

KWARC Publications 2011-2014

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Books

- [173] Christoph Lange. *Enabling Collaboration on Semiformal Mathematical Knowledge by Semantic Web Integration*. Studies on the Semantic Web 11. Heidelberg and Amsterdam: AKA Verlag and IOS Press, 2011. ISBN: 978-1-60750-840-3.

Conference Proceedings Edited

- [133] Petr Sojka and Michael Kohlhase, eds. *DML and MIR 2012*. Masaryk University, Brno, 2012. ISBN: 978-80-210-5542-1.
- [143] J. Davenport, W. Farmer, F. Rabe, and J. Urban, eds. *Intelligent Computer Mathematics*. Vol. 6824. Lecture Notes in Computer Science. Springer, 2011.

Journal Articles

- [76] Andrea Kohlhase and Michael Kohlhase. “Spreadsheets with a Semantic Layer”. In: *Electronic Communications of the EASST: Specification, Transformation, Navigation – Special Issue dedicated to Bernd Krieg-Brückner on the Occasion of his 60th Birthday* 62 (2013). Ed. by Till Mossakowski, Markus Roggenbach, and Lutz Schröder, pp. 1–20. URL: <http://journal.ub.tu-berlin.de/eceasst/article/view/870>.
- [101] Florian Rabe and Michael Kohlhase. “A Scalable Module System”. In: *Information & Computation* 230 (2013), pp. 1–54. URL: <http://kwarc.info/frabe/Research/mmt.pdf>.
- [119] Manfred Kerber and Michael Kohlhase. “Reasoning without Believing: On the mechanization of Presuppositions and partiality”. In: *Journal of Applied Non-Classical Logics* 22.4 (2012), pp. 295–317. DOI: 10.1080/11663081.2012.705962.
- [125] Michael Kohlhase and Florian Rabe. “Semantics of OpenMath and MathML3”. In: *Mathematics in Computer Science* 6.3 (2012), pp. 235–260. URL: <http://kwarc.info/kohlhase/papers/mcs12.pdf>.
- [130] Florian Rabe. “A Logical Framework Combining Model and Proof Theory”. In: *Mathematical Structures in Computer Science* (2012). URL: http://kwarc.info/frabe/Research/rabe_combining_10.pdf. Forthcoming.
- [136] Stephen Awodey and Florian Rabe. “Kripke Semantics for Martin-Löf’s Extensional Type Theory”. In: *Logical Methods in Computer Science* 7.3 (2011).
- [152] F. Horozal and F. Rabe. “Representing Model Theory in a Type-Theoretical Logical Framework”. In: *Theoretical Computer Science* 412.37 (2011), pp. 4919–4945.
- [158] Mihnea Iancu and Florian Rabe. “Formalizing Foundations of Mathematics”. In: *Mathematical Structures in Computer Science* 21.4 (2011), pp. 883–911.

- [171] Michael Kohlhase, Joe Corneli, Catalin David, Deyan Ginev, Constantin Jucovschi, Andrea Kohlhase, Christoph Lange, Bogdan Matican, Stefan Mirea, and Vyacheslav Zholudev. “The Planetary System: Web 3.0 & Active Documents for STEM”. In: *Procedia Computer Science* 4 (2011): *Special issue: Proceedings of the International Conference on Computational Science (ICCS)*. Ed. by Mitsuhsa Sato, Satoshi Matsuoka, Peter M. Sloot, G. Dick van Albada, and Jack Dongarra. Finalist at the Executable Paper Grand Challenge, pp. 598–607. DOI: 10.1016/j.procs.2011.04.063. URL: <https://svn.mathweb.org/repos/planetary/doc/epc11/paper.pdf>.

Book Chapters

- [100] Christoph Lange and Michael Kohlhase. “Mashups using Mathematical Knowledge”. In: *Semantic Mashups. Intelligent Reuse of Web Resources*. Ed. by Brigitte Endres-Niggemeyer. Springer, 2013, pp. 171–204. ISBN: 978-3-642-36402-0. URL: <https://sites.google.com/site/mashupbookchapters/>.

Articles in Collections

Conference Contributions (Peer Reviewed, Archival Proceedings)

- [106] Catalin David, Constantin Jucovschi, Andrea Kohlhase, and Michael Kohlhase. “**Semantic Alliance: A Framework for Semantic Allies**”. In: *Intelligent Computer Mathematics*. Conferences on Intelligent Computer Mathematics (CICM). (Bremen, Germany, July 9–14, 2012). Ed. by Johan Jeuring, John A. Campbell, Jacques Carette, Gabriel Dos Reis, Petr Sojka, Makarius Wenzel, and Volker Sorge. LNAI 7362. Berlin and Heidelberg: Springer Verlag, 2012, pp. 49–64. ISBN: 978-3-642-31373-8. URL: <http://kwarc.info/kohlhase/papers/mkm12-SA1ly.pdf>.
- [111] Fulya Horozal, Michael Kohlhase, and Florian Rabe. “Extending MKM Formats at the Statement Level”. In: *Intelligent Computer Mathematics*. Conferences on Intelligent Computer Mathematics (CICM). (Bremen, Germany, July 9–14, 2012). Ed. by Johan Jeuring, John A. Campbell, Jacques Carette, Gabriel Dos Reis, Petr Sojka, Makarius Wenzel, and Volker Sorge. LNAI 7362. Berlin and Heidelberg: Springer Verlag, 2012, pp. 65–80. ISBN: 978-3-642-31373-8. URL: <http://kwarc.info/kohlhase/papers/mkm12-p2s.pdf>.
- [115] Mihnea Iancu and Florian Rabe. “Management of Change in Declarative Languages”. In: *Intelligent Computer Mathematics*. Conferences on Intelligent Computer Mathematics (CICM). (Bremen, Germany, July 9–14, 2012). Ed. by Johan Jeuring, John A. Campbell, Jacques Carette, Gabriel Dos Reis, Petr Sojka, Makarius Wenzel, and Volker Sorge. LNAI 7362. Berlin and Heidelberg: Springer Verlag, 2012, pp. 325–340. ISBN: 978-3-642-31373-8.
- [118] Constantin Jucovschi. “Cost-Effective Integration of MKM Semantic Services into Editing Environments”. In: *Intelligent Computer Mathematics*. Conferences on Intelligent Computer Mathematics (CICM). (Bremen, Germany, July 9–14, 2012). Ed. by Johan Jeuring, John A. Campbell, Jacques Carette, Gabriel Dos Reis, Petr Sojka, Makarius Wenzel, and Volker Sorge. LNAI 7362. Berlin and Heidelberg: Springer Verlag, 2012, pp. 96–110. ISBN: 978-3-642-31373-8. URL: <http://arxiv.org/pdf/1203.3316v2.pdf>.
- [122] Michael Kohlhase. “The Planetary Project: Towards eMath3.0”. In: *Intelligent Computer Mathematics*. Conferences on Intelligent Computer Mathematics (CICM). (Bremen, Germany, July 9–14, 2012). Ed. by Johan Jeuring, John A. Campbell, Jacques Carette, Gabriel Dos Reis, Petr Sojka, Makarius Wenzel, and Volker Sorge. LNAI 7362. Berlin and Heidelberg: Springer Verlag, 2012, pp. 448–452. ISBN: 978-3-642-31373-8. arXiv: 1206.5048 [cs.DL].

- [123] Michael Kohlhase and Mihnea Iancu. “Searching the Space of Mathematical Knowledge”. In: *DML and MIR 2012*. Ed. by Petr Sojka and Michael Kohlhase. in press. Masaryk University, Brno, 2012. ISBN: 978-80-210-5542-1. URL: <http://kwarc.info/kohlhase/papers/mir12.pdf>.
- [124] Michael Kohlhase, Bogdan A. Matican, and Corneliu C. Prodescu. “MathWebSearch 0.5 – Scaling an Open Formula Search Engine”. In: *Intelligent Computer Mathematics*. Conferences on Intelligent Computer Mathematics (CICM). (Bremen, Germany, July 9–14, 2012). Ed. by Johan Jeuring, John A. Campbell, Jacques Carette, Gabriel Dos Reis, Petr Sojka, Makarius Wenzel, and Volker Sorge. LNAI 7362. Berlin and Heidelberg: Springer Verlag, 2012, pp. 342–357. ISBN: 978-3-642-31373-8. URL: <http://kwarc.info/kohlhase/papers/aisc12-mws.pdf>.
- [127] Christoph Lange, Patrick Ion, Anastasia Dimou, Charalampos Bratsas, Wolfram Sperber, Michael Kohlhase, and Ioannis Antoniou. “Bringing Mathematics To the Web of Data: the Case of the Mathematics Subject Classification”. In: *The Semantic Web*. 9th Extended Semantic Web Conference (ESWC). (Hersonissos, Crete, Greece, May 27–31, 2012). Ed. by Elena Simperl, Philipp Cimiano, Axel Polleres, Oscar Corcho, and Valentina Presutti. LNCS 7295. Springer, 2012, pp. 763–777. ISBN: 978-3-642-30283-1. DOI: 10.1007/978-3-642-30284-8_58. URL: <http://kwarc.info/clange/pubs/eswc2012-msc-skos.pdf>.
- [128] Christoph Lange, Patrick Ion, Anastasia Dimou, Charalampos Bratsas, Joseph Corneli, Wolfram Sperber, Michael Kohlhase, and Ioannis Antoniou. “Reimplementing the Mathematics Subject Classification (MSC) as a Linked Open Dataset”. In: *Intelligent Computer Mathematics*. Conferences on Intelligent Computer Mathematics (CICM). (Bremen, Germany, July 9–14, 2012). Ed. by Johan Jeuring, John A. Campbell, Jacques Carette, Gabriel Dos Reis, Petr Sojka, Makarius Wenzel, and Volker Sorge. LNAI 7362. Berlin and Heidelberg: Springer Verlag, 2012, pp. 458–462. ISBN: 978-3-642-31373-8. arXiv: 1204.5086 [cs.DL].
- [135] Serge Autexier, Catalin David, Dominik Dietrich, Michael Kohlhase, and Vyacheslav Zholudev. “Workflows for the Management of Change in Science, Technologies, Engineering and Mathematics”. In: *Intelligent Computer Mathematics*. Ed. by James Davenport, William Farmer, Florian Rabe, and Josef Urban. LNAI 6824. Springer Verlag, 2011, pp. 164–179. ISBN: 978-3-642-22672-4. URL: <http://kwarc.info/kohlhase/papers/planetary-moc.pdf>.
- [138] Mihai Cîrlănu, Deyan Ginev, and Christoph Lange. “Authoring and Publishing of Units and Quantities in Semantic Documents”. In: *The Semantic Web: ESWC 2011 Workshops*. Workshops at the 8th Extended Semantic Web Conference (ESWC). (Hersonissos, Crete, Greece, May 29–30, 2011). Ed. by Raúl García Castro, Dieter Fensel, and Grigoris Antoniou. LNCS 7117. Heidelberg: Springer Verlag, 2011, pp. 202–216. ISBN: 978-3-642-25952-4. URL: <http://kwarc.info/clange/pubs/eswc2011-units.pdf>.
- [140] Mihai Codescu, Fulya Horozal, Michael Kohlhase, Till Mossakowski, and Florian Rabe. “Project Abstract: Logic Atlas and Integrator (LATIN)”. In: *Intelligent Computer Mathematics*. Ed. by James Davenport, William Farmer, Florian Rabe, and Josef Urban. LNAI 6824. Springer Verlag, 2011, pp. 289–291. ISBN: 978-3-642-22672-4.
- [141] M. Codescu, F. Horozal, M. Kohlhase, T. Mossakowski, and F. Rabe. “A Proof Theoretic Interpretation of Model Theoretic Hiding”. In: *Recent Trends in Algebraic Development Techniques*. Ed. by H. Kreowski and T. Mossakowski. LNCS 7137. Springer, 2011.
- [142] M. Codescu, F. Horozal, M. Kohlhase, T. Mossakowski, F. Rabe, and K. Sojakova. “Towards Logical Frameworks in the Heterogeneous Tool Set Hets”. In: *Recent Trends in Algebraic Development Techniques*. Ed. by H. Kreowski and T. Mossakowski. LNCS 7137. Springer, 2011.

- [149] Deyan Ginev, Heinrich Stamerjohanns, and Michael Kohlhase. “The L^AT_EX XML Daemon: Editable Math on the Collaborative Web”. In: *Intelligent Computer Mathematics*. Ed. by James Davenport, William Farmer, Florian Rabe, and Josef Urban. LNAI 6824. Springer Verlag, 2011, pp. 292–294. ISBN: 978-3-642-22672-4. URL: <https://svn.kwarc.info/repos/arXMLiv/doc/cicm-systems11/paper.pdf>.
- [154] Fulya Horozal, Alin Iacob, Constantin Jucovski, Michael Kohlhase, and Florian Rabe. “Combining Source, Content, Presentation, Narration, and Relational Representation”. In: *Intelligent Computer Mathematics*. Ed. by James Davenport, William Farmer, Florian Rabe, and Josef Urban. LNAI 6824. Springer Verlag, 2011, pp. 212–227. ISBN: 978-3-642-22672-4. URL: http://kwarc.info/frabe/Research/HIJKR_dimensions_11.pdf.
- [160] Andrea Kohlhase and Michael Kohlhase. “Maintaining Islands of Consistency via Versioned Links”. In: *Proceedings of the 29th annual ACM international conference on Design of communication (SIGDOC)*. (Pisa, Italy). ACM Special Interest Group for Design of Communication. New York, NY, USA: ACM Press, 2011, pp. 167–174. URL: <http://kwarc.info/kohlhase/papers/sigdoc2011-verslinks.pdf>.
- [161] Andrea Kohlhase and Michael Kohlhase. “Maintaining Islands of Consistency via Versioned Links”. In: *Intelligent Computer Mathematics – Work in Progress Papers*. Ed. by James Davenport, William Farmer, Florian Rabe, and Josef Urban. 2011. URL: http://kwarc.info/kohlhase/papers/VersionedLinks_WiP.pdf.
- [162] Andrea Kohlhase and Michael Kohlhase. “Towards a Flexible Notion of Document Context”. In: *Proceedings of the 29th annual ACM international conference on Design of communication (SIGDOC)*. (Pisa, Italy). ACM Special Interest Group for Design of Communication. New York, NY, USA: ACM Press, 2011, pp. 181–188. URL: <http://kwarc.info/kohlhase/papers/sigdoc2011-flexiforms.pdf>.
- [170] Michael Kohlhase, Florian Rabe, and Claudio Sacerdoti Coen. “A Foundational View on Integration Problems”. In: *Intelligent Computer Mathematics*. Ed. by James Davenport, William Farmer, Florian Rabe, and Josef Urban. LNAI 6824. Springer Verlag, 2011, pp. 107–122. ISBN: 978-3-642-22672-4. URL: <http://kwarc.info/kohlhase/papers/cicm11-integration.pdf>.
- [174] Christoph Lange. “Krextor – An Extensible Framework for Contributing Content Math to the Web of Data”. In: *Intelligent Computer Mathematics*. Ed. by James Davenport, William Farmer, Florian Rabe, and Josef Urban. LNAI 6824. Springer Verlag, 2011, pp. 304–306. ISBN: 978-3-642-22672-4. URL: <http://kwarc.info/clange/pubs/krextor-system.pdf>.
- [177] Christoph Lange, Michael Kohlhase, Catalin David, Deyan Ginev, Andrea Kohlhase, Bogdan Matican, Stefan Mirea, and Vyacheslav Zholudev. “The Planetary System: Executable Science, Technology, Engineering and Math Papers”. In: *The Semantic Web: Research and Applications (Part II)*. 8th Extended Semantic Web Conference (ESWC). (Hersonissos, Crete, Greece, May 29–June 2, 2011). Ed. by Grigoris Antoniou, Marko Grobelnik, Elena Paslaru Bontas Simperl, Bijan Parsia, Dimitris Plexousakis, Pieter De Leenheer, and Jeff Z. Pan. LNCS 6644. Heidelberg: Springer Verlag, 2011, pp. 471–475. ISBN: 978-3-642-21033-4. arXiv: 1103.1482 [cs.DL].

Standards and Accompanying Documentation

Technical Reports

- [77] Michael Kohlhase. *assignment.sty/cls: An Infrastructure for formatting Assignments and Exams*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/assignment/assignment.pdf>.

- [78] Michael Kohlhase. *cmathml.sty: A T_EX/L^AT_EX-based Syntax for Content MathML*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/cmathml/cmathml.pdf>.
- [79] Michael Kohlhase. *CNXL^AT_EX: A L^AT_EX-based Syntax for Connexions Modules*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/cnx/cnx.pdf>.
- [80] Michael Kohlhase. *dcm.sty: An Infrastructure for marking up Dublin Core Metadata in L^AT_EX documents*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/dcm/dcm.pdf>.
- [81] Michael Kohlhase. *Editorial Notes for L^AT_EX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013.
- [82] Michael Kohlhase. *metakeys.sty: A generic framework for extensible Metadata in L^AT_EX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/metakeys/metakeys.pdf>.
- [83] Michael Kohlhase. *omdoc.sty/cls: Semantic Markup for Open Mathematical Documents in L^AT_EX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/omdoc/omdoc.pdf>.
- [84] Michael Kohlhase. *omtext: Semantic Markup for Mathematical Text Fragments in L^AT_EX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/omtext/omtext.pdf>.
- [85] Michael Kohlhase. *owl2onto.cls: Marking up OWL2 Ontologies in sT_EX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/owl2onto/owl2onto.pdf>.
- [86] Michael Kohlhase. *physml.sty: An Infrastructure for Marking Up PhysML in T_EX/L^AT_EX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/physml/physml.pdf>.
- [87] Michael Kohlhase. *Preparing DFG Proposals and Reports in L^AT_EX with dfgproposal.cls*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/get/macros/latex/contrib/proposal/dfg/dfgproposal.pdf>.
- [88] Michael Kohlhase. *Preparing FP7 EU Proposals and Reports in L^AT_EX with euproposal.cls*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/get/macros/latex/contrib/proposal/eu/euproposal.pdf>.
- [89] Michael Kohlhase. *Preparing Proposals in L^AT_EX with proposal.cls*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/get/macros/latex/contrib/proposal/base/proposal.pdf>.
- [90] Michael Kohlhase. *problem.sty: An Infrastructure for formatting Problems*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/problem/problem.pdf>.
- [91] Michael Kohlhase. *RDFa Metadata in L^AT_EX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/rdfmeta/rdfmeta.pdf>.
- [92] Michael Kohlhase. *reqdoc.sty: Semantic Markup for Requirements Specification Documents*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/reqdoc/reqdoc.pdf>.
- [93] Michael Kohlhase. *sproof.sty: Structural Markup for Proofs*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/sproof/sproof.pdf>.

- [94] Michael Kohlhase. *sref.sty: Semantic Crossreferencing in L^AT_EX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/sref/sref.pdf>.
- [95] Michael Kohlhase. *statements.sty: Structural Markup for Mathematical Statements*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/statements/statements.pdf>.
- [96] Michael Kohlhase. *sTeX: Semantic Markup in T_EX/L^AT_EX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/get/macros/latex/contrib/stex/sty/stex.pdf>.
- [97] Michael Kohlhase. *workaddress.sty: An Infrastructure for marking up Dublin Core Metadata in L^AT_EX documents*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/workaddress/workaddress.pdf>.
- [98] Michael Kohlhase and Deyan Ginev. *presentation.sty: An Infrastructure for Presenting Semantic Macros in sTeX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/presentation/presentation.pdf>.
- [99] Michael Kohlhase, Deyan Ginev, and Rares Ambrus. *modules.sty: Semantic Macros and Module Scoping in sTeX*. Tech. rep. Comprehensive T_EX Archive Network (CTAN), 2013. URL: <http://www.ctan.org/get/macros/latex/contrib/stex/modules/modules.pdf>.
- [156] M. Iancu, M. Kohlhase, and F. Rabe. *Translating the Mizar Mathematical Library into OMDoc format*. Tech. rep. KWARC Report-01/11. Jacobs University Bremen, 2011.
- [157] Mihnea Iancu, Michael Kohlhase, and Florian Rabe. *Translating the Mizar Mathematical Library into OMDoc format*. KWARC Report. Jacobs University Bremen, 2011. URL: <https://svn.omdoc.org/repos/latin/public/Mizar2OMDoc-Report.pdf>.

Theses

- [105] Catalin David. “Semantic Alliance Framework: Integrating Documents and Semantic Services”. M.Sc. Thesis. Jacobs University Bremen, 2012. URL: <https://svn.eecs.jacobs-university.de/svn/eecs/archive/msc-2012/cdavid.pdf>.
- [107] Stefania Dumbrava. “A Type Theory based on Reflection”. MA thesis. Jacobs University Bremen, 2012.
- [110] Fulya Horozal. “Management of Change in the Web Ontology Language”. MA thesis. Jacobs University Bremen, 2012.
- [114] Mihnea Iancu. “Management of Change in Declarative Languages”. MA thesis. Jacobs University Bremen, 2012.
- [137] Mihai Cîrlănar. “Authoring, Publishing and Interacting with Units and Quantities in Technical Documents”. B.Sc. Thesis. Jacobs University Bremen, 2011.
- [155] Alin Iacob. “Towards Project-Based Workflows in Twelf”. MA thesis. Jacobs University Bremen, 2011.
- [172] Christoph Lange. “Enabling Collaboration on Semiformal Mathematical Knowledge by Semantic Web Integration”. PhD thesis. Jacobs University Bremen, 2011.
- [182] Vladimir Zamdzhiev. “Universal OpenMath Machine”. B.Sc. Thesis. Jacobs University Bremen, 2011.