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  author      = {Schweigler, Martin and Grochowski, Marco and  
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  title       = {Ground Surface Pattern Recognition with Hidden  
Markov Models for Low Cost Positioning Improvement},  
  journal     = {8th International Conference of Pattern  
Recognition Systems (ICPRS 2017)},  
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  booktitle   = {2018 IEEE Intelligent Vehicles Symposium (IV)},  
  publisher   = {IEEE},  
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{https://www.researchgate.net/publication/328451443_Real-time_Trajectory_optimization_for_Autonomous_Vehicle_Racing_using_Sequential_Linearization},
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Navigation using a Smartphone},
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Greiff, Armin and Haferkamp, Silke and Hahn, Udo and Henkel, Andreas and
Kirsten, Toralf and Kl{"o"}ss; Thomas and Lippert, J{"o"}rg and L{"o"}be,
Matthias and Lowitsch, Volker and Maassen, Oliver and Maschmann, Jens and
Meister, Sven and Mikolajczyk, Rafael and N{"u"}chter, Matthias and Pletz,
Mathias W and Rahm, Erhard and Riedel, Morris and Saleh, Kutaiba and
Schuppert, Andreas and Smers, Stefan and Stollenwerk, Andr{'e} and Uhlig,
Stefan and Wendt, Thomas and Zenker, Sven and Fleig, Wolfgang and Marx,
Gernot and Scherag, Andr{'e} and L{"o"}ffler, Markus},
  title       = {Smart Medical Information Technology for Healthcare
(SMITH)},
  journal     = {Methods of information in medicine},
  year        = {2018},
  volume      = {57},
  pages       = {e92--e105},
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@CONFERENCE {KSK+18,
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Christian},
  title       = {A long-term setup for kidney perfusion},
  booktitle   = {52nd Annual Conference of the German Society for
Biomedical Engineering},
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@INPROCEEDINGS {SBK18,
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  editor      = {D{"o}ssel, Olaf},
  title       = {Mock loop for bubble generation in a centrifugal
blood pump for fault simulation},
  booktitle   = {Current Directions in Biomedical Engineering},
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Conference, IFM 2018, Maynooth, Ireland, September 5-7, 2018},
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@INPROCEEDINGS {CMW+18,
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  title       = {Controlled Natural Languages for Hazard Analysis and
Risk Assessment},
  booktitle   = {CNL 2018: Sixth International Workshop on Controlled
Natural Language},
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-the-sixth-international-workshop-cnl-2018-maynooth-co-kildare-ireland-
august-27-28-2018},
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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       = {14th IEEE International Conference on Automation
Science and Engineering (CASE)},
  publisher       = {IEEE},
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Chart},
  booktitle       = {14th International Workshop on Discrete Event
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Thorsten},
  title           = {Fault Identification in a Blood Pump Using Neural
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of a Signal Matching Algorithm with Multidimensional Tolerance
Specifications},
  booktitle     = {14th IEEE International Conference on Automation
Science and Engineering (CASE)},
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  year          = {2018},
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{https://www.vulkan-shop.de/agiles-testen-von-cyberphysischen-produktionssys
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@INPROCEEDINGS {TRRK18,
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Testing of PLCs},
  booktitle   = {3rd IFAC Conference on Embedded Systems,
Computational Intelligence and Telematics in Control (CESCIT)},
  volume      = {51},
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@INPROCEEDINGS {TK18,
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Specification of Hardware-in-the-loop Tests},
  booktitle   = {Modellbasierte Entwicklung Eingebetteter Systeme
(MBEES)},
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Applied Computing, SAC 2018, Pau, France, April 09-13, 2018},
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Sequential_Convex_Programming_MPC_for_Dynamic_Vehicle_Collision_Avoidance/li
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  year        = {2017},
  volume      = {50},
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Florian and Janisch, Thorsten},
  title       = {Tauchcomputerunterst{"u}tzung durch vernetzte Smart
Wearables},
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  year        = {2017},
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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},  
title          = {VDI Status Report Testing of Networked Systems for  
Industrie 4.0},  
pages          = {1--20},  
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title          = {A Priori Test Coverage Estimation for Automated  
Production Systems},  
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    booktitle        = {INFORMATIK 2017},
    publisher        = {Maximilian Eibl, Martin Gaedke},
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    author          = {Kowalewski, Stefan and Kalkov, Igor and Obster,
Mathias and Th{\o}nnessen, David},
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    journal          = {IEE - Elektrische Automatisierung +
Antriebstechnik},
    year            = {2015},
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Smartphone App},  
  booktitle       = {Digital Human Modeling. Applications in Health,  
Safety, Ergonomics, and Risk Management: Health and Safety},  
  series          = {8th International Conference, DHM 2017, Held as  
Part of HCI International 2017, Vancouver, BC, Canada, July 9-14, 2017,  
Proceedings, Part II},  
  publisher       = {Springer, Cham},  
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  title           = {Multimodales Dynamisches Routen mit eNav},  
  booktitle       = {AGIT Journal f{"u"}r Angewandte Geoinformatik},  
  volume          = {3-2017},  
  publisher       = {Herbert Wichmann Verlag, VDE VERLAG GMBH,  
Berlin/Offenbach.},  
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Stollenwerk, Andr{'e} and Wei{/ss}bach, R{/"u}diger},
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Pierre and Franke, Dominik and Kowalewski, Stefan},
  title       = {Das Barrierenerkennungssystem von eNav},
  booktitle   = {AGIT Journal f{"u}r Angewandte Geoinformatik},
  volume      = {2-2016},
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@INPROCEEDINGS {DSFK17,
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Dominik and Kowalewski, Stefan},
  editor      = {Wichert, Reiner and Mand, Beate},
  title       = {eNav: A Suitable Navigation System for the
Disabled},
  booktitle   = {Ambient Assisted Living},
  publisher   = {Springer International Publishing AG2017},
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@INPROCEEDINGS {GNK16,
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  booktitle   = {of the IEEE International Conference on Emerging
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Technology & Factory Automation},
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@INPROCEEDINGS {BK16,
  author        = {Banila, Madalina and Kowalewski, Stefan},
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  title         = {Ein Ansatz zur automatisierten normgerechten
Testplanung f{"u"}r sicherheitskritische eingebettete Software im
Automobilbereich},
  booktitle     = {14. Fachtagung Entwurf komplexer
Automatisierungssysteme (EKA)},
  volume       = {14},
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Magdeburg},
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@INPROCEEDINGS {GHDK16,
  author        = {Gerlitz, Thomas and Hansen, Norman, and Dernehl,
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  title         = {artshop: A Continuous Integration and Quality
Assessment Framework for Model-Based Software Artifacts},
  booktitle     = {12. Dagstuhl-Workshop Modelbasierte Entwicklung
eingebetteter Systeme (MBEES)},
  publisher     = {fortiss Technischer Bericht},
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@INPROCEEDINGS {GTNK16,
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Oliver and Kowalewski, Stefan},
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@INPROCEEDINGS {BSK16,
  author      = {Bohlender, Dimitri and Simon, Hendrik and
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based on PLCopen Automata},
  booktitle   = {19th GI/ITG/GMM Workshop Methoden und
Beschreibungssprachen zur Modellierung und Verifikation von Schaltungen und
Systemen, MBMV 2016, Freiburg im Breisgau, Germany, March 1-2, 2016.},
  publisher   = {Albert-Ludwigs-Universit{"a"}t Freiburg},
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@INPROCEEDINGS {SSS16,
  author      = {Schlaefer, Alexander and Schupp, Sibylle and
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  editor      = {Knoop, Jens and Zdun, Uwe},
  title       = {2nd Workshop on Fail Safety in Medical Cyber-
Physical Systems (FS-MCPS)},
  booktitle   = {Software Engineering 2016},
  series      = {Lecture Notes in Informatics},
  volume      = {P-252},
  publisher   = {Gesellschaft f{"u"}r Informatik},
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@INPROCEEDINGS {BK15,
  author          = {Ben Makhoul, Ibtissem and Kowalewski, Stefan},
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  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},
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  author          = {Ben Makhoul, Ibtissem and Kowalewski, Stefan},
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  title           = {Optimizing Safe Control of a Networked Platoon of
Trucks Using Reachability},
  booktitle       = {ARCH14-15. 1st and 2nd International Workshop on
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@TECHREPORT {JGN14b,
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execution of pointer-manipulating programs},
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  year            = {2014},
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@INPROCEEDINGS {DKK16,
  author          = {Dernehl, Christian and K{"u}hn, Jan and
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  title           = {Abstract Interpretation for Block Diagrams - Two
Case Studies},
  booktitle       = {13th Workshop on Model Design, Verification and
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Schoberer, Mark},
    editor                  = {Zimmermann, Wolf and Alperowitz, Lukas and
Br{"u}gge, Bernd and Fahsel, J{"o}rn and Herrmann, Andrea and Hoffmann,
Anne and Krall, Andreas and Landes, Dieter and Lichter, Horst and Riehle,
Dirk and Schaefer, Ina and Scheuermann, Constantin and Schlaefer, Alexander
and Schupp, Sibylle and Seitz, Andreas and Steffens, Andreas and
Stollenwerk, Andr{'e} and Wei{/ss}bach, R{"u}diger},
    title                  = {Evaluating Hand Disinfection with Alcohol-Based Hand
Sanitizers Using Thermal Imaging},
    booktitle              = {Fail Safety in Medical Cyber-Physical Systems},
    series                  = {Gemeinsamer Tagungsband der Workshops der Tagung
Software Engineering 2016 (SE 2016)},
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Methoden zur Erreichbarkeitsanalyse hybrider Systeme},
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@ARTICLE {BGK15,
    author                  = {Ben Makhoulf, Ibtissem and Gan, Jonathan and
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    title                   = {A Study on Solving Guard and Invariant Set
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journal      = {IFAC-PapersOnLine},
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{http://www.sciencedirect.com/science/article/pii/S2405896315024040},
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GA, USA, Oct. 14-16, 2015},
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@INPROCEEDINGS {SAC+15,
  author       = {Schupp, Stefan and Abraham, Erika and Chen, Xin and
Ben Makhlouf, Ibtissem and Frehse, Goran and Sankaranarayanan, Sriram and
Kowalewski, Stefan},
  editor        = {Berger, Christian and Mousavi, Mohammad Reza},
  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},
  series         = {Lecture Notes in Computer Science},
  volume         = {9361},
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energieeffizienten Routen von Elektrorollst{\u}hlen}},
  booktitle      = {Angewandte Geoinformatik 2014 (Agit)},
  series         = {Beitr{\a}ge zum AGIT-Symposium Salzburg},
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    title           = {Pulsatile Ansteuerung einer Diagonalblutpumpe},
    journal         = {atp edition - Automatisierungstechnische Praxis},
    year            = {2015},
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Marian and Rossaint, Rolf},
    title           = {Automatic Control of veno-venous Extracorporeal Lung
Assist},
    journal         = {Artificial Organs},
    year            = {2015},
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  publisher   = {Douglas W. Cunningham, Petra Hofstedt, Klaus Meer,
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  booktitle   = {13th International Workshop on Java Technologies for
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using Coverage Metrics},
  booktitle   = {International Conference on Emerging Technologies
and Factory Automation (ETFA)},
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    author          = {Dzafic, D. and Link, {J. A. B.} and Baumeister, D.
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Dynamic Route Planning for Wheelchair Users},
    booktitle       = {International Conference on Indoor Positioning and
Indoor Navigation},
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Programme mittels Zeilen{"u}berdeckung},
    booktitle       = {AUTOMATION 2015},
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Kaminski, Benjamin Lucien and Wehrle, Klaus and Weise, Carsten and
Kowalewski, Stefan},
    title           = {Scalable symbolic execution of distributed systems},
    booktitle       = {31st International Conference on Distributed
Computing Systems (ICDCS)},
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    author          = {Hauck-Stattelmann, Stefan and Biallas, Sebastian
and Schlich, Bastian and Kowalewski, Stefan and Jetley, Raoul},
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    title           = {Analyzing the Restart Behavior of Industrial Control
Applications},
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    title           = {{S}ynthesis of {S}tate {S}pace {G}enerators for
{M}odel {C}hecking {M}icrocontroller {C}ode},
    school          = {Fakult{\a}t f{\u}r Mathematik, Informatik und
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  doi          = {10.1016/j.ifacol.2015.10.190},
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K{"u"}hn, Jan and Wardeh, Markus Nabil and Kopp, R{"u"}dger and Rossaint,
Rolf and Stollenwerk, Andr{"e"} and Kowalewski, Stefan and Misgeld, Berno
and Leonhardt, Steffen and Walter, Marian},
  title        = {In silico evaluation of gas transfer estimation
during extracorporeal membrane oxygenation},
  booktitle    = {9th IFAC Symposium on Biological and Medical
Systems},
  number       = {20},
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  author       = {Gerlitz, Thomas and Schake, Stefan and Kowalewski,
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  booktitle    = {11. Dagstuhl-Workshop Modelbasierte Entwicklung
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@INPROCEEDINGS {KWS+15,
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Stollenwerk, Andr{"e"} and Walter, Marian and Brendle, Christian and Wardeh,
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Kopp, R{"u"}dger},
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    title           = {Pulsatile Ansteuerung einer Diagonalblutpumpe},
    booktitle       = {Automation 2015},
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  journal     = {Journal of Systems and Software},
  year        = {2012},
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  pages       = {2261--2274},
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Kopp, R{\u}dger},
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Clemens and Heinrich, Robert and Jung, Reiner and Konersmann, Marco and
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Widemann, Baltasar and Weyer, Thorsten},
  title       = {Safety Conflict Analysis in Medical Cyber-Physical
Systems using an SMT-Solver},
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  editor      = {Zimmermann, Wolf and B{"o}hm, Wolfgang and Grelck,
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Schlaefer, Alexander and Schmieders, Eric and Schupp, Sibylle and Tranc{on}
Widemann, Baltasar and Weyer, Thorsten},
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@INPROCEEDINGS {CSB+15,
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  title       = {A benchmark suite for hybrid systems reachability
analysis},
  booktitle   = {{NASA} Formal Methods - 7th International Symposium,
{NFM} 2015, Pasadena, CA, USA, April 27-29, 2015,
Proceedings},
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@TECHREPORT {FAKK14,
  author      = {F{"o}rster, Marc and Auerswald, Marko and
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components: exemplary development & validation of a practical specification
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  pages       = {1--100},
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modular specification, contract-based verification, refinement verification,
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@PHDTHESIS {Fra15,
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Real-Time Android},
    booktitle      = {12th International Workshop on Java Technologies for
Real-time and Embedded Systems (JTRES)},
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    year          = {2014},
    volume        = {44},
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@INPROCEEDINGS {SBSK14,
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    booktitle       = {19th IEEE International Conference on Emerging
Technologies and Factory Automation (ETFA)},
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    booktitle       = {Journal f{\"u}r angewandte Geoinformatik 1-2015},
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Nabil and Kowalewski, Stefan and Kopp, R{"u}dger},
  title                 = {Model-based supervision of a blood pump},
  booktitle             = {19th World Congress of the International Federation
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Shaikh, Siraj Ahmed and Stamelos, Ioannis},
  title                 = {Concept and Experiences on Using a Wiki-Based System
for Software-Related Seminar Papers},
  booktitle             = {Information Technology and Open Source: Applications
for Education, Innovation, and Sustainability},
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  booktitle             = {Gesellschaft f{"u}r Informatik Seminars,
Informatiktage},
  publisher              = {Gesellschaft f{"u}r Informatik e.V.},
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code},
  booktitle       = {Science of computer programming},
  volume          = {80},
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  title           = {Efficient Handling of States in Abstract
Interpretation of Industrial Programmable Logic Controller Code},
  booktitle       = {Proceedings of the 12th International Workshop on
Discrete Event Systems},
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Steffen},
title       = {Robust Control of End-Tidal CO2 using the H $\infty$  Loop-
Shaping Approach},
journal     = {Acta Polytechnica},
year        = {2013},
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booktitle   = {International Micro Air Vehicle Conference and
Flight Competition (IMAV)},
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Ralf and Kopp, R{"u}dger and Leonhardt, Steffen},
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management of extracorporeal lung assist},
  journal     = {Journal of Critical Care},
  year        = {2013},
  volume      = {28},
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Naturwissenschaften der RWTH Aachen},
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    booktitle     = {5th International Conference on Mobile Computing,
    Applications and Services (MobiCASE)},
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    reasoning, conditional specification, contract algebra, embedded systems,
    model-based development, program verification, software components, software
    reuse, state of the art, survey, virtual integration.},
    year          = {2012},
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Android},
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  author          = {Schommer, John and Gerlitz, Thomas and Kowalewski,
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  booktitle       = {7th Junior Researcher Workshop on Real-Time
Computing},
  publisher       = {(ACM)},
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    editor          = {Horbach, Matthias},
    title           = {Ein Ansatz zum merkmalsbasierten
Konsistenzmanagement in der Produktlinienentwicklung},
    booktitle       = {INFORMATIK 2013 - Informatik angepasst an Mensch,
Organisation und Umwelt},
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@INPROCEEDINGS {BOCH13,
    doi            = {10.1109/SCAM.2013.6648186},
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Cassez, Franck and Huuck, Ralf},
    editor         = {Adams, Bram and Rilling, J{"u}rgen and Khomh,
Foutse},
    title          = {PtrTracker: Pragmatic Pointer Analysis},
    booktitle      = {13th IEEE International Working Conference on Source
Code Analysis and Manipulation (SCAM 2013)},
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@ARTICLE {BKK13,
    author         = {Brauer, J{"o}rg and King, Andy and Kowalewski,
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Intervals meet congruences},
    journal        = {Science of Computer Programming. Methods of
Software Design: Techniques and Applications},
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    volume          = {78, issue 7},
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Controllers},
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@INPROCEEDINGS {BBK13,
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  title       = {Modifikation des A*-Algorithmus f{"u}r
energieeffizientes 3D-Routing},
  booktitle   = {Angewandte Geoinformatik 2013 - Beitr{"a}ge zum 25.
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  booktitle   = {Gesellschaft f{"u}r Informatik Seminars,
Informatiktage},
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@INPROCEEDINGS {FHK13,
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Practice and Research Techniques (TAIC PART)},
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  booktitle    = {21st Mediterranean Conference on Control &
Automation (MED) Platania-Chania, Crete, Greece, June 25-28,},
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Stattelmann, Stefan},
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  title           = {Verifikation von sicherheitsgerichteten SPS-
Programmen mit Hilfe von Safety-Automaten},
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Ralf and Kopp, R{"u}dger and Arens, Jutta and Stollenwerk, Andr{\'e} and
Leonhardt, Steffen},
  editor          = {\{A\}kos Jobb\{a\}gy},
  title           = {Closed loop physiological ECMO control},
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Federation for Medical and Biological Engineering},
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based development of automotive control systems in small and medium
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Programs},
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Verification (SSV 2012)},
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modellbasierte Software-Produktlinien},
  booktitle     = {Embedded-Software-Engineering-Kongress (ESE)},
  publisher     = {ELEKTRONIKPRAXIS und MicroConsult},
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@INPROCEEDINGS {BK12,
    address          = {Saint-Petersburg, Russia},
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    title            = {Modeling and Verification of Network Protocol Specs
using Timed {Pi-Calculus}},
    booktitle        = {The 4th International Workshop on Mobile Computing
and Networking Technologies 2012 (WMCNT-2012)},
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@INPROCEEDINGS {BBK12b,
    author           = {Biallas, Sebastian and Brauer, J{"o}rg and
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    title            = {{Arcade.PLC}: A Verification Platform for
Programmable Logic Controllers},
    booktitle        = {Proceedings of the 27th IEEE/ACM International
Conference on Automated Software Engineering},
    series           = {ASE 2012},
    publisher        = {ACM},
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  title       = {AndroLIFT: A Tool for Android Application Life
Cycles},
  booktitle   = {4th International Conference on Advances in System
Testing and Validation Lifecycle (VALID)},
  publisher   = {Xpert},
  publishedas = {Online},
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@INPROCEEDINGS {MGPK12,
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Rubin, Julia and Botterweck, Goetz},
  title       = {Analysis of Simulink Models Using Databases and
Model Transformations},
  booktitle   = {8th International Workshop on Model-based
Methodologies for Pervasive and Embedded Software (MOMPES '12)},
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@INPROCEEDINGS {KFSK12,
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F. and Kowalewski, Stefan},
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    booktitle      = {10th International Workshop on Java Technologies for
Real-time and Embedded Systems (JTRES)},
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@ARTICLE {BKS12c,
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Verifikation f{"u}r SPS-Programme},
    journal        = {Automatisierungstechnische Praxis (atp EDITION),
54. Jahrgang, 7-8/2012},
    year           = {2012},
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Kowalewski, Stefan},
    title          = {A Platoon of Vehicles Approaching an Intersection: A
Testing Platform for Safe Intersections},
    booktitle      = {15th IEEE Intelligent Transportation Systems
Conference},
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    publishedas    = {Druck Online},
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Kowalewski, Stefan},
  title          = {Access-Based Localization for Octagons},
  journal        = {Electronic Notes in Theoretical Computer Science},
  year           = {2012},
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{http://www.sciencedirect.com/science/article/pii/S1571066112000564},
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@INPROCEEDINGS {FEK12,
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of Mobile Platforms},
  booktitle      = {2nd DEXA Workshop on Information Systems for
Situation Awareness and Situation Management (ISSASiM)},
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Elektrorollst{"u}hle},
  booktitle    = {13. Aachener Kolloquium Mobilit{"a}t und Stadt
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Lebenszyklen Mobiler Applikationen},
  booktitle    = {Embedded Software Engineering Kongress (ESE)},
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extracorporeal lung assist},
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Automatisierungstechnik?},
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Controllers},
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    booktitle      = {AUTOMATION 2012, Baden-Baden, Germany},
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Platoon Under Loss of Communication Using Zonotopes},
  booktitle   = {ADHS 2012, Eindhoven, NL},
  publisher   = {Inproceeding of the 4th IFAC Conference on Analysis
and Design of Hybrid Systems (ADHS 12)},
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@INPROCEEDINGS {HDBK11,
  author      = {H{\a}nsch, Paul and Diab, Hilal and Ben Makhoul,
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  title       = {Reachability Analysis of Linear Systems with
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  booktitle   = {Electronic Notes in Theoretical Computer Science},
  volume      = {297},
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{http://doi.ieeecomputersociety.org/10.1109/SSIRI-C.2010.21},
  author   = {Mitsching, Ralf and Weise, Carsten and Kowalewski,
Stefan},
  title    = {Design Patterns for Integrating Variability in Timed
Automata},
  booktitle = {4th IEEE International Conference on Secure Software
Integration and Reliability},
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frühen Entwicklungsphasen},
  booktitle      = {28. Tagung Elektronik im Kraftfahrzeug},
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  journal     = {ATZelektronik},
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Software Development Based on AUTOSAR},
  booktitle   = {Design, Automation and Test in Europe (DATE)
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Carsten and Prakobkosol, Nath},
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Properties of Mobile Applications},
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  author        = {Michailidis, Alexander},
  title         = {Konzepte für eine virtuelle Integration von AUTOSAR-
konformer Fahrzeug-Software in frühen Entwicklungsphasen},
  school        = {Embedded Software Laboratory - RWTH Aachen
University},
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and Hedenetz, Bernd and Kowalewski, Stefan},
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Annotation Concept},
  booktitle       = {Software Engineering 2012 (SE 2012)},
  publisher       = {Gesellschaft f\"u}r Informatik e.V. (GI)},
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Binary Code},
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and Kowalewski, Stefan},
  title         = {Control Design for Generalized Platoon Problems},
  journal       = {at – Automatisierungstechnik},
  year         = {2011},
  volume       = {59},
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@INPROCEEDINGS {GKKK11,
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Engine Control Units},
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    keywords      = {formal models, domain specific languages, congruence
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Marian and Stollenwerk, Andr{'e} and Arens, Jutta and Rossaint, Rolf},
    title         = {Automation of extracorporeal membrane oxygenation
using a combined safety and control concept},
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    number        = {Supplement 2},
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    title         = {Managing Complexity and Variability of a Model-based
Embedded Software Product Line},
    journal       = {Innovations in Systems and Software Engineering
(ISSE)},
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Jutta and Stollenwerk, Andre and Kopp, R{"u"}dger and Bensberg, Ralf and
Leonhardt, Steffen},
    editor          = {Rui L. Reis},
    title           = {Physiological target control in long term
extracorporeal oxygenation},
    booktitle       = {38. Congress of the European Society for Artificial
Organs(ESA0 2011) and 4. Biennial Congress of the InternationalFederation on
Artificial Organs (IFA0 2011) - (TheInternational Journal of Artificial
Organs)},
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    booktitle       = {18th Working Conference on Reverse Engineering
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Practical Course for Bachelor Students},
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@INPROCEEDINGS {DFDK11,
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  booktitle       = {International Micro Air Vehicle Conference (IMAV)},
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Instruction Set Descriptions},
  booktitle       = {Proceedings of the 6th International Workshop on
Systems Software Verification (SSV 2011)},
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Baruah, Sanjoy K. and Fischmeister, Sebastian},
  title       = {Precise Control Flow Reconstruction Using Boolean
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  booktitle   = {International Conference on Embedded Software
(EMSOF 2011)},
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the Extracorporeal Membrane Oxygenation (ECMO)},  
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Biomedizinische Technik},  
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  author        = {Stollenwerk, Andr{'e} and Gathmann, Felix and  
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  title         = {Safety Aware Pump-Control for a Rotary ECMO Blood  
Pump},  
  booktitle     = {38. Congress of the European Society for Artificial  
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on Artificial Organs (IFAO 2011) - (The International Journal of Artificial  
Organs)},  
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    author          = {Reinbacher, Thomas and G{"u}ckel, Dominique and
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Kowalewski, Stefan},
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Pump},
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    title           = {Supporting Evolving Requirements in CPS by
Abstraction Layers in the Architecture},
    booktitle       = {Workshop on Architectures for Cyber-Physical
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Elektrofahrzeuge},
  booktitle   = {Angewandte Geoinformatik 2011 - Beitr{"a}ge zum 23.
AGIT-Symposium (AGIT)},
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Time Embedded Systems},
booktitle     = {3rd Workshop on Model-Based Verification and
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Software},
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SPS-Programmen mittels Model-Checking und statischer Analyse},
booktitle     = {AUTOMATION 2011, Baden-Baden, Germany},
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    volume          = {6806},
    series          = {Lecture Notes in Computer Science},
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Rode, Thomas and Steinseifer, Ulrich},
    title           = {A Dynamic Study on the Hemolytic Effect of Negative
Pressure on Blood},
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Elektrofahrzeuge auf Basis von OpenStreetMap-Daten},
  booktitle       = {Konferenz f{"u}r Freie und Open Source Software
f{"u}r Geoinformationssysteme (FOSSGIS)},
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Stefan},
    title           = {Smart Data Provisioning for Model-Based Generated
Code in an Intensive Care Application},
    booktitle       = {High Confidence Medical Devices, Software, and
Systems and Medical Device Plug-and-Play Interoperability (HCMDSS/MDPnP
2011), Chicago, USA},
    publisher       = {Upenn},
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with Uncertain Inputs Using Zonotopes},
    booktitle       = {18th IFAC World Congress, 2011, Milano, Italy},
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    booktitle       = {Fourth International Conference on Software Testing,
Verification and Validation Workshops (ICSTW, TAIC PART) 2011},
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Performance Embedded Systems},
    booktitle       = {4th IEEE International Conference on Software
Testing, Verification, and Validation},
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Heymans, Patrick},
    title           = {Experiences of Applying Model-based Analysis to
Support the Development of Automotive Software Product Lines},
    booktitle       = {Fifth International Workshop on Variability
Modelling of Software-intensive Systems (VAMOS 2011)},
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    title           = {EvoFM: Feature-driven Planning of Product-line
Evolution},
    booktitle       = {Proceedings of the 2010 ICSE Workshop on Product
Line Approaches in Software Engineering (PLEASE '10)},
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Verification and Validation (ICST)},
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Stollenwerk, Andr{'e} and Kowalewski, Stefan},
    title         = {Analyzing Embedded Systems Code for Mixed-Critical
Systems using Hybrid Memory Representations},
    booktitle     = {2011 14th IEEE International Symposium on
Object/Component/Service-Oriented Real-Time Distributed Computing Workshops
ISORCW 2011},
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ECU Applications},
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Methodologies for Pervasive and Embedded Software (MOMPES 2010) collocated
within the 25th IEEE/ACM International Conference on Automated Software
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  title          = {Variability and Evolution in Model-based Engineering
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    volume          = {274C},
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Abstract Interpretation},
    booktitle       = {Sixth Doctoral Workshop on Mathematical and
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Mikulov, Czech Republic},
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Germany},
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    title          = {A Modular, Robust and Open Source Microcontroller
Platform for Broad Educational Usage},
    booktitle      = {Workshop on Embedded Systems Education (WESE10),
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    booktitle      = {FORMS/FORMAT 2010},
    editor         = {Schnieder, Eckehard and Tarnai, Geza},
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    title          = {Model Checking Embedded Software of an Industrial
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    booktitle     = {Proceedings of the 5th international conference on
Systems software verification},
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  title          = {On the Effects of Network Delays on an Energy-based
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  booktitle      = {2nd IFAC Workshop on Distributed Estimation and
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the German Research Training Groups in Computer Science.},
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  publisher     = {Verlagshaus Mainz},
  note          = {Technical report},
  organization  = {DFG Research Training Group 1298 "Algorithmic
Synthesis of Reactive and Discrete-Continuous Systems (AlgoSyn)"},
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Steffen},
  title         = {A Physiological Model for Extracorporeal Oxygenation
Controller Design},
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Engineering in Medicine and Biology Society (EMBC'10)},
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and Arens, Jutta and Walter, Marian and Kopp, R{"u}dger and Kowalewski,
Stefan},
    title           = {Model Based Diagnosis for Extracorporeal Membrane
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    journal          = {The International Journal of Artificial Organs},
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and Walter, Marian and Arens, Jutta and Kopp, R{'u}dger and Kowalewski,
Stefan},
    title             = {Modellbasierte Fehlerdiagnose eines
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    booktitle          = {Biomedizinische Technik (BMT2010)},
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Dirk},
    title             = {Regelung und Sicherheitsanalyse einer Gruppe
Massenpunktfahrzeuge mit Hilfe energiebasierter Methoden},
    journal            = {at – Automatisierungstechnik},
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den Einsatz in zeitkritischen Systemen},
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Microcontroller Binary Code},
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Extracorporeal Membrane Oxygenator},
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Engineering},
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Anwendung am Beispiel der ECMO},
  booktitle     = {Entwurf komplexer Automatisierungssysteme (EKA
2010)},
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  title       = {Low Effort Evaluation of Real-Time and Reliability
Requirements for Embedded Systems},
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  title        = {Embedded Contributions to an Intensive Care Safety
Concept},
  booktitle    = {ArtistDesign Workshop on Embedded Systems in
Healthcare, Eindhoven - The Netherlands},
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Jarke, Matthias and Polzer, Andreas and Palczynski, Jacob and Kowalewski,
Stefan and Reke, Michael},
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  title         = {Evaluation of the Real-Time Java Runtime Environment
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  booktitle     = {7th International Workshop on Java Technologies for
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  publisher     = {ACM},
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  pages         = {57-86},
  title         = {Handbook of Hybrid Systems Control},
  publisher     = {Cambridge University Press},
  year          = {2009},
  author        = {Kowalewski, Stefan and Garavello, Mauro and
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  title         = {Tools and Algorithms for the Construction and
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  location      = {Grenoble, France},
  author        = {Stollenwerk, Andr{'e} and Jongdee, Chate and
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the Masses},
  booktitle     = {Workshop on Embedded Systems Education (WESE09),
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  publisher     = {ACM},
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  isbn          = {978-1-4503-0021-6},
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@INPROCEEDINGS {WWK+09,
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R{"u}dger and Stollenwerk, Andr{'e} and Kashefi, Ali and Leonhardt,
Steffen},
  title         = {Automation of Long Term Extracorporeal Oxygenation
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  booktitle   = {2nd International Workshop on Model Based
Architecting and Construction of Embedded Systems (ACESMB 2009), Workshop at
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  year        = {2009},
  editor      = {Stefan Van Baelen and Thomas Weigert and Ileana
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  volume      = {Vol-507},
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  address     = {Denver, Colorado, USA},
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  booktitle   = {First Workshop on Feature-Oriented Software
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  booktitle       = {35th Euromicro Conference on Software Engineering  
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  year            = {2009},  
  pages           = {523-527},  
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  booktitle       = {Proceedings of the 1st International Workshop on  
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  editor          = {Goetz Botterweck and Iris Groher and Andreas Polzer  
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  volume          = {557},  
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  pages        = {341-349},
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  publisher    = {Springer Berlin Heidelberg},
  year         = {2009},
  editor       = {Vincent, Jean-Louis},
  author       = {Kopp, R{"u}dger and Leonhardt, Steffen and
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  volume      = {1},
  doi         = {10.1007/978-3-540-92276-6_33},
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  author       = {Leonhardt, Steffen and Walter, Marian and Wartzek,
Tobias and Kashefi, Ali and Stollenwerk, Andr{"e} and Kopp, R{"u}dger},
  title        = {Regelung des Gasaustauschs f{"u}r die
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  publisher    = {VDI},
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    title                   = {Automatisierung der extrakorporalen
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    year                    = {2009},
    pages                   = {23--25},
    publisher               = {RWTH Aachen University},
    editor                  = {Ralf Huuck and Gerwin Klein and Bastian Schlich},
    isbn                    = {0935-3232},
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    organization   = {Gesellschaft für Informatik (GI)},
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(DS SSV 2009)},
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Dominique and Quiros, Gustavo and Slaats, Michaela and Ummels, Michael},
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of Reactive and Discrete-Continuous Systems (AlgoSyn)"},
    journal       = {it - Information Technology},
    year          = {2009},
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@INPROCEEDINGS {ASK08c,
    author        = {Armoush, Ashraf and Salewski, Falk and Kowalewski,
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  author        = {Armoush, Ashraf and Salewski, Falk and Kowalewski,
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  title         = {Effective Pattern Representation for Safety Critical
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  booktitle     = {2008 International Conference on Computer Science
and Software Engineering},
  year          = {2008},
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  pages         = {91--97},
  month         = {Dec.},
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with Extended Representation for Safety Critical Embedded Systems},
  booktitle     = {11th International Conference on Information
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  year          = {2008},
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  month         = {Dec.},
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(JSEA)},
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    title           = {Interprocedural Pointer Analysis in Goanna},
    journal         = {Electronic Notes in Theoretical Computer Science},
    volume          = {254},
    pages           = {65--83},
    year            = {2009},
    note            = {Proceedings of the 4th International Workshop on
Systems Software Verification (SSV 2009)},
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Critical Automotive Applications},
    booktitle        = {Safety-Critical Systems, 2009 (SAE World Congress
2009)},
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@ARTICLE {BSK09c,
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Critical Automotive Applications}},
  journal     = {SAE International Journal of Passenger Cars -
Electronic and Electrical Systems},
  volume      = {2},
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  abstract    = {Safety is a requirement concerning an increasing
number of automotive applications. Recent safety standards set requirements
for designing safety-critical systems. Among others, these specifications
include a comprehensive detection and handling of hardware faults. Currently
emerging dual-core microcontrollers provide a cost-effective opportunity to
fulfill these requirements. In this paper we analyze a safety-critical
application example and discuss two different approaches, an application-
specific approach and a generic approach for implementing functional safety
requirements on a dual-core microcontroller. An investigation of the
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reliability, modifiability and costs are evaluated and presented
graphically.},
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Code},
    booktitle    = {Workshop on Embedded Security (WESS 2009), Grenoble,
France},
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@INPROCEEDINGS {BSSK09,
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Microcontrollers in Safety-Critical Automotive Applications},
    booktitle    = {Leveraging Applications of Formal Methods,
Verification and Validation (ISoLA08)},
    year         = {2009},
    volume       = {17},
    series       = {Communications in Computer and Information
Science},
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    publisher    = {Springer Berlin Heidelberg},
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Practice and Research Techniques (TAIC Part 2009)},
    title        = {A Real-Time Test and Simulation Environment Based on

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  publisher      = {IEEE Computer Society},
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Bastian and Tapp, Michael},
  booktitle       = {SOFSEM 2009: Theory and Practise of Computer
Science, Spindleruv Ml\'{y}n, Czech Republic},
  doi             = {10.1007/978-3-540-95891-8_26},
  isbn           = {978-3-540-95890-1},
  pages          = {267--278},
  publisher      = {Springer},
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  title          = {Automatic Bug Detection in Microcontroller Software
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  volume         = {5404},
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  author          = {Daniel Kl\'{u}nder},
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Zustandsmaschinen und Business Object Notation},
  institution     = {RWTH Aachen University},
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University},
  year           = {2009},
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support, extracorporeal membrane oxygenation, model-based safety concepts},
  author          = {Kopp, R{"u"}dger and Walter, Marian and Arens,
Jutta and Stollenwerk, Andr{"e"} and Leonhardt, Steffen and Schmitz-Rode,
Thomas and Kowalewski, Stefan and Rossaint, Rolf},
  title           = {Regelungs- und Sicherheitskonzepte f{"u"}r
extrakorporale Systeme zur Lungenunterst{"u"}tzung / Automatic control and
safety concepts for extracorporeal lung support},
  journal         = {Biomedizinische Technik},
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  volume          = {54},
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  title       = {Applying Software Product Line Techniques in Model-
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  year        = {2006},
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  abstract    = {The hybrid systems community is still struggling to
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PHAVer and Hsolver, were introduced which promise to be a further step in
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  title           = {Scenario-Based Evaluation of Abstract State
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  year            = {2008},
  editor          = {U. Jumar and E. Schnieder and C. Diedrich},
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  booktitle      = {Modellierung 2008},
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booktitle      = {Automated Technology for Verification and Analysis  
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  pages = {305-314},
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  booktitle = {Balancing Agility and Formalism in Software
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