

Julius Beerwerth, M.Sc. RWTH

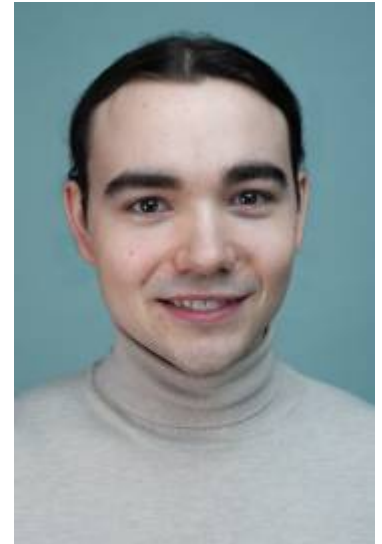
Member of the [Cyber-physical Mobility Group](#)

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Research

I am part of the [Cyber-Physical Mobility Group](#). I research service-oriented software architectures in the context of the [SOMC](#) project. My research interest include learning-based control, optimization and multi-agent systems.

Theses

If you are interested in a bachelor or master thesis, please contact me via email. Your own suggestions for topics are also possible.

HiWi/WiHi Jobs

Current job offers can be found [here](#). Unsolicited applications are also welcome. Your application

should include an overview of your grades and a short curriculum vitae.

Publikationen

[BMA+23]

[PDFBIB](#)

Böhlen, B., Meyer, O., Alrifaae, B., Beerwerth, J., Kampmann, A., Kowalewski, S., Konersmann, M., Rumpe, B., and Steinfurth, F., "Software-Defined Vehicle - Herausforderungen in der Diagnose dienstorientierter Fahrzeugarchitekturen", in *Proc. Diagnose in mechatronischen Fahrzeugsystemen XVI : Software-Defined Vehicle, SOVD, Maschinelles Lernen und KI, Standardisierung, HU und ADAS / Prof. Dr. Bernard Bäker, Dipl.-Ing. Andreas Unger (Hrsg.) und 53 Mitautoren*, Dresden, 2023, TUDpress, pp. 17-28.

Software-Defined Vehicle - Herausforderungen in der Diagnose dienstorientierter Fahrzeugarchitekturen

Bibtex entry :

```
@inproceedings { BMA+23,
  author = { B{"o}hlen, Boris and Meyer, Oliver and Alrifaae, Bassam
and
  Beerwerth, Julius and Kampmann, Alexandru and Kowalewski,
Stefan and Konersmann, Marco and Rumpe, Bernhard and
Steinfurth, Felix },
  title = { Software-Defined Vehicle – Herausforderungen in der
Diagnose dienstorientierter Fahrzeugarchitekturen },
  booktitle = { Diagnose in mechatronischen Fahrzeugsystemen XVI :
Software-Defined Vehicle, SOVD, Maschinelles Lernen und KI,
Standardisierung, HU und ADAS / Prof. Dr. Bernard B{"a}ker,
Dipl.-Ing. Andreas Unger (Hrsg.) und 53 Mitautoren },
  publisher = { TUDpress },
  pages = { 17-28 },
  year = { 2023 },
  address = { Dresden },
  organization = { 16. Tagung Diagnose in mechatronischen
Fahrzeugsystemen,
Dresden (Germany), 2023-05-23 - 2023-05-24 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2023-10164 },
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  url = {
http://publications.rwth-aachen.de/record/972417/files/972417.pdf },
  illkey = { BMBF 01IS22088A - Verbundprojekt MANNHEIM-AUT0tech.agil:
Architektur und Technologien zur Orchestrierung
automobiltechnischer Agilit{"a}t (01IS22088A) },
```

}

[SBB+23]

PDFBIB

Schmitt, L., Beerwerth, J., Bahr, M., and Abel, D., "Data-Driven Predictive Control With Online Adaption: Application to a Fuel Cell System", *IEEE transactions on control systems technology*, vol. 10, pp. 1-12, 2023

Data-Driven Predictive Control With Online Adaption: Application to a Fuel Cell System

Bibtex entry :

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@article { SBB+23,
  author = { Schmitt, Lukas and Beerwerth, Julius and Bahr, Matthias
and
  Abel, Dirk },
  title = { Data-Driven Predictive Control With Online Adaption:
Application to a Fuel Cell System },
  journal = { IEEE transactions on control systems technology },
  pages = { 1-12 },
  volume = { 10 },
  year = { 2023 },
  issn = { 1558-0865 },
  doi = { 10.1109/TCST.2023.3293790 },
  typ = { PUB:(DE-HGF)16 },
  reportid = { RWTH-2023-10978 },
  cin = { 122810 / 120000 / 416610 },
}
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[vLL+23]

PDFBIB

van Kempen, R., Lampe, B., Leuffen, M., Wirtz, L., Thomsen, F., Bilkei-Gorzo, G., Busch, J., Feger, I., Geller, C., Kehl, C., Uszynski, O., Wagner-Douglas, L., Zanger, L., Eckstein, L., Klüner, D. P., Beerwerth, J., Alrifaae, B., Kowalewski, S., Konersmann, M., Steinfurth, F., Rumpe, B., Hartmann, M., Siepenkötter, N., Moormann, D., Böhlen, B., Hannig, C., Hekele, E., Gotzig, H., Rostocki, P., Gautam, D., Schubert, R., Braun, N., Maurer, M., Gemlau, K., Abel, S., Ernst, R., Lutwitz, M., Bayerlein, L., Berghöfer, M., Blödel, A., Klamann, B., Kuznietsov, A., Peters, S., Leinen, S., Bahle, J., Ullrich, L., Graichen, K., Woopen, T., Spychalski, D., Krauß, C., Alayan, M., Giesler, J., Lilienthal, M., Schulik, T., Lauer, M., Fernandez, C., Molinos, E., Le Large, N., Rack, N., Steiner, M., Wang, K., Stiller, C., Arndt, G., Schulz, B., Furmans, K., Rauber, S., Diermeyer, F., Brecht, D., Gehrke, N., Lienkamp, M., Zimmer, W., Creß, C., Zhou, X., Knoll, A., Püllen, D., Katzenbeisser, S., Elmazi, A., Sailer, A., Alfranseder, M., Mader, R., Berkel, F., Specker, T., Mayer, P., von Hasseln, H., Jung, L., Grandinetti, M., Neidhart, D., Greiner, D., Niedballa, D., Zaheri, D., Maier, J., Reuss, H., Afanasenko, V., Solomakha, O., Roge, S. S., Kallfass, I., Buchholz, M., Dehler, R., Henning, M., Hermann, C., Schön, M., and Dietmayer, K., "AUTOtech.agil : Architecture and Technologies for Orchestrating Automotive Agility", in *Proc. 32nd Aachen Colloquium Sustainable Mobility 2023. Aachen, October 09th to 11th, 2023, Aachen, 2023, Aachener Kolloquium Fahrzeug- und Motorentechnik GbR*, p. 047.

AUTotech.agil : Architecture and Technologies for Orchestrating Automotive Agility

Bibtex entry :

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@inproceedings { vLL+23,  
  author = { van Kempen, Raphael and Lampe, Bastian and Leuffen, Marc  
and  
  Wirtz, Lena and Thomsen, Fabian and Bilkei-Gorzo, Gergely  
and Busch, Jean-Pierre and Feger, Ida and Geller, Christian  
and Kehl, Christian and Uszynski, Olaf and Wagner-Douglas,  
Lotte and Zanger, Lukas and Eckstein, Lutz and Kl{"u}ner,  
David Philipp and Beerwerth, Julius and Alrifae, Bassam and  
Kowalewski, Stefan and Konersmann, Marco and Steinfurth,  
Felix and Rumpe, Bernhard and Hartmann, Max and  
Siepenk{"o}tter, Norbert and Moormann, Dieter and  
B{"o}hlen, Boris and Hannig, Claudia and Hekele, Esther and  
Gotzig, Heinrich and Rostocki, Paul-David and Gautam,  
Deepak-Kumar and Schubert, Richard and Braun, Niklas and  
Maurer, Markus and Gemlau, Kai-Bj{"o}rn and Abel, Sebastian  
and Ernst, Rolf and Lutwitz, Melina and Bayerlein, Lorenz  
and Bergh{"o}fer, Moritz and Bl{"o}del, Alexander and  
Klamann, Bj{"o}rn and Kuznietsov, Anton and Peters, Steven  
and Leinen, Stefan and Bahle, Jakob and Ullrich, Lars and  
Graichen, Knut and Woopen, Timo and Spychalski, Dominik and  
Krau{"ss}, Christoph and Alayan, Mohamad and Giesler, Jens  
and Lilienthal, Martin and Schulik, Thomas and Lauer, Martin  
and Fernandez, Carlos and Molinos, Eduardo and Le Large,  
Nick and Rack, Nils and Steiner, Marlon and Wang, Kaiwen and  
Stiller, Christoph and Arndt, Gideon and Schulz, Benedikt  
and Furmans, Kai and Rauber, Stephan and Diermeyer, Frank  
and Brecht, David and Gehrke, Nils and Lienkamp, Markus and  
Zimmer, Walter and Cre{"ss}, Christian and Zhou, Xingcheng  
and Knoll, Alois and P{"u}llen, Dominik and Katzenbeisser,  
Stefan and Elmazi, Arlinda and Sailer, Andreas and  
Alfranseder, Martin and Mader, Ralph and Berkel, Felix and  
Specker, Thomas and Mayer, Philip and von Hasseln, Hermann  
and Jung, Lukas and Grandinetti, Marcel and Neidhart,  
Dominik and Greiner, Dan and Niedballa, Dennis and Zaheri,  
Dorsa and Maier, Jonas and Reuss, Hans-Christian and  
Afanasenko, Valentyna and Solomakha, Oleksandr and Roge,  
Swapnil Sunil and Kallfass, Ingmar and Buchholz, Michael and  
Dehler, Robin and Henning, Matti and Hermann, Charlotte and  
Sch{"o}n, Markus and Dietmayer, Klaus },  
  title = { AUTotech.agil : Architecture and Technologies for  
Orchestrating Automotive Agility },  
  booktitle = { 32nd Aachen Colloquium Sustainable Mobility 2023.  
Aachen,  
  October 09th to 11th, 2023 },
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publisher = { Aachener Kolloquium Fahrzeug- und Motorentechnik GbR
},
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(Germany), 2023-10-09 - 2023-10-11 },
doi = { 10.18154/RWTH-2023-09783 },
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cin = { 414110 / 122810 / 121510 / 415410 / 120000 },
url = { https://www.aachener-kolloquium.de/de/ },
illkey = { BMBF 01IS22088A - Verbundprojekt MANNHEIM-AUT0tech.agil:
Architektur und Technologien zur Orchestrierung
automobiltechnischer Agilit{"a"}t (01IS22088A) },
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