Extended Curriculum Vitae

Florian Rabe

August 22, 2013

1 General Information

1.1 Personal

Name	Dr. Florian Rabe
Born	28.09.1979, Wolfsburg, Germany
Nationality	German
Univ. Address	School of Engineering and Science, Jacobs University
	Campus Ring 1, 28759 Bremen, Germany

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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, Wolfsbug, 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
2013 (submitted)	Habilitation (venia legendi), Jacobs University, Bremen, Germany

1.3 Employment

1999 - 2000	Military service (10 months)
2000 - 2008	Various research and teaching assistantships (~ 30 months)
2008 -	Post-doctoral fellow
	School of Engineering and Science, Jacobs University, Bremen, Germany

1.4 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

1.5 Honors and Scholarships

2005	Award by Förderverein of the Research Center Computer Science (500 EUR)
	Best Diploma thesis
2005	Full scholarship by Jacobs University Germany (8 months)
2006	Full scholarship by German Academic Exchange Service (12 months)
	Research stay at Carnegie Mellon University, Pittsburgh, USA,
2006	Winner Modal Logic $100 challenge (100 USD)
2007-2008	Full scholarship by German Merit Foundation (17 months)
2010	Best paper award, Conference on Mathematical Knowledge Management (MKM 2010)

2 Academic Activities

2.1 Funded Research Projects

2009-2012	LATIN: Logic Atlas & Integrator	German Research Foundation (DFG)
	de facto principal investigator	
submitted	OntoLatin: Ontology Language Atlas and Integrator	German Research Foundation (DFG)
	principal investigator, with Prof. Dr. Till Mossakowski	
submitted	OAF: Open Archive of Formal Knowledge	German Research Foundation (DFG)
	principal investigator, with Prof. Dr. Michael Kohlhase	

2.2   Teaching

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	undergraduate course	5	Formal Languages and Logic

* given jointly with Prof. Dr. Michael Kohlhase

2.3   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. Students in this subgroup are formally supervised by Prof. Dr. Kohlhase. Practical supervision is shared between him and me.

I am currently advising 3 graduate and 1 undergraduate students in this way. The following students completed their theses within 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	Ştefania 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

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	Ştefania Dumbravă	CS	went on to INRIA Saclay
2010-2012	Mihnea Iancu	CS	
2011-	Aivaras Jakubauskas	CS	

Ph.D. students

2012-	Mihnea Iancu**	CS

* practical supervision also joint with Dr. Christoph Lange and Dr. Andrea Kohlhase
** member of dissertation committee

All students remained in our research group unless mentioned otherwise.

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	Ex-officio member of board of trustees of MKM interest group
	`http://www.mkm-ig.org/`
2012 -	MKM delegate in the CICM Steering Committee
	`http://trac.mathweb.org/CICM`

3.2 Organization of Conferences and Workshops

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, see `http://www.cicm-conference.org/2013/cicm.php?event=plmms`

3.3 Peer Review

Membership in Program Committees

Journal issues

2009	member	special issue of AICommunications 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 CICM 2011)
2012	member	Intelligent Computer Mathematics (CICM 2012)
2013	member	Intelligent Computer Mathematics (CICM 2013)

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 (TPTPWoWo 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 LFMTP/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 (LFMTP at ICFP 2013)
2013	co-chair	Programming Languages for Mechanized Mathematics Systems (PLMMS at CICM 2013)

Individual Reviews

Journals

Journal of Logic and Computation	2009, 2012
Logica Universalis	2011
Formal Aspects of Computing	2010
Information and Computation	2007, 2010
Journal of Formalized Reasoning	2010
Mathematics in Computer Science	2009

Conferences

CADE	2007, 2013
FroCoS	2013
IJCAR	2006, 2008, 2010, 2012
ISSAC	2010
LPAR	2006, 2010, 2013
MKM	2007, 2009
TPHOLs	2009
Types	2007
WADT	2008

Review aggregators

AMS Mathematical Reviews	7 reviews since 2012

4 Software Projects

I am the lead developer of three major open-source software projects that supplement my publications.

- MMT API, written in Scala, > 30000 lines of code
  https://trac.kwarc.info/MMT
  reference implementation of the MMT language for the scalable representation and management of formal knowledge
  A large portion of my research results are coherently integrated in this system.

- Twelf module system, written in SML, ~ 500 source files
  https://trac.kwarc.info/MMT/wiki/Twelf
  extension of the Twelf logical framework with module system and namespace management

- LATIN logic atlas, written in Twelf, > 1000 modules
  https://trac.omdoc.org/LATIN
  library of formalizations of logics, type theories, and related formal languages, including their semantics and interrelations

5 Publications

Most papers are available from my homepage at http://kwarc.info/frabe/.

<u>author</u>   authors who are/were students in my subgroup

5.1 Articles in Journals

[1] F. Rabe. A Logical Framework Combining Model and Proof Theory. *Mathematical Structures in Computer Science*, 2013. to appear; see http://kwarc.info/frabe/Research/rabe_combining_10.pdf.

[2] F. Rabe and M. Kohlhase. A Scalable Module System. *Information and Computation*, 230(0):1–54, 2013.

[3] F. Rabe and K. Sojakova. Logical Relations for a Logical Framework. *ACM Transactions on Computational Logic*, 2013. to appear; see http://kwarc.info/frabe/Research/RS_logrels_12.pdf.

[4] 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.

[5] M. Kohlhase and F. Rabe. Semantics of OpenMath and MathML3. *Mathematics in Computer Science*, 6(3):235–260, 2012.

[6] S. Awodey and F. Rabe. Kripke Semantics for Martin-Löf's Extensional Type Theory. *Logical Methods in Computer Science*, 7(3), 2011.

[7] F. Horozal and F. Rabe. Representing Model Theory in a Type-Theoretical Logical Framework. *Theoretical Computer Science*, 412(37):4919–4945, 2011.

[8] M. Iancu and F. Rabe. Formalizing Foundations of Mathematics. *Mathematical Structures in Computer Science*, 21(4):883–911, 2011.

[9] 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.

[10] 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 Archival Collections

[1] M. Codescu, 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.

[2] 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.

[3] 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*. Springer, 2013.

[4] 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.

[5] M. Codescu, <u>F. Horozal</u>, M. Kohlhase, T. Mossakowski, F. Rabe, and <u>K. Sojakova</u>. 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.

[6] 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.

[7] <u>F. Horozal</u>, 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.

[8] <u>M. Iancu</u> 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.

[9] M. Codescu, <u>F. Horozal</u>, 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.

[10] 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.

[11] <u>F. Horozal</u>, <u>A. Iacob</u>, 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.

[12] 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.

[13] 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.

[14] 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.

[15] 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.

[16] 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.

[17] 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.

[18] C. Benzmüller, 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.

[19] 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.

[20] 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 Non-Archival Collections

[1] M. Iancu and F. Rabe. (Work-in-Progress) An MMT-Based User-Interface. In *Workshop on User Interfaces for Theorem Provers*, 2012.

[2] 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.

[3] 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.

[4] 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.

[5] 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.

[6] 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.

[7] 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.

[8] 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 Archival 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. *Representing Logics and Logic Translations (Summary)*. PhD thesis, Jacobs University Bremen, 2008. see http://kwarc.info/frabe/Research/phdthesis_summary.pdf.

[2] F. Rabe. *Representing Logics and Logic Translations*. PhD thesis, Jacobs University Bremen, 2008. see http://kwarc.info/frabe/Research/phdthesis.pdf.

[3] F. Rabe. A Dynamic Logic with Temporal Operators for Promela. Master's thesis, Universität Karlsruhe, Germany, 2004.

5.6   Edited Collections

[1] 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.

[2] 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.

[3] J. Davenport, W. Farmer, F. Rabe, and J. Urban, editors. *Intelligent Computer Mathematics*, volume 6824 of *Lecture Notes in Computer Science*. Springer, 2011.

[4] 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.

[5] F. Rabe and C. Schürmann, editors. *MLPA '10: Proceedings of the 2nd Workshop on Modules and Libraries for Proof Assistants*, 2010. see http://kwarc.info/frabe/events/mlpa-10.html.

[6] F. Rabe and C. Schürmann, editors. *MLPA '09: Proceedings of the 1st Workshop on Modules and Libraries for Proof Assistants*, volume 429 of *ACM International Conference Proceeding Series*. ACM, 2009.

5.7 Reviews

[1] F. Rabe. Review of "Reasoning in Simple Type Theory – Festschrift in Honor of Peter B. Andrews on His 70th Birthday". *Bulletin of Symbolic Logic*, 16(3):409–411, 2010.

5.8 Other Publications (most of them lightly refereed)

[1] M. Codescu, <u>F. Horozal</u>, T. Mossakowski, and F. Rabe. Compiling Logics. In *Workshop on Algebraic Development Techniques*, 2012.

[2] M. Codescu, <u>F. Horozal</u>, <u>I. Ignatov</u>, and F. Rabe. Representing CASL in a Proof-Theoretical Logical Framework. In *Workshop on Algebraic Development Techniques*, 2012.

[3] F. Rabe and <u>K. Sojakova</u>. Mechanically Verifying Logic Translations. In *Workshop on Algebraic Development Techniques*, 2012.

[4] <u>F. Horozal</u> and F. Rabe. Representing Categories of Theories in a Proof-Theoretical Logical Framework. In *Workshop on Algebraic Development Techniques*, 2012.

[5] <u>F. Horozal</u>, M. Kohlhase, and F. Rabe. Extending OpenMath with Sequences. In 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 Report, University of Bologna*, pages 58–72. University of Bologna, 2011.

[6] <u>M. Iancu</u>, M. Kohlhase, and F. Rabe. Translating the Mizar Mathematical Library into OMDoc format. Technical Report KWARC Report-01/11, Jacobs University Bremen, 2011.

[7] M. Codescu, <u>F. Horozal</u>, M. Kohlhase, T. Mossakowski, and F. Rabe. A Proof Theoretic Interpretation of Model Theoretic Hiding. In *Workshop on Algebraic Development Techniques*, 2010.

[8] M. Codescu, <u>F. Horozal</u>, M. Kohlhase, T. Mossakowski, F. Rabe, and <u>K. Sojakova</u>. Towards Logical Frameworks in the Heterogeneous Tool Set Hets. In *Workshop on Algebraic Development Techniques*, 2010.

[9] C. David, M. Kohlhase, C. Lange, F. Rabe, and V. Zholudev. JOBAD/MMT – Interactive Mathematics. In A. Giurca, B. Endres-Niggemeyer, C. Lange, L. Maicher, and P. Hitzler, editors, *AI Mashup Challenge at ESWC*, 2010. see `http://sites.google.com/a/fh-hannover.de/aimashup/home/jobad`.

[10] C. David, C. Lange, and F. Rabe. Interactive Documents as Interfaces to Computer Algebra Systems: JOBAD and Wolfram—Alpha. In D. Delahaye and R. Rioboo, editors, *CALCULEMUS (Emerging Trends)*, Technical Reports of CEDRIC (CNAM/ENSIIE), pages 13–30. Centre d'Étude et de Recherche en Informatique du CNAM (Cédric), 2010.

[11] <u>S. Dumbrava</u> and F. Rabe. Structuring Theories with Partial Morphisms. In *Workshop on Algebraic Development Techniques*, 2010.

[12] M. Kohlhase, C. Lange, C. Müller, N. Müller, and F. Rabe. Notations for Active Mathematical Documents. Technical Report 2009-1, Jacobs University Bremen, 2009.

[13] M. Kohlhase and F. Rabe. Semantics of OpenMath and MathML 3. In *Proceedings of the OpenMath workshop*, 2009.

[14] F. Rabe and M. Kohlhase. A Better Role System for OpenMath. In *Proceedings of the OpenMath workshop*, 2009.

[15] C. Benzmüller, F. Rabe, C. Schürmann, and G. Sutcliffe. Evaluation of Systems for Higher-order Logic (ESHOL). In B. Konev, R. Schmidt, and S. Schulz, editors, *Workshop on Practical Aspects of Automated Reasoning at IJCAR 2008*, volume 373 of *CEUR Workshop Proceedings*, pages 22–23. CEUR-WS.org, 2008.

[16] K. Sojakova and F. Rabe. Translating Dependently-Typed Logic to First-Order Logic. In A. Corradini and U. Montanari, editors, *Workshop on Algebraic Development Techniques*, 2008.

[17] M. Kohlhase, C. Lange, and F. Rabe. Presenting Mathematical Content with Flexible Elisions. In *Proceedings of the OpenMath/JEM workshop*, 2007.

[18] F. Rabe. OMDoc Theory Graphs Revisited. In *Proceedings of the OpenMath/JEM workshop*, 2007.

[19] F. Rabe, S. Schlager, and P. Schmitt. A Sequent Calculus for a First-order Dynamic Logic with Trace Modalities for Promela$^+$. In *Proceedings of the 17th Nordic Workshop on Programming Theory*, 2005.