

# Dr. Ing. Ibtissem Ben Makhoulf

## Contact

former Research Assistant  
makhoulf[at]embedded[dot]rwth-aachen[dot]de

## Interests

- Erreichbarkeitsanalyse hybrider Systeme

## Projects

- [Sicherheitsanalyse und Regelung von Fahrzeugkolonnen](#)

## Publications

[BHK17]

[PDFBIB](#)

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

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

### Bibtex entry :

```
@inproceedings { BHK17,  
  author = { Ben Makhoulf, Ibtissem and Hansen, Norman and  
            Kowalewski,  
            Stefan },  
  title = { HyReach: A Reachability Tool for Linear Hybrid Systems  
Based  
            on Support Functions },  
  booktitle = { ARCH16. 3rd International Workshop on Applied  
Verification  
            for Continuous and Hybrid Systems / Editors: Goran Frehse  
            and Matthias Althoff },
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pages = { 68-79 },
series = { EPiC Series in Computing },
year = { 2017 },
organization = { 3rd International Workshop on Applied Verification
for
    Continuous and Hybrid Systems, Vienna (Austria), 2016-04-12
    - 2016-04-12 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-213474 },
cin = { 122810 / 120000 },
url = { https://easychair.org/publications/paper/334327 },
}
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[SAB+17]

PDFBIB

Schupp, S., Abraham, E., Ben Makhlouf, 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 Abraham, Erika and Ben Makhlouf,
    Ibtissem and Kowalewski, Stefan },
  title = { HyPro : A C++ Library of State Set Representations for
    Hybrid Systems Reachability Analysis },
  booktitle = { NASA formal methods : 9th international symposium,
NFM 2017,
    Moffett Field, CA, USA, May 16-18, 2017 : proceedings /
    Clark Barrett, Misty Davies, Temesghen Kahsai (eds.) },
  publisher = { Springer },
  pages = { 288-294 },
  series = { Lecture Notes in Computer Science },
  year = { 2017 },
  address = { Cham },
  organization = { NASA Formal Methods (NFM) Symposium, Moffett
Field, CA
    (USA), 2017-05-16 - 2017-05-18 },
  doi = { 10.1007/978-3-319-57288-8_20 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2017-06600 },
  cin = { 123420 / 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/696076 },
}
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[Ben16]

[PDFBIB](#)

Ben Makhoulouf, 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 Makhoulouf, Ibtissem },
  othercontributors = { Kowalewski, Stefan and Frehse, Goran },
  title = { Comparative evaluation and improvement of computational
    approaches to reachability analysis of linear hybrid systems },
  publisher = { Shaker Verlag },
  school = { RWTH Aachen },
  pages = { viii, 221 Seiten : Illustrationen, Diagramme },
  series = { Aachener Informatik-Berichte },
  year = { 2016 },
  address = { Aachen },
  isbn = { 978-3-8440-4376-1 },
  typ = { PUB:(DE-HGF)3 },
  reportid = { RWTH-2016-02174 },
  cin = { 122810 / 120000 },
  url = {
http://publications.rwth-aachen.de/record/571624/files/571624.pdf },
}
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[BGK15]

[PDFBIB](#)

Ben Makhoulouf, I., Gan, J., and Kowalewski, S., "A Study on Solving Guard and Invariant Set Intersection in Zonotope-based Reachability of Linear Hybrid Systems", *IFAC-PapersOnLine*, vol. 48, iss. 27, pp. 13-20, 2015

## A Study on Solving Guard and Invariant Set Intersection in Zonotope-based Reachability of Linear Hybrid Systems

**Bibtex entry :**

```
@article { BGK15,
  author = { Ben Makhoulouf, Ibtissem and Gan, Jonathan and Kowalewski,
    Stefan },
  title = { A Study on Solving Guard and Invariant Set Intersection
in
    Zonotope-based Reachability of Linear Hybrid Systems },
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journal = { IFAC-PapersOnLine },
publisher = { IFAC },
pages = { 13-20 },
volume = { 48 },
number = { 27 },
year = { 2015 },
address = { Laxenburg },
issn = { 2405-8963 },
organization = { Analysis and Design of Hybrid Systems, Atlanta GA
(USA),
    2015-10-14 - 2015-10-16 },
doi = { 10.1016/j.ifacol.2015.11.146 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-2015-07851 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/565384 },
}
```

[BK15]

PDFBIB

Ben Makhlouf, I. and Kowalewski, S., "Networked Cooperative Platoon of Vehicles for Testing Methods and Verification Tools", in *Proc. [ARCH14-15. 1st and 2nd International Workshop on Applied verification for Continuous and Hybrid Systems / Goran Frehse and Matthias Althoff (editors)]*, 2015 in EPiC Series in Computer Science, EasyChair, pp. 37-42.

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

### Bibtex entry :

```
@inproceedings { BK15,
  author = { Ben Makhlouf, Ibtissem and Kowalewski, Stefan },
  title = { Networked Cooperative Platoon of Vehicles for Testing
    Methods and Verification Tools },
  booktitle = { [ARCH14-15. 1st and 2nd International Workshop on
Applied
    verification for Continuous and Hybrid Systems / Goran
    Frehse and Matthias Althoff (editors)] },
  publisher = { EasyChair },
  pages = { 37-42 },
  series = { EPiC Series in Computer Science },
  year = { 2015 },
  organization = { 1st and 2nd International Workshop on Applied
verification
    for Continuous and Hybrid Systems },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-207903 },
  cin = { 122810 / 120000 },
  url = {
http://www.easychair.org/publications/download/Networked_Cooperative_Pl
```

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atoon_of_Vehicles_for_Testing_Methods_and_Verification_Tools },
}
```

[BK15a]

[PDFBIB](#)

Ben Makhoulf, I. and Kowalewski, S., "Optimizing Safe Control of a Networked Platoon of Trucks Using Reachability", in *Proc. [ARCH14-15. 1st and 2nd International Workshop on Applied veRification for Continuous and Hybrid Systems / Goran Frehse and Matthias Althoff (editors)]*, 2015 in EPiC Series in Computing, EasyChair, pp. 169-179.

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

### Bibtex entry :

```
@inproceedings { BK15a,
  author = { Ben Makhoulf, Ibtissem and Kowalewski, Stefan },
  title = { Optimizing Safe Control of a Networked Platoon of Trucks
    Using Reachability },
  booktitle = { [ARCH14-15. 1st and 2nd International Workshop on
    Applied
      veRification for Continuous and Hybrid Systems / Goran
      Frehse and Matthias Althoff (editors)] },
  publisher = { EasyChair },
  pages = { 169-179 },
  series = { EPiC Series in Computing },
  year = { 2015 },
  organization = { 1st and 2nd International Workshop on Applied
    veRification
      for Continuous and Hybrid Systems },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-207910 },
  cin = { 122810 / 120000 },
  url = { http://www.easychair.org/images/pdf.gif },
}
```

[CSB+15]

[PDFBIB](#)

Chen, X., Schupp, S., Ben Makhoulf, I., Ábrahám, E., Frehse, G., and Kowalewski, S., "A Benchmark Suite for Hybrid Systems Reachability Analysis", in *Proc. NASA Formal Methods ; 7th International Symposium, NFM 2015, Pasadena, Calif., USA, April 27-29, 2015, Proceedings / edited by Klaus Havelund, Gerard Holzmann, Rajeev Joshi*, Cham, 2015 in Lecture Notes in Computer Science, Springer, pp. 408-414.

## A Benchmark Suite for Hybrid Systems Reachability Analysis

### Bibtex entry :

```
@inproceedings { CSB+15,
```

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

[SAC+15]

[PDFBIB](#)

Schupp, S., Ábrahám, E., Chen, X., Ben Makhlouf, 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 Ábrahám, Erika and Chen, Xin and Ben
Makhlouf, Ibtissem and Frehse, Goran and Sankaranarayanan,
Sriram and Kowalewski, Stefan },
title = { Current Challenges in the Verification of Hybrid Systems
},
booktitle = { Cyber physical systems : design, modeling, and
evaluation ;
    5th international workshop, CyPhy 2015, Amsterdam, The
    Netherlands, October 8, 2015 ; proceedings / Christian
    Berger ... (eds.) },
publisher = { Springer International Publishing },
pages = { 8-24 },
series = { Lecture Notes in Computer Science },
```

```

year = { 2015 },
address = { Cham },
organization = { 5th Workshop on Design, Modeling, and Evaluation
of Cyber
Physical Systems, Amsterdam (Netherlands), 2015-10-08 -
2015-10-08 },
doi = { 10.1007/978-3-319-25141-7_2 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-2015-07355 },
cin = { 121310 / 120000 / 123420 / 121330 / 122810 },
url = { http://publications.rwth-aachen.de/record/564375 },
}

```

[BK14]

[PDFBIB](#)

Ben Makhoulf, I. and Kowalewski, S., "Networked Cooperative Platoon of Vehicles for Testing Methods and Verification Tools", in *Proc. ARCH14 CPSWeek 2014 : Berlin, Germany, April 14 - 17, 2014*, [s.l.], 2014, p. 6.

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

### Bibtex entry :

```

@inproceedings { BK14,
author = { Ben Makhoulf, Ibtissem and Kowalewski, Stefan },
title = { Networked Cooperative Platoon of Vehicles for Testing
Methods and Verification Tools },
booktitle = { ARCH14 CPSWeek 2014 : Berlin, Germany, April 14 - 17,
2014 },
pages = { 6 Seiten },
year = { 2014 },
address = { [s.l.] },
organization = { , Berlin },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-205606 },
cin = { 120000 / 122810 },
url = { http://cps-vo.org/node/12115 },
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```

[BDK13]

[PDFBIB](#)

Ben Makhoulf, I., Diab, H., and Kowalewski, S., "Reachability Analysis for Managing Platoons at Intersections", in *Proc. 2013 21st Mediterranean Conference on Control & Automation (MED 2013) : [Platanias], Chania, Crete, Greece, 25 - 28 June 2013 ; [conference proceedings] / [sponsor: Mediterranean Control Association. Technical co-sponsors: IEEE Control Systems Society; IEEE Robotics & Automation Society ... Ed. by Panos Antsaklis ...]. - 1-2, Piscataway, NJ, 2013, IEEE, pp. 1141-1147.*

# Reachability Analysis for Managing Platoons at Intersections

## Bibtex entry :

```
@inproceedings { BDK13,
  author = { Ben Makhlouf, Ibtissem and Diab, Hilal and Kowalewski,
            Stefan },
  title = { Reachability Analysis for Managing Platoons at
            Intersections },
  booktitle = { 2013 21st Mediterranean Conference on Control &
                Automation
                (MED 2013) : [Platanias], Chania, Crete, Greece, 25 - 28
                June 2013 ; [conference proceedings] / [sponsor:
                Mediterranean Control Association. Technical co-sponsors:
                IEEE Control Systems Society; IEEE Robotics & Automation
                Society ... Ed. by Panos Antsaklis ...]. - 1-2 },
  publisher = { IEEE },
  pages = { 1141-1147 },
  year = { 2013 },
  address = { Piscataway, NJ },
  doi = { 10.1109/MED.2013.6608864 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-204343 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/226951 },
}
```

[BHK13]

[PDFBIB](#)

Ben Makhlouf, I., Hänsch, P., and Kowalewski, S., "Comparison of Reachability Methods for Uncertain Linear Time-Invariant Systems", in *Proc. Proceedings of the 12th European Control Conference (ECC) : July 17 -19, 2013, Zuerich, Switzerland*, Zürich, 2013, Omnipress, pp. 1101-1106.

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

## Bibtex entry :

```
@inproceedings { BHK13,
  author = { Ben Makhlouf, Ibtissem and H{"a}nsch, Paul and
            Kowalewski,
            Stefan },
  title = { Comparison of Reachability Methods for Uncertain Linear
            Time-Invariant Systems },
  booktitle = { Proceedings of the 12th European Control Conference
                (ECC) :
                July 17 -19, 2013, Zuerich, Switzerland },
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publisher = { Omnipress },
pages = { 1101-1106 },
year = { 2013 },
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typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-202859 },
cin = { 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/225184 },
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```

[HDB+13]

[PDFBIB](#)

Hänsch, P., Diab, H., Ben Makhoulouf, I., and Kowalewski, S., "Reachability Analysis of Linear Systems with Stepwise Constant Inputs", *Electronic notes in theoretical computer science : ENTCS*, vol. 297, pp. 61-74, 2013

## Reachability Analysis of Linear Systems with Stepwise Constant Inputs

### Bibtex entry :

```

@article { HDB+13,
  author = { H{"a}nsch, Paul and Diab, Hilal and Ben Makhoulouf, Ibtissem and Kowalewski, Stefan },
  title = { Reachability Analysis of Linear Systems with Stepwise Constant Inputs },
  journal = { Electronic notes in theoretical computer science : ENTCS },
  publisher = { Elsevier },
  pages = { 61-74 },
  volume = { 297 },
  year = { 2013 },
  address = { Amsterdam },
  issn = { 1571-0661 },
  doi = { 10.1016/j.entcs.2013.12.005 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-CONV-088053 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/445077 },
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```

[BDK12]

[PDFBIB](#)

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

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

## Bibtex entry :

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

[DBK12]

[PDFBIB](#)

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

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

## Bibtex entry :

```
@inproceedings { DBK12,
  author = { Diab, Hilal and Ben Makhlouf, Ibtissem and Kowalewski,
            Stefan },
  title = { A Platoon of Vehicles Approaching an Intersection: A
Testing
            Platform for Safe Intersections },
  booktitle = { 2012 15th International IEEE Conference on
Intelligent
            Transportation Systems (ITSC) : 16 - 19 Sept. 2012,
            Anchorage, Alaska, USA },
  publisher = { IEEE },
  pages = { 1918-1923 },
  year = { 2012 },
  address = { Piscataway, NJ },
  doi = { 10.1109/ITSC.2012.6338822 },
}
```

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typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-199932 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/197725 },
}

```

[BMH+11]

[PDFBIB](#)

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

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

### Bibtex entry :

```

@inproceedings { BMH+11,
  author = { Ben Makhoulouf, Ibtissem and Maschuw, Jan P. and
H{"a}nsch,
    Paul and Diab, Hilal and Kowalewski, Stefan and Abel, Dirk },
  title = { Safety Verification of a Cooperative Vehicle Platoon
with Uncertain Inputs Using Zonotopes },
  booktitle = { Proceedings of the 18th IFAC World Congress, 2011 :
August
    28 - September 2, 2011, Università Cattolica del Sacro
    Cuore, Milano Italy / Ed.: Sergio Bittanti ... },
  publisher = { Curran },
  pages = { 9769-9774 },
  series = { IFAC-PapersOnLine },
  year = { 2011 },
  address = { Milano, Italy },
  doi = { 10.3182/20110828-6-IT-1002.02165 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-173769 },
  cin = { 120000 / 122810 },
  url = { http://publications.rwth-aachen.de/record/100991 },
}

```

[CBD+10]

[PDFBIB](#)

Chávez Grunewald, M. G., Ben Makhoulouf, I., Diab, H., Abel, D., and Kowalewski, S., "On the Effects of Network Delays on an Energy-based Controller", , TuPO11.1, 2010.

## On the Effects of Network Delays on an Energy-based

# Controller

## Bibtex entry :

```
@techreport { CBD+10,
  author = { Chávez Grunewald, Martin Guillermo and Ben Makhlouf,
            Ibtissem and Diab, Hilal and Abel, Dirk and Kowalewski,
            Stefan },
  title = { On the Effects of Network Delays on an Energy-based
            Controller },
  booktitle = { NecSys'10 : 2nd IFAC Workshop on Distributed
            Estimation and
            Control in Networked Systems ; 13-14 September, 2010, Centre
            de Congrès de L'Impérial Palace, Annecy, France },
  pages = { 169-174 },
  number = { TuP011.1 },
  year = { 2010 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-009571 },
  cin = { 122810 / 416610 / 120000 },
  url = { http://publications.rwth-aachen.de/record/118448 },
}
```

[CBD+10a]

[PDFBIB](#)

Chávez Grunewald, M. G., Ben Makhlouf, I., Diab, H., Mut, V., Kowalewski, S., and Abel, D., "Regelung und Sicherheitsanalyse einer Gruppe Massenpunktfahrzeuge mit Hilfe energiebasierter Methoden", in *Proc. Automatisierungstechnik : at*, München, 2010, vol. 58, Oldenbourg, pp. 227-235.

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

## Bibtex entry :

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

```

[DCB+10]

[PDFBIB](#)

Diab, H., Chávez Grunewald, M. G., Ben Makhoulf, I., Abel, D., and Kowalewski, S., "A testing platform for cooperative vehicle platoon controllers", in *Proc. 13th International IEEE Conference on Intelligent Transportation Systems : ITSC 2010 ; 19 - 22 September, 2010, Madeira Island, Portugal ; conference proceedings / IEEE*, Piscataway, NJ, 2010, IEEE, pp. 1718-1723.

## A testing platform for cooperative vehicle platoon controllers

### Bibtex entry :

```

@inproceedings { DCB+10,
  author = { Diab, Hilal and Chávez Grunewald, Martin Guillermo and Ben
    Makhoulf, Ibtissem and Abel, Dirk and Kowalewski, Stefan },
  title = { A testing platform for cooperative vehicle platoon
    controllers },
  booktitle = { 13th International IEEE Conference on Intelligent
    Transportation Systems : ITSC 2010 ; 19 - 22 September,
    2010, Madeira Island, Portugal ; conference proceedings /
    IEEE },
  publisher = { IEEE },
  pages = { 1718-1723 },
  year = { 2010 },
  address = { Piscataway, NJ },
  doi = { 10.1109/ITSC.2010.5625258 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-189667 },
  cin = { 122810 / 416610 / 120000 },
  url = { http://publications.rwth-aachen.de/record/118439 },
}

```

[BKC+09]

[PDFBIB](#)

Ben Makhoulf, I., Kowalewski, S., Chávez Grunewald, M. G., and Abel, D., "Safety assessment of networked vehicle platoon controllers : practical experiences with available tools", in *Proc. ADHS'09: 3rd IFAC Conference on Analysis and Design of Hybrid : September 16, 17 - 18, University of Zaragoza, Spain / Aragón Institute for Engineering Research, Zaragoza, Spain, 2009, University of Zaragoza.*

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

### Bibtex entry :

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

[PDFBIB](#)

Diab, H., Ben Makhlouf, I., Kowalewski, S., Chávez, M., and Abel, D., "Control and Safety Analysis of a Platoon under Communication Constraints", in *Proc. NE\[/S/T\]COC, Sept. 28/29, Stuttgart, Priority Program 1305 Posters S.5*, 2009, pp. 70-71.

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

### Bibtex entry :

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@inproceedings { DBK+09,
  author = { Diab, Hilal and Ben Makhlouf, Ibtissem and Kowalewski,
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  title = { Control and Safety Analysis of a Platoon under
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[BK06]

[PDFBIB](#)

Ben Makhoulouf, I. and Kowalewski, S., "An evaluation of two recent reachability analysis tools for hybrid systems", in *Proc. Preprints / ADHS '06, 2nd IFAC Conference on Analysis and Design of Hybrid Systems : Alghero, Italy, June 7 - 9, 2006 / IFAC, International Federation of Automatic Control; DIEE, Dipartimento di Ingegneria Elettrica ed Elettronica, Università di Cagliari. Ed.: C. G. Cassandras ...*, Alghero, 2006, pp. 377-382.

## An evaluation of two recent reachability analysis tools for hybrid systems

### Bibtex entry :

```
@inproceedings { BK06,  
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, IFAC, International Federation of Automatic Control; DIEE,  
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  Università di Cagliari. Ed.: C. G. Cassandras ... },  
  pages = { 377-382 },  
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