

# Publikationen

[BBF+20]

[PDFBIB](#)

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 :**

```
@inproceedings { BBF+20,
  author = { Buglowski, Mateusz and Bleilevens, Christian and Fabry,
    Gregor and Kowalewski, Stefan and Stollenwerk, André },
  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]

[PDFBIB](#)

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

## Formale Methoden für rekonfigurierbare cyber-physische Systeme in der Produktion

**Bibtex entry :**

```
@article { GSB+20,
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```

author = { Grochowski, Marco and Simon, Hendrik and Bohlender,
Dimitri
and Kowalewski, Stefan and L{"o}cklin, Andreas and
M{"u}ller, Timo and Jazdi, Nasser and Zeller, Andreas and
Weyrich, Michael },
title = { Formale Methoden f{"u}r rekonfigurierbare cyber-
physische
Systeme in der Produktion },
journal = { Automatisierungstechnik },
publisher = { De Gruyter },
pages = { 3-14 },
volume = { 68 },
number = { 1 },
year = { 2020 },
address = { Berlin },
issn = { 2196-677X },
doi = { 10.1515/auto-2019-0115 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-2019-12214 },
cin = { 122810 / 120000 },
url = {
https://www.degruyter.com/view/j/auto.2020.68.issue-1/auto-2019-0115/au
to-2019-0115.xml }
}

```

[SCE+20]

[PDFBIB](#)

Stollenwerk, A., Chamberlain, R., Edin Grimheden, M., and Taha, W., "An Embedded Graduate Lab Course with Spirit", *Lecture notes in computer science*, vol. 11971, pp. 247-263, 2020

## An Embedded Graduate Lab Course with Spirit

### Bibtex entry :

```

@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 },
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cin = { 122810 / 120000 },
url = {
http://publications.rwth-aachen.de/record/783168/files/783168.pdf },
}

```

[SRT+20]

[PDFBIB](#)

Smieschek, M., Rakel, S., Thönnessen, D., Derks, A., Stollenwerk, A., and Kowalewski, S., "A Remote Test Environment for a Large-Scale Microcontroller Laboratory Course", in *Proc. [Workshop on Embedded Systems and Cyber-Physical Systems Education, WESE 2019, New York, USA]*, Cham, 2020 in *Lecture Notes in Computer Science*, Springer, pp. 231-246.

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

### Bibtex entry :

```

@inproceedings { SRT+20,
  author = { Smieschek, Manfred and Rakel, Stefan and Th{"o}nnessen,
    David and Derks, Andreas and Stollenwerk, Andr{e} and
    Kowalewski, Stefan },
  title = { A Remote Test Environment for a Large-Scale
    Microcontroller
    Laboratory Course },
  booktitle = { [Workshop on Embedded Systems and Cyber-Physical
    Systems
    Education, WESE 2019, New York, USA] },
  publisher = { Springer },
  pages = { 231-246 },
  series = { Lecture Notes in Computer Science },
  year = { 2020 },
  address = { Cham },
  organization = { Workshop on Embedded Systems and Cyber-Physical
    Systems
    Education, New York (USA), 2019-10-17 - 2019-10-18 },
  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%20
Final.pdf },
}

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[BCK+19]

[PDFBIB](#)

Bohlender, D., Chiyah Garcia, F. J., Köhl, M., Menghi, C., and Wortmann, A., "On Explainability and its Characterization", *Explainable Software for Cyber-Physical Systems (ES4CPS) : Report from the GI Dagstuhl Seminar 19023 : January 06-11 2019, Schloss Dagstuhl / Edited By: Joel Greenyer ; Malte Lochau ; Thomas Vogel*, pp. 4-7, 2019

## 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) :
    Report from the GI Dagstuhl Seminar 19023 : January 06-11
    2019, Schloss Dagstuhl / Edited By: Joel Greenyer ; Malte
    Lochau ; Thomas Vogel },
  pages = { 4-7 },
  year = { 2019 },
  organization = { GI Dagstuhl Seminar 19023 on Explainable Software
  for
    Cyber-Physical Systems, Dagstuhl (Germany), 2019-01-06 -
    2019-01-11 },
  doi = { 10.18154/RWTH-2020-01625 },
  typ = { PUB:(DE-HGF)25 },
  reportid = { RWTH-2020-01625 },
  cin = { 122810 / 120000 / 121510 },
  url = { https://arxiv.org/pdf/1904.11851.pdf#page=9 },
}
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[BK19]

[PDFBIB](#)

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

## Leveraging Horn clause solving for compositional verification of PLC software

### Bibtex entry :

```
@article { BK19,
  author = { Bohlender, Dimitri and Kowalewski, Stefan },
  title = { Leveraging Horn clause solving for compositional
  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 },
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reportid = { RWTH-2019-12207 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/775404 },
}
```

[BK19a]

[PDFBIB](#)

Bohlender, D. and Köhl, M. A., "Towards a Characterization of Explainable Systems", , 2019

## 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 },
  url = { https://arxiv.org/abs/1902.03096 },
}
```

[Der19]

[PDFBIB](#)

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

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

### Bibtex entry :

```
@phdthesis { Der19,
  author = { Dernehl, Christian Michael },
  othercontributors = { Kowalewski, Stefan and Moormann, Dieter },
  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 },
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reportid = { RWTH-2019-05178 },
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http://publications.rwth-aachen.de/record/761850/files/761850.pdf },
}
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[FDG+19]

[PDFBIB](#)

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

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

### Bibtex entry :

```
@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 /
9790209 },
  url = {
http://publications.rwth-aachen.de/record/767376/files/767376.pdf },
}
```

[GKB+19]

[PDFBIB](#)

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

# Applying runtime monitoring to the industrial internet of things

## Bibtex entry :

```
@proceedings { GKB+19,  
  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 },  
  organization = { 2019 24th IEEE International Conference on  
Emerging  
  Technologies and Factory Automation, Zaragoza (Spain),  
  2019-09-10 - 2019-09-13 },  
  doi = { 10.1109/ETFA.2019.8869447 },  
  typ = { PUB:(DE-HGF)26 },  
  reportid = { RWTH-2019-09795 },  
  cin = { 122810 / 080067 / 417200 / 120000 },  
  url = { https://ieeexplore.ieee.org/document/8869447 },  
}
```

[GKB+19a]

[PDFBIB](#)

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

# Applying Passive Testing to an Industrial Internet of Things Plant

## Bibtex entry :

```
@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 },  
  organization = { VALID 2019, The Eleventh International Conference  
on  
  Advances in System Testing and Validation Lifecycle,  
  Valencia (Spain), 2019-11-24 - 2019-11-28 },  
  typ = { PUB:(DE-HGF)3 },  
  reportid = { RWTH-2019-11004 },  
  cin = { 122810 / 417200 / 080067 / 120000 },  
  url = {  
http://thinkmind.org/index.php?view=article&articleid=valid_2019_2_30_4
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0023 },  
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[Gob19]

[PDFBIB](#)

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

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

### Bibtex entry :

```
@phdthesis { Gob19,  
  author = { Göbe, 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,  
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  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 },  
}
```

[Gro19]

[PDFBIB](#)

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

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

### Bibtex entry :

```
@phdthesis { Gro19,  
  author = { Grobosch, Sebastian },  
  othercontributors = { Kowalewski, Stefan and Engell, Sebastian },  
  title = { Formale Methoden für die Entwicklung von
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eingebetteter

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Software in kleinen und mittleren Unternehmen },
publisher = { Shaker },
school = { RWTH Aachen University },
pages = { 1 Online-Ressource (ix, 162 Seiten) : Illustrationen,
Diagramme },
series = { Aachener Informatik-Berichte },
year = { 2019 },
address = { D{"u}ren },
isbn = { 978-3-8440-6984-6 },
doi = { 10.18154/RWTH-2019-09536 },
typ = { PUB:(DE-HGF)11 },
reportid = { RWTH-2019-09536 },
cin = { 122810 / 120000 },
url = {
http://publications.rwth-aachen.de/record/768999/files/768999.pdf },
}

```

[KAK+19]

[PDFBIB](#)

Kampmann, A., Alrifaae, B., Kohout, M., Wüstenberg, A., Woopen, T., Nolte, M., Eckstein, L., and Kowalewski, S., "A Dynamic Service-Oriented Software Architecture for Highly Automated Vehicles", in *Proc. 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings]*, 2019, IEEE, pp. 2101-2108.

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

### Bibtex entry :

```

@inproceedings { KAK+19,
  author = { Kampmann, Alexandru and Alrifaae, Bassam and Kohout,
Markus
and W{"u}stenberg, Andreas and Woopen, Timo and Nolte,
Marcus and Eckstein, Lutz and Kowalewski, Stefan },
  title = { A Dynamic Service-Oriented Software Architecture for
Highly
Automated Vehicles },
  booktitle = { 2019 IEEE Intelligent Transportation Systems
Conference
(ITSC) : [Proceedings] },
  publisher = { IEEE },
  pages = { 2101-2108 },
  year = { 2019 },
  organization = { IEEE Intelligent Transportation Systems Conference
- ITSC,
Auckland (New Zealand), 2019-10-27 - 2019-10-30 },
  doi = { 10.1109/ITSC.2019.8916841 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2019-11214 },
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cin = { 122810 / 414110 / 120000 },
url = { http://publications.rwth-aachen.de/record/773699 },
}

```

[KBL+19]

[PDFBIB](#)

Köhl, M. A., Baum, K., Langer, M., Oster, D., Speith, T., and Bohlender, D., "Explainability as a Non-Functional Requirement", in *Proc. 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)*, Piscataway, JN, 2019, IEEE, pp. 363-368.

## Explainability as a Non-Functional Requirement

### Bibtex entry :

```

@inproceedings { KBL+19,
  author = { K{"o}hl, 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 },
}

```

[KBS+19]

[PDFBIB](#)

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

# Fault Identification in a Blood Pump Using Neural Networks

## Bibtex entry :

```
@inproceedings { KBS+19,
  author = { K{"u}hn, Jan and Buglowski, Mateusz and Stollenwerk,
  André
    and Kowalewski, Stefan and Walter, Marian and Leonhardt,
    Steffen and Petran, Jan and Kopp, R{"u}dger 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 },
}
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[KKM+19]

[PDFBIB](#)

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

# Distributed Model Predictive Pose Control of Multiple Nonholonomic Vehicles

## Bibtex entry :

```
@inproceedings { KKM+19,
  author = { Kloock, Maximilian and Kragl, Ludwig and Maczijekowski,
  Janis
    and Alrifaae, Bassam and Kowalewski, Stefan },
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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 },
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url = { http://publications.rwth-aachen.de/record/766610 },
}

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[KNR+19]

[PDFBIB](#)

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

## UNICARagil - New architectures for disruptive vehicle concepts

### Bibtex entry :

```

@inproceedings { KNR+19,
author = { Keilhoff, 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 Alrifaae, 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 },
booktitle = { 19. Internationales Stuttgarter Symposium :
Automobil- und
Motorentechnik / herausgegeben von Michael Bargende,
Hans-Christian Reuss, Andreas Wagner, Jochen Wiedemann },
publisher = { Springer Fachmedien Wiesbaden },
pages = { 830-842 },
series = { Proceedings Springer eBooks },
}

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year = { 2019 },
address = { Wiesbaden },
organization = { 19. Internationales Stuttgarter Symposium :
Automobil- und
    Motorentchnik, Stuttgart (Germany), 2019-03-19 - 2019-03-20 },
doi = { 10.1007/978-3-658-25939-6_65 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2019-09748 },
cin = { 122810 / 120000 / 414110 },
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}

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[KSB+19]

[PDFBIB](#)

Kloock, M. M., Scheffe, P., Botz, L., Maczjewski, J., Alrifaae, B., and Kowalewski, S., "Networked Model Predictive Vehicle Race Control", in *Proc. 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings]*, 2019, IEEE, pp. 1552-1557.

## Networked Model Predictive Vehicle Race Control

### Bibtex entry :

```

@inproceedings { KSB+19,
author = { Kloock, Maximilian Martin and Scheffe, Patrick and Botz,
Lukas and Maczjewski, Janis and Alrifaae, 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 },
organization = { IEEE Intelligent Transportation Systems Conference
- ITSC,
Auckland (New Zealand), 2019-10-27 - 2019-10-30 },
doi = { 10.1109/ITSC.2019.8917222 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2019-11241 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/773727 },
}

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[KSM+19]

[PDFBIB](#)

Kloock, M. M., Scheffe, P., Marquardt, S., Maczjewski, J., Alrifaae, B., and Kowalewski, S., "Distributed Model Predictive Intersection Control of Multiple Vehicles", in *Proc. 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings]*, Piscataway, NJ, 2019, IEEE, p. 8917117, 1735-1740.

# Distributed Model Predictive Intersection Control of Multiple Vehicles

## Bibtex entry :

```
@inproceedings { KSM+19,  
  author = { Kloock, Maximilian Martin and Scheffe, Patrick and  
    Marquardt, Sascha and Maczijekowski, Janis and Alrifaae,  
    Bassam and Kowalewski, Stefan },  
  title = { Distributed Model Predictive Intersection Control of  
    Multiple Vehicles },  
  booktitle = { 2019 IEEE Intelligent Transportation Systems  
Conference  
  (ITSC) : [Proceedings] },  
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  pages = { 8917117, 1735-1740 },  
  year = { 2019 },  
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Conference,  
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[KTF19]

[PDFBIB](#)

Khan, A., Thönnessen, D., and Fabian, M., "On-the-fly conformance testing of safety PLC code using QuickCheck", in *Proc. [17th IEEE International Conference on Industrial Informatics, INDIN 2019, 2019-07-22 - 2019-07-25, Helsinki, Finland]*, 2019, pp. 419-424.

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

## Bibtex entry :

```
@inproceedings { KTF19,  
  author = { Khan, Adnan and Th{"o"}nnessen, David and Fabian, Martin  
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  Finland] },  
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organization = { 17th IEEE International Conference on Industrial
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url = { http://publications.rwth-aachen.de/record/760542 },
}

```

[KWA+19]

[PDFBIB](#)

Kampmann, A., Wüstenberg, A., Alrifaae, B., and Kowalewski, S., "A Portable Implementation of the Real-Time Publish-Subscribe Protocol for Microcontrollers in Distributed Robotic Applications", in *Proc. 2019 IEEE Intelligent Transportation Systems Conference (ITSC) : [Proceedings]*, 2019, IEEE, pp. 443-448.

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

### Bibtex entry :

```

@inproceedings { KWA+19,
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  title = { A Portable Implementation of the Real-Time Publish-
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  booktitle = { 2019 IEEE Intelligent Transportation Systems
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[PAS+19]

[PDFBIB](#)

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

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## Bibtex entry :

```
@article { PAS+19,
  author = { Pomprapa, Anake and Ahmed, Waqar and Stollenwerk, André
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  title = { Deep Learning of Arrhythmia Analysis Based on
Convolutional
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  journal = { International journal of bioelectromagnetism : IJBEM },
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  pages = { 48-58 },
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}
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[SKS+19]

[PDFBIB](#)

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

## Aided Hand Detection in Thermal Imaging Using RGB Stereo Vision

### Bibtex entry :

```
@inproceedings { SKS+19,
  author = { Smieschek, Manfred and Kobsik, Gregor and Stollenwerk,
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  Schoberer, Mark },
  title = { Aided Hand Detection in Thermal Imaging Using RGB Stereo
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year = { 2019 },
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in Medicine & Biology Society, Berlin (Germany), 2019-07-23
- 2019-07-27 },
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url = { http://publications.rwth-aachen.de/record/770752 },
}

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[TSF+19]

[PDFBIB](#)

Thönnessen, D., Smallbone, N., Fabian, M., Claessen, K., and Kowalewski, S., "Testing Safety PLCs Using QuickCheck", in *Proc. 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*, Piscataway, NJ, 2019, IEEE, pp. 1388-1393.

## Testing Safety PLCs Using QuickCheck

### Bibtex entry :

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@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 },
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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 },
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}

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}

[VK19]

[PDFBIB](#)

Völker, M. and Kowalewski, S., "A Change-Based Heuristic for Static Analysis with Policy Iteration", in *Proc. Static Analysis / Chang, Bor-Yuh Evan (Editor)*, Cham, 2019 in *Lecture Notes in Computer Science*, Springer International Publishing, pp. 73-95.

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### Bibtex entry :

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

[PDFBIB](#)

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## Verification of Cooperative Vehicle Behavior using Temporal Logic

### Bibtex entry :

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@article { VKR+19,
  author = { V{"o}lker, Marcus and Kloock, Maximilian and Rabanus,
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journal = { IFAC-PapersOnLine },
publisher = { Elsevier },
pages = { 99-104 },
volume = { 52 },
number = { 8 },
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address = { Frankfurt ; M{"u"}nchen [u.a.] },
issn = { 2405-8963 },
organization = { 10th IFAC Symposium on Intelligent Autonomous
Vehicles,
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doi = { 10.1016/j.ifacol.2019.08.055 },
typ = { PUB:(DE-HGF)16 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/766778 },
}

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[AM18]

[PDFBIB](#)

Alrifaae, B. and Maczijekowski, J., "Real-time Trajectory optimization for Autonomous Vehicle Racing using Sequential Linearization", in *Proc. 2018 IEEE Intelligent Vehicles Symposium (IV) : 26-30 June 2018 / [sponsored by the IEEE Intelligent Transportation Systems Society (ITSS)]*, Piscataway, NJ, 2018, IEEE.

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### Bibtex entry :

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@inproceedings { AM18,
    author = { Alrifaae, Bassam and Maczijekowski, Janis },
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June
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[BFH+18]

[PDFBIB](#)

Bordasch, M., Facchi, C., Heidepriem, S., Jähnert, J., Jung, T., Köllner, C., Kraas, A., Krause, J., Krüning, K., Kugler, A., Maschler, B., Schleicher, C., Siegrist, D., Simon, H., Störmer, C., Thönnessen, D., Wassermann, E., Weyrich, M., Wimmer, T., and Zeller, A., "VDI Status Report Testing of Networked Systems for Industrie 4.0", 2018.

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  author = { Bordasch, Manuel and Facchi, Christian and Heidepriem,
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    and Kr{"u}ning, Kai and Kugler, Alexander and Maschler,
    Benjamin and Schleicher, Christian and Siegrist, Daniel and
    Simon, Hendrik and St{"o}rmer, Christoph and
    Th{"o}nnessen, David and Wassermann, Erik and Weyrich,
    Michael and Wimmer, Thomas and Zeller, Andreas },
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https://www.vdi.de/ueber-uns/presse/publikationen/details?tx\_vdi\_publications\_publicationdetails%5Bpublication%5D=19&cHash=e6b4c230eafa31d95ceb75395274c78c },
}
```

[BHK18]

[PDFBIB](#)

Bohlender, D., Hamm, D., and Kowalewski, S., "Cycle-Bounded Model Checking of PLC Software via Dynamic Large-Block Encoding", in *Proc. Applied computing 2018 : the 33rd Annual ACM Symposium on Applied Computing : Pau, France, April 9-13, 2018 / sponsored by: ACM Special Interest Group on Applied Computing ; conference chairs: Hisham M. Haddad (Kennesaw State University, USA), Roger L. Wainwright (University of Tulsa, USA), Richard Chbeir (University of Pau & Pays Adour, France)*, New York, NY, 2018, ACM, pp. 1891-1898.

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

### Bibtex entry :

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@inproceedings { BHK18,
  author = { Bohlender, Dimitri and Hamm, Daniel and Kowalewski,
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Applied Computing : Pau, France, April 9-13, 2018 /
sponsored by: ACM Special Interest Group on Applied
Computing ; conference chairs: Hisham M. Haddad (Kennesaw
State University, USA), Roger L. Wainwright (University of
Tulsa, USA), Richard Chbeir (University of Pau & Pays Adour,
France) },
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  url = { http://publications.rwth-aachen.de/record/752221 },
}

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[BK18]

[PDFBIB](#)

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### Bibtex entry :

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@article { BK18,
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  volume = { 51 },
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  organization = { 14th IFAC International Workshop on Discrete Event
Systems,

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    Castellammare di Stabia (Italy), 2018-05-30 - 2018-06-01 },
    doi = { 10.1016/j.ifacol.2018.06.336 },
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    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/730763 },
}
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[BK18a]

[PDFBIB](#)

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### Bibtex entry :

```
@inproceedings { BK18a,
  author = { Bohlender, Dimitri and Kowalewski, Stefan },
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  booktitle = { Integrated Formal Methods : 14th International
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  pages = { 47-68 },
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  address = { Cham },
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  url = { http://publications.rwth-aachen.de/record/752219 },
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```

[CMW+18]

[PDFBIB](#)

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*Kingdom*), Amsterdam, 2018 in *Frontiers in artificial intelligence and applications*, IOS Press, pp. 41-51.

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### Bibtex entry :

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@inproceedings { CMW+18,
  author = { Chomicz, Paul and M{"u"}ller-Lerwe, Armin and Wegner,
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  booktitle = { Controlled Natural Language : Proceedings of the
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    http://publications.rwth-aachen.de/record/752264/files/752264.pdf },
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[CMW+18a]

[PDFBIB](#)

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,
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  reportid = { RWTH-2019-11756 },
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  url = { http://ebooks.iospress.nl/volumearticle/49768 },
}
```

[GAK18]

[PDFBIB](#)

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

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

### Bibtex entry :

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@inproceedings { GAK18,
  author = { G{\o}be, Florian and Aydin, Selin and Kowalewski,
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  booktitle = { 2017 22nd IEEE International Conference on Emerging
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Technologies and Factory Automation : September 12-15, 2017,
Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus },
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pages = { 8 Seiten },
series = { IEEE International Conference on Emerging Technologies
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Technologies
and Factory Automation, Limassol (Cyprus), 2017-09-12 -
2017-09-15 },
doi = { 10.1109/ETFA.2017.8247575 },
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url = { http://publications.rwth-aachen.de/record/722221 },
}

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[GSA+18]

[PDFBIB](#)

Grochowski, M., Schweigler, M., Alrifaae, B., and Kowalewski, S., "A GPS-aided Inertial Navigation System for Vehicular Navigation using a Smartphone", *IFAC-PapersOnLine*, vol. 51, iss. 10, pp. 121-126, 2018

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

### Bibtex entry :

```

@article { GSA+18,
author = { Grochowski, Marco and Schweigler, Martin and Alrifaae,
Bassam and Kowalewski, Stefan },
title = { A GPS-aided Inertial Navigation System for Vehicular
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journal = { IFAC-PapersOnLine },
pages = { 121-126 },
volume = { 51 },
number = { 10 },
year = { 2018 },
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Computational
Intelligence and Telematics in Control, Farod (Portugal),
2018-06-06 - 2018-06-08 },
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cin = { 122810 / 120000 },
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}
```

[KRG+18]

[PDFBIB](#)

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### Bibtex entry :

```
@article { KRG+18,
  author = { Kriebel, Stefan and Richenhagen, Johannes Martin and
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[KRG+18a]

[PDFBIB](#)

Kriebel, S., Richenhagen, J. M., Granrath, C., and Kugler, C., "Systems Engineering mit SysML : Der Weg in die Zukunft?", *Motortechnische Zeitschrift : MTZ*, vol. 79, iss. 5, pp. 48-53, 2018

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

### Bibtex entry :

```
@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 },
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publisher = { Springer Fachmedien },
pages = { 48-53 },
volume = { 79 },
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doi = { 10.1007/s35146-018-0025-7 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-2018-227695 },
cin = { 412310 / 122810 / 120000 / 121510 },
url = { http://publications.rwth-aachen.de/record/731745 },
}

```

[KSK+18]

[PDFBIB](#)

Kühn, J., Stollenwerk, A., Kowalewski, S., Fabry, G., Grzanna, T., Doorschodt, B., Tolba, R. H., Rossaint, R., and Bleilevens, C., "A long-term setup for kidney perfusion". 2018.

## A long-term setup for kidney perfusion

### Bibtex entry :

```

@inproceedings { KSK+18,
  author = { K{"u}hn, Jan and Stollenwerk, André and Kowalewski,
Stefan
    and Fabry, Gregor and Grzanna, Tim and Doorschodt, Benedict
and Tolba, René H. and Rossaint, Rolf and Bleilevens,
Christian },
  title = { A long-term setup for kidney perfusion },
  year = { 2018 },
  organization = { 52nd Annual Conference of the German Society for
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    Engineering, Aachen (Germany), 2018-09-26 - 2018-09-28 },
  typ = { PUB:(DE-HGF)6 },
  reportid = { RWTH-CONV-236288 },
  cin = { 122810 / 120000527000-2 / 9210105 },
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}

```

[MVC+18]

[PDFBIB](#)

Merchant, F., Vatwani, T., Chattopadhyay, A., Raha, S., Nandy, S. K., and Narayan, R., "Efficient Realization of Householder Transform Through Algorithm-Architecture Co-Design for Acceleration of QR Factorization", *IEEE transactions on parallel and distributed systems*, vol. 29, iss. 8, pp. 1707-1720, 2018

## Efficient Realization of Householder Transform Through

# Algorithm-Architecture Co-Design for Acceleration of QR Factorization

## Bibtex entry :

```
@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 },
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  number = { 8 },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/731326 },
}
```

[OK18]

[PDFBIB](#)

Obster, M. and Kowalewski, S., "A live static code analysis architecture for PLC software", in *Proc. 2017 22nd IEEE International Conference on Emerging Technologies and Factory Automation : September 12-15, 2017, Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus, [Piscataway, NJ], 2018* in IEEE International Conference on Emerging Technologies and Factory Automation-ETFA, IEEE, p. 4.

## A live static code analysis architecture for PLC software

### Bibtex entry :

```
@inproceedings { OK18,
  author = { Obster, Mathias and Kowalewski, Stefan },
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  publisher = { IEEE },
  pages = { 4 Seiten },
  series = { IEEE International Conference on Emerging Technologies
```

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and
  Factory Automation-ETFA },
year = { 2018 },
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organization = { 22nd IEEE International Conference on Emerging
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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]

[PDFBIB](#)

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 :

```

@inproceedings { PAS+18,
  author = { Pomprapa, Anake and Ahmed, Waqar and Stollenwerk, André
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  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 Universit{"a}t Berlin, Germany, Dr.
  Marian Walter, RWTH Aachen University, Germany, Benjamin
  Hentze, RWTH Aachen University, Germany Markus L{"u}ken,
  RWTH Aachen University, Germany ; Scientific Committee for
  ICBEM 2018 in Aachen: Prof. Catherine Disselhorst-Klug, RWTH
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year = { 2018 },
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(Germany), 2018-05-23 - 2018-05-25 },
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cin = { 611010 / 122810 / 120000 },
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http://publications.rwth-aachen.de/record/723536/files/723536.pdf },
}

```

[PAS+18a]

[PDFBIB](#)

Pomprapa, A., Ahmed, W., Sayani, M. S., Stollenwerk, A., Kowalewski, S., and Leonhardt, S., "Classification of Obstructive Sleep Apnea Using Machine Learning", *American journal of respiratory and critical care medicine*, vol. 197, iss. Abstract Issue, p. 1, 2018

## Classification of Obstructive Sleep Apnea Using Machine Learning

### Bibtex entry :

```

@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 },
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address = { New York, NY },
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organization = { International Conference of the American-Thoracic-
Society,
San Diego, CA (USA), 2018-05-18 - 2018-05-23 },
typ = { PUB:(DE-HGF)1 },
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url = {
https://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2018.197.1\_MeetingAbstracts.A7449 },
}

```

[PAS+18b]

[PDFBIB](#)

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", *International journal of bioelectromagnetism : IJBEM*, vol. 20, iss. 1, pp. 47-50, 2018

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

### Bibtex entry :

```
@article { PAS+18b,
  author = { Pomprapa, Anake and Ahmed, Waqar and Stollenwerk, André
and
  Kowalewski, Stefan and Uguz, Durmus Umutcan and Leonhardt,
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Convolutional Neural Network },
  journal = { International journal of bioelectromagnetism : IJBEM },
  publisher = { International Society for Bioelectromagnetism },
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  cin = { 611010 / 122810 / 120000 },
  url = { http://www.ijbem.org/volume20/number1/47-50.pdf },
}
```

[SBK18]

[PDFBIB](#)

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 :

```
@article { SBK18,
  author = { Stollenwerk, André and Buglowski, Mateusz and K{"u}hn,
Jan },
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title = { Mock loop for bubble generation in a centrifugal blood
pump
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volume = { 4 },
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issn = { 2364-5504 },
doi = { 10.1515/cdbme-2018-0009 },
typ = { PUB:(DE-HGF)16 },
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cin = { 122810 / 120000 },
url = {
http://publications.rwth-aachen.de/record/752262/files/752262.pdf },
}

```

[SGT+18]

[PDFBIB](#)

Schweigler, M., Grochowski, M., Tamrakar, S., and Kowalewski, S., "Ground Surface Pattern Recognition with Hidden Markov Models for Low Cost Positioning Improvement", in *Proc. 8th International Conference on Pattern Recognition Systems (ICPRS 2017) : 11-13 July 2017*, [Stevenage], 2018, IET, pp. 1-6.

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

### Bibtex entry :

```

@inproceedings { SGT+18,
  author = { Schweigler, Martin and Grochowski, Marco and Tamrakar,
Sujan
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  title = { Ground Surface Pattern Recognition with Hidden Markov
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  booktitle = { 8th International Conference on Pattern Recognition
Systems
    (ICPRS 2017) : 11-13 July 2017 },
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  organization = { 8th International Conference of Pattern
Recognition Systems,
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  doi = { 10.1049/cp.2017.0166 },
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reportid = { RWTH-CONV-236283 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752258 },
}

```

[SHS+18]

[PDFBIB](#)

Smieschek, M., Hinrichs, T., Stollenwerk, A., Kowalewski, S., and Preuß, R., "A New Condition Indicator for Slow-Rotating Roller Chains based on the Angle and Torque of the Driving Motor", in *Proc. 2018 IEEE 14th International Conference on Automation Science and Engineering (CASE) : 20-24 Aug. 2018 / general chair: Birgit Vogel-Heuser (Technical University of Munich)* ; publisher: IEEE, Piscataway, NJ, 2018, IEEE, pp. 642-644.

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

### Bibtex entry :

```

@inproceedings { SHS+18,
  author = { Smieschek, Manfred and Hinrichs, Timo and Stollenwerk,
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  title = { A New Condition Indicator for Slow-Rotating Roller Chains
    based on the Angle and Torque of the Driving Motor },
  booktitle = { 2018 IEEE 14th International Conference on Automation
    Science and Engineering (CASE) : 20-24 Aug. 2018 / general
    chair: Birgit Vogel-Heuser (Technical University of Munich)
    ; publisher: IEEE },
  publisher = { IEEE },
  pages = { 642-644 },
  year = { 2018 },
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    Science and
    Engineering, Munich (Germany), 2018-08-20 - 2018-08-24 },
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  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-236282 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752188 },
}

```

[SK18]

[PDFBIB](#)

Simon, H. and Kowalewski, S., "Mode-Aware Concolic Testing for PLC Software", in *Proc. Integrated formal methods : 14th International Conference, IFM 2018, Maynooth, Ireland, September 5-7, 2018 : proceedings / Carlo A. Furia, Kirsten Winter (eds.)*, Cham, 2018 in Lecture notes in computer science, Springer, pp. 367-376.

# Mode-Aware Concolic Testing for PLC Software

## Bibtex entry :

```
@inproceedings { SK18,
  author = { Simon, Hendrik and Kowalewski, Stefan },
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  proceedings / Carlo A. Furia, Kirsten Winter (eds.) },
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  pages = { 367-376 },
  series = { Lecture notes in computer science },
  year = { 2018 },
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  organization = { 14th International Conference, Maynooth (Ireland),
2018-09-05 - 2018-09-07 },
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  url = {
https://link.springer.com/content/pdf/10.1007%2F978-3-319-98938-9\_21.pdf
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[STK18]

[PDFBIB](#)

Simon, H., Triefenbach, L., and Kowalewski, S., "Structural Concolic Testing for Sequential Function Chart", *IFAC-PapersOnLine*, vol. 51, iss. 7, pp. 422-427, 2018

## Structural Concolic Testing for Sequential Function Chart

## Bibtex entry :

```
@article { STK18,
  author = { Simon, Hendrik and Triefenbach, Lucas and Kowalewski,
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},
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  volume = { 51 },
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  issn = { 2405-8963 },
```

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organization = { 14th IFAC Workshop on Discrete Event Systems,
Castellammare
    di Stabia (Italy), 2018-05-30 - 2018-06-01 },
doi = { 10.1016/j.ifacol.2018.06.335 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-CONV-236291 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752265 },
}
```

[Ter18]

[PDFBIB](#)

Terber, M., "Real-world deployment and evaluation of synchronous programming in reactive embedded systems", PhD Thesis, Aachen, 2018.

## 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 },
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typ = { PUB:(DE-HGF)11 },
reportid = { RWTH-2018-230185 },
cin = { 122810 / 120000 },
url = {
http://publications.rwth-aachen.de/record/749610/files/749610.pdf },
}
```

[TK18]

[PDFBIB](#)

Thönnessen, D. and Kowalewski, S., "Agiles Testen von cyber-physischen Produktionssystemen : Einsatz von SPS-Sprachen zur Testfallbeschreibung", *Atp-Edition : automatisierungstechnische Praxis*, vol. 60, iss. 3, pp. 46-55, 2018

## Agiles Testen von cyber-physischen

# Produktionssystemen : Einsatz von SPS-Sprachen zur Testfallbeschreibung

## Bibtex entry :

```
@article { TK18,
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  publisher = { DIV Dt. Industrieverl. },
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  year = { 2018 },
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  issn = { 2364-3137 },
  doi = { 10.17560/atp.v58i03.1917 },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/727012 },
}
```

[TK18a]

[PDFBIB](#)

Thönnessen, D. and Kowalewski, S., "Using PLC Programming Languages for Test-Case Specification of Hardware-in-the-loop Tests", in *Proc. [Modellbasierte Entwicklung eingebetteter Systeme, MBEES 2018, 2018-04-16 - 2018-04-18, Hamburg, Germany]*, 2018, fortiss Technischer Bericht, pp. 41-50.

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

### Bibtex entry :

```
@inproceedings { TK18a,
  author = { Th{\"}nnessen, David and Kowalewski, Stefan },
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  booktitle = { [Modellbasierte Entwicklung eingebetteter Systeme,
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  publisher = { fortiss Technischer Bericht },
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typ = { PUB:(DE-HGF)8 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752269 },
}
```

[TRR+18]

[PDFBIB](#)

Thönnessen, D., Reinker, N., Rakel, S., and Kowalewski, S., "A concept for PLC hardware-in-the-loop testing using an extension of structured text", in *Proc. 2017 22nd IEEE International Conference on Emerging Technologies and Factory Automation : September 12-15, 2017, Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus*, [Piscataway, NJ], 2018 in IEEE International Conference on Emerging Technologies and Factory Automation-ETFA, IEEE, p. 8.

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

### Bibtex entry :

```
@inproceedings { TRR+18,
  author = { Th{"o}nnessen, David and Reinker, Niklas and Rakel,
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Technologies and Factory Automation : September 12-15, 2017,
Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus },
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  pages = { 8 Seiten },
  series = { IEEE International Conference on Emerging Technologies
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2017-09-15 },
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}
```

[TRR+18a]

[PDFBIB](#)

Thönnessen, D., Rakel, S., Reinker, N., and Kowalewski, S., "Matching Discrete Signals for

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 :

```
@article { TRR+18a,  
  author = { Th{\o}nnessen, David and Rakel, Stefan and Reinker,  
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  number = { 10 },  
  year = { 2018 },  
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Computational  
  Intelligence and Telematics in Control },  
  doi = { 10.1016/j.ifacol.2018.06.267 },  
  typ = { PUB:(DE-HGF)16 },  
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  cin = { 122810 / 110000 / 120000 },  
  url = { http://publications.rwth-aachen.de/record/731576 },  
}
```

[TRR+18b]

[PDFBIB](#)

Thönnessen, D., Reinker, N., Rakel, S., Svetlakov, A., and Kowalewski, S., "Correctness Properties and Exemplified Applicability of a Signal Matching Algorithm with Multidimensional Tolerance Specifications", in *Proc. 2018 IEEE 14th International Conference on Automation Science and Engineering (CASE) : Munich, Germany, August 20-24, 2018*, Piscataway, NJ, 2018, IEEE, pp. 1197-1202.

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

### Bibtex entry :

```
@inproceedings { TRR+18b,  
  author = { Th{\o}nnessen, David and Reinker, Niklas and Rakel,  
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title = { Correctness Properties and Exemplified Applicability of a
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publisher = { IEEE },
pages = { 1197-1202 },
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                2018-08-24 },
doi = { 10.1109/COASE.2018.8560407 },
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cin = { 122810 / 120000 },
url = {
http://publications.rwth-aachen.de/record/752982/files/752982.pdf },
}

```

[UVS+18]

[PDFBIB](#)

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

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  author = { Ulewicz, Sebastian and Vogel-Heuser, Birgit and Simon,
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            Kowalewski, Stefan },
  title = { A priori test coverage estimation for automated
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url = { http://publications.rwth-aachen.de/record/722217 },
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[WKJ+18]

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    author = { Walter, Marian and K{\u}hn, J. and Janisch, Thorsten
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  author = { Woopen, Timo and Lampe, Bastian and B{"o}ddeker, Torben
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  Eckstein, Lutz and Kampmann, Alexandru and Alrifaae, Bassam
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Becker, Matthias and Stiller, Christoph and Furmans, Kai and
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  author = { Winter, Alfred and St{"a"}ubert, Sebastian and Ammon,
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[AMA17]

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[BHK17]

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  author = { Ben Makhlouf, Ibtissem and Hansen, Norman and
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  typ = { PUB:(DE-HGF)7 },
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  author = { Brendle, Christian and M{"u}lders, Thorsten and
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ventilation
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  author = { Dankert, Jens and Dernehl, Christian and Kusmenko,
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[DSF+17]

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[DWS+17]

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[DWS+17a]

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[Ger17]

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  author = { Gerlitz, Thomas },
  othercontributors = { Kowalewski, Stefan and Schaefer, Ina },
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[HWK+17]

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[Kal17]

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@phdthesis { Kal17,  
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  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 },  
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  pages = { 1 Online-Ressource (xx, 114 Seiten) : Illustrationen,  
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[KBS+17]

[PDFBIB](#)

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

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

### **Bibtex entry :**

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@article { KBS+17,  
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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
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journal = { Biomedizinische Technik },
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pages = { 213-224 },
volume = { 62 },
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}

```

[KGK17]

[PDFBIB](#)

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

## Explicit prioritization of parallel Intent broadcasts in real-time Android

### Bibtex entry :

```

@inproceedings { KGK17,
  author = { Kalkov, Igor and Gurchian, Alexandru and Kowalewski,
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for
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}
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[KKR+17]

[PDFBIB](#)

Kugler, C., Kowalewski, S., Richenhagen, J., Maquet, R., and Schloßer, A., "Metrics-based strategies for quality assurance of automotive embedded software", in *Proc. 17. Internationales Stuttgarter Symposium : Automobil- und Motorentechnik / herausgegeben von Michael Bargende, Hans-Christian Reuss, Jochen Wiedemann*, Wiesbaden, 2017 in Proceedings, Springer Vieweg, pp. 711-730.

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

### Bibtex entry :

```
@inproceedings { KKR+17,
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  booktitle = { 17. Internationales Stuttgarter Symposium :
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  year = { 2017 },
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    Automobil- und
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  url = { http://publications.rwth-aachen.de/record/752278 },
}
```

[Leo17]

[PDFBIB](#)

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 },  
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  pages = { 109-233 },  
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https://www.degruyter.com/view/j/bmte.2017.62.issue-2/issue-files/bmte.  
2017.62.issue-2.xml },  
}
```

[NKM+17]

[PDFBIB](#)

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

## Continuous process for the validation of transmission controls

### Bibtex entry :

```
@inproceedings { NKM+17,  
  author = { Nowack, Jan and Kugler, Christopher and Maquet, Ralf and  
    Richenhagen, Johannes and Remelhe, Filipe },  
  title = { Continuous process for the validation of transmission  
    controls },  
  year = { 2017 },  
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https://drivetrain-symposium.world/cn/continuous-process-validation-tra  
nsmission-controls/ },  
}
```

[SAB+17]

[PDFBIB](#)

Schupp, S., Ábrahám, E., Ben Makhlof, I., and Kowalewski, S., "HyPro : A C++ Library of State Set Representations for Hybrid Systems Reachability Analysis", in *Proc. NASA formal methods : 9th international symposium, NFM 2017, Moffett Field, CA, USA, May 16-18, 2017 : proceedings / Clark Barrett, Misty Davies, Temesghen Kahsai (eds.)*, Cham, 2017 in Lecture Notes in Computer Science, Springer, pp. 288-294.

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

### Bibtex entry :

```
@inproceedings { SAB+17,
  author = { Schupp, Stefan and Ábrahám, Erika and Ben Makhlof,
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    Moffett Field, CA, USA, May 16-18, 2017 : proceedings /
    Clark Barrett, Misty Davies, Temesghen Kahsai (eds.) },
  publisher = { Springer },
  pages = { 288-294 },
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    Field, CA
    (USA), 2017-05-16 - 2017-05-18 },
  doi = { 10.1007/978-3-319-57288-8_20 },
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}
```

[SKS+17]

[PDFBIB](#)

Stollenwerk, A., Kopp, R., Sehl, F., and Janisch, T., "Tauchcomputerunterstützung durch vernetzte Smart Wearables", *Caisson : Mitteilungen der GTÜM e.V.*, vol. 32, iss. 4, 2017

## Tauchcomputerunterstützung durch vernetzte Smart Wearables

### Bibtex entry :

```
@article { SKS+17,
  author = { Stollenwerk, André and Kopp, R{"u}dger and Sehl,
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title = { Tauchcomputerunterst{"u}tzung durch vernetzte Smart
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journal = { Caisson : Mitteilungen der GT{"U}M e.V. },
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volume = { 32 },
number = { 4 },
year = { 2017 },
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}

```

[SPD+17]

[PDFBIB](#)

Schmidt, T., Philipsen, R., Dzafic, D., and Ziefle, M., "Watch Out! : User-Centered Feedback Design for a V2X-Smartphone App", in *Proc. Digital Human Modeling. Applications in Health, Safety, Ergonomics, and Risk Management: Health and Safety : 8th International Conference, DHM 2017, Held as Part of HCI International 2017, Vancouver, BC, Canada, July 9-14, 2017, Proceedings, Part II / edited by Vincent G. Duffy*, Cham, 2017 in *Lecture Notes in Computer Science*, Springer International Publishing, pp. 365-383.

## 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
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Safety,
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International Conference, DHM 2017, Held as Part of HCI
International 2017, Vancouver, BC, Canada, July 9-14, 2017,
Proceedings, Part II / edited by Vincent G. Duffy },
  publisher = { Springer International Publishing },
  pages = { 365-383 },
  series = { Lecture Notes in Computer Science },
  year = { 2017 },
  address = { Cham },
  organization = { 19th International Conference on Human-Computer
Interaction,
  Vancouver (Canada), 2017-07-09 - 2017-07-14 },
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typ = { PUB:(DE-HGF)7 },
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url = { http://publications.rwth-aachen.de/record/720296 },
}

```

[SSK+17]

PDFBIB

Smieschek, M., Stollenwerk, A., Kowalewski, S., Orlikowsky, T., and Schoberer, M., "Unterstützte Handerkennung in Thermographiebildern zur Validierung der hygienischen Händedesinfektion", in *Proc. Bildverarbeitung für die Medizin 2017 : Algorithmen - Systeme - Anwendungen. Proceedings des Workshops vom 12. bis 14. März 2017 in Heidelberg / herausgegeben von Klaus Hermann Maier-Hein, geb. Fritzsche, Thomas Martin Deserno, geb. Lehmann, Heinz Handels, Thomas Tolxdorff*, Berlin, Heidelberg, 2017 in Informatik aktuell, Springer Berlin Heidelberg, pp. 147-152.

## Unterstützte Handerkennung in Thermographiebildern zur Validierung der hygienischen Händedesinfektion

### Bibtex entry :

```

@inproceedings { SSK+17,
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zur
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Algorithmen -
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14. M{"a}rz 2017 in Heidelberg / herausgegeben von Klaus
Hermann Maier-Hein, geb. Fritzsche, Thomas Martin Deserno,
geb. Lehmann, Heinz Handels, Thomas Tolxdorff },
  publisher = { Springer Berlin Heidelberg },
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Algorithmen -
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2017-03-14 },
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  url = { http://publications.rwth-aachen.de/record/752321 },
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```

[SSM+17]

[PDFBIB](#)

Stollenwerk, A., Sehl, F., Marx, G., Kowalewski, S., and Janisch, T., "Enrichment of a diving computer with body sensor network data", in *Proc. 2017 IEEE 14th International Conference on Wearable and Implantable Body Sensor Networks (BSN) : 9-12 May 2017 / sponsors: IEEE, EMB*, Piscataway, NJ, 2017, IEEE, pp. 169-172.

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

### Bibtex entry :

```
@inproceedings { SSM+17,
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sponsors: IEEE, EMB },
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  pages = { 169-172 },
  year = { 2017 },
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2017-05-09 - 2017-05-12 },
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  url = { http://publications.rwth-aachen.de/record/717241 },
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```

[WKK+17]

[PDFBIB](#)

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{"u}hn, Jan
and
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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
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  pages = { 365, 150-150 },
  year = { 2017 },
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```

[WRB+17]

[PDFBIB](#)

Wiechowski, N., Rambow, T., Busch, R., Kugler, A., Hansen, N., and Kowalewski, S., "Arttest - a New Test Environment for Model-Based Software Development", in *Proc. [WCX 17: SAE World Congress Experience] : [April 4-6, 2017, Detroit, Michigan, USA, Cobo Center] / SAE International*, [Warrendale, PA], 2017 in SAE technical paper, SAE International, p. 11.

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

**Bibtex entry :**

```
@inproceedings { WRB+17,
  author = { Wiechowski, Norbert and Rambow, Thomas and Busch, Rainer
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organization = { SAE World Congress Experience, Detroit, Mich.
(USA),
    2017-04-04 - 2017-04-06 },
doi = { 10.4271/2017-01-0004 },
typ = { PUB:(DE-HGF)7 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752280 },
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[Ben16]

[PDFBIB](#)

Ben Makhlof, I., "Comparative evaluation and improvement of computational approaches to reachability analysis of linear hybrid systems", PhD Thesis, Aachen, 2016.

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

### Bibtex entry :

```
@phdthesis { Ben16,
    author = { Ben Makhlof, Ibtissem },
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[BHK+16]

[PDFBIB](#)

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

## Closed-loop control of extracorporeal oxygen and carbon dioxide gas transfer

### Bibtex entry :

```
@article { BHK+16,  
  author = { Brendle, Christian and Hackmack, K.-F. and Kühn, Jan  
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  Stefan and Leonhardt, Steffen and Walter, Marian and  
  Misgeld, Berno Johannes Engelbert },  
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  doi = { 10.1016/j.conengprac.2016.09.016 },  
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  url = { http://publications.rwth-aachen.de/record/678130 },  
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```

[BHK+16a]

[PDFBIB](#)

Brendle, C., Hackmack, K. -F., Kühn, J., Wardeh, M. N., Janisch, T., Kopp, R., Rossaint, R., Stollenwerk, A., Kowalewski, S., Misgeld, B. J. E., Leonhardt, S., and Walter, M., "Continuous gas transfer monitoring during extracorporeal membrane oxygenation", *Biomedical signal processing and control*, vol. 31, pp. 321-330, 2016

## Continuous gas transfer monitoring during extracorporeal membrane oxygenation

### Bibtex entry :

```
@article { BHK+16a,  
  author = { Brendle, Christian and Hackmack, K.-F. and Kühn, Jan  
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  Rossaint, Rolf and Stollenwerk, André and Kowalewski,
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```

Stefan and Misgeld, Berno Johannes Engelbert and Leonhardt,
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}

```

[Bia16]

[PDFBIB](#)

Biallas, S., "Verification of programmable logic controller code using model checking and static analysis", PhD Thesis, Aachen, 2016.

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

### Bibtex entry :

```

@phdthesis { Bia16,
author = { Biallas, Sebastian },
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pages = { 1 Online-Ressource (x, 153 Seiten) : Illustrationen,
Diagramme },
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http://publications.rwth-aachen.de/record/668156/files/668156.pdf },
}

```

[BK16]

[PDFBIB](#)

Banila, M. and Kowalewski, S., "Ein Ansatz zur automatisierten normgerechten Testplanung für sicherheitskritische eingebettete Software im Automobilbereich", in *Proc. Entwurf komplexer Automatisierungssysteme : Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen : EKA 2016 : 24.-25.05.2016, 14. Fachtagung mit Tutorium / Ulrich Jumar, Christian Diedrich (Hrsg.) ; eine Kooperation von ifak (Otto von Guericke Universität Magdeburg)*, Magdeburg, 2016, Institut für Automation und Kommunikation e.V. Magdeburg (An-Institut der Otto-von-Guericke-Universität Magdeburg), pp. 1-10.

## Ein Ansatz zur automatisierten normgerechten Testplanung für sicherheitskritische eingebettete Software im Automobilbereich

### Bibtex entry :

```
@inproceedings { BK16,
  author = { Banila, Madalina and Kowalewski, Stefan },
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    Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen :
    EKA 2016 : 24.-25.05.2016, 14. Fachtagung mit Tutorium /
    Ulrich Jumar, Christian Diedrich (Hrsg.) ; eine Kooperation
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  publisher = { Institut f{"u}r Automation und Kommunikation e.V.
    Magdeburg
    (An-Institut der Otto-von-Guericke-Universit{"a}t
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  pages = { 1-10 },
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  organization = { 14. Fachtagung Entwurf komplexer
    Automatisierungssysteme,
    Magdeburg (Germany), 2016-05-24 - 2016-05-25 },
  typ = { PUB:(DE-HGF)7 },
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  author = { Bohlender, Dimitri and Simon, Hendrik and Friedrich, Nico
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  booktitle = { 2016 13th International Workshop on Discrete Event Systems
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  url = { http://publications.rwth-aachen.de/record/679431 },
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address = { D{"u}sseldorf },
organization = { 17. Branchentreff der Mess- und
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    2016-03-02 },
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[Der16]

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  author = { Dernehl, Christian and Hansen, Norman and Kowalewski,
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  doi = { 10.1007/978-3-319-45943-1 },
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[DLS+16]

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  url = { http://publications.rwth-aachen.de/record/680872 },
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  author = { Gerlitz, Thomas and Hansen, Norman and Dernehl,
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  title = { artshop: A Continuous Integration and Quality Assessment
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  booktitle = { [12. Dagstuhl-Workshop Modelbasierte Entwicklung
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Hochschule – Wolfenb{\u}ttel, DE), Matthias Riebisch
(Universit{\a}t Hamburg, DE), Bernhard Sch{\a}tz (fortiss
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[GK16]

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[GK16b]

[PDFBIB](#)

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@inproceedings { GK16b,
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[GTN+16]

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[KBS+16]

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  author = { K{"u}hn, Jan and Stollenwerk, André and Brendle,
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```

[KVS+16]

[PDFBIB](#)

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## Eingebettete Rezirkulationsmessung für eine ECLA-Therapie

### Bibtex entry :

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@inproceedings { KVS+16,
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DGBMT - Deutsche Gesellschaft f{\u}r Biomedizinische
Technik im VDE ; Editoren: Prof. Dr.-Ing. habil. Olaf

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    Simanski, Dr. Olaf Hagendorf, J{"o}rg Zucknik },
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http://automed2016.hs-wismar.de/wp-content/uploads/2017/02/Kuehn_Inform
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[SK16]

[PDFBIB](#)

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### Bibtex entry :

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[SSJ+16]

[PDFBIB](#)

Smieschek, M., Stollenwerk, A., Jüptner, P., Kowalewski, S., Orlikowsky, T., and Schoberer, M., "Evaluating Hand Disinfection with Alcohol-Based Hand Sanitizers Using Thermal Imaging" Aachen, Germany: RWTH Aachen, 2016, vol. 1559, pp. 174-181.

## Evaluating Hand Disinfection with Alcohol-Based Hand Sanitizers Using Thermal Imaging

### Bibtex entry :

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@inbook { SSJ+16,
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[SSS16]

[PDFBIB](#)

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

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

### Bibtex entry :

```
@inproceedings { SSS16,
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[SSS16a]

[PDFBIB](#)

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@inproceedings { SSS16a,
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[TSN+16]

[PDFBIB](#)

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[WBK+16]

[PDFBIB](#)



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

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

[PDFBIB](#)

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

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### Bibtex entry :

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@proceedings { ZAB+16,
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[BFS+15]

[PDFBIB](#)

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### Bibtex entry :

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@article { BFS+15,
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[BGK15]

[PDFBIB](#)

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### Bibtex entry :

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@article { BGK15,
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[BHK+15]

[PDFBIB](#)

Brendle, C., Hackmack, K., Kühn, J., Wardeh, M. N., Kopp, R., Rossaint, R., Stollenwerk, A., Kowalewski, S., Misgeld, B., Leonhardt, S., and Walter, M., "In silico evaluation of gas transfer estimation during extracorporeal membrane oxygenation", *IFAC-PapersOnLine*, vol. 48, iss. 20, 2015

## In silico evaluation of gas transfer estimation during

## extracorporeal membrane oxygenation

### Bibtex entry :

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[BK15]

[PDFBIB](#)

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

### Bibtex entry :

```
@inbook { BK15,
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[BK15a]

[PDFBIB](#)

Ben Makhoulf, I. and Kowalewski, S., "Optimizing Safe Control of a Networked Platoon of Trucks Using Reachability"EasyChair, 2015, vol. 34, pp. 169-179.

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### Bibtex entry :

```

@inbook { BK15a,
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  year = { 2015 },
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[BSK+15]

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12. Juni 2015 / VDI/VDE-Gesellschaft Mess- und
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[CSB+15]

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booktitle = { NASA Formal Methods ; 7th International Symposium,
NFM 2015,
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[DHG+15]

[PDFBIB](#)

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[Dia15]

[PDFBIB](#)

Diab, H., "Experimental validation and mathematical analysis of cooperative vehicles in a platoon", PhD Thesis, Aachen, 2015.

## 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
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  school = { RWTH Aachen University },
  pages = { X, 131 S. : Ill., graph. Darst. },
  series = { Aachener Informatik-Berichte },
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http://publications.rwth-aachen.de/record/465272/files/465272.pdf },
}
```

[DKF+15]

[PDFBIB](#)

Dzafic, D., Klug, S., Franke, D., and Kowalewski, S., "Routing über Flächen mit SpiderWebGraph", in *Proc. Journal für angewandte Geoinformatik 1-2015*, 2015, pp. 516-252.

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### Bibtex entry :

```
@inproceedings { DKF+15,
  author = { Dzafic, Dzenan and Klug, Stefan and Franke, Dominik and
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[dMK+15]

[PDFBIB](#)

de Brouwer, P., Mager, I., Kopp, R., Walter, M., Stollenwerk, A., Schmitz-Rode, T., Steinseifer, U., and Arens, J., "Dynamische Studie zum Einfluss von negativem Druck auf Hämolyse", *Kardiotechnik*, vol. 24, iss. 1, pp. 3-6, 2015

## Dynamische Studie zum Einfluss von negativem Druck auf Hämolyse

### Bibtex entry :

```
@article { dMK+15,
author = { de Brouwer, P. and Mager, Ilona and Kopp, R{"u}dger and
Walter, Marian and Stollenwerk, André and Schmitz-Rode,
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title = { Dynamische Studie zum Einfluss von negativem Druck auf
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volume = { 24 },
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url = { http://ezb.uni-regensburg.de/?2083549 },
}
```

[FKL15]

[PDFBIB](#)

Franke, D., Kowalewski, S., and Lichter, H., "Testing life cycle-related properties of mobile applications", , Aachen, AIB-2015-02, 2015.

## Testing life cycle-related properties of mobile applications

### Bibtex entry :

```
@techreport { FKL15,
author = { Franke, Dominik and Kowalewski, Stefan and Lichter,
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Horst },
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}

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[GSK15]

[PDFBIB](#)

Gerlitz, T., Schake, S., and Kowalewski, S., "Duplikatserkennung und Refactoring in Matlab/Simulink-Modellen", in *Proc. Tagungsband Dagstuhl-Workshop MBEES: Modelbasierte Entwicklungeingebetteter Systeme XI / Matthias Riebisch, Michaela Huhn, Jan Philipps, Bernhard Schätz*, 2015, pp. 17-27.

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### Bibtex entry :

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@inproceedings { GSK15,
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Michaela Huhn, Jan Philipps, Bernhard Sch{"a}tz },
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  url = { http://publications.embedded.rwth-aachen.de/file/60 },
}

```

[GTD15]

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```
@inproceedings { GTD15,
  author = { Gerlitz, Thomas and Tran, Quang Minh and Dziobek,
Christian },
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Engineering :
Proceedings of the International Workshop on Modelling in
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18th International Conference on Model Driven Engineering
Languages and Systems (MODELS 2015) : Ottawa, Canada.
September 27, 2015 / Edited by Michal Antkiewicz * Joanne
Atlee ** Juergen Dingel *** Ramesh S **** (* Electrical and
Computer Engineering, University of Waterloo, Waterloo,
Ontario, Canada ** School of Computer Science, University of
Waterloo, Waterloo, Ontario, Canada *** School of Computing,
Queen's University, Kingston, Ontario, Canada **** Global
Research and Development, General Motors, Warren, Michigan,
USA) },
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Software
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}

[HBS+15]

[PDFBIB](#)

Hauck-Stattelmann, S., Biallas, S., Schlich, B., Kowalewski, S., and Jetley, R., "Analyzing the Restart Behavior of Industrial Control Applications" Springer International Publishing: Cham, 2015, vol. 9109, pp. 585-588.

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### Bibtex entry :

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@inbook { HBS+15,
  author = { Hauck-Stattelmann, Stefan and Biallas, Sebastian and
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  title = { Analyzing the Restart Behavior of Industrial Control
    Applications },
  booktitle = { FM 2015: formal methods : 20th international
symposium,
    Oslo, Norway, June 24 - 26, 2015 ; proceedings / Nikolaj
    Bjørner; Frank de Boer (eds.) },
  publisher = { Cham },
  pages = { 585-588 },
  volume = { 9109 },
  series = { Lecture Notes in Computer Science },
  year = { 2015 },
  address = { Springer International Publishing },
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(Norway),
    2015-06-24 - 2015-06-26 },
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[JMR+15]

[PDFBIB](#)

Jawawi, D. N. A., Mamat, R., Ridzuan, F., Khatibsyarbini, M., Zulkifli, M., and Zaki, M. J., "Introducing computer programming to secondary school students using mobile robots", in *Proc. 2015 10th Asian Control Conference (ASCC 2015) : Kota Kinabalu, Malaysia, 31 May - 3 June 2015 ; proceedings / ed.: Azura Che Soh ...*, Piscataway, NJ, 2015, IEEE.

## Introducing computer programming to secondary school students using mobile robots

**Bibtex entry :**

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@inproceedings { JMR+15,
  author = { Jawawi, Dayang N. A. and Mamat, Rosbi and Ridzuan,
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  title = { Introducing computer programming to secondary school
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  year = { 2015 },
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}
```

[KGK15]

[PDFBIB](#)

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

**Bibtex entry :**

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@inproceedings { KGK15,
  author = { Kalkov, Igor and Gurchian, Alexandru and Kowalewski,
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```

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Real-time and Embedded Systems, Paris (France), 2015-10-07
- 2015-10-08 },
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reportid = { RWTH-2016-03747 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/573802 },
}

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[KKO+15]

[PDFBIB](#)

Kowalewski, S., Kalkov, I., Obster, M., and Thönnessen, D., "Echtzeiterweiterung für Android: SPS inside", *IEE - Elektrische Automatisierung + Antriebstechnik*, pp. 58-61, 2015

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@article { KKO+15,
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  pages = { 58-61 },
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```

[KSB+15]

[PDFBIB](#)

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## Embedded Safety Measures for Extracorporeal Blood Circulation

### Bibtex entry :

```

@inproceedings { KSB+15,
  author = { K{"u}hn, Jan and Stollenwerk, André and Brendle,
Christian
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}

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R{"u}dger and Kowalewski, Stefan },
title = { Embedded Safety Measures for Extracorporeal Blood
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Germany] },
pages = { 169-170 },
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Aachen (Germany), 2015-06-17 - 2015-06-19 },
typ = { PUB:(DE-HGF)8 },
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[KSK+15]

[PDFBIB](#)

Kühn, J., Stollenwerk, A., Kowalewski, S., Brendle, C., Walter, M., Leonhardt, S., Wardeh, M. N., Kopp, R., and Rossaint, R., "Pulsatile Ansteuerung einer Diagonalblutpumpe", *Atp-Edition*, vol. 57, iss. 10, pp. 52-59, 2015

## Pulsatile Ansteuerung einer Diagonalblutpumpe

### Bibtex entry :

```

@article { KSK+15,
author = { K{"u}hn, Jan and Stollenwerk, André and Kowalewski,
Stefan
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Steffen and Wardeh, Markus Nabil and Kopp, R{"u}dger and
Rossaint, Rolf },
title = { Pulsatile Ansteuerung einer Diagonalblutpumpe },
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https://www.di-verlag.de/de/Zeitschriften/atp-edition/2015/10/Pulsatile
-Ansteuerung-einer-Diagonalblutpumpe },
}

```

[KSM15]

## PDFBIB

Kühnel, M., Smieschek, M., and Meyer, U., "Fast Identification of Obfuscation and Mobile Advertising in Mobile Malware", in *Proc. 2015 IEEE Trustcom/BigDataSE/ISPA : 20 - 22 Aug. 2015, Helsinki, Finland / sponsored by IEEE and IEEE Computer Society, and endorsed by IEEE Technical Committee on Scalable Computing (TCSC) ... - Vol. 3*, Piscataway, NJ, 2015, IEEE, pp. 214-221.

## Fast Identification of Obfuscation and Mobile Advertising in Mobile Malware

### Bibtex entry :

```
@inproceedings { KSM15,
  author = { Kühnel, Marián and Smieschek, Manfred and Meyer, Ulrike },
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}
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[KSS+15]

## PDFBIB

Kühn, J., Schoonbrood, P., Stollenwerk, A., Brendle, C., Wardeh, M. N., Walter, M., Roissant, R., Leonhardt, S., Kowalewski, S., and Kopp, R., "Safety Conflict Analysis in Medical Cyber-Physical Systems Using an SMT-Solver", in *Proc. SE-WS 2015, software engineering workshops 2015 : gemeinsamer Tagungsband der Workshops der Tagung Software Engineering 2015, Dresden, 17. - 18. März 2015 / hrsg. von Wolg Zimmermann ...*, Aachen, Germany, 2015 in CEUR workshop proceedings, RWTH Aachen, pp. 19-23.

## Safety Conflict Analysis in Medical Cyber-Physical



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## Bibtex entry :

```
@inproceedings { KSS+15,
  author = { K{"u}hn, Jan and Schoonbrood, Pierre and Stollenwerk,
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[KWS+15]

[PDFBIB](#)

K hn, J., W bbels, N., Stollenwerk, A., Kowalewski, S., Brendle, C., Walter, M., Leonhardt, S., Wardeh, M., Kopp, R., and Roissant, R., "Pulsatile Ansteuerung einer Diagonalblutpumpe", in *Proc. Automation 2015 : benefits of change - the future of automation ; 16. Branchentreff der Mess- und Automatisierungstechnik ; Kongresshaus Baden-Baden, 11. und 12. Juni 2015 / VDI/VDE-Gesellschaft Mess- und Automatisierungstechnik . - Bd. 1*, D sseldorf, 2015 in VDI-Berichte, VDI Verlag, pp. 325-339.

# Pulsatile Ansteuerung einer Diagonalblutpumpe

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@inproceedings { KWS+15,
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booktitle = { Automation 2015 : benefits of change - the future of
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              12. Juni 2015 / VDI/VDE-Gesellschaft Mess- und
              Automatisierungstechnik . - Bd. 1 },
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cin = { 611010 / 122810 / 120000533000-2 },
url = { http://publications.embedded.rwth-aachen.de/file/65 },
}

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[Pol15]

[PDFBIB](#)

Polzer, A., "Ansatz zur variantenreichen und modellbasierten Entwicklung von eingebetteten Systemen unter Berücksichtigung regelungs- und softwaretechnischer Anforderungen", PhD Thesis, Aachen, 2015.

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

### **Bibtex entry :**

```

@phdthesis { Pol15,
  author = { Polzer, Andreas },
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Entwicklung
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  series = { Aachener Informatik-Berichte },
  year = { 2015 },
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http://publications.rwth-aachen.de/record/561326/files/561326.pdf },
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[SAC+15]

[PDFBIB](#)

Schupp, S., Abraham, E., Chen, X., Ben Makhlof, I., Frehse, G., Sankaranarayanan, S., and Kowalewski, S., "Current Challenges in the Verification of Hybrid Systems", in *Proc. Cyber physical systems : design, modeling, and evaluation ; 5th international workshop, CyPhy 2015, Amsterdam, The Netherlands, October 8, 2015 ; proceedings / Christian Berger ... (eds.)*, Cham, 2015 in Lecture Notes in Computer Science, Springer International Publishing, pp. 8-24.

## Current Challenges in the Verification of Hybrid Systems

### Bibtex entry :

```
@inproceedings { SAC+15,
  author = { Schupp, Stefan and Abraham, Erika and Chen, Xin and Ben
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    Sriram and Kowalewski, Stefan },
  title = { Current Challenges in the Verification of Hybrid Systems
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[SFB+15]

[PDFBIB](#)

Simon, H., Friedrich, N., Biallas, S., Hauck-Stattelmann, S., Schlich, B., and Kowalewski, S., "Automatic test case generation for PLC programs using coverage metrics", in *Proc. 2015 IEEE 20th Conference on Emerging Technologies & Factory Automation (ETFA) : 8 - 11 Sept. 2015, City of Luxembourg, Luxembourg / co-sponsored by IEEE ...*, Piscataway, NJ, 2015, IEEE, p. 4.

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

### Bibtex entry :

```
@inproceedings { SFB+15,
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```

[SKW+15]

[PDFBIB](#)

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## 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
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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 },
booktitle = { SE-WS 2015, software engineering workshops 2015 :
gemeinsamer Tagungsband der Workshops der Tagung Software
Engineering 2015, Dresden, 17. - 18. M{"a}rz 2015 / hrsg.
von Wolg Zimmermann ... },
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pages = { 1-6 },
series = { CEUR workshop proceedings },
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address = { Aachen, Germany },
organization = { Software Engineering 2015, Dresden (Germany),
2015-03-17 -
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}

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[SLR+15]

[PDFBIB](#)

Stollenwerk, A., Leonhardt, S., Rossaint, R., and Kowalewski, S., "Advancing Intensive Care by Networked Medical Systems", in *Proc. [Proceedings of the 11th German-Russian-Conference on Biomedical Engineering, GRC, 17.06.2015-19.06.2015, Aachen, Germany]*, 2015, pp. 211-213.

## Advancing Intensive Care by Networked Medical Systems

### Bibtex entry :

```

@inproceedings { SLR+15,
author = { Stollenwerk, André and Leonhardt, Steffen and Rossaint,
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Germany] },
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}

[AFK+14]

PDFBIB

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### Bibtex entry :

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@inbook { AFK+14,
  author = { Armoush, Ashraf and Franke, Dominik and Kalkov, Igor and
    Kowalewski, Stefan },
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  booktitle = { Mobile Computing, Applications, and Services : 5th
    International Conference, MobiCase 2013, Paris, France,
    November 7-8, 2013, Revised Selected Papers },
  publisher = { Springer },
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}
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[BK14]

PDFBIB

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@inproceedings { BK14,
  author = { Ben Makhoulf, Ibtissem and Kowalewski, Stefan },
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2014 },
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[BKS+14]

[PDFBIB](#)

Biallas, S., Kowalewski, S., Stattelmann, S., and Schlich, B., "Efficient Handling of States in Abstract Interpretation of Industrial Programmable Logic Controller Code", in *Proc. Discrete Event Systems : [Proc. Proceedings of the 12th International Workshop on Discrete Event Systems, Cachan, France, 2014] / Conference Editor: Lesage, Jean-Jacques, Faure, Jean-Marc, Cury, Jose E. R., Lennartson, Bengt*, Cachan, France, 2014, IFAC, pp. 400-405.

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### Bibtex entry :

```

@inproceedings { BKS+14,
  author = { Biallas, Sebastian and Kowalewski, Stefan and
    Stattelmann,
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of
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12th
    International Workshop on Discrete Event Systems, Cachan,
    France, 2014] / Conference Editor: Lesage, Jean-Jacques,
    Faure, Jean-Marc, Cury, Jose E. R., Lennartson, Bengt },
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}

```

[DBB+14]

[PDFBIB](#)

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## Towards an Indoor Traffic Report - Requirements for Dynamic Route Planning for Wheelchair Users

### Bibtex entry :

```
@inproceedings { DBB+14,
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  Route Planning for Wheelchair Users },
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  Australia ; conference proceedings / organized by UNSW
  Australia, the University of New South Wales, Australia. Ed.
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  year = { 2014 },
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}
```

[DF14]

[PDFBIB](#)

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@inbook { DF14,
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title = { Integration von Informationen {\u}ber die
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booktitle = { Informatiktage 2014 / Fachwissenschaftlicher
        Informatik-Kongress, 27. und 28. M{\a}rz 2014,
        Hasso-Plattner-Institut der Universit{\a}t Potsdam ... },
publisher = { Ges. f{\u}r Informatik },
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year = { 2014 },
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reportid = { RWTH-CONV-204904 },
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}

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[DFB+14]

[PDFBIB](#)

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@inproceedings { DFB+14,
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        AGIT-Symposium Salzburg / Strobl/ Blaschke/Griesebner/Zagl
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[FAK+14]

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  author = { F{"o}rster, Marc and Auerswald, Marko and Keldenich,
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[FK14]

**PDFBIB**

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  author = { Franke, Dominik and Kowalewski, Stefan },
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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.) },
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volume = { 7991 },
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address = { Berlin [u.a.] },
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cin = { 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/225247 },
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[For14]

[PDFBIB](#)

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### Bibtex entry :

```
@inproceedings { For14,
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  url = { http://publications.rwth-aachen.de/record/462802 },
}
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[Guc14]

[PDFBIB](#)

Gückel, D., "Synthesis of state space generators for model checking microcontroller code", PhD Thesis, Aachen, 2014.

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

### Bibtex entry :

```
@phdthesis { Gucl4,
  author = { G{"u}ckel, Dominique },
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  pages = { XI, 181 S. : Ill., graph. Darst. },
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Department
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http://publications.rwth-aachen.de/record/464374/files/5296.pdf },
}
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[JGN14]

[PDFBIB](#)

Jansen, C., Göbe, F., and Noll, T., "Generating Inductive Predicates for Symbolic Execution of Pointer-Manipulating Programs" Cham [u.a.]: Springer, 2014, vol. 8571, pp. 65-80.

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### Bibtex entry :

```
@inbook { JGN14,
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ICGT
  2014, held as part of STAF 2014, York, UK, July 22 - 24,
  2014 ; proceedings / Holger Giese ... (eds.) },
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  pages = { 65-80 },
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url = { http://publications.rwth-aachen.de/record/444215 },
}

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[KGK14]

[PDFBIB](#)

Kalkov, I., Gurchian, A., and Kowalewski, S., "Predictable Broadcasting of Parallel Intents in Real-Time Android" New York, New York: ACM, 2014, pp. 57-66.

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### Bibtex entry :

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@inbook { KGK14,
  author = { Kalkov, Igor and Gurchian, Alexandru and Kowalewski, Stefan },
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  booktitle = { Proceedings of the 12th International Workshop on Java Technologies for Real-time and Embedded Systems : JTRES 2014 : Niagara Falls, NY, USA, October 13th-14th, 2014 },
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}

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[KRR14]

[PDFBIB](#)

Kowalewski, S., Ringert, J. O., and Rumpe, B., "Editorial for the Software Engineering 2013 Conference", *Computer science - research and development*, 2014

## Editorial for the Software Engineering 2013 Conference

### Bibtex entry :

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@article { KRR14,
  author = { Kowalewski, Stefan and Ringert, Jan Oliver and Rumpe,
    Bernhard },
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  publisher = { Springer },
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http://www.se-rwth.de/publications/Editorial-for-the-Software-Engineering-2013-Conference.pdf },
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```

[Mer14]

[PDFBIB](#)

Merschen, D., "Integration und Analyse von Artefakten in der modellbasierten Entwicklung eingebetteter Software", PhD Thesis, Aachen, 2014.

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

### Bibtex entry :

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

PDFBIB

Obster, M., Kowalewski, S., and Kalkov, I., "Development and Execution of PLC Programs on Real-Time Capable Mobile Devices", in *Proc. 2014 IEEE [International Conference on] Emerging Technologies and Factory Automation (ETFA 2014) : Barcelona, Spain, 16 - 19 September 2014 / [co-sponsored by Universitat Politècnica de Catalunya - Barcelona Tech (UPC); IEEE Industrial Electronics Society]*, Piscataway, NJ, 2014, IEEE, p. 8.

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

### Bibtex entry :

```
@inproceedings { OKK14,
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  publisher = { IEEE },
  pages = { 8 Seiten },
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  cin = { 120000 / 122810 },
  url = { http://publications.embedded.rwth-aachen.de/file/5e },
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```

[Pal14]

PDFBIB

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## Time continuous behaviour comparison based on abstract models

### Bibtex entry :

```
@phdthesis { Pal14,
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series = { Aachener Informatik-Berichte },
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url = {
http://publications.rwth-aachen.de/record/229310/files/4941.pdf },
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[RBH+14]

[PDFBIB](#)

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## Runtime verification of microcontroller binary code

### Bibtex entry :

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@article { RBH+14,
  author = { Reinbacher, Thomas and Brauer, J{\o}rg and Horauer,
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[RFB14]

[PDFBIB](#)

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  author = { Reinbacher, Thomas and Fuegger, Matthias and Brauer,
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```

[SKB+14]

[PDFBIB](#)

Stattelmann, S., Kowalewski, S., Biallas, S., and Schlich, B., "Applying Static Code Analysis on Industrial Controller Code", in *Proc. 2014 IEEE [International Conference on] Emerging Technologies and Factory Automation (ETFA 2014) : Barcelona, Spain, 16 - 19 September 2014 / [co-sponsored by Universitat Politècnica de Catalunya - Barcelona Tech (UPC); IEEE Industrial Electronics Society]*, Piscataway, NJ, 2014, IEEE, p. 4.

## Applying Static Code Analysis on Industrial Controller Code

### Bibtex entry :

```
@inproceedings { SKB+14,
  author = { Stattelmann, Stefan and Kowalewski, Stefan and Biallas,
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    Technologies and Factory Automation (ETFA 2014) : Barcelona,
    Spain, 16 - 19 September 2014 / [co-sponsored by Universitat
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```

[SKB+14a]

[PDFBIB](#)

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## Model-based supervision of a blood pump

### Bibtex entry :

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  author = { Stollenwerk, André and K{"u}hn, Jan and Brendle,
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[VDF+14]

[PDFBIB](#)

Vogel-Heuser, B., Diedrich, C., Fay, A., Jeschke, S., Kowalewski, S., Wollschlaeger, M., and Göhner, P., "Challenges for Software Engineering in Automation", *Journal of software*

*engineering and applications : JSEA*, vol. 7, iss. 5, pp. 440-451, 2014

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@article { VDF+14,  
  author = { Vogel-Heuser, Birgit and Diedrich, Christian and Fay,  
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```

[WSL+14]

[PDFBIB](#)

Weinstock, J. H., Schumacher, C., Leupers, R., and Ascheid, G., "SCandal: SystemC Analysis for Nondeterminism Anomalies"Cham ; s.l.: Springer International Publishing [u.a.], 2014, vol. 265, pp. 69-88.

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@inbook { WSL+14,  
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  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 },  
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  year = { 2014 },
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url = { http://publications.rwth-aachen.de/record/229017 },
}
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[BBK13]

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

[PDFBIB](#)

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    IEEE Control Systems Society; IEEE Robotics & Automation
    Society ... Ed. by Panos Antsaklis ...]. - 1-2 },
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}
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[BGK13]

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  booktitle = { Formal Methods for Industrial Critical Systems : 18th
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    23-24, 2013. Proceedings / edited by Charles Pecheur,
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  publisher = { Springer Berlin Heidelberg ; Imprint: Springer },
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pages = { 123-138 },
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series = { Lecture notes in computer science },
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[BK13]

[PDFBIB](#)

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http://publications.rwth-aachen.de/record/229199/files/4836.pdf },  
}
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Stefan },  
  title = { Verifikation von sicherheitsgerichteten SPS-Programmen  
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Hilfe von Safety-Automaten },  
  booktitle = { Automation 2013 : 14. Branchentreff der Mess- und  
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26. Juni 2013 / VDI/VDE-Gesellschaft Mess- und  
Automatisierungstechnik },  
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url = { http://publications.rwth-aachen.de/record/226206 },
}
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}
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[BMC+13]

[PDFBIB](#)

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      Technical Council on Software Engineering ... Ed.: Bram
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  url = { http://publications.rwth-aachen.de/record/752296 },
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```

[DF13]

[PDFBIB](#)

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    fachwissenschaftlicher Informatik-Kongress 22. und 23.
    M{"a}rz 2013 B-IT Bonn-Aachen International Center for
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publisher = { Gesellschaft f{"u}r Informatik e.V. },
pages = { 185-188 },
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url = { http://publications.rwth-aachen.de/record/226146 },
}

```

[DFB+13]

[PDFBIB](#)

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### Bibtex entry :

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AGIT-Symposium Salzburg / Strobl ; Blaschke ; Griesebner ;
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```

[FHK13]

[PDFBIB](#)

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@inproceedings { FHK13,  
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@inproceedings { For13,  
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  Franke, Dominik and Kowalewski, Stefan },
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  booktitle = { 11th International Workshop on Java Technologies for
Real-time and Embedded Systems : JTRES 2013 ; 9-10 October
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}
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[PDFBIB](#)

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url = { http://publications.rwth-aachen.de/record/445077 },
}
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[HF13]

[PDFBIB](#)

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    M{"a"}rz 2013 B-IT Bonn-Aachen International Center for
    Information Technology, Bonn / Gesellschaft f{"u"}r
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  volume = { 12 },
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}
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[KPB13]

[PDFBIB](#)

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  author = { Kowalewski, Stefan and Philippou, A. and Brauer, J. },
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  pages = { 287-289 },
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  url = { http://publications.rwth-aachen.de/record/752289 },
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[KR13]

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```

[MGP+13]

[PDFBIB](#)

Merschen, D., Gleis, R., Pott, J., and Kowalewski, S., "Analysis of Simulink Models Using Databases and Model Transformations", in *Proc. Model-Based Methodologies for Pervasive and Embedded Software : 8th International Workshop, MOMPES 2012, Essen, Germany, September 4, 2012. Revised Papers / edited by Ricardo J. Machado, Rita Suzana P. Maciel, Julia Rubin, Goetz Botterweck*, Berlin, Heidelberg, 2013 in *Lecture Notes in Computer Science*, Springer, pp. 69-84.

## Analysis of Simulink Models Using Databases and Model Transformations

### Bibtex entry :

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@inproceedings { MGP+13,
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[NHM13]

[PDFBIB](#)

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

*Chemie*, vol. 61, iss. 3, pp. 320-329, 2013

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@article { NHM13,
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[PMS+13]

[PDFBIB](#)

Pomprapa, A., Misgeld, B., Sorgato, V., Stollenwerk, A., Walter, M., and Leonhardt, S., "Robust Control of End-Tidal CO<sub>2</sub> using the H<sub>∞</sub> Loop-Shaping Approach", *Acta polytechnica = Journal of advanced engineering*, vol. 53, pp. 895-900, 2013

## Robust Control of End-Tidal CO<sub>2</sub> using the H<sub>∞</sub> Loop-Shaping Approach

### Bibtex entry :

```
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```

[Rek13]

[PDFBIB](#)

Reke, M., "Modellbasierte Entwicklung automobiler Steuerungssysteme in kleinen und mittelständischen Unternehmen", PhD Thesis, Aachen, 2013.

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### **Bibtex entry :**

```
@phdthesis { Rek13,
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```

[Rek13a]

[PDFBIB](#)

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## enterprises

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@phdthesis { Rek13a,
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[SDK13]

[PDFBIB](#)

Schellen, J., Dernehl, C., and Kowalewski, S., "Optimizing Image Processing on OMAP3 with driver-level frame buering and color space conversion", in *Proc. International Micro Air Vehicle Conference and Flight Competition (IMAV)*, 2013, IMAV, pp. 1-8.

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@inproceedings { SDK13,
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[SGK13]

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

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

### Bibtex entry :

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@inproceedings { SGK13,
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```

[Sto13]

[PDFBIB](#)

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

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[VK13]

[PDFBIB](#)

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

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### Bibtex entry :

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[WBS+13]

[PDFBIB](#)

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

## Patient oriented closed loop control of extracorporeal lung assist

### Bibtex entry :

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@inproceedings { WBS+13,  
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```

[WGM+13]

[PDFBIB](#)

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

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[WSB+13]

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

**Bibtex entry :**

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[BBK+12]

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**Bibtex entry :**

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[BBK12]

[PDFBIB](#)

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[BBK12a]

[PDFBIB](#)

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## Access-Based Localization for Octagons

### Bibtex entry :

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@article { BBK12a,  
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```

[BBK12b]

[PDFBIB](#)

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

## Arcade.PLC : a Verification Platform for Programmable Logic Controllers

### Bibtex entry :

```
@inproceedings { BBK12b,  
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[BDK12]

[PDFBIB](#)

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

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

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[BHK+12]

[PDFBIB](#)

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

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

### Bibtex entry :

```
@inproceedings { BHK+12,
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[BK12]

[PDFBIB](#)

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

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

### Bibtex entry :

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@inproceedings { BK12,
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[BK12a]

[PDFBIB](#)

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

*methods in computer science : LMCS*, vol. 8, iss. 3, 2012

## Transfer function synthesis without quantifier elimination

### Bibtex entry :

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@article { BK12a,
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[BKN12]

[PDFBIB](#)

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### Bibtex entry :

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@inproceedings { BKN12,
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publisher = { IEEE },
pages = { 253-256 },
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```

[BKS12]

[PDFBIB](#)

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### Bibtex entry :

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@inproceedings { BKS12,
  author = { Biallas, Sebastian and Kowalewski, Stefan and Schlich, Bastian },
  title = { Automatische Wertebereichsanalyse von SPS-Programmen },
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```

[BKS12a]

[PDFBIB](#)

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## Bibtex entry :

```
@article { BKS12a,
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## Bibtex entry :

```
@inproceedings { BKS12b,
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@inproceedings { BS12,
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@article { BSK12,
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        microcontroller software },
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@inproceedings { DBK12,
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}

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[FDB+12]

**PDFBIB**

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@inproceedings { FDB+12,
  author = { Franke, Dominik and Dzafic, Dzenan and Baumeister, Danni
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```

[FEK12]

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**Bibtex entry :**

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@inproceedings { FEK12,
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```

[FKW+12]

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  author = { Franke, Dominik and Kowalewski, Stefan and Weise, C. and
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[FKW12]

[PDFBIB](#)

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@inproceedings { FKW12,
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proceedings; [including workshop papers] / technical
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}
```

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[PDFBIB](#)

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## Bibtex entry :

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@techreport { For12,
  author = { F{"o}rster, Marc },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/752295 },
}
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}

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[PDFBIB](#)

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### Bibtex entry :

```
@inproceedings { FSK12,
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```

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Franke, D., Tobias, R., and Kowalewski, S., "AndroLIFT: A Tool for Android Application Life Cycles", in *Proc. 4th International Conference on Advances in System Testing and Validation Lifecycle (VALID)*, 2012, Xpert, pp. 28-33.

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### Bibtex entry :

```
@inproceedings { FTK12,
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http://www.thinkmind.org/index.php?view=article&articleid=valid_2012_1_
50_40107 },
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```

[GDF+12]

[PDFBIB](#)

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

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  booktitle = { International Micro Air Vehicle Conference (IMAV) },
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[HK12]

[PDFBIB](#)

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### Bibtex entry :

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@inproceedings { HK12,
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[KFS+12]

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### Bibtex entry :

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[KRS12]

[PDFBIB](#)

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## Cyber-Physical Systems - eine Herausforderung an die Automatisierungstechnik?

### Bibtex entry :

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```

[MDH+12]

[PDFBIB](#)

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## Evolutionsunterstützung für komplexe, modellbasierte Software-Produktlinien

### Bibtex entry :

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@inproceedings { MDH+12,
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```

[MDR+12]

[PDFBIB](#)

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### Bibtex entry :

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@inproceedings { MDR+12,
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```

[MEJ+12]

[PDFBIB](#)

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## Bibtex entry :

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@inproceedings { MEJ+12,  
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[MHL+12]

[PDFBIB](#)

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```
@inproceedings { MHL+12,  
  author = { Murillo, Luis Gabriel and Harnath, Julian and Leupers,  
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  title = { Scalable and Retargetable Debugger Architecture for  
  Heterogeneous MPSoCs },  
  booktitle = { System, Software, SoC and Silicon Debug Conference  
(S4D),  
  [Vienna, Austria, 19-20 Sept. 2012] },  
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url = {
http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=6338153 },
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```

[Mic12]

[PDFBIB](#)

Michailidis, A. A., "Konzepte für eine virtuelle Integration von AUTOSAR-konformer Fahrzeug-Software in frühen Entwicklungsphasen", PhD Thesis, Aachen, 2012.

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

### Bibtex entry :

```
@phdthesis { Mic12,
author = { Michailidis, Alexander A. },
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AUTOSAR-konformer Fahrzeug-Software in frühen
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publisher = { Shaker },
pages = { IX, 178 S. : Ill., graph. Darst. },
series = { Berichte aus der Informatik },
year = { 2012 },
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isbn = { 978-3-8440-0761-9 },
typ = { PUB:(DE-HGF)11 },
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cin = { 100000 / 122810 },
url = { http://publications.rwth-aachen.de/record/64327 },
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```

[Mit12]

[PDFBIB](#)

Mitsching, R., "Applied timed testing: Testautomatisierung in industriellen Testprozessen von eingebetteten Systemen", PhD Thesis, Aachen, 2012.

## Applied timed testing: Testautomatisierung in industriellen Testprozessen von eingebetteten Systemen

### Bibtex entry :

```
@phdthesis { Mit12,
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url = { http://publications.rwth-aachen.de/record/210819 },
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```

[MPK12]

[PDFBIB](#)

Merschen, D., Pott, J., and Kowalewski, S., "Integration and Analysis of Design Artefacts in Embedded Software Development", in *Proc. IEEE 36th Annual Computer Software and Applications Conference workshops (COMPSACW), 2012 : 16 - 20 July 2012, Izmir, Turkey / sponsored by IEEE; IEEE Computer Society. Ed.: Xiaoying Bai ...*, Piscataway, NJ, 2012, IEEE, pp. 503-508.

## Integration and Analysis of Design Artefacts in Embedded Software Development

### Bibtex entry :

```

@inproceedings { MPK12,
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},
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    Ed.: Xiaoying Bai ... },
  publisher = { IEEE },
  pages = { 503-508 },
  year = { 2012 },
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```

[PBD+12]

[PDFBIB](#)

Pleuss, A., Botterweck, G., Dhungana, D., Polzer, A., and Kowalewski, S., "Model-driven support for product line evolution on feature level", *The journal of systems and software : JSS*, vol. 85, iss. 10, pp. 2261-2274, 2012

## Model-driven support for product line evolution on feature level

### Bibtex entry :

```
@article { PBD+12,
  author = { Pleuss, Andreas and Botterweck, G{"o}tz and Dhungana,
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  title = { Model-driven support for product line evolution on
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  publisher = { Elsevier [u.a.] },
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[RKH+12]

[PDFBIB](#)

Reuter, S., Kowalewski, S., Hauck, E., Diab, H., and Jeschke, S., "Design and implementation of a vehicle dynamics control system by means of torque vectoring for an autonomous vehicle", in *Proc. 2012 IEEE International Conference on Robotics and Biomimetics (ROBIO 2012) : Guangzhou, China, 11 - 14 December 2012 / [sponsored by IEEE Robotics and Automation Society (RAS) ...]*, Piscataway, NJ, 2012, IEEE, pp. 1691-1696.

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

### Bibtex entry :

```
@inproceedings { RKH+12,
  author = { Reuter, Sebastian and Kowalewski, Stefan and Hauck,
    Eckart
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    and Diab, Hilal and Jeschke, Sabina },
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                Biomimetics (ROBIO 2012) : Guangzhou, China, 11 - 14
                December 2012 / [sponsored by IEEE Robotics and Automation
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```

[SFL+12]

[PDFBIB](#)

Schommer, J. F., Franke, D., Lange, T., and Kowalewski, S., "Load Balancing for Cross Layer Communication", in *Proc. 2012 IEEE 36th Annual Computer Software and Applications Conference workshops (COMPSACW 2012) : Izmir, Turkey, 16 - 20 July 2012 / [sponsored by IEEE; IEEE Computer Society. Ed.: Xiaoying Bai ...]*, Piscataway, NJ, 2012, IEEE, pp. 476-481.

## Load Balancing for Cross Layer Communication

### Bibtex entry :

```

@inproceedings { SFL+12,
  author = { Schommer, John F. and Franke, Dominik and Lange, Tim and
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                20 July 2012 / [sponsored by IEEE; IEEE Computer Society.
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```

[SWL+12]

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Schumacher, C., Weinstock, J. H., Leupers, R., and Ascheid, G., "SCandal: SystemC analysis for nondeterminism anomalies", in *Proc. Forum on Specification and Design Languages (FDL)*, 18-20 Sept. 2012 in Vienna, Piscataway, NJ, 2012, IEEE, pp. 112-119.

## SCandal: SystemC analysis for nondeterminism anomalies

### Bibtex entry :

```
@inproceedings { SWL+12,
  author = { Schumacher, Christoph and Weinstock, Jan Henrik and
  Leupers,
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  title = { SCandal: SystemC analysis for nondeterminism anomalies },
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}
```

[SWS+12]

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Sheng, W., Wiebe, A., Stulova, A., Leupers, R., Kienhuis, B., Walters, J., and Ascheid, G., "FIFO Exploration in Mapping Streaming Applications onto the TI OMAP3530 Platform: Case Study and Optimizations", in *Proc. IEEE 6th International Symposium on Embedded Multicore SoCs (MCSoc-12)*, 20-22 Sept. 2012 in Aizu-Wakamatsu, 2012, IEEE, pp. 51-58.

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### Bibtex entry :

```
@inproceedings { SWS+12,
  author = { Sheng, Weihua and Wiebe, Artur and Stulova, Anastasia
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booktitle = { IEEE 6th International Symposium on Embedded
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year = { 2012 },
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}

```

[WBB+12]

[PDFBIB](#)

Walter, M., Brendle, C., Bensberg, R., Kopp, R., Arens, J., Stollenwerk, A., and Leonhardt, S., "Closed loop physiological ECMO control", in *Proc. 5th European Conference of the International Federation for Medical and Biological Engineering : 14 - 18 September 2011, Budapest, Hungary ; [EMBEC] / Ákos Jobbágy (ed.)*, [Berlin], 2012 in IFMBE Proceedings, Springer, pp. 319-322.

## Closed loop physiological ECMO control

### Bibtex entry :

```

@inproceedings { WBB+12,
author = { Walter, Marian and Brendle, Christian and Bensberg, Ralf
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Kopp, R{"u}dger and Arens, Jutta and Stollenwerk, André
and Leonhardt, Steffen },
title = { Closed loop physiological ECMO control },
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Federation for
Medical and Biological Engineering : 14 - 18 September 2011,
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series = { IFMBE Proceedings },
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typ = { PUB:(DE-HGF)8 },
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url = { http://publications.rwth-aachen.de/record/120299 },
}

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[WBS+12]

[PDFBIB](#)

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2012, pp. 51-51.

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### Bibtex entry :

```
@inproceedings { WBS+12,  
  author = { Walter, Marian and Brendle, Christian and Stollenwerk,  
    André and Kopp, R{"u}dger and Arens, Jutta and Bensberg,  
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  title = { Patient oriented closed loop control of extracorporeal  
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http://www.scai-med.org/meetings/2012Iccai/2012iccaiprogram.pdf },  
}
```

[Bar11]

[PDFBIB](#)

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## Introducing Timers to Pi-Calculus

### Bibtex entry :

```
@techreport { Bar11,  
  author = { Barakat, Kamal },  
  title = { Introducing Timers to Pi-Calculus },  
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}
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[BBD+11]

[PDFBIB](#)

Beckschulze, E., Boymanns, D., Duelks, R., Gatterdam, T., Kowalewski, S., Lang, M., Salewski, F., and Siegbert, T., "Zuverlaessigkeit von automotive embedded Systems", 2011.

# Zuverlaessigkeit von automotive embedded Systems

## Bibtex entry :

```
@techreport { BBD+11,  
  author = { Beckschulze, E. and Boymanns, D. and Duelks, R. and  
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            F. and Siegbert, T. },  
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  volume = { 231 },  
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  year = { 2011 },  
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[BBK+11]

[PDFBIB](#)

Biallas, S., Brauer, J., Kowalewski, S., and Schlich, B., "Automatically Deriving Symbolic Invariants for PLC Programs Written in IL", in *Proc. Formal methods for automation and safety in railway and automotive systems : FORMS/FORMAT 2010 ; [8th symposium ; proceedings] / Ekehard Schnieder; Géza Tarnai, eds.*, Heidelberg [u.a.], 2011, Springer, pp. 237-245.

## Automatically Deriving Symbolic Invariants for PLC Programs Written in IL

## Bibtex entry :

```
@inproceedings { BBK+11,  
  author = { Biallas, Sebastian and Brauer, J{"o}rg and Kowalewski,  
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  title = { Automatically Deriving Symbolic Invariants for PLC  
Programs  
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and  
            automotive systems : FORMS/FORMAT 2010 ; [8th symposium ;  
            proceedings] / Ekehard Schnieder; Géza Tarnai, eds. },  
  publisher = { Springer },  
  pages = { 237-245 },  
  year = { 2011 },  
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}

[BBK11]

[PDFBIB](#)

Biallas, S., Brauer, J., and Kowalewski, S., "SAT-Based Abstraction Refinement for Programmable Logic Controllers", in *Proc. 3rd International Workshop on Dependable Control of Discrete Systems 2011, DCDS 2011, Saarbrücken, Germany, 15th-17th June 2011*, Piscataway, NJ, 2011, IEEE, pp. 96-101.

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### Bibtex entry :

```
@inproceedings { BBK11,
  author = { Biallas, Sebastian and Brauer, J{"o}rg and Kowalewski,
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```

[BBS+11]

[PDFBIB](#)

Beckschulze, E., Brauer, J., Stollenwerk, A., and Kowalewski, S., "Analyzing Embedded Systems Code for Mixed-Critical Systems Using Hybrid Memory Representations", in *Proc. 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*, Piscataway, NJ, 2011, IEEE, pp. 33-40.

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

### Bibtex entry :

```
@inproceedings { BBS+11,
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title = { Analyzing Embedded Systems Code for Mixed-Critical
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pages = { 33-40 },
year = { 2011 },
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Computing, Newport Beach, CA (USA), 2011-03-28 - 2011-08-31 },
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}

```

[BBS+11a]

[PDFBIB](#)

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## 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,
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[BK11]

[PDFBIB](#)

Brauer, J. and King, A., "Approximate Quantifier Elimination for Propositional Boolean Formulae", in *Proc. NASA formal methods : third international symposium, NFM 2011, Pasadena, CA, USA, April 18-20, 2011 ; proceedings / Mihaela Bobaru ... (eds.)*, Heidelberg [u.a.], 2011 in Lecture Notes in Computer Science, Springer, pp. 73-88.

## Approximate Quantifier Elimination for Propositional Boolean Formulae

### Bibtex entry :

```
@inproceedings { BK11,
  author = { Brauer, J{\\"o}rg and King, Andy },
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  publisher = { Springer },
  pages = { 73-88 },
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  year = { 2011 },
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[BK11a]

[PDFBIB](#)

Brauer, J. and King, A., "Transfer Function Synthesis without Quantifier Elimination", in *Proc. 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, Saarbrücken, Germany, March 26-April 3, 2011 ; proceedings / Gilles Barthe (ed.)*, Heidelberg [u.a.], 2011 in Lecture notes in computer science, Springer, pp. 97-115.

## Transfer Function Synthesis without Quantifier Elimination

### Bibtex entry :

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@inproceedings { BK11a,
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**Symposium**

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on Programming, ESOP 2011, held as part of the Joint
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; proceedings / Gilles Barthe (ed.) },
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series = { Lecture notes in computer science },
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```

[BKK11]

[PDFBIB](#)

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

## Existential Quantification as Incremental SAT

### Bibtex entry :

```

@inproceedings { BKK11,
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/ Ganesh Gopalakrishnan; Shaz Qadeer (eds.) },
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[BKS11]

[PDFBIB](#)

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### Bibtex entry :

```
@inproceedings { BKS11,
  author = { Biallas, Sebastian and Kowalewski, Stefan and Schlich, Bastian },
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[BMH+11]

[PDFBIB](#)

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### Bibtex entry :

```
@inproceedings { BMH+11,
  author = { Ben Makhoulf, Ibtissem and Maschuw, Jan P. and H{\a}nsch,
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    Paul and Diab, Hilal and Kowalewski, Stefan and Abel, Dirk },
    title = { Safety Verification of a Cooperative Vehicle Platoon
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    url = { http://publications.rwth-aachen.de/record/100991 },
}

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[BRT11]

[PDFBIB](#)

Brauer, J., Roveri, M., and Tews, H., "Proceedings of the 6th International Workshop on Systems Software Verification (SSV 2011)", , Dresden, TUD-FI11-02-August 2011, 2011.

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### Bibtex entry :

```

@techreport { BRT11,
  author = { Brauer, J{"o}rg and Roveri, Marco and Tews, Hendrik },
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[DFD+11]

[PDFBIB](#)

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## Bibtex entry :

```
@inproceedings { DFD+11,
  author = { Dernehl, Christian and Franke, Dominik and Diab, Hilal
and
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  booktitle = { International Micro Air Vehicle conference and
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}
```

[FDW+11]

[PDFBIB](#)

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

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## Bibtex entry :

```
@inproceedings { FDW+11,
  author = { Franke, Dominik and Dzafic, Dzenan and Weise, Carsten
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Elektrofahrzeuge auf Basis von OpenStreetMap-Daten },
  booktitle = { Anwenderkonferenz f{"u}r Freie und Open Source
Software
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http://www.mapmedia.de/jthomsen/FOSSGIS_Tagungsband/2011_FOSSGIS_Tagung
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}
```

[FDW+11a]

[PDFBIB](#)

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## Konzept eines Mobilen OSM-Navigationssystems für Elektrofahrzeuge

### Bibtex entry :

```
@inproceedings { FDW+11a,
author = { Franke, Dominik and Dzafic, Dzenan and Weise, Carsten
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title = { Konzept eines Mobilen OSM-Navigationssystems f{"u}r
Elektrofahrzeuge },
booktitle = { Angewandte Geoinformatik 2011 - Beitr{"a}ge zum 23.
AGIT-Symposium (AGIT) },
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[FEW+11]

[PDFBIB](#)

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### Bibtex entry :

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@inproceedings { FEW+11,
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author = { Franke, Dominik and Elsemann, Corinna and Weise, Carsten
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(WCRE
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    [proceedings] / [Technically co-sponsored by IEEE Computer
    Society. Sponsored by Reengineering Forum; IEEE-CS Technical
    Council on Software Engineering]. Ed.: Martin Pinzger },
publisher = { IEEE },
pages = { 283-292 },
year = { 2011 },
address = { Piscataway, NJ },
doi = { 10.1109/WCRE.2011.42 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-205156 },
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url = { http://publications.rwth-aachen.de/record/227967 },
}
```

[FW11]

[PDFBIB](#)

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url = { http://publications.rwth-aachen.de/record/126463 },
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[GK11]

[PDFBIB](#)

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@inproceedings { GK11,
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```

[GKK+11]

[PDFBIB](#)

Grobosch, S., Kamin, V., Krirkkawin, K., and Kowalewski, S., "Using Timed Automata in Requirements Analysis for Engine Control Units", in *Proc. Proceedings of the 18th IFAC World Congress, 2011 : August 28 - September 2, 2011, Università Cattolica del Sacro Cuore, Milano Italy / Ed.: Sergio Bittanti ...*, Milano, Italy, 2011 in IFAC-PapersOnLine, Curran, pp. 12503-12508.

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### Bibtex entry :

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@inproceedings { GKK+11,
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  Kriengkrai and Kowalewski, Stefan },
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28 - September 2, 2011, Università Cattolica del Sacro
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url = { http://dx.doi.org/10.3182/20110828-6-IT-1002.03679 },
}

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[HSK11]

[PDFBIB](#)

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### Bibtex entry :

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@inproceedings { HSK11,
author = { H{"a"}nsch, Paul and Schommer, John F. and Kowalewski,
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international
conference, ICIRA 2011, Aachen, Germany, December 6 - 8,
2011 ; proceedings / Sabina Jeschke; Honghai Liu; Daniel
Schilberg (eds.) },
publisher = { Springer Verlag },
pages = { 297-306 },
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year = { 2011 },
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```

[KBW+11]

[PDFBIB](#)

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

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### Bibtex entry :

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  author = { Kopp, R{"u}dger and Bensberg, Ralf and Walter, Marian
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[KRS+11]

[PDFBIB](#)

Kopp, R., Rossaint, R., Schmitz-Rode, T., Steinseifer, U., Arens, J., Bensberg, R., and Henzler, D., "A Miniaturized Extracorporeal Membrane Oxygenator with Integrated Rotary Blood Pump: Preclinical In Vivo Testing", *ASAIO journal*, vol. 57, iss. 3, pp. 158-163, 2011

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

**Bibtex entry :**

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@article { KRS+11,  
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  url = { http://publications.rwth-aachen.de/record/142316 },  
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[KS11]

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**Bibtex entry :**

```
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```

[MDA+11]

[PDFBIB](#)

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

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@article { MDA+11,
  author = { Maschuw, Jan P. and Diab, Hilal and Abel, Dirk and
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```

[MPB+11]

[PDFBIB](#)

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

### Bibtex entry :

```
@inproceedings { MPB+11,
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Variability
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    2011, Namur, Belgium ; proceedings / Krzysztof Czarnecki ...
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}

```

[MWB+11]

[PDFBIB](#)

Mitsching, R., Weise, C., Bohnenkamp, H., Fiedler, F., and Kowalewski, S., "TripleT: Improving Test Responsiveness for High Performance Embedded Systems", in *Proc. 2011 IEEE Fourth International Conference on Software Testing, Verification and Validation workshops (ICSTW 2011) : Berlin, Germany, 21 - 25 March 2011 ; [proceedings] / [sponsored by IEEE Computer Society]*, Piscataway, NJ, 2011, IEEE, pp. 67-74.

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

### Bibtex entry :

```

@inproceedings { MWB+11,
  author = { Mitsching, Ralf and Weise, Carsten and Bohnenkamp,
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    [sponsored by IEEE Computer Society] },
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  year = { 2011 },
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  doi = { 10.1109/ICSTW.2011.86 },
  typ = { PUB:(DE-HGF)8 },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/126597 },
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```

[MWF+11]

[PDFBIB](#)

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### Bibtex entry :

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@inproceedings { MWF+11,
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  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 },
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  pages = { 128-135 },
  year = { 2011 },
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  doi = { 10.1109/SSIRI-C.2011.27 },
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  url = { http://publications.rwth-aachen.de/record/123848 },
}
```

[OBY11]

[PDFBIB](#)

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@inproceedings { OBY11,
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Memories },
  booktitle = { Verification, model checking, and abstract
```



```

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

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[PMB+11]

[PDFBIB](#)

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### Bibtex entry :

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@article { PMB+11,
  author = { Polzer, Andreas and Merschen, Daniel and Botterweck,
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  pages = { 1-15 },
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  typ = { PUB:(DE-HGF)16 },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/191115 },
}

```

[PWK+11]

[PDFBIB](#)

Palczynski, J., Weise, C., Kowalewski, S., and Ulmer, D., "Estimation of Clock Drift in HiL Testing

by Property-Based Conformance Check", in *Proc. 2011 IEEE Fourth International Conference on Software Testing, Verification and Validation workshops (ICSTW 2011) : Berlin, Germany, 21 - 25 March 2011 ; [proceedings] / [sponsored by IEEE Computer Society]*, Piscataway, NJ, 2011, IEEE, pp. 590-595.

## Estimation of Clock Drift in HiL Testing by Property-Based Conformance Check

### Bibtex entry :

```
@inproceedings { PWK+11,
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[SGA+11]



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[WBA+11]

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[BBG+10]

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```

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Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen ;
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f{"u}r Automation und Kommunikation e.V., Magdeburg;
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    Otto-von-Guericke-Universit{"a"}t Magdeburg, Institut
    f{"u"}r Automatisierungstechnik. [Hrsg.: Ulrich Jumar,
    Eckehard Schnieder, Christian Diedrich] },
publisher = { ifak },
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[BKK10]

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[PDFBIB](#)

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volume = { 6371 },
series = { Lecture notes in computer science },
year = { 2010 },
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[MRH+10]

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url = { http://publications.rwth-aachen.de/record/118981 },
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  author = { Pleuss, A. and Botterweck, G. and Dhungana, D. and
    Polzer,
      A. and Kowalewski, S. },
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}
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[PMT+10]

[PDFBIB](#)

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### Bibtex entry :

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}

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[PWK10]

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  author = { Palczynski, Jacob and Weise, Carsten and Kowalewski,
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Testing Software and Systems: Short Papers ; October, 2010 /
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http://www.crim.ca/Publications/2010/documents/plein_texte/ASD_PetA_al_
201010_ICTSS_sp.pdf },
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[RBH+10]

[PDFBIB](#)

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http://inderscience.metapress.com/content/y664g84625r780l0/fulltext.pdf  
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[SDK10]

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http://www.artist-embedded.org/docs/Events/2010/WESE/Proceedings_WESE_2
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[SJA+10]

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[SJW+10]

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

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11. Fachtagung mit Tutorium, 25. bis 27. Mai 2010 in
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[WLK+10]

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[WLK+10a]

[PDFBIB](#)

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### Bibtex entry :

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R{"u}dger
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[ABK09]

[PDFBIB](#)

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  author = { Armoush, Ashraf and Beckschulze, Eva and Kowalewski,
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  author = { Armoush, Ashraf and Kowalewski, Stefan },
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[ASK09]

[PDFBIB](#)

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@article { ASK09,
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  journal = { Electronic notes in theoretical computer science :
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ENTCS },
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}

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[BKC+09]

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[BPK09]

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[BPK09a]

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    Conference, SPLC 2009 : 24-28 August 2009, San Francisco,
    California, USA / IEEE Computer Society. John D. McGregor;
    ... (Eds.) },
    publisher = { IEEE },
    pages = { 52-58 },
    year = { 2009 },
    address = { Piscataway, NJ },
    typ = { PUB:(DE-HGF)8 },
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}

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[BPK09b]

[PDFBIB](#)

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

### Bibtex entry :

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@inproceedings { BPK09b,
    author = { Botterweck, G{"o}tz and Polzer, Andreas and Kowalewski,
    Stefan },
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    Mechanism for Embedded Systems },
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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 },
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    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/129006 },
}

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}

[BPP+09]

[PDFBIB](#)

Botterweck, G., Pleuss, A., Polzer, A., and Kowalewski, S., "Towards Feature-driven Planning of Product-Line Evolution", in *Proc. Proceedings of the first International Workshop on Feature-Oriented Software Development (FOSD) : October 6, 2009 Denver, Colorado, USA / eds.: Sven Apel ...*, New York, NY, 2009, ACM, pp. 109-116.

## Towards Feature-driven Planning of Product-Line Evolution

### Bibtex entry :

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@inproceedings { BPP+09,
  author = { Botterweck, G{"o}tz and Pleuss, Andreas and Polzer,
    Andreas
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}
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[BSK09]

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```
@inproceedings { BSK09,
  author = { Beckschulze, Eva and Salewski, Falk and Kowalewski,
    Stefan },
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    Automotive Applications },
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booktitle = { Safety-critical systems, 2009 : [held during the SAE
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    world congress, held April 20 - 23, 2009 in Detroit,
    Michigan, USA] / SAE International },
publisher = { SAE Intern. },
pages = { 209-216 },
series = { SAE-SP },
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cin = { 122810 / 120000 },
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}

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[BSR+09]

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## Stack bounds analysis of microcontroller assembly code

### Bibtex entry :

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@inproceedings { BSR+09,
    author = { Brauer, J{\o}rg and Schlich, Bastian and Reinbacher,
Thomas
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    conference on Compilers, architecture, and synthesis for
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[DBK+09]

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  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  
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Program 1305  
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[DSK09]

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  author = { Duelks, Ramona and Salewski, Falk and Kowalewski, Stefan  
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            Conference Practice and Research Techniques : TAIC PART 2009  
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[FHS+09]

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  author = { Fehnker, Ansgar and Huuck, Ralf and Schlich, Bastian and
    Tapp, Michael },
  title = { Automatic bug detection in microcontroller software by
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  booktitle = { SOFSEM 2009: theory and practice of computer science
: 35th
  Conference on Current Trends in Theory and Practice of
  Computer Science, Špindlerův Mlýň, Czech Republic,
  January 24 - 30, 2009 ; proceedings / Mogens Nielsen ...
  (eds.) },
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  pages = { 267-278 },
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  year = { 2009 },
  address = { Berlin [u.a.] },
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  url = { http://publications.rwth-aachen.de/record/83459 },
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[Guc09]

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### Bibtex entry :

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@inproceedings { Guc09,
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    SSV'09) : Real Software, Real Problems, Real Solutions ;
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    June 22\[24, 2009 / Ralf Huuck, Gerwin Klein, and Bastian
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  publisher = { RWTH Aachen, Department of Computer Science },
  pages = { 7-9 },
  series = { Aachener Informatik Berichte : AIB },
  year = { 2009 },
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  url = {
http://sunsite.informatik.rwth-aachen.de/Publications/AIB/2009/2009-14.
    pdf },
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[HKK+09]

[PDFBIB](#)

Hutchison, D., Kanade, T., Kittler, J., Kleinberg, J. M., Mattern, F., Mitchell, J. C., Naor, M., Nierstrasz, O., Rangan, P. C., Steffen, B., Sudan, M., Terzopoulos, D., Tygar, D., Vardi, M. Y., Weikum, G., Kowalewski, S., and Philippou, A., Eds., *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*, Berlin, Heidelberg: Springer Berlin Heidelberg, 2009.

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  editor = { Hutchison, David and Kanade, Takeo and Kittler, Josef
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and

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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 },
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 },
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 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752316 },
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[KGG+09]

[PDFBIB](#)

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  author = { Kowalewski, Stefan and Garavello, Mauro and Guéguen,
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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 },
publisher = { Cambridge University Press [2009] },
pages = { 57-86 },
year = { 2009 },
address = { Cambridge },
doi = { 10.1017/CB09780511807930.004 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-236342 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/752315 },
}
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[KHS09]

[PDFBIB](#)

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  author = { Klein, Gerwin and Huuck, Ralf and Schlich, Bastian },
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  journal = { Journal of automated reasoning },
  publisher = { Springer },
  pages = { 123-124 },
  volume = { 42 },
  number = { 2/4 },
  year = { 2009 },
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}
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[KLK09]

[PDFBIB](#)

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  author = { Kopp, R{"u}dger and Leonhardt, Steffen and Kowalewski,
    Stefan },
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    Pulmonary Indications: Improving Patient Safety },
  booktitle = { Yearbook of Intensive Care and Emergency Medicine :
    2009 /
    ed. by Jean-Louis Vincent },
```



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publisher = { Springer },
pages = { 341-349 },
volume = { 2009 },
series = { Yearbook of Intensive Care and Emergency Medicine },
year = { 2009 },
address = { Berlin [u.a.] },
doi = { 10.1007/978-0-387-92278-2_33 },
typ = { PUB:(DE-HGF)7 },
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cin = { 120000533000-3533000-2 / 122810 / 611010 },
url = { http://publications.rwth-aachen.de/record/83542 },
}

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[Klu09]

[PDFBIB](#)

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### Bibtex entry :

```

@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 },
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http://publications.rwth-aachen.de/record/51797/files/Kluender_Daniel.pdf },
}

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[KP09]

[PDFBIB](#)

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@proceedings { KP09,
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    part of the Joint European Conferences on Theory and
    Practice of Software, ETAPS 2009, York, UK, March 22-29,
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    (eds.) },
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  pages = { XVI, 456 S. : graph. Darst. },
  volume = { 5505 },
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    science and general issues },
  year = { 2009 },
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http://www.springer.com/computer/theoretical+computer+science/book/978-3-540-41865-8 },
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[KWA+09]

[PDFBIB](#)

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**Bibtex entry :**

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@article { KWA+09,
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    year = { 2009 },
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}

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[LWW+09]

[PDFBIB](#)

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  author = { Leonhardt, Steffen and Walter, Marian and Wartzek,
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            R{"u}dger },
  title = { Regelung des Gasaustauschs f{"u}r die extrakorporale
            Oxygenierung },
  booktitle = { Automation 2009 : der Automatisierungskongress in
                Deutschland ; Kongress Baden-Baden, 16. und 17. Juni 2009 ;
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                2067 },
  publisher = { VDI-Verl. },
  pages = { 281-285 },
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cin = { 122810 / 611010 / 120000 },
url = { http://publications.rwth-aachen.de/record/99564 },
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[Mit09]

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  author = { Mitsching, Ralf },
  title = { Testing in the Industrial Development Process for
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  booktitle = { Doctoral Symposium on Systems Software Verification
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  SSV'09) Real Software, Real Problems, Real Solutions ;
  Proceedings },
  publisher = { RWTH Aachen, Department of Computer Science },
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  volume = { 2009,14 },
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[MWK+09]

[PDFBIB](#)

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### Bibtex entry :

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@inproceedings { MWK+09,
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title = { Towards an industrial strength process for timed testing
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url = { http://publications.rwth-aachen.de/record/99554 },
}

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[PBW+09]

[PDFBIB](#)

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### Bibtex entry :

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@inproceedings { PBW+09,
author = { Polzer, Andreas and Botterweck, G{"o}tz and Wagnerin,
Iris
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booktitle = { Informatik 2009 : im Focus das Leben ; Beitr{"a}ge
der 39.
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pages = { 331-331 },
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http://subs.emis.de/LNI/Proceedings/Proceedings154/P-154.pdf },
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  author = { Palczynski, Jacob and Kowalewski, Stefan },
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  url = { http://publications.rwth-aachen.de/record/98844 },
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  author = { Stollenwerk, André and Walter, Marian and Wartzek,
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    year = { 2009 },
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[WWS+09a]

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[ASK08a]

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## Bibtex entry :

```
@inproceedings { ASK08a,  
  author = { Armoush, Ashraf and Salewski, Falk and Kowalewski,  
Stefan },  
  title = { Effective pattern representation for safety critical  
embedded systems },  
  booktitle = { CSSE 2008 : International Conference on Computer  
Science and  
Software Engineering ; Proceedings ; 12-14 December 2008 •  
Wuhan, Hubei, China. - Vol. 4 },  
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year = { 2008 },
address = { Los Alamitos, Calif. },
doi = { 10.1109/CSSE.2008.739 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/98743 },
}
```

[ASK08b]

[PDFBIB](#)

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```
@inproceedings { ASK08b,
  author = { Armoush, Ashraf and Salewski, Falk and Kowalewski,
Stefan },
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extended representation for safety critical embedded systems },
  booktitle = { 11th International Conference on Information
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  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 },
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  reportid = { RWTH-CONV-171800 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/98744 },
}
```

[BKK+08]

[PDFBIB](#)

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  author = { Beckers, J{"o}rg and Kl{"u}nder, Daniel and
  Kowalewski,
    Stefan and Schlich, Bastian },
  title = { Direct support for model checking abstract state machines
  by
    utilizing simulation },
  booktitle = { Abstract state machines, B and Z : first
  international
    conference, ABZ 2008, London, UK, September 16-18, 2008 ;
    proceedings / Egon B{"o}rger ... (eds.) },
  publisher = { Springer },
  pages = { 112-124 },
  volume = { 5238 },
  series = { Lecture Notes in Computer Science },
  year = { 2008 },
  address = { Berlin [u.a.] },
  doi = { 10.1007/978-3-540-87603-8_10 },
  typ = { PUB:(DE-HGF)7 },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/83460 },
}
```

[BSS+08]

[PDFBIB](#)

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  author = { Beckschulze, Eva and Salewski, Falk and Siegbert, Thomas
  and
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  title = { Fault handling approaches on dual-core microcontrollers
  in
    safety-critical automotive applications },
```

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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 },
address = { Berlin [u.a] },
doi = { 10.1007/978-3-540-88479-8_7 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-171611 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/98522 },
}

```

[DHH+08]

[PDFBIB](#)

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    author = { Drews, Peter and Hesseler, Frank and Hoffmann, Kai and
    Abel,
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        Kowalewski, Stefan },
    title = { Entwicklung einer Luftpfadregelung am Dieselmotor unter
    Ber{"u}cksichtigung nichtfunktionaler Anforderungen },
    booktitle = { Steuerung und Regelung von Fahrzeugen und Motoren :
    AUTOREG
        2008 ; 4. Fachtagung Baden-Baden, 12. und 13. Februar 2008 /
        VDI/VDE-Gesellschaft Mess- und Automatisierungstechnik },
    publisher = { VDI-Verl. },
    pages = { 91-102 },
    series = { VDI-Berichte },
    year = { 2008 },
    address = { D{"u"}sseldorf },
    typ = { PUB:(DE-HGF)8 },
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}

[DHS+08]

PDFBIB

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### Bibtex entry :

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  author = { Drews, Peter and He{\ss}eler, Frank-Josef and Schmitz,
    Dominik and Polzer, Andreas and Kowalewski, Stefan and Abel,
    Dirk },
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    Dieselmotor unter Ber{"u}cksichtigung nichtfunktionaler
    Anforderungen },
  booktitle = { Moderne Elektronik im Kraftfahrzeug III : Systeme von
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  - technische Innovationen und Entwicklungstrends ; [28.
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  series = { Haus der Technik Fachbuch },
  year = { 2008 },
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  typ = { PUB:(DE-HGF)8 },
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  url = { http://publications.rwth-aachen.de/record/97365 },
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[HFS+08]

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  pages = { 216-221 },
  volume = { 5311 },
  series = { Lecture notes in computer science },
  year = { 2008 },
  address = { Berlin [u.a.] },
  organization = { 6th International Symposium on Automated
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  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 },
}
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[HSW+08]

[PDFBIB](#)

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  author = { Herberich, Gerlind and Schlich, Bastian and Weise,
Carsten
  and Noll, Thomas },
  title = { Proving correctness of an efficient abstraction for
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ENTCS },
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  pages = { 133-150 },
  volume = { 217 },
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year = { 2008 },
address = { Amsterdam [u.a.] },
issn = { 1571-0661 },
doi = { 10.1016/j.entcs.2008.06.046 },
typ = { PUB:(DE-HGF)16 },
reportid = { RWTH-CONV-012122 },
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url = { http://publications.rwth-aachen.de/record/130980 },
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[KKK08]

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  author = { Klünder, Daniel and Kameni, Dimitri and Kowalewski,
    Stefan },
  title = { Nahtloser Entwurf sicherheitskritischer, eingebetteter
    Softwaresysteme mit abstrakten Zustandsmaschinen und
    Business Object Notation },
  booktitle = { Entwurf komplexer Automatisierungssysteme, EKA 2008 :
    Beschreibungsmittel, Methoden, Werkzeuge und Anwendungen ;
    10. Fachtagung, 15. bis 16. April 2008 Tutorium, 16. bis 17.
    April 2008 Fachtagung, Magdeburg, Denkfabrik im
    Wissenschaftshafen / Ifak, Institut für Automation und
    Kommunikation e.V., Magdeburg ... Hrsg.: Ulrich Jumar;
    Eckehard Schneider; Christian Diedrich },
  publisher = { Universität },
  year = { 2008 },
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  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-171804 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/98748 },
}
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[KLK08]

[PDFBIB](#)



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  author = { Kl{\\"u}nder, Daniel and Li, J. and Kowalewski, Stefan },  
  title = { Design-by-Contract for Embedded Systems },  
  booktitle = { International Symposium on Software Variability: a  
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  year = { 2008 },  
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  url = { http://publications.rwth-aachen.de/record/752319 },  
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[Klu08]

[PDFBIB](#)

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### Bibtex entry :

```
@inproceedings { Klu08,  
  author = { Kl{\\"u}nder, Daniel },  
  title = { Modellierung und Analyse von Fahrzeugsoftware mit  
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  booktitle = { Modellierung 2008 : 12. - 14. M{\\"a}rz 2008, Berlin /  
Thomas  
  K{\\"u}hne ... (Hrsg.) },  
  publisher = { Ges. f. Informatik },  
  pages = { 225-228 },  
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http://subs.emis.de/LNI/Proceedings/Proceedings127/gi-proc-127-017.pdf  
},  
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}

[MHR+08]

[PDFBIB](#)

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### Bibtex entry :

```
@inproceedings { MHR+08,
  author = { Michailidis, Alexander A. and Hedenetz, Bernd and Ringler, Thomas and Kowalewski, Stefan },
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}
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[NS08]

[PDFBIB](#)

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@inbook { NS08,
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author = { Noll, Thomas and Schlich, Bastian },
title = { Delayed nondeterminism in model checking embedded systems
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booktitle = { Hardware and software: verification and testing :
third
International Haifa Verification Conference, HVC 2007,
Haifa, Israel, October 23 - 25, 2007 ; proceedings / Karen
Yorav (ed.) },
publisher = { Springer },
pages = { 185-201 },
volume = { 4899 },
series = { Lecture notes in computer science },
year = { 2008 },
address = { Berlin [u.a.] },
doi = { 10.1007/978-3-540-77966-7_16 },
typ = { PUB:(DE-HGF)7 },
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url = { http://publications.rwth-aachen.de/record/83461 },
}
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[RKH+08]

[PDFBIB](#)

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### Bibtex entry :

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@inproceedings { RKH+08,
author = { Reinbacher, Thomas and Kramer, Michael and Horauer,
Martin
and Schlich, Bastian },
title = { Motivating model checking for embedded systems software
},
booktitle = { 2008 IEEE/ASME International Conference on
Mechatronic and
Embedded Systems and Applications : MESA ; Beijing, China,
12 - 15 October 2008 },
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doi = { 10.1109/MESA.2008.4735653 },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/99089 },
}
```

[RKH+08a]

[PDFBIB](#)

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@inproceedings { RKH+08a,
  author = { Reinbacher, Thomas and Kramer, Michael and Horauer,
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    [mc]square model checker },
  booktitle = { 2008 International Symposium on Industrial Embedded
  Systems
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    IEEE },
  publisher = { IEEE },
  pages = { 245-248 },
  year = { 2008 },
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  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/99569 },
}
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[Sal08]

[PDFBIB](#)

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  author = { Salewski, Falk },
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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 },
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cin = { 120000 / 122810 },
url = {
http://publications.rwth-aachen.de/record/459474/files/Salewski_Falk.pdf
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}
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[Sch08]

[PDFBIB](#)

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@phdthesis { Sch08,
author = { Schlich, Bastian },
othercontributors = { Kowalewski, Stefan },
title = { Model checking of software for microcontrollers },
publisher = { RWTH Aachen, Department of Computer Science },
pages = { IV, 159 S. : graph. Darst. },
series = { Aachener Informatik-Berichte },
year = { 2008 },
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cin = { 122810 / 120000 },
url = {
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}
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[SDH+08]

[PDFBIB](#)

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  author = { Schmitz, Dominik and Drews, Peter and He{\ss}eler,
    Frank-Josef and Jarke, Matthias and Kowalewski, Stefan and
    Palczynski, Jacob and Polzer, Andreas and Reke, Michael and
    Rose, Thomas },
  title = { Modellbasierte Anforderungserfassung f{"u}r
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  booktitle = { Software Engineering 2008 : Fachtagung des GI-
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    Gesellschaft f{"u}r Informatik (GI). Korbinian Herrmann;
    Bernd Bruegge (Hrsg.) },
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  series = { GI-Edition : Proceedings },
  year = { 2008 },
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  url = { http://publications.rwth-aachen.de/record/97321 },
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[SGK08]

[PDFBIB](#)

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  author = { Schlich, Bastian and G{"u}ckel, Dominique and
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  title = { Modeling the environment of microcontrollers to tackle
    the
    state-explosion problem in model checking },
  booktitle = { Formal methods for automation and safety in railway
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and
    automotive systems ; proceedings of Symposium FORMS/FORMAT
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    ... (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]

[PDFBIB](#)

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    author = { Salewski, Falk and Kowalewski, Stefan },
    title = { The effect of real-time software reuse in FPGAs and
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    booktitle = { 2008 International Symposium on Industrial Embedded
        Systems
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        IEEE },
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    doi = { 10.1109/SIES.2008.4577692 },
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    url = { http://publications.rwth-aachen.de/record/98747 },
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  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 },
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}
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  author = { Schlich, Bastian and L{"o"}ll, Jann and Kowalewski,
    Stefan },
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  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 },
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  year = { 2008 },
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address = { Berlin [u.a.] },
doi = { 10.1007/978-3-540-79707-4_4 },
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url = { http://publications.rwth-aachen.de/record/83462 },
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  author = { Salewski, Falk and Taylor, Adam },
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  booktitle = { 2008 IEEE International Symposium on Industrial Electronics
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author = { Wilking, Dirk },
othercontributors = { Kowalewski, Stefan },
title = { Empirical studies for the application of agile methods to
  embedded systems },
publisher = { Fachgruppe Informatik, RWTH Aachen },
pages = { XIV, 157 S. : graph. Darst. },
series = { Aachener Informatik-Berichte },
year = { 2008 },
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  publisher = { Oldenbourg },
  pages = { 269-271 },
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  booktitle = { Computer safety, reliability, and security : 26th
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    year = { 2007 },
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  pages = { 78-85 },
  year = { 2007 },
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  url = { http://publications.rwth-aachen.de/record/117075 },
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  author = { Salewski, Falk and Kowalewski, Stefan },
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cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/160044 },
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  title = { An extendable architecture for model checking
    hardware-specific automotive microcontroller code },
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    automation and safety in railway and automotive systems ;
    proceedings of Symposium FORMS/FORMAT 2007, Braunschweig,
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Systems
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[SIES'2007] / IEEE / IEEE Computer Society Press },
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  author = { Salewski, Falk and Taylor, Adam },
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31 August 2007, L{"u}beck, Germany / European Organisation
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Kubátová },
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publisher = { IEEE Computer Soc. },
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year = { 2007 },
address = { Los Alamitos, Calif. [u.a.] },
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url = { http://publications.rwth-aachen.de/record/117068 },
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[WK07]

[PDFBIB](#)

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  booktitle = { Preprints / ADHS '06, 2nd IFAC Conference on Analysis  
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[Klu06b]

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@inproceedings { Klu06b,
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architecture design },
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Universit\u00e4t Karlsruhe, Fakult\u00e4t f\u00fcr Informatik },
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[MK06]

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[SK06]

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[SK05a]

[PDFBIB](#)

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Center. Ed.: Tiziana Margaria ... },
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  number = { NASA/CP-2005-212788 },
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@article { SWK05,  
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[WK05]

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[WR05]

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[SG94]

[PDFBIB](#)

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