of bioelectromagnetism : IJBEM },  
    publisher = { International Society for Bioelectromagnetism },  
    pages = { 47-50 },  
    volume = { 20 },  
    number = { 1 },  
    year = { 2018 },  
    address = { Tampere },  
    issn = { 1456-7865 },  
    organization = { 11th International Conference on Bioelectromagnetism, Aachen (Germany), 2018-05-23 - 2018-05-25 },  
    typ = { PUB:(DE-HGF)16 },  
    reportid = { RWTH-2019-10694 },  
    cin = { 611010 / 122810 / 120000 },  
    url = { http://www.ijbem.org/volume20/number1/47-50.pdf },  
}
```

[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:**

```latex
@article { SBK18,  
    author = { Stollenwerk, André and Buglowski, Mateusz and K{"u}hn, Jan },  
}
```
Mock loop for bubble generation in a centrifugal blood pump for fault simulation,


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

**Bibtex entry**:

```latex
@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 },
}```

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

Bibtex entry:

```latex
@inproceedings { SHS+18,
author = { Smieschek, Manfred and Hinrichs, Timo and Stollenwerk, André and Kowalewski, Stefan and Preuß, Rüdiger },
title = { A New Condition Indicator for Slow-Rotating Roller Chains based on the Angle and Torque of the Driving Motor },
publisher = { IEEE },
year = { 2018 },
pages = { 642-644 },
doi = { 10.1109/COASE.2018.8560542 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-236283 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752188 },
}
```


```latex
@inproceedings { SK18,
author = { Simon, Hendrik and Kowalewski, Stefan },
title = { Mode-Aware Concolic Testing for PLC Software },
publisher = { Springer },
year = { 2018 },
address = { Cham },
organization = { Lecture notes in computer science },
doi = { 10.1007/978-3-030-01013-4_24 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-236283 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752188 },
}
```
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 },
    doi = { 10.1007/978-3-319-98938-9_21 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-236289 },
    cin = { 122810 / 120000 },
}

[STK18]

PDFBIB


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 ; M"unchen [u.a.] },
    issn = { 2405-8963 },
}
Real-world deployment and evaluation of synchronous programming in reactive embedded systems

Bibtex entry:

@phdthesis {  Ter18,
  author = { Terber, Matthias },
  othercontributors = { Kowalewski, Stefan and Rumpe, Bernhard },
  title = { Real-world deployment and evaluation of synchronous programming in reactive embedded systems },
  publisher = { RWTH Aachen University, Department of Computer Science },
  school = { RWTH Aachen University },
  pages = { 1 Online-Ressource (xvi, 134 Seiten) : Illustrationen },
  series = { Aachener Informatik-Berichte },
  year = { 2018 },
  address = { Aachen },
  doi = { 10.18154/RWTH-2018-230185 },
  typ = { PUB:(DE-HGF)11 },
  reportid = { RWTH-2018-230185 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/749610/files/749610.pdf },
}

Agiles Testen von cyber-physischen Produktionssystemen

Bibtex entry:

@article {  TK18,
  author = { Thönnessen, D. and Kowalewski, S. },
  volume = { 60 },
  number = { 3 },
  pages = { 46-55 },
  year = { 2018 },
  doi = { 10.18154/RWTH-2018-230185 },
  typ = { PUB:(DE-HGF)11 },
  reportid = { RWTH-2018-230185 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/749610/files/749610.pdf },
}
Produktionssystemen: Einsatz von SPS-Sprachen zur Testfallbeschreibung

Bibtex entry:

@article { TK18,
   author = { Thönnessen, 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 = { München },
   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 = { Thönnessen, 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 },
A concept for PLC hardware-in-the-loop testing using an extension of structured text

**Bibtex entry:**

```latex
@inproceedings { TRR+18,
  author = { Thönnessen, 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 },
  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.2017.8247580 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2018-223452 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/722218 },
}```
Hardware-in-the-Loop-Testing of PLCs", *IFAC-PapersOnLine*, vol. 51, iss. 10, pp. 229-234, 2018

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

Bibtex entry :

```latex
@article { TRR+18a,
  author = { Th"onnessen, 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 },
}
```

[TRR+18b]


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

Bibtex entry :

```latex
@inproceedings { TRR+18b,
  author = { Th"onnessen, David and Reinker, Niklas and Rakel, Stefan
            and Svetlakov, Andrei and Kowalewski, Stefan },
```

https://www.embedded.rwth-aachen.de/
A priori test coverage estimation for automated production systems: Using generated behavior models for coverage calculation

Bibtex entry:

@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 },
}
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]

PDF

BIB


Cooperative automation of extracorporeal gas exchange and artificial ventilation

Bibtex entry :

@inproceedings { WKJ+18,
    author = { Walter, Marian and K{"u}hn, J. and Janisch, Thorsten and Petran, Jan and Kopp, R{"u}dger 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 },
}

**UNICARagil - Disruptive Modular Architectures for Agile, Automated Vehicle Concepts**

Bibtex entry:

```bibtex
@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 Katzenbeisser, 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 } },
  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 },
}"
```

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

Bibtex entry:

```latex
@article{WSA+18,
  author = { Winter, Alfred and St{"a}ubert, 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, Silke Dorothee and Hahn, Udo and Henkel, Andreas and Kirsten, Toralf and Kl{"o}ss, Thomas and Lippert, J{"o}rg and L{"o}be, Matthias and Lowitsch, Volker and Maassen, Oliver and Maschmann, Jens and Meister, Sven and Mikolajczyk, Rafael and N{"u}chter, Matthias and Pletz, Mathias W. and Rahm, Erhard and Riedel, Morris and Saleh, Kutaiba and Schuppert, Andreas and Smers, Stefan and Stollenwerk, Andr{é} and Uhlig, Stefan and Wendt, Thomas and Zenker, Sven and Fleig, Wolfgang and Marx, Gernot and Scherag, Andr{é} and L{"o}ffler, 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 },
}```
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 },
  pages = { 2202-2207 },
  year = { 2017 },
  address = { Piscataway, NJ },
  organization = { 2017 IEEE Conference on Control Technology and Applications, Mauna Lani, HI (USA), 2017-08-27 - 2017-08-30 },
  doi = { 10.1109/CCTA.2017.8062778 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2017-09124 },
  cin = { 122810 / 416610 / 120000 },
  url = { http://publications.rwth-aachen.de/record/707229 },
}
HyReach: A Reachability Tool for Linear Hybrid Systems Based on Support Functions

Bibtex entry:

@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:

@article { BMK+17,
  author = { Brendle, Christian and Mülders, Thorsten and Kühn, Jan and Janisch, Thorsten and Kopp, Rolf and Stollenwerk, André 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 },
  volume = { 62 },
  number = { 2 },
  pages = { 199-212 },
  year = { 2017 }
}

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},

[CMW+17]


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

Bibtex entry :

@inproceedings { CMW+17,
    author = { Chomicz, Paul and M{"u}ller-Lerwe, Armin and Wegner, G{"o}tz-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 : Sicherheit und Zuverl{"a}ssigkeit f{"u}r automobile Informationstechnik : 30.-31. Mai 2017 Stuttgart, Germany / Peter Dencker, Herbert Klken, Hubert B. Keller, Erhard Plödereder (Hrsg.) },
    publisher = { Gesellschaft f{"u}r Informatik e.V. (GI) },
    pages = { 163-174 },
    year = { 2017 },
    address = { Bonn },
    organization = { Automotive - Safety & Security 2017 : Sicherheit und Zuverl{"a}ssigkeit f{"u}r automobile Informationstechnik, Stuttgart (Germany), 2017-05-30 - 2017-05-31 },

RapidCoop - Robuste Architektur durch geeignete Paradigmen für Kooperativ Interagierende Automobile

Bibtex entry:

```bibtex
@inproceedings { DDK+17,
  author = { Dankert, Jens and Dernehl, Christian and Kusmenko, Evgeny and Eckstein, Lutz and Kowalewski, Stefan and Rumpe, Bernhard },
  title = { RapidCoop - Robuste Architektur durch geeignete Paradigmen für 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 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-236312 },
  cin = { 122810 / 120000 / 414110 / 122810 },
}
```

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

Bibtex entry:

```bibtex
@article { DKK17,
    author = { Dernehl, Christian and K{"u}hn, 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 },
}
```

[DZF+S+17]


**eNav: A Suitable Navigation System for the Disabled**

Bibtex entry:

```bibtex
@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 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/720210 },

[DWS+17]

Bibtex entry :

@inproceedings { DWS+17,
    author = { Dzafic, Dzenan and Wagener, Nicolas and Schoonbrood, Peter and Franke, Dominik and Kowalewski, Stefan },
    title = { Multimodales Dynamisches Routen mit eNav },
    booktitle = { agit_2017 geospatialonline / Herausgeber: Prof. Dr. Josef Strobl, Dr. Bernhard Zagel, Mag. Gerald Griesebner, Prof. Dr. Thomas Blaschke },
    publisher = { Wichmann },
    pages = { 278-287 },
    series = { AGIT : Journal für angewandte Geoinformatik },
    year = { 2017 },
    address = { Berlin ; Offenbach },
    organization = { 29. Symposium für angewandte Geoinformatik, Salzburg (Austria), 2017-07-05 - 2017-07-07 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-236300 },
    cin = { 122810 / 120000 / 414110 },
    url = { http://publications.rwth-aachen.de/record/752276 },
}
Multimodal Dynamic Routing for Wheelchairs and Pedestrians

Bibtex entry:

@inproceedings { DWS+17a,
    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:

@phdthesis { Ger17,
    author = { Gerlitz, Thomas },
    othercontributors = { Kowalewski, Stefan and Schaefer, Ina },
    title = { Incremental Integration and Static Analysis of Model-Based Automotive Software Artifacts },
}


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 - B"{a}nde I-III : Tagung vom 25.-29. September 2017 in Chemnitz / Maximilian Eibl, Martin Gaedke (Hrsg.) },
  publisher = { Gesellschaft f{"u}r Informatik },
  pages = { 1537-1549 },
  year = { 2017 },
  address = { Bonn },
  organization = { 47. Jahrestagung der Gesellschaft f{"u}r Informatik e.V. (GI), Chemnitz (Germany), 2017-09-25 - 2017-09-29 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-236306 },
  cin = { 122810 / 120000 },
}

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{"ss}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 },
}


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, }
André
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 },
publisher = { de Gruyter },
pages = { 213-224 },
volume = { 62 },
number = { 2 },
year = { 2017 },
address = { Berlin [u.a. ] },
issn = { 1862-278X },
doi = { 10.1515/bmt-2016-0087 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-2017-09486 },
cin = { 611010 / 122810533000-2533000-3 / 120000533000-3533000-2 },
url = { http://publications.rwth-aachen.de/record/707857 },

[KGK17]


Explicit prioritization of parallel Intent broadcasts in
real-time Android

Bibtex entry :

@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 },  
}

Metrics-based strategies for quality assurance of automotive embedded software

Bibtex entry:

@inproceedings { KKR+17,
    author = { Kugler, Christopher and Kowalewski, Stefan and Richenhagen, Johannes and Maquet, Ralf and Schloßer, Axel },
    title = { Metrics-based strategies for quality assurance of automotive embedded software },
    publisher = { Springer Vieweg },
    pages = { 711-730 },
    series = { Proceedings },
    year = { 2017 },
    address = { Wiesbaden },
    organization = { 17. Internationales Stuttgarter Symposium Automobil- und Motorentechnik, Stuttgart (Germany), 2017-03-14 - 2017-03-15 },
    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 },
}

Leonhardt, S., Special Issue: Smart Life Support, Berlin [u.a.]: de Gruyter, 2017, vol. 62.
Special Issue: Smart Life Support

Bibtex entry:

@book { Leo17,
  author = { Leonhardt, Steffen },
  title = { Special Issue: Smart Life Support },
  booktitle = { Biomedizinische Technik },
  publisher = { de Gruyter },
  pages = { 109-233 },
  volume = { 62 },
  number = { 2 },
  year = { 2017 },
  address = { Berlin [u.a.] },
  issn = { 1862-278X },
  typ = { PUB:(DE-HGF)3 },
  reportid = { RWTH-2017-09573 },
  cin = { 122810 / 120000 },
}

[NKM+17]
PDF BIB


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 },
  year = { 2017 },
  organization = { 16. CTI Symposium },
  typ = { PUB:(DE-HGF)1 },
  reportid = { RWTH-CONV-236303 },
  cin = { 122810 / 120000 },
  url = { https://drivetrain-symposium.world/cn/continuous-process-validation-transmission-controls/ },
}

[SAB+17]
PDF BIB

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

**Bibtex entry:**

```bibtex
@inproceedings { SAB+17,
  author = { Schupp, Stefan and Ábrahám, Erika and Ben Makhlouf, Ibtissem and Kowalewski, Stefan },
  title = { HyPro: A C++ Library of State Set Representations for Hybrid Systems Reachability Analysis },
  booktitle = { NASA formal methods: 9th international symposium, NFM 2017, Moffett Field, CA, USA, May 16-18, 2017: proceedings / Clark Barrett, Misty Davies, Temesghen Kahsai (eds.) },
  publisher = { Springer },
  pages = { 288-294 },
  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:**

```bibtex
@article { SKS+17,
  author = { Stollenwerk, André and Kopp, Rüdger and Sehl, Florian and Janisch, Thorsten },
```

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/
title = { Tauchcomputerunterst{"u}tzung durch vernetzte Smart Wearables },
journal = { Caisson : Mitteilungen der GT{"U}M e.V. },
publisher = { GT{"U}M },
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 :

@inproceedings {  SPD+17,
author = { Schmidt, Teresa and Philipsen, Ralf 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 },
organization = { 19th International Conference on Human-Computer Interaction, Vancouver (Canada), 2017-07-09 - 2017-07-14 },
doi = { 10.1007/978-3-319-58466-9_33 },
}
Unterstützte Handerkennung in Thermographiebildern zur Validierung der hygienischen Händedesinfektion

Bibtex entry:

@inproceedings { SSK+17,
    author = { Smieschek, Manfred and Stollenwerk, André and Kowalewski, Stefan and Orlikowsky, Thorsten and Schoberer, Mark },
    title = { Unterstützte Handerkennung in Thermographiebildern zur Validierung 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 },
}

**Enrichment of a diving computer with body sensor network data**

**Bibtex entry :**

```bibtex
@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 / 120000533000-3 },
    url = { http://publications.rwth-aachen.de/record/717241 },
}
```

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 },
    publisher = {BioMediTech Institute and Faculty of Biomedical Sciences and Engineering Tampere University of Technology },
    pages = {365, 150-150},
    year = {2017},
    address = {Finland},
    organization = {Joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), Tampere (Finland), 2017-06-11 - 2017-06-15 },
    typ = {PUB:(DE-HGF)1 },
    reportid = {RWTH-2018-221548},
    cin = {611010 / 122810533000-3 / 120000},
    }

[WRB+17]


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

Bibtex entry:

@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 },
    }

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/
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:

```bibtex
@article {BHK+16,
    author = {Brendle, Christian and Hackmack, K.-F. and K\"uhn, Jan and Wardeh, M. N. and
    Janisch, T. and Kopp, R\"udger and Rossaint, Rolf and Stollenwerk, André and
    Kowalewski, Stefan and Leonhardt, Steffen and Walter, Marian and Misgeld, Berno Johannes
    Engelbert},
    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:

```bibtex
@article {BHK+16a,
    author = {Brendle, Christian and Hackmack, K.-F. and K\"uhn, Jan and Wardeh, M. N. and
    Janisch, T. and Kopp, R\"udger and Rossaint, Rolf and Stollenwerk, André and
    Kowalewski, Stefan and Leonhardt, Steffen and Walter, Marian and Misgeld, Berno Johannes
    Engelbert},
    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.2016.06.002},
    typ = {PUB:(DE-HGF)16},
    reportid = {RWTH-2016-10175},
    cin = {611010 / 122810533000-2 / 120000},
    url = {http://publications.rwth-aachen.de/record/678130},
}
```
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 },
}

[BK16]
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 sicherheitskritisches eingebettete Software im Automobilbereich },
publisher = { Institut für 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 },
}

[BSF+16]

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]
PDFBIB


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 :

@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:

```latex
@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 },
}
```

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

@inproceedings { DHK16a,
  author = { Dernehl, Christian and Hansen, Norman and Kowalewski, Stefan },
  title = { Combining Abstract Interpretation with Symbolic Execution for a Static Value Range Analysis of Block Diagrams },
  booktitle = { Software engineering and formal methods : 14th international conference, SEFM 2016, held as part of STAF 2016, Vienna, Austria, July 4-8, 2016 : proceedings / Rocco De Nicola, Eva K{"u}hn (eds.) },
  publisher = { Springer International Publishing },
  pages = { 137-154 },
  series = { Lecture Notes in Computer Science },
  year = { 2016 },
  address = { Cham },
  organization = { Software Engineering and Formal Methods : 14th International Conference, Vienna (Austria), 2016-07-04 - 2016-07-08 },
  doi = { 10.1007/978-3-319-41591-8 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2016-12037 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/680854 },
}

[DKK16]


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
colocated 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 = { RWTH Aachen },
pages = { 20-29 },
series = { CEUR workshop proceedings },
year = { 2016 },
address = { Aachen, Germany },
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"ur 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 },}
[DLS+16]


Das Barrierenerkennungssystem von eNav

Bibtex entry:

```latex
@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 },
}
```

[GHD+16]


artshop: A Continuous Integration and Quality Assessment Framework for Model-Based Software
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 },
    booktitle = {[12. Dagstuhl-Workshop Modelbasierte Entwicklung eingebetteter Systeme (MBEES) / Michaela Huhn (Ostfalia Hochschule – Wolfenbüttel, DE), Matthias Riebisch (Universität Hamburg, DE), Bernhard Schätz (fortiss GmbH – München, DE) ]},
    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]


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:

@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 },
}

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 },

Synthesis Tool for Automation Controller Supervision

Bibtex entry:

@inproceedings { GTN+16,
  author = { G"obe, Florian and Timmermanns, Thomas and Ney, Oliver and Kowalewski, Stefan },
  title = { Synthesis Tool for Automation Controller Supervision },
  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:

@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 = {611010533000-2533000-3 / 122810811001-1 / 120000811001-4},
    url = {http://publications.rwth-aachen.de/record/567958},
}

[KSB+16]

PDFBIB


Sensor Supervision and Control Value Limitations in Networked Intensive Care

Bibtex entry:

@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, Rüdger and Janisch, Thorsten},
  title = {Eingebettete Rezirkulationsmessung für eine ECLA-Therapie},
```

Simanski, Dr. Olaf Hagendorf, Jörg Zucknik},
publisher = { Hochschule Wismar, Fakultät für Ingenieurwissenschaften, Fachgebiet Automatisierungstechnik/Mechatronik },
pages = { 2 Seiten },
year = { 2016 },
address = { Wismar },
organization = { Automatisierungsverfahren für 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:

@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 Aachen },
  pages = { 174-181 },
  volume = { 1559 },
  series = { CEUR Workshop Proceedings },
  year = { 2016 },
  address = { Aachen, Germany },
  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 },
}

[SSS16]

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

Bibtex entry:

@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 },
}

[SSS16a]


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

Bibtex entry:

@inproceedings { SSS16a,
    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 },
}
André },

title = { 2nd Workshop on Fail Safety in Medical Cyber-Physical Systems (FS-MCPS) },

publisher = { RWTH Aachen },
pages = { 172-173 },
series = { CEUR Workshop Proceedings },
year = { 2016 },
address = { Aachen, Germany },
organization = { 2nd Workshop on Fail Safety in Medical Cyber-Physical Systems, Wien (Austria), 2016-02-23 - 2016-02-26 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-211642 },
cin = { 122810 / 120000 / 080017 },

[TSN+16]

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]

PDF

BIB

https://www.embedded.rwth-aachen.de/ Printed on 2020/03/06 21:55

**Assistive Control of Extracorporeal Oxygenation Systems**

**Bibtex entry:**

```latex
@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:**

```latex
@proceedings {ZAB+16,
  editor = { Zimmermann, Wolf and Alperowitz, Lukas and Br{"u}gge, 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, }
}
```

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
  doi = { 10.1016/j.ifacol.2015.06.476 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-2016-03746 },
  cin = { 122810 / 120000 },
}

**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), 2015-10-14 - 2015-10-16 },
    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:

@article {BHK+15,
    author = {Brendle, Christian and Hackmack, Kay-Florian and
        Kuhn, Jan and Wardeh, Markus Nabil and Kopp, Rolf and
        Rossaint, Rolf and Stollenwerk, Andre 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 / 6110533000-2},
}

[BK15]

Ben Makhlouf, I. and Kowalewski, S., "Networked Cooperative Platoon of Vehicles for Testing
Methods and Verification Tools"EasyChair, 2015, vol. 34, pp. 37-42.

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},
}
Optimizing Safe Control of a Networked Platoon of Trucks Using Reachability

Bibtex entry:

@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-207903 },
    cin = { 122810 / 120000 },
}

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

**Bibtex entry:**

```latex
@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]


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

**Bibtex entry:**

```latex
@inbook { CSB+15,  
author = { Chen, Xiaowei and Schupp, Stefan and Ben Makhlouf, Imen and Ábrahám, Erika and Frehse, Gero and Kowalewski, Stefan },  
title = { A Benchmark Suite for Hybrid Systems Reachability Analysis },  
booktitle = { Hybrid Systems: Computation and Verification ; 7th International Conference, HSCC 2014, Baltimore, MD, USA, April 10-12, 2014 Proceedings },  
publisher = { Springer },  
year = { 2015 },  
volume = { 8489 },  
pages = { 408-414 },  
cin = { 118040 / 100000 },  
url = { http://publications.embedded.rwth-aachen.de/file/5r },}
```

[CSB+15]
[CHM+15]

Publications

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/

[[CHM+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},
Publisher: {Springer},
Pages: {408-414},
Volume: {9058},
Series: {Lecture Notes in Computer Science},
Year: {2015},
Address: {Cham},
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]
PDF BIB


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 },
  publisher = { Ges. f\"u\er Informatik },
  pages = { 1649-1660 },
  volume = { 246 },
  series = { GI-Edition : lecture notes in informatics },
  year = { 2015 },
  address = { [Bonn] },
  organization = { 45. Jahrestagung der Gesellschaft f\"u\er Informatik, Cottbus (Germany), 2015-09-28 - 2015-10-02 },
}

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

**Bibtex entry:**

@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/465272/files/465272.pdf },
}


**Routing über Flächen mit SpiderWebGraph**

**Bibtex entry:**

@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 },
}
Dynamische Studie zum Einfluss von negativem Druck auf Hämolyse

Bibtex entry:

@article{dMK+15,
  author={ de Brouwer, P. and Mager, Ilona and Kopp, Rüdger and Walter, Marian and Stollenwerk, André and Schmitz-Rode, Thomas and Steinseifer, Ulrich and Arens, Jutta },
  title={ Dynamische Studie zum Einfluss von negativem Druck auf Hämolyse },
  journal={ Kardiotechnik },
  publisher={ Deutsche Ges. für 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:

@techreport{FKL15,
  author={ Franke, Dominik and Kowalewski, Stefan and Lichter, .....
Horst, 
title = { Testing life cycle-related properties of mobile applications }, 
publisher = { Shaker }, 
school = { RWTH Aachen University }, 
pages = { X, 114 S.: Ill., graph. Darst. }, 
volume = { 2015,02 }, 
number = { AIB-2015-02 }, 
series = { Aachener Informatik-Berichte }, 
year = { 2015 }, 
address = { Aachen }, 
typ = { PUB:(DE-HGF)11 }, 
reportid = { RWTH-2015-01925 }, 
cin = { 122810 / 120000 }, 
url = { http://publications.rwth-aachen.de/record/466122/files/466122.pdf }, 
}

[GSK15]


**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 Entwicklungseingebetteter Systeme XI / Matthias Riebisch, Michaela Huhn, Jan Philipps, Bernhard Schätz }, 
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:

```latex
@inproceedings { GTD15,  
author = { Gerlitz, Thomas and Tran, Quang Minh and Dziobek, Christian },  
title = { Detection and Handling of Model Smells for MATLAB/Simulink Models },  
publisher = { RWTH Aachen },  
pages = { 13-22 },  
series = { CEUR Workshop Proceedings },  
year = { 2015 },  
address = { Aachen, Germany },  
typ = { PUB:(DE-HGF)8 },  
reportid = { RWTH-2016-03745 },  
cin = { 122810 / 120000 },  
```
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},
    organization = {20th International Symposium Formal Methods, Oslo (Norway), 2015-06-24 - 2015-06-26},
    doi = {10.1007/978-3-319-19249-9_38},
    typ = {PUB:(DE-HGF)8},
    reportid = {RWTH-CONV-207691},
    cin = {122810 / 120000},
    url = {http://publications.rwth-aachen.de/record/541096},
}

Introducing computer programming to secondary school students using mobile robots

Bibtex entry:

@inbook {JMR+15,
    author = {Jawawi, D. N. A., Mamat, R., Ridzuan, F., Khatibsyarbini, M., Zulkifli, M., and Zaki, M. J.},
    title = {Introducing computer programming to secondary school students using mobile robots},
    publisher = {Piscataway, NJ, 2015, IEEE},
    doi = {10.1109/ASCC.2015.140},
    typ = {PUB:(DE-HGF)8},
    reportid = {RWTH-CONV-091367},
    cin = {122808 / 120000},
    url = {http://publications.rwth-aachen.de/record/541086},
}
Bibtex entry:

```bibtex
@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 },
}
```

[KGK15]


**Priority Inheritance during Remote Procedure Calls in Real-Time Android using Extended Binder Framework**

Bibtex entry:

```bibtex
@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 },
  booktitle = { Proceedings of the 13th International Workshop on
               Java Technologies for Real-time and Embedded Systems - JTRES '15
               - ACM Press New York, New York, USA, 2015 },
  publisher = { ACM Press New York, New York, USA, 2015 },
  pages = { 5, 10 Seiten },
  year = { 2015 },
  organization = { 13th International Workshop on Java Technologies
                   for
```

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/


Real-time and Embedded Systems, Paris (France), 2015-10-07 - 2015-10-08,
do = [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]
PDF BIB

Echtzeiterweiterung für Android: SPS inside

Bibtex entry :

@article {KKO+15,
    author = {Kowalewski, Stefan and Kalkov, Igor and Obster, Mathias and Thönnessen, David},
    title = {Echtzeiterweiterung für 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},
    url = {http://publications.rwth-aachen.de/record/752275},
    }

[KSB+15]
PDF BIB

Embedded Safety Measures for Extracorporeal Blood Circulation

Bibtex entry :

@inproceedings {KSB+15,
    author = {Kühn, Jan and Stollenwerk, André and Brendle, Christian and Walter, Marian and Wardeh, Markus Nabil and Kopp,
    }

https://www.embedded.rwth-aachen.de/ Printed on 2020/03/06 21:55
R"udger 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 },
}

[KSK+15]
PDF BIB


**Pulsatile Ansteuerung einer Diagonalblutpumpe**

**Bibtex entry :**

@article { KSK+15,
author = { Kühn, Jan and Stollenwerk, André and Kowalewski, Stefan and Brendle, Christian and Walter, Marian and Leonhardt, Steffen and Wardeh, Markus Nabil and Kopp, R"udger and Rossaint, Rolf },
title = { Pulsatile Ansteuerung einer Diagonalblutpumpe },
journal = { Atp-Edition },
publisher = { DIV Dt. Industrieverl. },
pages = { 52-59 },
volume = { 57 },
number = { 10 },
year = { 2015 },
address = { München },
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 :**

```latex
@inproceedings { KSM15,
author = { K{"u}hnel, Marián and Smieschek, Manfred 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 in Computing and Communications ; 14, Helsinki (Finland), 2015-08-20 - 2015-08-22 },
doi = { 10.1109/Trustcom.2015.377 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2017-00130 },
cin = { 122810 / 123520 / 120000 },
url = { http://publications.rwth-aachen.de/record/681319 },
}
```

**[KSS+15]**


**Safety Conflict Analysis in Medical Cyber-Physical**
Systems Using an SMT-Solver

Bibtex entry:

@inproceedings { KSS+15,
  author = { K"uhn, Jan and Schoonbrood, Pierre and Stollenwerk, 
    Andr"e and Brendle, Christian and Wardeh, Markus Nabil and 
    Walter, Marian and Roissant, Rolf and Leonhardt, Steffen and 
    Kowalewski, Stefan and Kopp, R"udger },
  title = { Safety Conflict Analysis in Medical Cyber-Physical 
    Systems Using an SMT-Solver },
  booktitle = { SE-WS 2015, software engineering workshops 2015 : 
    gemeinsamer Tagungsband der Workshops der Tagung Software 
    von Wolg Zimmermann ... },
  publisher = { RWTH Aachen },
  pages = { 19-23 },
  series = { CEUR workshop proceedings },
  year = { 2015 },
  address = { Aachen, Germany },
  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 },
}

[KWS+15]
PDFBIB

K"uhn, J., W"ubbels, N., Stollenwerk, A., Kowalewski, S., Brendle, C., Walter, M., Leonhardt, S., 
Wardeh, M., Kopp, R., and Roissant, R., "Pulsatile Ansteuerung einer Diagonalblutpumpe", in
VDI/VDE-Gesellschaft Mess- und Automatisierungstechnik . - Bd. 1, D"usseldorf, 2015 in VDI-
Berichte, VDI Verlag, pp. 325-339.

Pulsatile Ansteuerung einer Diagonalblutpumpe

Bibtex entry:

@inproceedings { KWS+15,
  author = { K"uhn, Jan and W"ubbels, Nico and Stollenwerk, 
    Andr"e 
    and Kowalewski, Stefan and Brendle, Christian and Walter, 
    Marian and Leonhardt, Steffen and Wardeh, Markus and Kopp, 
    R"udger and Roissant, Rolf },
  title = { Pulsatile Ansteuerung einer Diagonalblutpumpe },


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

Bibtex entry:

@phdthesis{Pol15,
  author = { Polzer, Andreas },
  othercontributors = { Kowalewski, Stefan and Lichter, Horst },
  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 },
  year = { 2015 },
  address = { Aachen },
  typ = { PUB:(DE-HGF)29 },
  reportid = { RWTH-2015-06778 },
  cin = { 122810 / 120000007780003 },
  url = { http://publications.embedded.rwth-aachen.de/file/65 },
}

[Pol15]
Current Challenges in the Verification of Hybrid Systems

Bibtex entry:

```
@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)7 },
  reportid = { RWTH-2015-07355 },
  cin = { 121310 / 120000 / 123420 / 121330 / 122810 },
  url = { http://publications.rwth-aachen.de/record/564375 },
}
```

Current Challenges in the Verification of Hybrid Systems

Bibtex entry:

```
@inproceedings { SFB+15,
  title = { Automatic test case generation for PLC programs using coverage metrics },
  publisher = { Piscataway, NJ, 2015, IEEE },
  pages = { p. 4. }
}
```

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/
Automatic test case generation for PLC programs using coverage metrics

Bibtex entry:

@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 },
  organization = { 2015 IEEE 20th Conference on Emerging Technologies
                 & Factory Automation, Luxembourg (Luxembourg), 2015-09-08 - 2015-09-11 },
  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]

Stollenwerk, A., Kühn, J., Walter, M., Brendle, C., Wardeh, M. N., Rossaint, R., Leonhardt, S.,
Kowalewski, S., and Kopp, R., "Software-based Prediction of Cannula Occlusion during
Extracorporeal Blood Circulation through Networked Medical Data", in Proc. SE-WS 2015,
software engineering workshops 2015 : gemeinsamer Tagungsband der Workshops der Tagung

Software-based Prediction of Cannula Occlusion during
Extracorporeal Blood Circulation through Networked Medical Data

Bibtex entry:

@inproceedings { SKW+15,
  author = { Stollenwerk, André and K{"u}hn, Jan and Walter, Marian
            and Brendle, Christian and Wardeh, Markus Nabil and Rossaint,

https://www.embedded.rwth-aachen.de/  Printed on 2020/03/06 21:55
Rolf and Leonhardt, Steffen and Kowalewski, Stefan and Kopp, R{"u}dger },
title = { Software-based Prediction of Cannula Occlusion during Extracorporeal Blood Circulation through Networked Medical Data },
publisher = { RWTH Aachen },
pages = { 1-6 },
series = { CEUR workshop proceedings },
year = { 2015 },
address = { Aachen, Germany },
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]


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 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-2015-07470 },
cin = { 611010533000-2 / 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/564787 },
}

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, Ibtissem and Kowalewski, Stefan },
    title = { Networked Cooperative Platoon of Vehicles for Testing Methods and Verification Tools },
    booktitle = { ARCH14 CPSWeek 2014 : Berlin, Germany, April 14 - 17, 2014 },
    year = { 2014 },
    address = { Berlin, Germany },
    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 (South Korea), 2014-10-27 - 
2014-10-30 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-2015-00727 },
cin = { 122810 / 121710 / 120000 },
}

[DF14]

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

Bibtex entry:

@inbook { DF14,
author = { Dzafic, Dzenan and Franke, Dominik },
}

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


publisher = {Ges. f"ur Informatik},

pages = {123-126},

volume = {S-13},

series = {GI-Edition : lecture notes in informatics / Seminars},

year = {2014},

address = {Bonn},

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

reportid = {RWTH-CONV-204904},

cin = {120000 / 122810},

url = {http://publications.embedded.rwth-aachen.de/file/59},

---


Integration von Bodenbelagsinformationen zum energieeffizienten Routen von Elektrorollstühlen

Bibtex entry:

```bibtex
@inproceedings {DFB+14,
    author = {Dzafic, Dzenan and Franke, Dominik and Baumeister, Danni and Kowalewski, Stefan},
    title = {Integration von Bodenbelagsinformationen zum energieeffizienten Routen von Elektrorollstühlen},
    booktitle = {Angewandte Geoinformatik 2014: Beiträge zum 26. AGIT-Symposium Salzburg / Strobl/ Blaschke/Griesebner/Zagl (Hrsg.)},
    publisher = {Wichmann},
    pages = {451-460},
    year = {2014},
    address = {Berlin [u.a.]},
    typ = {PUB:(DE-HGF)8},
    reportid = {RWTH-CONV-205745},
    cin = {120000 / 122810},
    url = {http://publications.embedded.rwth-aachen.de/file/5c},
}
```

**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},
}

[FK14]


**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; Alexeis Garcia-Perez; Panagiotis Katsaros; Siraj Ahmed Shaikh; Ioannis Stamelos (eds.)},
    publisher = {Springer},
    pages = {140-146},
}

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:

```latex
@phdthesis {Guc14,
    author = {G"uckel, 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},
}
```

[JGN14]

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

Bibtex entry:

```latex
@inbook {JGN14,
    author = {Jansen, Christina and Göbe, 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, 2014 ; proceedings / Holger Giese ... (eds.)},
    publisher = {Springer},
    pages = {65-80},
}
```

[JGN14]
Predictable Broadcasting of Parallel Intents in Real-Time Android

Bibtex entry:

@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 },
}
Editors for the Software Engineering 2013 Conference

Bibtex entry:

@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]
PDFBIB


Integration und Analyse von Artefakten in der modellbasierten Entwicklung eingebetteter Software

Bibtex entry:

@phdthesis {Mer14,
author = {Merschen, Daniel},
othercontributors = {Kowalewski, Stefan},
title = {Integration und Analyse von Artefakten in der modellbasierten Entwicklung eingebetteter Software},
publisher = {Shaker},
pages = {XIV, 136 S. : graph. Darst.},
series = {Aachener Informatik-Berichte},
year = {2014},
address = {Aachen},
isbn = {978-3-8440-2601-6},
typ = {PUB:(DE-HGF)11},
reportid = {RWTH-CONV-144218},
cin = {120000 / 122810},
url = {http://publications.rwth-aachen.de/record/229247/files/4967.pdf},
}

**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]
PDF BIB

**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]
PDF BIB
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{"u}hn, Jan and Brendle, Christian and Walter, Marian and Arens, Jutta and Wardeh, Markus Nabil and Kowalewski, Stefan and Kopp, R{"u}dger },
    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 },
}

[WSL+14]


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 :**

```latex
@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 },
}
```


```latex
@inproceedings { BDK13,
  author = { Ben Makhlouf, I. and Diab, H. and Kowalewski, S. },
  title = { Reachability Analysis for Managing Platoons at Intersections },
  pages = { 1141-1147 },
  year = { 2013 },
  doi = { 10.1109/MED.2013.6600862 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-110987 },
  cin = { 120000 / 618130 / 122810 / 611810 / 611910 },
  url = { http://publications.rwth-aachen.de/record/229017 },
}
```
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 },
    typr = { 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:

@inproceedings { BHK13,
    author = { Ben Makhlouf, Ibtissem and Hänsch, 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 = { Zürich },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-202859 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/225184 },
}
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]


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 :**

```latex
@article {  BKK13,
    author = { Brauer, J{"o}rg 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]
PDFBIB

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.), Berlin ; Offenbach, 2013, Wichmann, pp. 414-423.}
    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},
}

[FHK13]

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 },
  cin = { 120000 / 122810 },
  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 = { F"orster, 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:**

```bibtex
@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:**

```bibtex
@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:

```latex
@inbook { HF13,  
  author = { Hansen, Norman and Franke, Dominik },  
  title = { Reverse Engineering des Windows Phone Process Execution Models },  
  publisher = { Gesellschaft für 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:

@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:

@proceedings { KR13,
    editor = { Kowalewski, Stefan and Rumpe, Bernhard },
    publisher = { Ges. f"{u}r Informatik },
    pages = { 379 S. : Ill., graph. Darst. },
    volume = { 213 },
    series = { GI-Edition : Proceedings },
}
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 },
}

[PMS+13]

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:

```latex
@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},
}

[SDK13]
PDFBIB


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},
}

[SGK13]
PDFBIB

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:

@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] PDF BIB


Ein modellbasiertes Sicherheitskonzept für die extrakorporale Lungenunterstützung

Bibtex entry:

@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 },
}
[VK13]
PDF BIB

**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 },
}
```

[WBS+13]
PDF BIB

**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"uder 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:

```bibtex
@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:

```
@article { WSB+13,
author = { Walter, Marian and Stollenwerk, André and Bensberg, Ralf and Kopp, R{"u}dger 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:

```
@inproceedings { BBK+12,
author = { Biallas, Sebastian and Brauer, J{"o}rg and King, Andy and Kowalewski, Stefan },
title = { Loop Leaping with Closures },
publisher = { Springer },
}
```

**Static Analysis of Lockless Microcontroller C Programs**

**Bibtex entry**:

```bibtex
@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"{o}rg 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},
    url = {http://publications.rwth-aachen.de/record/165238},
}

[BBK12b]

PDF


Arcade.PLC : a Verification Platform for Programmable Logic Controllers

Bibtex entry:

@inproceedings {BBK12b,
    author = {Biallas, Sebastian and Brauer, J"{o}rg 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:

```bibtex
@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:

```bibtex
@inproceedings { BHK+12,
  author = { Brauer, Jörg and Hansen, Rene Rydhof and Kowalewski, Stefan and Larsen, Kim G. and Olesen, Mads Chr. },
  title = { Adaptable Value-Set Analysis for Low-Level Code },
  pages = { 32-43 },
  year = { 2012 },
}
```
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]


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 },
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]

Brauer, J. and King, A., "Transfer function synthesis without quantifier elimination", Logical
Transfer function synthesis without quantifier elimination

Bibtex entry:

@article { BK12a,
    author = { Brauer, J{"o}rg 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 },
}

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

Bibtex entry:

@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 },
    pages = { 253-256 },
    year = { 2012 },
Automatische Wertebereichsanalyse von SPS-Programmen

Bibtex entry:

@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 },
}

[BKS12a]

Automatische Wertebereichsanalyse -- Formale Verifikation für SPS-Programme

Bibtex entry:

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

[BKS12b]

PDF


Range and Value-Set Analysis for Programmable Logic Controllers

Bibtex entry:

@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 },
}

microcontroller software }
journal = { Electronic notes in theoretical computer science : ENTCS }
publisher = { Elsevier Science }
pages = { 45-63 }
volume = { 287 }
year = { 2012 }
address = { Amsterdam [u.a.] }
issn = { 1571-0661 }
doi = { 10.1016/j.entcs.2009.09.059 }
typ = { PUB:(DE-HGF)16 }
reportid = { RWTH-CONV-013643 }
cin = { 122810 / 120000 }
url = { http://publications.rwth-aachen.de/record/132534 }
}

[DBK12]


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 },
publisher = { IEEE },
pages = { 1918-1923 },
year = { 2012 },
address = { Piscataway, NJ },
doi = { 10.1109/ITSC.2012.6338822 },
typ = { PUB:(DE-HGF)8 }
reportid = { RWTH-CONV-199932 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/197725 }
}

[FDB+12]

**Energieeffizientes Routing für Elektrorollstühle**

**Bibtex entry :**

```bibtex
@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 },
}
```

[FEK12]


**Reverse Engineering and Testing Service Life Cycles of Mobile Platforms**

**Bibtex entry :**

```bibtex
@inproceedings { FEK12, 
author = { Franke, Dominik and Elsemann, Corinna and Kowalewski, Stefan },
title = { Reverse Engineering and Testing Service Life Cycles of Mobile Platforms },
booktitle = { 2nd DEXA Workshop on Information Systems for Situation Awareness and Situation Management (ISSASiM) : 3. - 7. September, Wien },
publisher = { IEEE Computer Society },
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 },
}

[For12]


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

Bibtex entry:

@techreport { For12,
  author = { Forster, 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:**

```latex
@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:**

```latex
@inproceedings { HK12,
    author = { Hänsch, Paul and Kowalewski, Stefan },
    title = { Invariants for LTI Systems with Uncertain Input },
    booktitle = { Reachability Problems : 6th International Workshop, RP 2012,
```

https://www.embedded.rwth-aachen.de/  Printed on 2020/03/06 21:55
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 / 122810 },
  url = { http://publications.rwth-aachen.de/record/129215 },
}
Automatisierungstechnik ; Kongress 'Automation 2012' ; 13 (Baden-Baden) ;
2011.06.13-14Branchentreff der Mess- und Automatisierungstechnik, Düsseldorf, 2012 in VDI-

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? },
    booktitle = { Automation 2012 : der 13. Branchentreff der Mess- und
                  Automatisierungstechnik / VDI/VDE-Gesellschaft Mess- und
                  Automatisierungstechnik ; Kongress 'Automation 2012' ; 13
                  (Baden-Baden) ; 2011.06.13-14Branchentreff der Mess- und
                  Automatisierungstechnik },
    publisher = { VDI-Verl. },
    pages = { 113-116 },
    series = { VDI-Berichte },
    year = { 2012 },
    address = { D{"u}sseldorf },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-194506 },
    url = { http://publications.rwth-aachen.de/record/123658 },
}
```

[MDH+12]
PDFBIB

Merschen, D., Duhr, Y., Hedenetz, B., and Kowalewski, S., "Evolutionsunterstützung für
komplexe, modellbasierte Software-Produktlinien", in Proc. Embedded-Software-Engineering-

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 },
}

[MEJ+12]

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 },
}

[MHL+12]

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

Bibtex entry:

@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:

@phdthesis { Mit12,
author = { Mitsching, Ralf },
year = { 2012 },
address = { [Piscataway, NJ] },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-200673 },
cin = { 122810 / 611910 / 120000 },
url = { http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=6338153 },
}
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]
PDFBIB

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
```

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/
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 },

[SWL+12]

PDF
BIB


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 = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/227070 },
}

**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 },
}
```

[SWL+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 },
}
```

[SWS+12]

Closed loop physiological ECMO control

Bibtex entry :

@inproceedings { WBB+12,
author = { Walter, Marian and Brendle, Christian and Bensberg, Ralf and Kopp, R"udger and Arens, Jutta and Stollenwerk, Andrea 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 = { 120299 / 120000 },
url = { http://publications.rwth-aachen.de/record/120299 },
}

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,
Patient oriented closed loop control of extracorporeal lung assist

Bibtex entry:

@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:

@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 :

@techreport { BBD+11,
  author = { Beckschulze, E. and Boymanns, D. and Duelks, R. and 
             Gatterdam, T. and Kowalewski, S. and Lang, M. and Salewski, 
             F. and Siegbert, T. },
  title = { Zuverlässigkeit von automotive embedded Systems },
  volume = { 231 },
  series = { FAT-Schriftenreihe },
  year = { 2011 },
  typ = { PUB:(DE-HGF)29 },
  reportid = { RWTH-CONV-236311 },
  cin = { 122810 / 120000 },
  url = { https://d-nb.info/1053546777/34 },
}

[BBK+11]
PDF BIB


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:

```bibtex
@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:

```bibtex
@inproceedings { BBS+11,
    author = { Beckschulze, Eva and Brauer, J{"o}rg and Stollenwerk, André and Kowalewski, Stefan },
```
booktitle = { 2011 14th IEEE International Symposium on Object/Component/Service-Oriented Real-Time Distributed Computing workshops (ISORCW) : 28 - 31 March 2011, Newport Beach, California, USA ; proceedings },
publisher = { IEEE },
pages = { 33-40 },
year = { 2011 },
address = { Piscataway, NJ },
organization = { 14th IEEE International Symposium on Object/Component/Service-Oriented Real-Time Distributed Computing, Newport Beach, CA (USA), 2011-03-28 - 2011-08-31 },
doi = { 10.1109/ISORCW.2011.40 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-194737 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/124002 },

[BBS+11a]
PDF BIB


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

Bibtex entry :

@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 für 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 },
}

[BK11]
PDF BIB

**Approximate Quantifier Elimination for Propositional Boolean Formulae**

Bibtex entry :

```latex
@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 :

```latex
@inproceedings { BK11a,
  author = { Brauer, J{"o}rg and King, Andy },
  title = { Transfer Function Synthesis without Quantifier Elimination },
  booktitle = { Programming languages and systems : 20th European Symposium on Programming, ESOP 2011, held as part of the Joint 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 },
  year = { 2011 },
  pp. 97-115.
```

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/
Existential Quantification as Incremental SAT

Bibtex entry:

@inproceedings { BKK11,
    author = { Brauer, J{"o}rg 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 },
}
Leistungsfähige Verifikation von industriellen SPS-Programmen mittels Model-Checking und statischer Analyse

Bibtex entry:

```latex
@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 },
}
```

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

Bibtex entry:

```latex
@inproceedings { BMH+11,
  author = { Ben Makhlouf, Ibtissem and Maschuw, Jan P. and Hänsch, P. and Diab, H. and Kowalewski, S. and Abel, D. },
  title = { Safety Verification of a Cooperative Vehicle Platoon with Uncertain Inputs Using Zonotopes },
}
```
Paul and Diab, Hilal and Kowalewski, Stefan and Abel, Dirk },
title = { Safety Verification of a Cooperative Vehicle Platoon
with Uncertain Inputs Using Zonotopes },
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 = { Curran },
pages = { 9769-9774 },
series = { IFAC-PapersOnLine },
year = { 2011 },
address = { Milano, Italy },
doi = { 10.3182/20110828-6-IT-1002.02165 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-173769 },
cin = { 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/100991 },
}

[BRT11]
PDF BIB

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

Bibtex entry :
@techreport { BRT11,
author = { Brauer, J{"o}rg 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 },
}

[DFD+11]
PDF BIB
Processing for Autonomous Micro Aerial Vehicles", in Proc. International Micro Air Vehicle
conference and competitions 2011 (IMA V 2011), 't Harde, The Netherlands, September 12-15,

https://www.embedded.rwth-aachen.de/  Printed on 2020/03/06 21:55
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 },
    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 },
}

[FDW+11]
PDF
BIB


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 },
}

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/
Konzept eines Mobilen OSM-Navigationssystems für Elektrofahrzeuge

Bibtex entry:

```latex
@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)8}, 
  reportid = {RWTH-CONV-194738}, 
  cin = {122810 / 120000}, 
}
```

Reverse Engineering of Mobile Application Lifecycles

Bibtex entry:

```latex
@inproceedings{FEW+11, 
  author = {Franke, Dominik, Elsemann, Carsten, Weise, Carsten, and Kowalewski, Stefan}, 
  title = {Reverse Engineering of Mobile Application Lifecycles}, 
}
```
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 },
  url = { http://publications.rwth-aachen.de/record/227967 },
}```

**Automatic Derivation of Abstract Semantics From Instruction Set Descriptions**

Bibtex entry:

```
@inproceedings {  GK11,
    author = { G"uckel, 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 Kriekkawin, Kriengkrai and Kowalewski, Stefan },
```
Using Timed Automata in Requirements Analysis for Engine Control Units,

Proceedings of the 18th IFAC World Congress, 2011: August 28 - September 2, 2011, Università Cattolica del Sacro Cuore, Milano Italy / Ed.: Sergio Bittanti ... }},


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:**

```bibtex
@inproceedings { KBW+11,
    author = { Kopp, R{"u}dger and Bensberg, Ralf and Walter, Marian and Arens, Jutta and Rossaint, Rolf and Stollenwerk, Andr{e} },
    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**
Bibtex entry:

@article { KRS+11,
  author = { Kopp, R"udger and Rossaint, Rolf and Schmitz-Rode, Thomas
             and Steinseifer, Ulrich and Arens, Jutta and Bensberg, Ralf
             and Henzler, Dietrich },
  title = { A Miniaturized Extracorporeal Membrane Oxygenator with
           Integrated Rotary Blood Pump: Preclinical In Vivo Testing },
  journal = { ASAIO journal },
  publisher = { Lippincott },
  pages = { 158-163 },
  volume = { 57 },
  number = { 3 },
  year = { 2011 },
  address = { Hagerstown, Md. },
  issn = { 0162-1432 },
  doi = { 10.1097/MAT.0b013e31820bffa9 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-022380 },
  cin = { 120000 / 122810811001-4 },
  url = { http://publications.rwth-aachen.de/record/142316 },
}

[KS11]
PDFBIB


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]
PDFBIB

**Control Design for Generalized Platoon Problems**

Bibtex entry:

```bibtex
@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"unchen },
    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 },
}
```

[MMPB+11]


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

Bibtex entry:

```bibtex
@inproceedings { MPB+11,
    author = { Merschen, Daniel and Polzer, Andreas and Botterweck, G{"o}tz 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 },
}
```

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

Bibtex entry :

```bibtex
@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]

PDF\BIB


Access Analysis-based Tight Localization of Abstract Memories

Bibtex entry :

```bibtex
@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
```

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

12th international conference, VMCAI 2011, Austin, TX, USA, January 23-25, 2011 ; proceedings / Ranjit Jhala; David Schmidt (eds.)

publisher = { Springer },
pages = { 356-370 },
series = { Lecture notes in computer science },
year = { 2011 },
address = { Heidelberg [u.a.] },
doi = { 10.1007/978-3-642-18275-4_25 },
reportid = { RWTH-CONV-197962 },
cin = { 122810 / 121310 / 120000 },
url = { http://publications.rwth-aachen.de/record/127762 },

[PMB+11]


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

Bibtex entry:

```latex
@article { PMB+11,
  author = { Polzer, Andreas and Merschen, Daniel and Botterweck, G{"o}tz 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 / 120000 },
  url = { http://publications.rwth-aachen.de/record/191115 },
}
```

[PWK+11]

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:

```latex
@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 },
}
```

**Comparing Continuous Behaviour in Model-based Development of Embedded Software**

Bibtex entry:

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

[RB11]


Precise Control Flow Reconstruction Using Boolean Logic

Bibtex entry :

@inproceedings { RB11,
    author = { Reinbacher, Thomas and Brauer, J"org },
    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]


Past Time LTL Runtime Verification for Microcontroller Binary Code

Bibtex entry :

```latex
@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 },
}
```

[RBH+11]

Automated Test-Trace Inspection for Microcontroller Binary Code

Bibtex entry :

```latex
@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 },
```

https://www.embedded.rwth-aachen.de/ Printed on 2020/03/06 21:55
Binary Code,

publisher = { Springer },
pages = { 239-244 },
series = { Lecture notes in computer science },
year = { 2011 },
address = { Berlin ; Heidelberg },
doi = { 10.1007/978-3-642-29860-8_18 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-194496 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/123647 },

[RGH+11]


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 f{"u}r 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]

PDF

BIB


Model checking embedded software of an industrial knitting machine

Bibtex entry:

@article { RHS+11,
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 },
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]

PDF

BIB

Hardware Support for Efficient Testing of Embedded Software

Bibtex entry :

@inproceedings {  RSM+11,
    author = { Reinbacher, Thomas and Steininger, Andreas and M{"u}ller, Tobias and Horauer, Martin and Brauer, J{"o}rg and Kowalewski, Stefan },
    title = { Hardware Support for Efficient Testing of Embedded Software },
    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]
PDFBIB


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 },
    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 },
}
for soft carrier phase estimation },
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]


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:

```bibtex
@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:

```bibtex
@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"obe, F. and Walter, Marian and Arens, Jutta and Kopp, R"uder 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:

```
@inproceedings { SNB+11,
    author = { Schlich, Bastian and Noll, Thomas and Brauer, J{"o}rg
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:

```
@inproceedings { SSK+11,
    author = { Sasnauskas, Raimondas and Soria Dustmann, Oscar and
Kaminski, Benjamin Lucien and Wehrle, Klaus and Weise,
}
```

---


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

BIB


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:
```
@inproceedings { AdM+10,
  author = { Arens, Jutta and de Brouwer, Petra and Mager, Ilona and Kopp, R{"u}dger and Walter, Marian and Stollenwerk, Andr{e} 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:
```
@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:

```latex
@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

Bibtex entry:

```latex
@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 = { 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 },
}
```
PLCs

Bibtex entry:

```latex
@inproceedings { BBK10,
    author = { Biallas, Sebastian and Brauer, J{"o}rg 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:

```latex
@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 },
```
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 },
}

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 },
}

[BKK+10]


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:

```latex
@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:

```latex
@inproceedings { BNS10,
```

https://www.embedded.rwth-aachen.de/ Printed on 2020/03/06 21:55
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 },
adress = { 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]


EvoFM: Feature-driven Planning of Product-line Evolution

Bibtex entry :

@inproceedings { BPD+10,
    author = { Botterweck, G{"o}tz 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 / 121310 / 120000 },
    url = { http://publications.rwth-aachen.de/record/126457 },
}
**Variability and Evolution in Model-based Engineering of Embedded Systems**

Bibtex entry:

```bibtex
@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{"u}nchen },
  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:

```bibtex
@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 },
}
```

**Regelung und Sicherheitsanalyse einer Gruppe Massenpunktfahrzeuge mit Hilfe energiebasierter Methoden**

Bibtex entry:

```bibtex
@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 },
}
```

A testing platform for cooperative vehicle platoon controllers

Bibtex entry:

```latex
@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:

```latex
@inproceedings { FK10,
    author = { Franke, Dominik and Kowalewski, Stefan },
    title = { Verifikation der Java-Echtzeitchigkeit f{"u}r den Einsatz in zeitkritischen Systemen },
    booktitle = { Informatiktage 2010 : Fachwissenschaftlicher
```

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

Bibtex entry:

@inproceedings { GBU10,
    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 :**

```latex
@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 },
}
```

[KR10]

**PDFBIB**


**Bibtex entry :**

```latex
@proceedings { KR10,  
}
```

**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 },
}

[MWG+10]


Low Effort Evaluation of Real-Time and Reliability Requirements

Bibtex entry :

@inproceedings { MWG+10,
    author = { Mitsching, Ralf and Weise, Carsten and Gatterdam, Thomas }
and
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]

PDF

BIB


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 },
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:**

```bibtex
@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:**

```bibtex
@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:

```latex
@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 },
  url = { http://publications.rwth-aachen.de/record/119190 },
}
```


Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/

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},
    year = {2010},
    address = {Wadern},
    typ = {PUB:(DE-HGF)8},
    reportid = {RWTH-CONV-196795},
    cin = {120000 / 122810},
    url = {http://publications.rwth-aachen.de/record/126459},
}

RHS+10
PDFBIB


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:

```bibtex
@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},
}
```

[SDK10]

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]


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 },
}

https://www.embedded.rwth-aachen.de/ Printed on 2020/03/06 21:55
Modellbasierte Fehlerdiagnose eines Membranoxygenators

Bibtex entry:

@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-047243},
    cin = {122810533000-2 / 611010811001-1 / 120000},
    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, Rüdger and Kowalewski, Stefan },
    title = { Sicherheitskonzept für eine intensivmedizinische Anwendung am Beispiel der EMCO },

https://www.embedded.rwth-aachen.de/  Printed on 2020/03/06 21:55

```
publisher = { ifak },
pages = { 65-74 },
year = { 2010 },
address = { Magdeburg },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-190268 },
cin = { 611010 / 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/119102 },
```

[WLK+10]


**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 / 611010811001-4hsbk080061 },
    url = { http://publications.rwth-aachen.de/record/133926 },
}
```
A physiological model for extracorporeal oxygenation controller design

Bibtex entry:

```
@article { 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 },
    journal = { Annual international conference of the IEEE Engineering in Medicine and Biology Society },
    publisher = { IEEE },
    pages = { 434-437 },
    volume = { 2010 },
    year = { 2010 },
    address = { Piscataway, NJ },
    issn = { 1557-170X },
    isbn = { 978-1-4244-4124-2 },
    doi = { 10.1109/IEMBS.2010.5627416 },
    typ = { PUB:(DE-HGF)16 },
    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, S. },
    title = { Safety assessment of design patterns for safety-critical embedded systems },
    pages = { 523-527 },
}
```
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 },
publisher = { Universit\"a t },
pages = { 9-16 },
year = { 2009 },
address = { Heidelberg },
typ = { PUB:(DE-HGF)8 },}
Design pattern representation for safety-critical embedded systems

Bibtex entry:

```latex
@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:

```latex
@article{BHS09,
  author = {Brauer, Jörg and Huuck, Ralf and Schlich, Bastian},
  title = {Interprocedural pointer analysis in Goanna},
  journal = {Electronic notes in theoretical computer science: ENTCS},
  pages = {65-83},
  volume = {254},
  year = {2009}
}```
Ben Makhlouf, I., Kowalewski, S., Chávez Grunewald, M. G., and Abel, D., "Safety assessment of networked vehicle platoon controllers: practical experiences with available tools" in Proc. ADHS'09: 3rd IFAC Conference on Analysis and Design of Hybrid: September 16, 17 - 18, University of Zaragoza, Spain / Aragón Institute for Engineering Research, Zaragoza, Spain, 2009, University of Zaragoza.

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 },
    cin = { 122810 / 416610 / 120000 },
    url = { http://publications.rwth-aachen.de/record/99560 },
}

Botterweck, G., Polzer, A., and Kowalewski, S., "Using higher-order transformations to derive variability mechanism", in Proc. ACES-MB 2009: Model Based Architecting and Construction of
Using higher-order transformations to derive variability mechanism

Bibtex entry:

```latex
@inproceedings { BPK09,
    author = { Boterweck, G{"o}tz 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 = { RWTH Aachen },
    pages = { 107-121 },
    series = { CEUR Workshop Proceedings },
    year = { 2009 },
    address = { Aachen, Germany },
    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:

```latex
@inproceedings { BPK09a,
    author = { Botterweck, G{"o}tz and Polzer, Andreas and Kowalewski, Stefan },
    title = { Interactive configuration of embedded systems product lines },
    publisher = { IEEE },
    pages = { 52-58 },
    year = { 2009 },
    isbn = { 978-1-4244-4399-6 },
    editor = { McGregor, John D. and et al. },
    address = { Piscataway, NJ, USA },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172337 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/99369 },
}
```

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

Bibtex entry:

@inproceedings {  
BPK09b,  
author = { Botterweck, G{"o}tz 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 },  
series = { Lecture notes in computer science },  
year = { 2009 },  
address = { Berlin [u.a. } ,  
doi = { 10.1007/978-3-642-12261-3_8 },  
typ = { PUB:(DE-HGF)8 },  
reportid = { RWTH-CONV-199034 },  
cin = { 120000 / 122810 },  
url = { http://publications.rwth-aachen.de/record/129006 },  
}
Towards Feature-driven Planning of Product-Line Evolution

Bibtex entry:

@inproceedings { BPP+09,
  author = { Botterweck, Goetz 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

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 },
}


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 },  
doi = { 10.1145/1631716.1631721 },  
typ = { PUB:(DE-HGF)8 },  
reportid = { RWTH-CONV-173253 },  
cin = { 122810 / 120000 },  
url = { http://publications.rwth-aachen.de/record/100433 },  
}

Diab, H., Ben Makhlof, I., Kowalewski, S., Chávez, M., and Abel, D., "Control and Safety Analysis of a Platoon under Communication Constraints", in Proc. NE[S/T]COC, Sept. 28/29, Stuttgart,
Control and Safety Analysis of a Platoon under Communication Constraints

Bibtex entry:

@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 },
}

[DSK09]
PDFBIB


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

Bibtex entry:

@inproceedings { DSK09,
    author = { Duelks, Ramona and Salewski, Falk and Kowalewski, Stefan },
    title = { A real-time test and simulation environment based on standard FPGA hardware },
    publisher = { IEEE Computer Society },
    pages = { 197-204 },
    year = { 2009 },
}

**Automatic bug detection in microcontroller software by static program analysis**

**Bibtex entry:**

```latex
@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 Verication (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:

@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 Verication (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},
}

[HKK+09]


Bibtex entry:

@proceedings {HKK+09,
    editor = {Hutchison, David and Kanade, Takeo and Kittler, Josef}
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]
PDF
BIB

**Hybrid automata**

Bibtex entry :

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

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/

**Operating System Verification**

**Bibtex entry :**

```bibtex
@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/752315},
}
```


**Extracorporeal Membrane Oxygenation for Cardiac and Pulmonary Indications: Improving Patient Safety**

**Bibtex entry :**

```bibtex
@inbook {KLK09,
  author = {Kopp, R{"u}dger and Leonhardt, Steffen and Kowalewski, Stefan},
  title = {Extracorporeal Membrane Oxygenation for Cardiac and Pulmonary Indications: Improving Patient Safety},
}
```

**Entwurf eingebetteter Software mit abstrakten Zustandsmaschinen und business object notation**

**Bibtex entry:**

```latex
@phdthesis { Klu09,
  author = { Kl"{u}nder, Daniel },
  othercontributors = { Kowalewski, Stefan },
  title = { Entwurf eingebetteter Software mit abstrakten Zustandsmaschinen und business object notation },
  publisher = { RWTH Aachen, Department of Computer Science },
  pages = { X, 131 S. : graph. Darst. },
  series = { Aachener Informatik-Berichte },
  year = { 2009 },
  address = { Aachen },
  typ = { PUB:(DE-HGF)11 },
  reportid = { RWTH-CONV-114049 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/51797/files/Kluender_Daniel.pdf },
}
```

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.)

Bibtex entry:

@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 },
}

[KWA+09]

Regelungs- und Sicherheitskonzepte für extrakorporale zur Lungenunterstützung, Biomedizinische Technik = Biomedical engineering, vol. 54, iss. 5, pp. 289-297, 2009

Bibtex entry:

@article { KWA+09,
   author = { Kopp, R{"u}dger and Walter, Marian and Arens, Jutta and Stollenwerk, Andr{e} and Leonhardt, Steffen and Schmitz-Rode, and Rossaint, R. },
   title = { Regelungs- und Sicherheitskonzepte für extrakorporale zur Lungenunterstützung },
   journal = { Biomedizinische Technik = Biomedical engineering },
   volume = { 54 },
   number = { 5 },
   pages = { 289-297 },
   year = { 2009 },
}

https://www.embedded.rwth-aachen.de/ Printed on 2020/03/06 21:55
Thomas and Kowalewski, Stefan and Rossaint, Rolf,
title = { Regelungs- und Sicherheitskonzepte für extrakorporale
zur Lungenunterstützung },
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 :

@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 für die extrakorporale Oxygenierung },
    publisher = { VDI-Verl. },
    pages = { 281-285 },
    series = { VDI-Berichte },
    year = { 2009 },
    address = { Düsseldorf },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172523 },
}

**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 :**

```latex
@inproceedings { MWK+09,
  author = { Mitsching, Ralf and Weise, Carsten and Kolbe, André and Bohnenkamp, Henrik and Berzen, Norbert },
```

https://www.embedded.rwth-aachen.de/
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 = { Variabilität im modellbasierten Engineering von eingebetteten Systemen },
    booktitle = { Informatik 2009 : im Focus das Leben ; Beiträge der 39. Jahrestagung der Gesellschaft für Informatik e.V. (GI), 28.9. - 2.10.2009 in Lübeck / Stefan Fischer ... (Hrsg.) },
    publisher = { Ges. f"ur Informatik },
    pages = { 331-331 },
    series = { GI-Edition : Proceedings },
    year = { 2009 },
    address = { Lübeck, Germany },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172392 },
    cin = { 120000 / 122810 },
    url = { http://subs.emis.de/LNI/Proceedings/Proceedings154/P-154.pdf },
}
Early Behaviour Modelling for Control Systems

Bibtex entry:

@inproceedings {PK09,
  author = {Palczynski, Jacob and Kowalewski, Stefan },
  title = {Early Behaviour Modelling for Control Systems},
  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},
}

Applying software product line techniques in model-based embedded systems engineering

Bibtex entry:

@inproceedings {PKB09,
  author = {Polzer, Andreas and Kowalewski, Stefan and Botterweck, G{"o}tz },
  title = {Applying software product line techniques in model-based embedded systems engineering},
  doi = {10.1109/ICSEWOMPES.2009.69},
  typ = {PUB:(DE-HGF)8},
  reportid = {RWTH-CONV-171883},
  cin = {122810 / 120000},
  url = {http://publications.rwth-aachen.de/record/98844},
}

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

Bibtex entry:

```bibtex
@inproceedings { RBH+09,
    author = { Reinbacher, Thomas and Brauer, J{"o}rg and Horauer, Martin and Schlich, Bastian },
    title = { Refining assembly code static analysis for the Intel MCS-51 microcontroller },
    publisher = { IEEE },
    pages = { 161-170 },
    year = { 2009 },
    address = { Piscataway, NJ },
    doi = { 10.1109/SIES.2009.5196212 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172391 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/99425 },
}

**Model checking assembly code of an industrial knitting machine**

**Bibtex entry :**

```latex
@inproceedings { RHS+09,  
    author = { Reinbacher, Thomas and Horauer, Martin and Schlich, Bastian and Brauer, J{"o}rg and Scheuer, Florian },  
    title = { Model checking assembly code of an industrial knitting machine },  
    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 },  
}
```


**Using 3-valued memory representation for state space reduction in embedded assembly code model checking**

**Bibtex entry :**

```latex
@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 = { Liberec, Czech Republic },  
    doi = { 10.1109/DESDM.2009.5142034 },  
    typ = { PUB:(DE-HGF)8 },  
    reportid = { RWTH-CONV-199049 },  
    cin = { 122810 / 120000 },  
    url = { http://publications.rwth-aachen.de/record/129023 },  
}
```
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{"o}rg and Wernerus, J{"o}rg 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 },
    reportid = { RWTH-CONV-236337 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/752318 },
}

[SFK+09]

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

Bibtex entry:
@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 },
    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 },
}

[SJK09]

PDF

BIB


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 },
}
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 },
url = { http://publications.rwth-aachen.de/record/132064 },
}

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 },
}

[SKW09]


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 },
  booktitle = { ArtistDesign Workshop on Embedded Systems in Healthcare, Eindhoven - The Netherlands },
  year = { 2009 },
  typ = { PUB:(DE-HGF)5 },
  reportid = { RWTH-CONV-236341 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752314 },
}

[SL09]

PDFBIB


Embedded Contributions to an Intensive Care Safety Concept

Bibtex entry:

@conference { SWW+09,
  author = { Stollenwerk, Andre and Lang, Martin },
  title = { Embedded Contributions to an Intensive Care Safety Concept },
  booktitle = { ArtistDesign Workshop on Embedded Systems in Healthcare, Eindhoven - The Netherlands },
  year = { 2009 },
  typ = { PUB:(DE-HGF)5 },
  reportid = { RWTH-CONV-236341 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752314 },
}

[SWW+09]

PDFBIB

**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, Rüdger 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]
PDFBIB


**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 }  
}

Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/
Kowalewski, Stefan and Reke, Michael },
title = { Mapping Requirement Models to Mathematical Models in Control
System Development },
booktitle = { Model driven architecture - foundations and applications :
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 G"uckel, Dominique and Quirós, Gustavo and Slaats, Michaela and Ummels, Michael },
title = { DFG Research Training Group 'Algorithmic synthesis of reactive and discrete-continuous systems (AlgoSyn)' },
journal = { Information technology : it },
publisher = { Oldenbourg },
pages = { 222-230 },
volume = { 51 },
number = { 4 },
year = { 2009 },
address = { M"unchen },
issn = { 0944-2774 },
doi = { 10.1524/itit.2009.0545 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-CONV-013644 },
cin = { 117220 / 122810 / 526610 / 416610 / 120000 / 110000 /

https://www.embedded.rwth-aachen.de/ Printed on 2020/03/06 21:55

**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 :

```bibtex
@inproceedings { WWS+09,
  author = { Wartzek, Tobias and Walter, Marian and Stollenwerk, André },
  title = { Automatisierung der extrakorporalen Membranoxygenierung },
  booktitle = { Automatisierungstechnische Verfahren für die Medizin : 8. Workshop ; Tagungsband / Thomas Schauer ... (eds.), Düsseldorf, 2009 in Fortschritt-Berichte VDI : Reihe 17, Biotechnik/Medizintechnik, VDI-Verlag, pp. 25-26. },
  publisher = { EUCA },
  year = { 2009 },
  address = { Düsseldorf },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-172394 },
  cin = { 120000 / 122810533000-3 / 611010811001-1 },
  url = { http://publications.rwth-aachen.de/record/99428 },
}
```
André and Kopp, Rüdger and Kashefi, Ali and Leonhardt, Steffen},
title = { Automatisierung der extrakorporalen Membranoxygenierung },
booktitle = { Automatisierungstechnische Verfahren für 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 = { Düsseldorf },
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 },


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

**Bibtex entry :**

```bibtex
@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 },
    cin = { 122810 / 120000 },
}
```

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 },
}

[ASK08a]


Effective pattern representation for safety critical 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 },
}

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

Bibtex entry:

```bibtex
@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 ...},
  publisher = {IEEE Computer Society},
  pages = {232-237},
  year = {2008},
  address = {Los Alamitos, Calif.},
  doi = {10.1109/ICIT.2008.60},
  typ = {PUB:(DE-HGF)8},
  reportid = {RWTH-CONV-171800},
  cin = {122810 / 120000},
  url = {http://publications.rwth-aachen.de/record/98744},
}
```

Direct support for model checking abstract state machines by utilizing simulation

Bibtex entry:

@inbook { BKK+08,
    author = { Beckers, Jörg and Klünder, Daniel and Kowalewski, Stefan and Schlich, Bastian },
    title = { Direct support for model checking abstract state machines by utilizing simulation },
    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 },
}

[BSS+08]

PDFBIB


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

Bibtex entry:

@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 },
}

https://www.embedded.rwth-aachen.de/
booktitle = { Leveraging applications of formal methods, verification and validation : third international symposium, ISoLA 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 },
adress = { 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 :**

@inproceedings { DHH+08,
  author = { Drews, Peter and Hesseler, Frank and Hoffmann, Kai and Abel, Dirk and Schmitz, Dominik and Polzer, Andreas and Kowalewski, Stefan },
  title = { Entwicklung einer Luftpfadregelung am Dieselmotor unter Ber{"u}cksichtigung 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 / 120000 },
  url = { http://publications.rwth-aachen.de/record/97317 },
}

**Entwicklungsprozess für eine Luftpfadregelung am Dieselmotor unter Berücksichtigung nichtfunktionaler Anforderungen**

Bibtex entry :

```bibtex
@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 für eine Luftpfadregelung am Dieselmotor unter Berücksichtigung 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 Bäker (Hrsg.) u. 46 Mitautoren },
publisher = { Expert-Verl. },
pages = { 167-179 },
series = { Haus der Technik Fachbuch },
year = { 2008 },
address = { Renningen },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-170587 },
cin = { 122810 / 416610 / 120000 },
url = { http://publications.rwth-aachen.de/record/97365 },
}
```

Goanna: syntactic software model checking

Bibtex entry:

@inbook { HFS+08,
    author = { Huuck, Ralf and Fehnker, Ansgar and Seefried, Sean and Brauer, J"org },
    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 },
}

[HSW+08]

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 },
}

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

Bibtex entry:

```
@inproceedings {KKK08,
    author = {Klünder, Daniel and Kameni, Dimitri and Kowalewski, Stefan},
    title = {Nahtloser Entwurf sicherheitskritischer, eingebetteter Softwaresysteme mit abstrakten Zustandsmaschinen und Business Object Notation},
    publisher = {Universität},
    year = {2008},
    address = {Magdeburg},
    typ = {PUB:DE-HGF}8,
    reportid = {RWTH-CONV-171804},
    cin = {122810 / 120000},
    url = {http://publications.rwth-aachen.de/record/98748},
}
```

**Design-by-Contract for Embedded Systems**

Bibtex entry:

```
@inproceedings { KLK08,
    author = { Kl{"u}nder, Daniel and Li, J. and Kowalewski, Stefan },
    title = { Design-by-Contract for Embedded Systems },
    booktitle = { International Symposium on Software Variability: a Programmers' Perspective (SVPP 2008) },
    year = { 2008 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-236338 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/752319 },
}
```

[Klu08]

Modellierung und Analyse von Fahrzeugsoftware mit Abstract State Machines

Bibtex entry:

```
@inproceedings { Klu08,
    author = { Kl{"u}nder, Daniel },
    title = { Modellierung und Analyse von Fahrzeugsoftware mit Abstract State Machines },
    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 },
}
```

PDF

BIB

**Virtuelle Integration von vernetzten Funktionen in frühen Entwicklungsphasen**

Bibtex entry :

```latex
@inproceedings { MHR+08,
  author = { Michailidis, Alexander A. and Hedenetz, Bernd and Ringler, Thomas and Kowalewski, Stefan },
  title = { Virtuelle Integration von vernetzten Funktionen in frühen 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 München (i.e. Dresden!)] / Bernard Bäker (Hrsg.) u. 46 Mitautoren },
  publisher = { Expert-Verl. },
  pages = { 151-167 },
  address = { Renningen },
  year = { 2008 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-189181 },
  url = { http://publications.rwth-aachen.de/record/117851 }
}
```


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

Bibtex entry :

```latex
@inbook { NS08,
  author = { Noll, Thomas and Schlich, Bernd },
  title = { "Delayed nondeterminism in model checking embedded systems assembly code" },
  booktitle = { Berlin [u.a.: Springer, 2008, vol. 4899, pp. 185-201. },
  publisher = { Springer },
  pages = { 185-201 },
  address = { Berlin },
  year = { 2008 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-189181 },
  url = { http://publications.rwth-aachen.de/record/117851 }
}
```
Motivating model checking for embedded systems software

Bibtex entry:

@inproceedings {RKH+08,
    author = {Reinbacher, Thomas and Kramer, Michael and Horauer, Martin and Schlich, Bastian},
    title = {Motivating model checking for embedded systems software},
    publisher = {IEEE },
    pages = {546-551 },
    year = {2008 },
    address = {Piscataway, NJ },
    doi = {10.1109/MESA.2008.4735653 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172092 },
}

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

**Bibtex entry:**

```bibtex
@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 },
    booktitle = { 2008 International Symposium on Industrial Embedded
                   Systems : [SIES'2008] ; La Grande Motte, France, 11 - 13
                   June 2008 / IEEE },
    publisher = { IEEE },
    pages = { 245-248 },
    year = { 2008 },
    address = { Piscataway, NJ },
    doi = { 10.1109/SIES.2008.4577709 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-172528 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/99569 },
}
```


**Empirical evaluations of safety critical embedded systems**

**Bibtex entry:**

```bibtex
@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 },
}

[Sch08]

**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 },
    year = { 2008 },
    address = { Aachen },
    typ = { PUB:(DE-HGF)11 },
    reportid = { RWTH-CONV-125168 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/63747/files/Schlich_Bastian.pdf },
}
```

[SDH+08]
Modellbasierte Anforderungserfassung für softwarebasierte Regelungen

Bibtex entry:

@inproceedings { SDH+08,  
author = { Schmitz, Dominik and Drews, Peter and He\sseler, Frank-Josef and Jarke, Matthias and Kowalewski, Stefan and Palczynski, Jacob and Polzer, Andreas and Reke, Michael and Rose, Thomas },  
title = { Modellbasierte Anforderungserfassung f\"ur softwarebasierte Regelungen },  
publisher = { Ges. f\"ur 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 },

[SGK08]
PDFBIB


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]

PDF

BIB


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 },
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


Informatik 11 - Embedded Software - https://www.embedded.rwth-aachen.de/
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 },
        isbn = { 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]
PDFBIB


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

Bibtex entry :

@inbook { SLK08,
        author = { Schlich, Bastian and L{"o}ll, Jann and Kowalewski, Stefan },
        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 },
    }
[ST08]
PDFBIB

**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 },
    address = { Piscataway, NJ },
    doi = { 10.1109/ISIE.2008.4677068 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-171801 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/98745 },
}
```

[Wil08]
PDFBIB

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

Bibtex entry:

```bibtex
@phdthesis { Wil08,
}
```

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

**Bibtex entry:**

```latex
@inproceedings { WSK08,
    author = { Wilking, Dirk and Schilli, David and Kowalewski, Stefan },
    title = { Measuring the human factor with the Rasch Model },
    publisher = { Springer },
    pages = { 157-168 },
    series = { Lecture notes in computer science },
    year = { 2008 },
    address = { Berlin [u.a.] },
    doi = { 10.1007/978-3-540-85279-7_13 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-197274 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/127027 },
}
```
Significance of the automation engineering

Bibtex entry:

@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 },
}

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

Bibtex entry:

@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. },
}

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

**Bibtex entry :**

```bibtex
@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 :**

```bibtex
@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, }
```

Bibtex entry:

@inproceedings { SK07a,
    author = { Salewski, Falk and Kowalewski, Stefan },
    pages = { 48-51 },
    series = { Technical Report WUCSE },
    year = { 2007 },
    address = { [s.l.] },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-188513 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/117072 },
}

The effect of hardware platform selection on safety-critical software in embedded systems: empirical evaluations


The effect of hardware platform selection on safety-critical software in embedded systems: empirical evaluations

Bibtex entry:

```bibtex
@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 },
}
```

[SK07c]

PDF/BIB


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

Bibtex entry:

```bibtex
@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 },
}
```

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

Bibtex entry :

@inproceedings { SK07d,
  author = { Schlich, Bastian and Kowalewski, Stefan },
  title = { An extendable architecture for model checking hardware-specific automotive microcontroller code },
  booktitle = { FORMS/FORMAT 2007 - 6th symposium : formal methods for automation and safety in railway and automotive systems ; proceedings of Symposium FORMS/FORMAT 2007, Braunschweig, Germany, 25th and 26th January, 2007 / Eckehard Schnieder; 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 },
}


@inproceedings { SSK07,
  author = { Schlich, Bastian and Kowalewski, Stefan and Salewski, Florian },
  title = { Applying model checking to an automotive microcontroller application },
  year = { 2007 },
  pages = { 209-216 },
  publisher = { IEEE },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-188508 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/117067 },

Applying model checking to an automotive microcontroller application

Bibtex entry:

```bibtex
@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]
PDF BIB


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 },
}
```

Analyzing software engineering processes on source code level

Bibtex entry :

@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 },
  pages = { 305-314 },
  series = { Frontiers in artificial intelligence and applications },
  year = { 2007 },
  address = { Amsterdam [u.a.] },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-188511 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/117070 },
}


An empirical evaluation of refactoring
Bibtex entry:

@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 },
}

[BK06]

PDF

BIB


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 },
}

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},
publisher = {Univ., Fak. f{"u}r Informatik, Bibliothek},
series = {Interner Bericht / Universität Karlsruhe, Fakultät für Informatik},
year = {2006},
address = {Karlsruhe},
typ = {PUB:(DE-HGF)8},
reportid = {RWTH-CONV-183673},
cin = {122810 / 120000},
url = {http://publications.rwth-aachen.de/record/111723},
}

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 },
}
```

[Klu06b]

PDF

Bib


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}ster{"a}sters, 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
```
Coping with the Variability of Hybrid Models for Automotive Software

Bibtex entry:

```latex
@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},  
  pages = {31-38},  
  year = {2006},  
  typ = {PUB:(DE-HGF)8},  
  reportid = {RWTH-CONV-191092},  
  cin = {122810 / 120000},  
  url = {http://www.ist-hycon.org/deliverables/HYCON-D4c42.pdf},}
```

Eine Evaluationssuite zur schnellen Bewertung von Matlab/Simulink-Modelcheckern

Bibtex entry:

```latex
@inproceedings{PSK06,  
  author = {Palczynski, J., Schlich, B., and Kowalewski, S.},  
  title = {Eine Evaluationssuite zur schnellen Bewertung von Matlab/Simulink-Modelcheckern},  
```
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 },
    booktitle = { Informatik 2006 : Informatik f{"u}r Menschen ;
    Beitr{"a}ge der 36. Jahrestagung der Gesellschaft f{"u}r
    Informatik e.V. (GI) ; 2. bis 6. Oktober 2006 in Dresden / Christian
    Hochberger ... (Hrsg.). - T. 1. - 1 },
    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 },
}

[SK06]


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 },
    booktitle = { 2006 International Symposium on Industrial Embedded
    Systems : Antibes Juan-Les-Pins, France, 18 - 20 October 2006 / IEEE },
    publisher = { IEEE Service Center },
    year = { 2006 },
    address = { Piscataway, NJ },
    doi = { 10.1109/IES.2006.357483 },
    typ = { PUB:(DE-HGF)8 },


Model checking software for microcontrollers

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 },
  reportid = { RWTH-CONV-188517 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/117076 },
}


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 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-188517 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/117076 },
}

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 = {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 ...},
    publisher = {University of Technology, Real-Time Systems Group},
    pages = {61-66},
    series = {Vienna University of Technology: Technical Report},
    year = {2006},
    address = {Vienna},
    typ = {PUB:(DE-HGF)8},
    reportid = {RWTH-CONV-183689},
    cin = {120000 / 122810},
    url = {http://publications.rwth-aachen.de/record/111741},
}

Architekturen für die Funktionsintegration

Bibtex entry:

@inproceedings { BCK+05,
  author = { Bollig, Alexander and Chevalier, Wolf and Kowalewski, Stefan and Florissen, G. },
  title = { Architekturen f"ur die Funktionsintegration },
  publisher = { Expert-Verl. },
  series = { Haus der Technik Fachbuch },
  year = { 2005 },
  address = { Renningen },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-181605 },
  cin = { 416610 / 122810 },
  url = { http://publications.rwth-aachen.de/record/109503 },
}

[BKC+05]

Architekturen für die Funktionsintegration

Bibtex entry:

@inproceedings { BKC+05,
  author = { Bollig, Alexander and Kowalewski, Stefan and Chevalier, Wolf and Florissen, G. },
  title = { Architekturen f"ur die Funktionsintegration },
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 },
}

[LKT05]
PDFBIB


Supporting empathy in online learning with artificial expressions

Bibtex entry :

@article { LKT05,
    author = { Lyons, Michael J. and Kl{"u}nder, Daniel and Tetsutani, Nobuji },
    title = { Supporting empathy in online learning with artificial expressions },
    journal = { Educational technology & society },
    publisher = { International Forum of Educational Technology & Society },
    pages = { 22-30 },
    volume = { 8 },
    number = { 4 },
    year = { 2005 },
    address = { Palmerston North },
    issn = { 1176-3647 },
    typ = { PUB:(DE-HGF)16 },
    reportid = { RWTH-CONV-066564 },
    cin = { 122810 / 120000 },
    url = { http://www.ifets.info/journals/8_4/4.pdf },
}

[SK05]
PDFBIB

Zuverlässigkeitssystemen für Eingebettete Systeme

Bibtex entry:

@inproceedings {SK05,
  author = {Salewski, Falk and Kowalewski, Stefan},
  booktitle = {Zuverl"assigkeit in eingebetteten Systemen : Ada Deutschland Tagung ...},
  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]


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

Bibtex entry:

@article {SK05a,
  author = {Salewski, Falk and Kowalewski, Stefan},
  title = {Zuverl"assigkeit in eingebetteten Systemen :
Kurzfassung des Vortrags vom Workshop Zuverl"assigkeit in eingebetteten Systemen },
  journal = {Softwaretechnik-Trends},
  publisher = {K"ollen},
  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 Center. Ed.: Tiziana Margaria ... },
  pages = { 65-77 },
  number = { NASA/CP-2005-212788 },
  year = { 2005 },
  address = { [S.l.] },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-009447 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/111740 },
}

[SWK05]
PDF BIB

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 },
}

[WK05]


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 },
}

Realtime Object Recognition Using Decision Tree Learning

Bibtex entry:

```latex
@inproceedings { WR05,  
    author = { Wilking, Dirk and R"ofer, 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 },  
    reportid = { RWTH-CONV-197755 },  
    cin = { 122810 / 120000 },  
    url = { http://publications.rwth-aachen.de/record/127542 },  
}
```


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 },
```

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

**Bibtex entry**: 
```bibtex
@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 },
    url = { http://publications.rwth-aachen.de/record/122810 },
}
```