

Extended Curriculum Vitae

Florian Rabe

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1 General Information

1.1 Personal

Name	Dr. FLORIAN RABE		
Born	28.09.1979, Wolfsburg, Germany		
Nationality	German		
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1.2 Education

1986-1999	Primary and secondary education, Wolfsburg, Germany
July 1999	Abitur, 1.0 (best possible GPA) Gymnasium Kreuzheide, Wolfsburg, Germany
2000-2004	Student of Computer Science, University of Karlsruhe, Germany
Sept. 2001	Vordiplom (pre-diploma)
Oct. 2004	Diplom (M.Sc.), 1.0 (best possible GPA), with distinction Thesis: “A Dynamic Logic with Temporal Operators for Promela” advised by Prof. Dr. Peter Schmitt
2005-2008	Ph.D. student of Computer Science, Jacobs University, Bremen, Germany
Dec. 2008	Ph.D., with distinction Thesis: “Representing Logics and Logic Translations” advised by Prof. Dr. Michael Kohlhase
2014	Habilitation (venia legendi), Jacobs University, Bremen, Germany Computer Science; Title: “A Scalable Logical Framework”

1.3 Employment

1999 - 2000	Military service (10 months)
2000 - 2008	Various research and teaching assistantships (~ 30 months)
2008 - 2014	Post-doctoral fellow Jacobs University, Bremen, Germany
2014 -	Self-acquired position (DFG Eigene Stelle): OAF project Jacobs University, Bremen, Germany

1.4 Major Research Visits

2006	Carnegie Mellon University, Pittsburgh, USA (12 months) Invited by Prof. Dr. Frank Pfenning
Jan 2009	IT University of Copenhagen, Denmark (1 month) Invited by Prof. Dr. Carsten Schürmann
June 2010	IT University of Copenhagen, Denmark (1 month) Invited by Prof. Dr. Carsten Schürmann
Jan 2011	McMaster University, Hamilton, Ontario, Canada Collaboration with Prof. Dr. William M. Farmer and Prof. Dr. Jacques Carette
June 2013	University of Zürich, Switzerland Invited by Prof. Dr. Paul-Olivier Dehaye
Feb 2014	University of Innsbruck, Austria Invited by Dr. Cezary Kaliszyk
Sep 2014	Chalmers University of Technology, Gothenburg, Sweden Invited by Dr. Cezar Ionescu
March+April 2015	SRI International, Menlo Park, California, US (1 month) Collaboration with Dr. Natarajan Shankar and Kestrel Institute, Palo Alto, California, US (1 month) Collaboration with Dr. Stephen Westfold

1.5 Awards and Scholarships

2005	Award by Förderverein of the Research Center Computer Science (500 EUR) Best Diploma thesis
2005-2014	~ 10 individual travel grants to conferences
2005	Full scholarship by Jacobs University Germany (8 months)
2006	Full scholarship by German Academic Exchange Service (12 months) (for research stay at Carnegie Mellon University, Pittsburgh, USA)
2006	Winner “Modal Logic \$100 challenge”
2007-2008	Full scholarship by German Merit Foundation (17 months)
2010	Winner “Best paper award”, Conference on Mathematical Knowledge Management (MKM 2010)
2015	Winner of the Contest “The Future of Logic” at the Universal Logic Congress (UniLog 2015)

2 Academic Activities

2.1 Funded Research Projects

Completed or Ongoing

LATIN: Logic Atlas & Integrator

2009–2012, 2 positions, funded by German Research Foundation (DFG)

de facto principal investigator, with Prof. M. Kohlhase, Prof. T. Mossakowski

<https://latin.omdoc.org/>

OAF: Open Archive of Formal Knowledge

2014–2017, 2 positions, funded by German Research Foundation (DFG)

principal investigator, with Prof. M. Kohlhase

<https://latin.omdoc.org/>

OpenDreamKit: Open Digital Research Environment Toolkit for the Advancement of Mathematics
 2015–2019, 7,630,000 € funded, by EU Horizon 2020, RIA
 principal investigator, part of consortium of 15 sites
<http://opendreamkit.org/>

Under Review

UniProofs: A Universal Proof Checker
 2016–2019, 4 positions, joint French-German proposal to ANR and DFG
 principal investigator, with Michael Kohlhase as well as Dr. Gilles Dowek, Prof. Catherine Dubois

2.2 Teaching

Since receiving my PhD in 2008, I have taught independently.

Semester	Type	ECTS	Title
Fall 2008	undergraduate course	5	Formal Languages and Logic
Spring 2009	graduate seminar+project	5+10	Semantic Web and Knowledge Representation
Fall 2009	graduate course+lab*	5+5	Computational Logic
Fall 2009	reading course	5	Universal Algebra
Spring 2010	graduate seminar+project*	5+10	Semantic Web and Knowledge Representation
Spring 2010	reading course	10	Type Theory
Fall 2010	graduate course+lab*	5+5	Computational Semantics of Natural Language
Spring 2011	graduate seminar+project*	5+10	Semantic Web and Knowledge Representation
Fall 2011	graduate course+lab*	5+5	Computational Logic
Spring 2012	graduate seminar+project*	5+10	Semantic Web and Knowledge Representation
Fall 2012	undergraduate lab	2.5	Programming in Python
Fall 2012	undergraduate lab	2×2.5	Programming in C
Spring 2013	undergraduate lab	2.5	Programming in Python 2
Fall 2013	reading course	2.5	Programming in Python 2
Fall 2013	undergraduate course	5	Formal Languages and Logic
Fall 2013	graduate lab+project*	5+10	Computational Logic
Fall 2014	graduate lab+project*	5+10	Computational Logic

* given jointly with Prof. Dr. Michael Kohlhase

2.3 Advising of Students

After obtaining my Ph.D. degree in 2008 I have formed and led the *theory* subgroup within Prof. Michael Kohlhase’s research group at Jacobs University.

The following students have completed or are currently writing their theses in the subgroup:

B.Sc. students

2007-2008	Elena Agapie	CS	went on to Harvard University
2007-2008	Kristina Sojakova	Math	
2008-2009	Jana Gičeva	CS	went on to ETH Zürich
2008-2009	Alin Iacob	Math, CS	
2009-2010	Catalin David	CS	
2008-2010	Ștefania Dumbravă	Math	
2009-2010	Mihnea Iancu	CS	
2010-2011	Vladimir Zamdzhiev	Math, CS	went on to University of Oxford
2010-2012	Iulia Ignatov	CS	went on to ETH Zürich
2011-2012	Maria-Alexandra Alecu	CS	went on to University of Edinburgh
2012-2013	Felix Mance	CS	went on to ETH Zürich
2013-2014	Timo Lücke	Math	
2014-2015	Roxana Nadrag	CS	went on to industry

M.Sc. students

2008-2010	Kristina Sojakova	CS	went on to Carnegie Mellon University
2009-2011	Alin Iacob	CS	went on to industry
2009-2012	Füsun Horozal	CS	went on to industry
2010-2012	Ștefania Dumbravă	CS	went on to INRIA Saclay
2010-2012	Mihnea Iancu	CS	
2014-	Timo Lücke	CS	

Ph.D. students

2012-	Mihnea Iancu*	CS
2015-	Dennis Müller*	CS

* supervised by Prof. Kohlhase, and I am a member of the dissertation committee

Additionally, the following people supervised by Prof. Kohlhase are involved with my subgroup:

Ph.D. students

2008-2014	Fulya Horozal
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Post-docs

2015-	Christian Maeder
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3 Academic Service

3.1 Academic Self-Governance

at University of Karlsruhe, Department of Computer Science

2001 - 2004 Elected member of student council and appointed member of study committee
2003 Appointed member of professor search committee

at Jacobs University Bremen

2008 - 2010 Elected member of staff council
2010 - 2012 Appointed member of provost search committee
2011 - 2012 Appointed member of constitution committee

in international organizations

2010 - 2013 Member of board of trustees of MKM interest group
<http://www.mkm-ig.org/>
2012 - Member of the CICM Steering Committee
<http://trac.mathweb.org/CICM>
2015 - IFIP Working Group 2.1 on Algorithmic Languages and Calculi
Observer, sponsored by Prof. Lambert Meertens
<http://foswiki.cs.uu.nl/foswiki/IFIP21/>

3.2 Organization of Meetings

2009 Workshop Module Systems and Libraries for Proof Assistants (MLPA 2009)
at CADE 2009, with Prof. Dr. Carsten Schürmann
2010 Workshop Module Systems and Libraries for Proof Assistants (MLPA 2010)
at FLoC 2010, with Prof. Dr. Carsten Schürmann
2011 Conference Conference on Intelligent Computer Mathematics (CICM 2011)
member of organization committee
2011 Workshop Module Systems and Libraries for Proof Assistants (MLPA 2011)
at ITP 2011, with Prof. Dr. Carsten Schürmann
2012 Workshop Second St. Jacobs Workshop
stand-alone, see <https://svn.mathweb.org/repos/tetrapod/www/index.html>
2013 Workshop Programming Languages for Mechanized Mathematics Systems
at CICM 2013, with Iain Whiteside
2015 Conference Conference on Intelligent Computer Mathematics (CICM 2015)
member of organization committee

3.3 Peer Review

Membership in Program Committees

Journal issues

2009 member special issue of AI Communications for PAAR 2008

Conferences

2010	member	Mathematical Knowledge Management (MKM)
2010	member	Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2010)
2011	track chair	Mathematical Knowledge Management track at the Conference on Intelligent Computer Mathematics (MKM at CISM 2011)
2012	member	Intelligent Computer Mathematics (CISM 2012)
2013	member	Intelligent Computer Mathematics (CISM 2013)
2014	member	Mathematical Knowledge Management (MKM 2014)
2014	member	Calculus
2015	track chair	Systems & Data track at the Conference on Intelligent Computer Mathematics (S&D at CISM 2015)

Workshops

2008	member	Practical Aspects of Automated Reasoning (PAAR at IJCAR 2008)
2009	co-chair	Module Systems and Libraries for Proof Assistants (MLPA at CADE 2009)
2009	member	TPTP World Workshop (TPTPW@Wo at CADE 2009), eventually cancelled
2010	co-chair	Module Systems and Libraries for Proof Assistants (MLPA at FLoC 2010)
2010	member	International Workshop on Implementations of Logics (IWIL at LPAR 2010)
2011	co-chair	Module Systems and Libraries for Proof Assistants (MLPA, part of LFMTTP/MLPA at ITP 2011)
2013	member	Proof Exchange for Theorem Proving (PxTP at CADE 2013)
2013	member	ACM SIGPLAN Workshop on Generic Programming (WGP at ICFP 2013)
2013	member	Logical Frameworks and Meta-Languages: Theory and Practice (LFMTTP at ICFP 2013)
2013	co-chair	Programming Languages for Mechanized Mathematics Systems (PLMMS at CISM 2013)
2015	member	Deduktionstreffen (German Deduction Meeting, at CADE 2015)

Individual Reviews

Journals: Formal Aspects of Computing, Information and Computation, Journal of Formalized Reasoning, Journal of Logic and Computation, Logica Universalis, Logical Methods in Computer Science, Mathematics in Computer Science, Theoretical Computer Science

Conferences: CADE, FroCoS, IJCAR, ISSAC, LPAR, MKM, TPHOLs, Types, WADT

Review aggregators: Bulletin of Symbolic Logic, AMS Mathematical Reviews

4 Major Software Projects

I have taken great care to couple all my theoretical research with the corresponding practical software development. I am the main developer of the following open-source software systems, which are the major practical outcome of my work.

- MMT API, written in Scala, > 30000 lines of code
<https://svn.kwarc.info/repos/MMT/doc/html/index.html>

This is the reference implementation of the MMT language for the scalable representation and management of formal knowledge. It includes fully integrated implementations of knowledge management services and connections to external systems.

- Twelf module system, written in SML, ~ 500 source files
<https://svn.kwarc.info/repos/MMT/doc/html/index.html?twelfmod.html>
This is an extension of the Twelf logical framework [?] with a module system and namespace management. The implementation substantially changed the main data structures and thus affected almost every source file.
- LATIN logic atlas, written in modular Twelf, > 1000 modules
<https://trac.omdoc.org/LATIN>
This is a library of formalizations of logics, type theories, and related formal languages, including their semantics and interrelations. It takes the style of an inventory of formal systems in use in computer science and is the main library MMT works with.
- OAF library infrastructure
This ongoing project applies MMT to obtain a generic management and integration platform for formal logical libraries. It includes representations of several major libraries (e.g., Mizar, HOL Light, TPTP) using MMT as a standardized representation format.

5 Publications

All papers are available from my homepage at <http://kwarc.info/frabe/>.

author authors who are/were students in my subgroup

5.1 Articles in Journals

- [1] M. Kohlhase and F. Rabe. QED Reloaded: Towards a Pluralistic Formal Library of Mathematical Knowledge. *Journal of Formalized Reasoning*, 2015. accepted pending minor revisions; see http://kwarc.info/frabe/Research/KR_qed_14.pdf.
- [2] F. Rabe. Lax Theory Morphisms. *ACM Transactions on Computational Logic*, 2015. to appear; see http://kwarc.info/frabe/Research/rabe_lax_14.pdf.
- [3] F. Rabe. How to Identify, Translate, and Combine Logics? *Journal of Logic and Computation*, 2014. doi:10.1093/logcom/exu079.
- [4] F. Rabe. A Logical Framework Combining Model and Proof Theory. *Mathematical Structures in Computer Science*, 23(5):945–1001, 2013.
- [5] F. Rabe and M. Kohlhase. A Scalable Module System. *Information and Computation*, 230(1):1–54, 2013.
- [6] F. Rabe and K. Sojakova. Logical Relations for a Logical Framework. *ACM Transactions on Computational Logic*, 14(4):1–34, 2013.
- [7] M. Iancu, M. Kohlhase, F. Rabe, and J. Urban. The Mizar Mathematical Library in OMDoc: Translation and Applications. *Journal of Automated Reasoning*, 50(2):191–202, 2013.

- [8] M. Kohlhase and F. Rabe. Semantics of OpenMath and MathML3. *Mathematics in Computer Science*, 6(3):235–260, 2012.
- [9] S. Awodey and F. Rabe. Kripke Semantics for Martin-Löf’s Extensional Type Theory. *Logical Methods in Computer Science*, 7(3), 2011.
- [10] F. Horozal and F. Rabe. Representing Model Theory in a Type-Theoretical Logical Framework. *Theoretical Computer Science*, 412(37):4919–4945, 2011.
- [11] M. Iancu and F. Rabe. Formalizing Foundations of Mathematics. *Mathematical Structures in Computer Science*, 21(4):883–911, 2011.
- [12] J. Goguen, T. Mossakowski, V. de Paiva, F. Rabe, and L. Schröder. An Institutional View on Categorical Logic. *International Journal of Software and Informatics*, 1(1):129–152, 2007.
- [13] F. Rabe, P. Pudlák, G. Sutcliffe, and W. Shen. Solving the \$100 Modal Logic Challenge. *Journal of Applied Logic*, 7(1):113–130, 2007.

5.2 Refereed Articles in Major Collections

- [1] F. Rabe. Generic Literals. In M. Kerber, J. Carette, C. Kaliszyk, F. Rabe, and V. Sorge, editors, *Intelligent Computer Mathematics*, volume 9150 of *Lecture Notes in Computer Science*, pages 102–117. Springer, 2015.
- [2] F. Rabe. The Future of Logic: Foundation-Independence. In *World Congress on Universal Logic*, 2015. Winner of the Contest “The Future of Logic”.
- [3] F. Horozal and F. Rabe. Formal Logic Definitions for Interchange Languages. In M. Kerber, J. Carette, C. Kaliszyk, F. Rabe, and V. Sorge, editors, *Intelligent Computer Mathematics*, volume 9150 of *Lecture Notes in Computer Science*, pages 171–186. Springer, 2015.
- [4] C. Kaliszyk and F. Rabe. Towards Knowledge Management for HOL Light. In S. Watt, J. Davenport, A. Sexton, P. Sojka, and J. Urban, editors, *Intelligent Computer Mathematics*, volume 8543 of *Lecture Notes in Computer Science*, pages 357–372. Springer, 2014.
- [5] F. Horozal, F. Rabe, and M. Kohlhase. Flexary Operators for Formalized Mathematics. In S. Watt, J. Davenport, A. Sexton, P. Sojka, and J. Urban, editors, *Intelligent Computer Mathematics*, volume 8543 of *Lecture Notes in Computer Science*, pages 312–327. Springer, 2014.
- [6] M. Codrescu, F. Horozal, A. Jakubauskas, T. Mossakowski, and F. Rabe. Compiling Logics. In N. Martí-Oliet and M. Palomino, editors, *Recent Trends in Algebraic Development Techniques 2012*, volume 7841 of *Lecture Notes in Computer Science*, pages 111–126. Springer, 2013.
- [7] M. Kohlhase, F. Mance, and F. Rabe. A Universal Machine for Biform Theory Graphs. In J. Carette, D. Aspinall, C. Lange, P. Sojka, and W. Windsteiger, editors, *Intelligent Computer Mathematics*, volume 7961 of *Lecture Notes in Computer Science*, pages 82–97. Springer, 2013.
- [8] F. Rabe. The MMT API: A Generic MKM System. In J. Carette, D. Aspinall, C. Lange, P. Sojka, and W. Windsteiger, editors, *Intelligent Computer Mathematics*, volume 7961 of *Lecture Notes in Computer Science*, pages 339–343. Springer, 2013.

- [9] M. Codescu, [F. Horozal](#), M. Kohlhase, T. Mossakowski, and F. Rabe. A Proof Theoretic Interpretation of Model Theoretic Hiding. In T. Mossakowski and H. Kreowski, editors, *Recent Trends in Algebraic Development Techniques 2010*, volume 7137 of *Lecture Notes in Computer Science*, pages 118–138. Springer, 2012.
- [10] M. Codescu, [F. Horozal](#), M. Kohlhase, T. Mossakowski, F. Rabe, and K. Sojakova. Towards Logical Frameworks in the Heterogeneous Tool Set Hets. In T. Mossakowski and H. Kreowski, editors, *Recent Trends in Algebraic Development Techniques 2010*, volume 7137 of *Lecture Notes in Computer Science*, pages 139–159. Springer, 2012.
- [11] F. Rabe. A Query Language for Formal Mathematical Libraries. In J. Campbell, J. Carette, G. Dos Reis, J. Jeuring, P. Sojka, V. Sorge, and M. Wenzel, editors, *Intelligent Computer Mathematics*, volume 7362 of *Lecture Notes in Computer Science*, pages 142–157. Springer, 2012.
- [12] [F. Horozal](#), M. Kohlhase, and F. Rabe. Extending MKM Formats at the Statement Level. In J. Campbell, J. Carette, G. Dos Reis, J. Jeuring, P. Sojka, V. Sorge, and M. Wenzel, editors, *Intelligent Computer Mathematics*, volume 7362 of *Lecture Notes in Computer Science*, pages 64–79. Springer, 2012.
- [13] [M. Iancu](#) and F. Rabe. Management of Change in Declarative Languages. In J. Campbell, J. Carette, G. Dos Reis, J. Jeuring, P. Sojka, V. Sorge, and M. Wenzel, editors, *Intelligent Computer Mathematics*, volume 7362 of *Lecture Notes in Computer Science*, pages 325–340. Springer, 2012.
- [14] M. Codescu, [F. Horozal](#), M. Kohlhase, T. Mossakowski, and F. Rabe. Project Abstract: Logic Atlas and Integrator (LATIN). In J. Davenport, W. Farmer, F. Rabe, and J. Urban, editors, *Intelligent Computer Mathematics*, volume 6824 of *Lecture Notes in Computer Science*, pages 289–291. Springer, 2011.
- [15] F. Rabe, M. Kohlhase, and C. Sacerdoti Coen. A Foundational View on Integration Problems. In J. Davenport, W. Farmer, F. Rabe, and J. Urban, editors, *Intelligent Computer Mathematics*, volume 6824 of *Lecture Notes in Computer Science*, pages 107–122. Springer, 2011.
- [16] [F. Horozal](#), [A. Iacob](#), C. Jucovschi, M. Kohlhase, and F. Rabe. Combining Source, Content, Presentation, Narration, and Relational Representation. In J. Davenport, W. Farmer, F. Rabe, and J. Urban, editors, *Intelligent Computer Mathematics*, volume 6824 of *Lecture Notes in Computer Science*, pages 212–227. Springer, 2011.
- [17] C. David, M. Kohlhase, C. Lange, F. Rabe, and V. Zholudev. Publishing Math Lecture Notes as Linked Data. In L. Aroyo, G. Antoniou, E. Hyvönen, A. ten Teije, H. Stuckenschmidt, L. Cabral, and T. Tudorache, editors, *The Semantic Web: Research and Applications*, volume 6089 of *Lecture Notes in Computer Science*, pages 370–375. Springer, 2010.
- [18] M. Kohlhase, F. Rabe, and V. Zholudev. Towards MKM in the Large: Modular Representation and Scalable Software Architecture. In S. Autexier, J. Calmet, D. Delahaye, P. Ion, L. Rideau, R. Rioboo, and A. Sexton, editors, *Intelligent Computer Mathematics*, volume 6167 of *Lecture Notes in Computer Science*, pages 370–384. Springer, 2010.
- [19] V. Zholudev, M. Kohlhase, and F. Rabe. A [insert XML Format] Database for [insert cool application]. In *XMLPrague 2010*, Proceedings of XMLPrague. XMLPrague.cz, 2010.
- [20] S. Awodey and F. Rabe. Kripke Semantics for Martin-Löf’s Extensional Type Theory. In P. Curien, editor, *Typed Lambda Calculi and Applications (TLCA)*, volume 5608 of *Lecture Notes in Computer Science*, pages 249–263. Springer, 2009.

- [21] J. Gičeva, C. Lange, and F. Rabe. Integrating Web Services into Active Mathematical Documents. In J. Carette, L. Dixon, C. Sacerdoti Coen, and S. Watt, editors, *Intelligent Computer Mathematics*, volume 5625 of *Lecture Notes in Computer Science*, pages 279–293. Springer, 2009.
- [22] K. Sojakova and F. Rabe. Translating Dependently-Typed Logic to First-Order Logic. In A. Corradini and U. Montanari, editors, *Recent Trends in Algebraic Development Techniques*, volume 5486 of *Lecture Notes in Computer Science*, pages 326–341. Springer, 2009.
- [23] C. Benz Müller, F. Rabe, and G. Sutcliffe. THF0 – The core of the TPTP Language for Higher-Order Logic. In A. Armando, P. Baumgartner, and G. Dowek, editors, *4th International Joint Conference on Automated Reasoning*, volume 5195 of *Lecture Notes in Computer Science*, pages 491–506. Springer, 2008.
- [24] M. Kohlhase, C. Müller, and F. Rabe. Notations for Living Mathematical Documents. In S. Autexier, J. Campbell, J. Rubio, V. Sorge, M. Suzuki, and F. Wiedijk, editors, *Mathematical Knowledge Management*, volume 5144 of *Lecture Notes in Computer Science*, pages 504–519. Springer, 2008.
- [25] F. Rabe. First-Order Logic with Dependent Types. In N. Shankar and U. Furbach, editors, *Automated Reasoning*, volume 4130 of *Lecture Notes in Computer Science*, pages 377–391. Springer, 2006.

5.3 Refereed Articles in Other Collections

- [1] F. Rabe. A Logic-Independent IDE. In C. Benz Müller and B. Woltzenlogel Paleo, editors, *Workshop on User Interfaces for Theorem Provers*, volume 167 of *Electronic Notes in Theoretical Computer Science*, pages 48–60. Elsevier, 2014.
- [2] M. Iancu and F. Rabe. (Work-in-Progress) An MMT-Based User-Interface. In C. Kaliszyk and C. Lüth, editors, *Workshop on User Interfaces for Theorem Provers*, 2012.
- [3] F. Rabe. Representing Isabelle in LF. In K. Crary and M. Miculan, editors, *Logical Frameworks and Meta-languages: Theory and Practice*, volume 34 of *Electronic Proceedings in Theoretical Computer Science*, pages 85–100. Electronic Proceedings in Theoretical Computer Science, 2010.
- [4] F. Rabe and C. Schürmann. A Practical Module System for LF. In J. Cheney and A. Felty, editors, *Proceedings of the Workshop on Logical Frameworks: Meta-Theory and Practice (LFMTP)*, volume LFMTP’09 of *ACM International Conference Proceeding Series*, pages 40–48. ACM Press, 2009.
- [5] F. Horozal and F. Rabe. Representing Model Theory in a Type-Theoretical Logical Framework. In M. Ayala-Rincón and F. Kamareddine, editors, *Fourth Workshop on Logical and Semantic Frameworks, with Applications*, volume 256 of *Electronic Notes in Theoretical Computer Science*, pages 49–65. Elsevier, 2009.
- [6] C. Lange, S. McLaughlin, and F. Rabe. Flyspeck in a Semantic Wiki. In C. Lange, S. Schaffert, H. Skaf-Molli, and M. Völkel, editors, *Semantic Wiki Workshop*, volume 360 of *CEUR Workshop Proceedings*, pages 67–81. CEUR-WS.org, 2008.
- [7] F. Rabe and M. Kohlhase. An Exchange Format for Modular Knowledge. In G. Sutcliffe, P. Rudnicki, R. Schmidt, B. Konev, and S. Schulz, editors, *Proceedings of the LPAR Workshops on Knowledge Exchange: Automated Provers and Proof Assistants, and The 7th International Workshop on the Implementation of Logics*, volume 418 of *CEUR Workshop Proceedings*, pages 50–68. CEUR-WS.org, 2008.

- [8] F. Rabe. Towards Determining the Subset Relation between Propositional Modal Logics. In G. Sutcliffe, R. Schmidt, and S. Schulz, editors, *Proceedings of the FLoC 06 Workshop on Empirically Successful Computerized Reasoning, 3rd International Joint Conference on Automated Reasoning*, volume 192 of *CEUR Workshop Proceedings*, pages 126–140. CEUR-WS.org, 2006.
- [9] F. Rabe, S. Schlager, and P. Schmitt. A Sequent Calculus for a First-order Dynamic Logic with Trace Modalities for Promela⁺. In *Short Paper Proceedings of the International Conference on Logic for Programming, Artificial Intelligence, and Reasoning*, pages 21–27, 2005.

5.4 Invited Articles in Collections

- [1] F. Rabe. Representing Logics and Logic Translations. In D. Wagner et al., editor, *Ausgezeichnete Informatikdissertationen 2008*, volume D-9 of *Lecture Notes in Informatics*, pages 201–210. Gesellschaft für Informatik e.V. (GI), 2009. English title: Outstanding Dissertations in Computer Science 2008.

5.5 Theses

- [1] F. Rabe. *A Scalable Logical Framework*. Habilitation thesis, Jacobs University Bremen, 2014. see http://kwarc.info/frabe/Research/rabe_habil_14.pdf.
- [2] F. Rabe. *Representing Logics and Logic Translations (Summary)*. PhD thesis, Jacobs University Bremen, 2008. see http://kwarc.info/frabe/Research/phdthesis_summary.pdf.
- [3] F. Rabe. *Representing Logics and Logic Translations*. PhD thesis, Jacobs University Bremen, 2008. see <http://kwarc.info/frabe/Research/phdthesis.pdf>.
- [4] F. Rabe. A Dynamic Logic with Temporal Operators for Promela. Master’s thesis, Universität Karlsruhe, Germany, 2004.

5.6 Edited Collections

- [1] M. Kerber, J. Carette, C. Kaliszyk, F. Rabe, and V. Sorge, editors. *Intelligent Computer Mathematics*, Lecture Notes in Computer Science. Springer, 2015. in preparation.
- [2] C. Lange, D. Aspinall, J. Carette, J. Davenport, A. Kohlhase, M. Kohlhase, P. Libbrecht, P. Quaresma, F. Rabe, P. Sojka, I. Whiteside, and W. Windsteiger, editors. *Workshops and Work in Progress at CICM 2013*, volume 1010 of *CEUR Workshop Proceedings*. CEUR, 2013.
- [3] A. Asperti, J. Davenport, W. Farmer, F. Rabe, and J. Urban, editors. *Intelligent Computer Mathematics, Work-in-Progress Proceedings*, volume UBLCS-2011-04 of *Technical Reports of University of Bologna*. University of Bologna, 2011.
- [4] J. Davenport, W. Farmer, F. Rabe, and J. Urban, editors. *Intelligent Computer Mathematics*, volume 6824 of *Lecture Notes in Computer Science*. Springer, 2011.
- [5] H. Geuvers, G. Nadathur, F. Rabe, and C. Schürmann, editors. *LFMTP 2011 - MLPA 2011 Informal Proceedings*, 2011. see <http://kwarc.info/frabe/events/mlpa-11/index.html>.

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