List of Publications

Prof. Dr. habil. Christoph Benzmüller

24th January 2022

Contents

1 Articles in Journals, including Data Journal Publications

[art1] C. Benzmüller. 'A Simplified Variant of Gödel's Ontological Argument'. In: *Sophia* (2022). Accepted for publication.

[art2] C. Benzmüller and S. Reiche. 'Automating Public Announcement Logic with Relativized Common Knowledge as a Fragment of HOL in LogiKEy'. In: *Journal of Logic and Computation* (2022). Accepted for publication.

[art3] C. Benzmüller, X. Parent and F. Ricca. 'Introduction to the Special Issue on Logic Rules and Reasoning: Selected Papers from the 2nd International Joint Conference on Rules and Reasoning (RuleML+RR 2018)'. In: *Theory and Practice of Logic Programmming* 21.1 (2021), pp. 1–3. DOI: 10.1017/S1471068420000113. URL: https://doi.org/10.1017/S1471068420000113.

[art4] C. Benzmüller and S. Reiche. 'Automating Public Announcement Logic and the Wise Men Puzzle in Isabelle/HOL'. In: *Archive of Formal Proofs* (2021), pp. 1–5. URL: https://www.isa-afp.org/entries/PAL.html. Note: data publication.

[art5] A. Steen and C. Benzmüller. 'Extensional Higher-Order Paramodulation in Leo-III'. In: *Journal of Automated Reasoning* 65 (2021), pp. 775–807. DOI: 10.1007/s10817-021-09588-x. In print; preprint: https://www.researchgate.net/publication/350443543 and https://rdcu.be/chCsq.

[art6] C. Benzmüller and D. Fuenmayor. 'Computer-supported Analysis of Positive Properties, Ultrafilters and Modal Collapse in Variants of Gödel's Ontological Argument'. In: *Bulletin of the Section of Logic* 49.2 (2020), pp. 127–148. DOI: 10.18778/0138-0680.2020.08.

[art7] C. Benzmüller and B. Lomfeld. 'Träumen vernünftige Maschinen von Gründen? Eine reale Utopie'. In: *VerantwortungKI – Künstliche Intelligenz und gesellschaftliche Folgen (Berlin-Brandenburgische Akademie der Wissenschaften)* 3 (2020). URL: https://www.bbaw.de/files-bbaw/user_upload/publikationen/BBAW_Verantwortung-KI-3-2020_PDF-A-1b.pdf. Open access.

[art8] C. Benzmüller, X. Parent and L. van der Torre. 'Designing Normative Theories for Ethical and Legal Reasoning: LogiKEy Framework, Methodology, and Tool Support'. In: *Artificial Intelligence* 287 (2020), p. 103348. DOI: 10.1016/j.artint.2020.103348. URL: https://doi.org/10.1016/j.artint.2020.103348. Preprint: https://www.researchgate.net/publication/342146653 or https://arxiv.org/abs/1903.10187.

[art9] C. Benzmüller and D. S. Scott. 'Automating Free Logic in HOL, with an Experimental Application in Category Theory'. In: *Journal of Automated Reasoning* 64.1 (2020), pp. 53–72. DOI: 10.1007/s10817-018-09507-7. Preprint: http://doi.org/10.13140/RG.2.2.11432.83202.

[art10] C. Benzmüller et al. 'LogiKEy Workbench: Deontic Logics, Logic Combinations and Expressive Ethical and Legal Reasoning (Isabelle/HOL Dataset)'. In: *Data in Brief* 33.106409 (2020), pp. 1–10. DOI: `10.1016/j.dib.2020.106409`. URL: `https://doi.org/10.1016/j.dib.2020.106409`. Note: data publication.

[art11] D. Kirchner, C. Benzmüller and E. N. Zalta. 'Mechanizing Principia Logico-Metaphysica in Functional Type Theory'. In: *Review of Symbolic Logic* 13.1 (2020), pp. 206–218. DOI: `10.1017/S1755020319000297`. Preprint: `https://www.researchgate.net/publication/321160582`.

[art12] C. Benzmüller. 'Universal (Meta-)Logical Reasoning: Recent Successes'. In: *Science of Computer Programming* 172 (2019), pp. 48–62. DOI: `10.1016/j.scico.2018.10.008`. Preprint: `http://doi.org/10.13140/RG.2.2.11039.61609/2`.

[art13] C. Benzmüller. 'Universal (Meta-)Logical Reasoning: The Wise Men Puzzle (Isabelle/HOL Dataset)'. In: *Data in Brief* 24.103823 (2019), pp. 1–5. DOI: `10.1016/j.dib.2019.103823`. Note: data publication.

[art14] C. Benzmüller, A. Farjami, P. Meder and X. Parent. 'I/O Logic in HOL'. In: *Journal of Applied Logics – IfCoLoG Journal of Logics and their Applications (Special Issue: Reasoning for Legal AI)* 6.5 (2019). Ed. by L. Robaldo and L. van der Torre, pp. 715–732. URL: `https://www.collegepublications.co.uk/ifcolog/?00034`. Preprint: `https://www.researchgate.net/publication/332786587`.

[art15] C. Benzmüller, A. Farjami and X. Parent. 'Åqvist's Dyadic Deontic Logic E in HOL'. In: *Journal of Applied Logics – IfCoLoG Journal of Logics and their Applications (Special Issue: Reasoning for Legal AI)* 6.5 (2019). Ed. by L. Robaldo and L. van der Torre, pp. 733–755. URL: `https://www.collegepublications.co.uk/ifcolog/?00034`. Preprint: `https://www.researchgate.net/publication/332786724`.

[art16] C. Benzmüller, X. Parent and F. Ricca. 'Report on the Second International Joint Conference on Rules and Reasoning'. In: *AI Magazine* 40.2 (2019), pp. 73–74. DOI: `10.1609/aimag.v40i2.2888`.

[art17] D. Kirchner, C. Benzmüller and E. N. Zalta. 'Computer Science and Metaphysics: A Cross-Fertilization'. In: *Open Philosophy* 2 (2019). Ed. by P. Grim, pp. 230–251. DOI: `10.1515/opphil-2019-0015`.

[art18] C. Benzmüller and D. S. Scott. 'Axiom Systems for Category Theory in Free Logic'. In: *Archive of Formal Proofs* (2018), pp. 1–12. URL: `https://www.isa-afp.org/entries/AxiomaticCategoryTheory.html`. Note: data publication.

[art19] D. Fuenmayor and C. Benzmüller. 'A Case Study On Computational Hermeneutics: E. J. Lowe's Modal Ontological Argument'. In: *Journal of Applied Logic - IfCoLoG Journal of Logics and their Applications (special issue on Formal Approaches to the Ontological Argument)* 5.7 (2018), pp. 1567–1603. To be published also as chapter in the book 'Beyond Faith and Rationality: Essays on Logic, Religion and Philosophy' printed in the Springer book series 'Sophia Studies in Cross-cultural Philosophy of Traditions and Cultures', preprint: `https://www.researchgate.net/publication/333804824`.

[art20] D. Fuenmayor and C. Benzmüller. 'Formalisation and Evaluation of Alan Gewirth's Proof for the Principle of Generic Consistency in Isabelle/HOL'. In: *Archive of Formal Proofs* (2018), pp. 1–15. URL: `https://www.isa-afp.org/entries/GewirthPGCProof.html`. Note: data publication.

[art21] C. Benzmüller. 'Cut-Elimination for Quantified Conditional Logic'. In: *Journal of Philosophical Logic* 46.3 (2017), pp. 333–353. DOI: `10.1007/s10992-016-9403-0`. Preprint: `https://www.researchgate.net/publication/293488069`.

[art22] C. Benzmüller, L. Weber and B. Woltzenlogel Paleo. 'Computer-Assisted Analysis of the Anderson-Hájek Controversy'. In: *Logica Universalis* 11.1 (2017), pp. 139–151. DOI: `10.1007/s11787-017-0160-9`. URL: `http://christoph-benzmueller.de/papers/J32.pdf`. Preprint: `https://www.researchgate.net/publication/313943927`.

[art23] C. Benzmüller and B. Woltzenlogel Paleo. 'Experiments in Computational Metaphysics: Gödel's Proof of God's Existence'. In: *Savijnanam: scientific exploration for a spiritual paradigm. Journal of the Bhaktivedanta Institute* 9 (2017), pp. 43–57. URL: `https://sites.google.com/binstitute.org/journal/article-3-page-43`. Preprint: `https://www.researchgate.net/publication/334519782`.

[art24] D. Fuenmayor and C. Benzmüller. 'Computer-assisted Reconstruction and Assessment of E. J. Lowe's Modal Ontological Argument'. In: *Archive of Formal Proofs* (2017), pp. 1–19. URL: `https://www.isa-afp.org/entries/Lowe_Ontological_Argument.html`. Note: data publication.

[art25] D. Fuenmayor and C. Benzmüller. 'Types, Tableaus and Gödel's God in Isabelle/HOL'. In: *Archive of Formal Proofs* (2017), pp. 1–34. URL: `http://afp.sourceforge.net/entries/Types_Tableaus_and_Goedels_God.shtml`. Note: data publication.

[art26] A. Steen and C. Benzmüller. 'Sweet SIXTEEN: Automation via Embedding into Classical Higher-Order Logic'. In: *Logic and Logical Philosophy* 25 (2016), pp. 535–554. DOI: `10.12775/LLP.2016.021`. URL: `http://christoph-benzmueller.de/papers/J33.pdf`.

[art27] C. Benzmüller, N. Sultana, L. C. Paulson and F. Theiss. 'The Higher-Order Prover LEO-II'. In: *Journal of Automated Reasoning* 55.4 (2015), pp. 389–404. DOI: 10.1007/s10817-015-9348-y.

[art28] C. Benzmüller and L. C. Paulson. 'Quantified Multimodal Logics in Simple Type Theory'. In: *Logica Universalis (Special Issue on Multimodal Logics)* 7.1 (2013), pp. 7–20. DOI: 10.1007/s11787-012-0052-y. Preprint: https://www.researchgate.net/publication/221677897.

[art29] C. Benzmüller and B. Woltzenlogel Paleo. 'Gödel's God in Isabelle/HOL'. In: *Archive of Formal Proofs* (2013), pp. 1–5. URL: http://afp.sourceforge.net/entries/GoedelGod.shtml. Note: data publication.

[art30] A. Pease and C. Benzmüller. 'Sigma: An Integrated Development Environment for Formal Ontology'. In: *AI Communications (Special Issue on Intelligent Engineering Techniques for Knowledge Bases)* 26.1 (2013), pp. 79–97. DOI: 10.3233/AIC-120549. Preprint: http://christoph-benzmueller.de/papers/J24.pdf.

[art31] C. Benzmüller, D. Gabbay, V. Genovese and D. Rispoli. 'Embedding and Automating Conditional Logics in Classical Higher-Order Logic'. In: *Annals of Mathematics and Artificial Intelligence* 66.1-4 (2012), pp. 257–271. DOI: 10.1007/s10472-012-9320-z. Preprint: http://christoph-benzmueller.de/papers/J26.pdf.

[art32] C. Benzmüller and A. Pease. 'Higher-order Aspects and Context in SUMO'. In: *Journal of Web Semantics (Special Issue on Reasoning with context in the Semantic Web)* 12-13 (2012), pp. 104–117. DOI: 10.1016/j.websem.2011.11.008. Preprint: https://www.researchgate.net/publication/221677796.

[art33] C. Benzmüller. 'Combining and Automating Classical and Non-Classical Logics in Classical Higher-Order Logic'. In: *Annals of Mathematics and Artificial Intelligence (Special issue Computational Logics in Multi-agent Systems (CLIMA XI))* 62.1-2 (2011), pp. 103–128. DOI: 10.1007/s10472-011-9249-7. Preprint: http://christoph-benzmueller.de/papers/J25.pdf.

[art34] C. Benzmüller and L. C. Paulson. 'Multimodal and Intuitionistic Logics in Simple Type Theory'. In: *The Logic Journal of the IGPL* 18.6 (2010), pp. 881–892. DOI: 10.1093/jigpal/jzp080. Preprint: http://christoph-benzmueller.de/papers/J21.pdf.

[art35] G. Sutcliffe and C. Benzmüller. 'Automated Reasoning in Higher-Order Logic using the TPTP THF Infrastructure'. In: *Journal of Formalized Reasoning* 3.1 (2010), pp. 1–27. URL: https://jfr.unibo.it/article/view/1710. Preprint: https://www.researchgate.net/publication/49595291.

[art36] S. Autexier and C. Benzmüller. 'Preface: Proceedings of the 8th Workshop on User Interfaces for Theorem Provers (UITP 2008)'. In: *Electronic Notes in Theoretical Computer Science* 226.1 (2009), pp. 1–2. DOI: 10.1016/j.entcs.2008.12.093. Preprint: http://christoph-benzmueller.de/papers/J20.pdf.

[art37] C. Benzmüller, C. Brown and M. Kohlhase. 'Cut-Simulation and Impredicativity'. In: *Logical Methods in Computer Science* 5.1:6 (2009), pp. 1–21. DOI: 10.2168/LMCS-5(1:6)2009. Preprint: http://christoph-benzmueller.de/papers/J18.pdf.

[art38] S. Autexier, C. Benzmüller, D. Dietrich and M. Wagner. 'Organisation, Transformation, and Propagation of Mathematical Knowledge in Omega'. In: *Mathematics in Computer Science* 2.2 (2008), pp. 253–277. DOI: 10.1007/s11786-008-0054-6. Preprint: http://christoph-benzmueller.de/papers/J17.pdf.

[art39] C. Benzmüller, V. Sorge, M. Jamnik and M. Kerber. 'Combined Reasoning by Automated Cooperation'. In: *Journal of Applied Logic* 6.3 (2008), pp. 318–342. DOI: 10.1016/j.jal.2007.06.003. Preprint: http://christoph-benzmueller.de/papers/J16.pdf.

[art40] M. Schiller, D. Dietrich and C. Benzmüller. 'Proof Step Analysis for Proof Tutoring – A Learning Approach to Granularity'. In: *Teaching Mathematics and Computer Science* 6.2 (2008), pp. 325–343. URL: http://tmcs.math.unideb.hu/load_doc.php?p=142&t=doc. Preprint: http://christoph-benzmueller.de/papers/J19.pdf.

[art41] S. Autexier and C. Benzmüller. 'Preface: Proceedings of the 7th Workshop on User Interfaces for Theorem Provers (UITP 2006)'. In: *Electronic Notes in Theoretical Computer Science* 174.2 (2007), pp. 1–2. DOI: 10.1016/j.entcs.2006.09.017. Preprint: http://christoph-benzmueller.de/papers/J15.pdf.

[art42] M. Wagner, S. Autexier and C. Benzmüller. 'PLATO: A Mediator between Text-Editors and Proof Assistance Systems'. In: *Electronic Notes in Theoretical Computer Science* 174.2 (2007), pp. 87–107. DOI: 10.1016/j.entcs.2006.09.024. Preprint: http://christoph-benzmueller.de/papers/J14.pdf.

[art43] C. Benzmüller. 'Editorial: Towards Computer Aided Mathematics'. In: *Journal of Applied Logic* 4.4 (2006), pp. 359–365. DOI: 10.1016/j.jal.2005.10.001. Preprint: http://christoph-benzmueller.de/papers/J13.pdf.

[art44] J. Siekmann, C. Benzmüller and S. Autexier. 'Computer Supported Mathematics with OMEGA'. In: *Journal of Applied Logic* 4.4 (2006), pp. 533–559. DOI: 10.1016/j.jal.2005.10.008. Preprint: http://christoph-benzmueller.de/papers/J12.pdf.

[art45] S. Autexier, C. Benzmüller, A. Fiedler, H. Horacek and B. Q. Vo. 'Assertion-level Proof Representation with Under-Specification'. In: *Electronic Notes in Theoretical Computer Science* 93 (2004), pp. 5–23. DOI: `10.1016/j.entcs.2003.12.026`. Preprint: `http://christoph-benzmueller.de/papers/J8.pdf`.

[art46] C. Benzmüller, C. Brown and M. Kohlhase. 'Higher-Order Semantics and Extensionality'. In: *Journal of Symbolic Logic* 69.4 (2004), pp. 1027–1088. DOI: `10.2178/jsl/1102022211`. Preprint: `https://www.researchgate.net/publication/38338872`.

[art47] M. Hübner, S. Autexier, C. Benzmüller and A. Meier. 'Interactive Theorem Proving with Tasks'. In: *Electronic Notes in Theoretical Computer Science* 103.C (2004), pp. 161–181. DOI: `10.1016/j.entcs.2004.02.021`. Preprint: `http://christoph-benzmueller.de/papers/J9.pdf`.

[art48] M. Jamnik, M. Kerber, M. Pollet and C. Benzmüller. 'Automatic Learning of Proof Methods in Proof Planning'. In: *The Logic Journal of the IGPL* 11.6 (2003), pp. 647–674. DOI: `10.1093/jigpal/11.6.647`. Preprint: `http://christoph-benzmueller.de/papers/J7.pdf`.

[art49] C. Benzmüller. 'Comparing Approaches to Resolution based Higher-Order Theorem Proving'. In: *Synthese* 133.1-2 (2002), pp. 203–235. DOI: `10.1023/A:1020840027781`. Preprint: `http://christoph-benzmueller.de/papers/J5.pdf`.

[art50] C. Benzmüller, M. Bishop and V. Sorge. 'Integrating TPS and OMEGA'. In: *Journal of Universal Computer Science* 5.3 (1999), pp. 188–207. DOI: `10.3217/jucs-005-03-0188`. Preprint: `http://christoph-benzmueller.de/papers/J1.pdf`.

[art51] C. Benzmüller, M. Jamnik, M. Kerber and V. Sorge. 'Agent based Mathematical Reasoning'. In: *Electronic Notes in Theoretical Computer Science, Elsevier* 23.3 (1999), pp. 21–33. DOI: `10.1016/S1571-0661(05)82522-8`. Preprint: `http://christoph-benzmueller.de/papers/J4.pdf`.

[art52] J. Siekmann et al. 'An Interactive Proof Development Environment + Anticipation = A Mathematical Assistant?' In: *International Journal of Computing Anticipatory Systems (CASYS)* 3 (1999), pp. 101–110. Preprint: `http://christoph-benzmueller.de/papers/J3.pdf`.

[art53] J. Siekmann et al. 'LOUI: Lovely OMEGA User Interface'. In: *Formal Aspects of Computing* 11.3 (1999), pp. 326–342. DOI: `10.1007/s001650050053`. Preprint: `http://christoph-benzmueller.de/papers/J2.pdf`.

2 Books/Edited Books/Proceedings and Special Issues in Journals

[edit1] P. Baroni, C. Benzmüller and Y. N. Wáng, eds. *Logic and Argumentation, 4th International Conference, CLAR 2021, Hangzhou, China, October 20–22, 2021, Proceedings*. Lecture Notes in Artificial Intelligence. Springer, 2021, pp. 1–552. DOI: `10.1007/978-3-030-89391-0`. URL: `https://link.springer.com/book/10.1007/978-3-030-89391-0`.

[edit2] C. Benzmüller and B. Miller, eds. *Intelligent Computer Mathematics - 13th International Conference, CICM 2020, Bertinoro, Italy, July 26-31, 2020, Proceedings*. Vol. 12236. Lecture Notes in Artificial Intelligence. Springer, 2020, pp. 1–337. DOI: `10.1007/978-3-030-53518-6`. URL: `https://doi.org/10.1007/978-3-030-53518-6`.

[edit3] C. Benzmüller, X. Parent and A. Steen, eds. *Selected Student Contributions and Workshop Papers of LuxLogAI 2018*. Vol. 10. Kalpa Publications in Computing. EasyChair, 2019. URL: `https://easychair.org/publications/volume/LuxLogAI_2018`.

[edit4] C. Benzmüller and H. Stuckenschmidt, eds. *KI 2019: Advances in Artificial Intelligence – 42nd German Conference on AI, Kassel, Germany, September 23-26, 2019, Proceedings*. Vol. 11793. Lecture Notes in Artificial Intelligence. Springer, 2019, pp. 1–355. DOI: `10.1007/978-3-030-30179-8`.

[edit5] C. Benzmüller, F. Ricca, X. Parent and D. Roman, eds. *Rules and Reasoning, Second International Joint Conference, RuleML+RR 2018, Luxembourg, Luxembourg, September 18-21, 2018, Proceedings*. Vol. 11092. Lecture Notes in Computer Science. Springer, 2018. DOI: `10.1007/978-3-319-99906-7`.

[edit6] C. Benzüller and J. Otten, eds. *ARQNL 2018. Automated Reasoning in Quantified Non-Classical Logics*. Vol. 2095. CEUR Workshop Proceedings, http://ceur-ws.org, 2018. URL: `http://ceur-ws.org/Vol-2095/`.

[edit7] C. Benzmüller, C. Lisetti and M. Theobald, eds. *GCAI 2017. 3rd Global Conference on Artificial Intelligence*. Vol. 50. EPiC Series in Computing. EasyChair, 2017. URL: `http://www.easychair.org/publications/volume/GCAI_2017`.

[edit8] C. Benzmüller and J. Otten, eds. *ARQNL 2016. Automated Reasoning in Quantified Non-Classical Logics*. Vol. 1770. CEUR Workshop Proceedings, http://ceur-ws.org, 2016, pp. 1–86. URL: `http://ceur-ws.org/Vol-1770/`.

[edit9] C. Benzmüller, G. Sutcliffe and R. Rojas, eds. *GCAI 2016. 2nd Global Conference on Artificial Intelligence.* Vol. 41. EPiC Series in Computing. EasyChair, 2016. URL: http://www.easychair.org/publications/volume/GCAI_2016.

[edit10] C. Benzmüller and J. Otten, eds. *ARQNL 2014. Automated Reasoning in Quantified Non-Classical Logics.* Vol. 33. EPiC Series in Computing. EasyChair, 2015, pp. 1–86. URL: https://easychair.org/publications/volume/ARQNL_2014/.

[edit11] C. Benzüller and B. Woltzenlogel Paleo, eds. *Proceedings of the 11th International Workshop on User Interfaces for Theorem Provers (UITP 2014), Vienna, Austria.* Vol. 167. Electronic Proceedings in Theoretical Computer Science (EPTCS). 2014, pp. 1–94. DOI: 10.4204/EPTCS.167. URL: http://eptcs.web.cse.unsw.edu.au/content.cgi?UITP2014.

[edit12] S. Autexier and C. Benzüller, eds. *Proceedings of the 8th International Workshop on User Interfaces for Theorem Provers (UITP 2008), Montréal, Canada.* Vol. 226. Electronic Notes in Theoretical Computer Science. Elsevier, 2009, pp. 1–106. URL: http://www.sciencedirect.com/science/journal/15710661/226/.

[edit13] S. Autexier and C. Benzmüller, eds. *User Interfaces for Theorem Provers, Proceedings of UITP'06.* Vol. 174. Electronic Notes in Theoretical Computer Science 2. Elsevier, 2007, pp. 1–2. URL: http://www.sciencedirect.com/science/journal/15710661/174/2.

[edit14] C. Benzmüller, ed. *Special Issue on Assistance Systems for Mathematics.* Journal of Applied Logic, Elsevier, 2006. URL: https://www.sciencedirect.com/journal/journal-of-applied-logic/vol/4/issue/4.

[edit15] C. Benzmüller, B. Fischer and G. Sutcliffe, eds. *Proceedings of the 6th International Workshop on the Implementation of Logics.* Vol. 212. CEUR Workshop Proceedings. CEUR-WS.org, 2006. URL: http://ceur-ws.org/Vol-212/.

[edit16] C. Benzmüller, J. Harrison and C. Schürmann, eds. *Proceedings of the LPAR-05 Workshop: Empirically Successfull Automated Reasoning in Higher-Order Logic (ESHOL).* Wexford Hotel, Montego Bay, Jamaica, 2005. URL: http://arxiv.org/abs/cs/0601042. arXiv:cs/0601042.

[edit17] C. Benzmüller and W. Windsteiger, eds. *Computer-Supported Mathematical Theory Development.* RISC Report Series 04-14. RISC Institute, University of Linz. 2004. Preprint: http://christoph-benzmueller.de/papers/E6.pdf.

[edit18] C. Benzmüller, ed. *Systems for Integrated Computation and Deduction – Interim Report of the CALCULEMUS IHP Network.* SEKI Publications (ISSN 1437-4447), 2003. URL: http://christoph-benzmueller.de/papers/MTR-report-long.pdf. 135 pages.

[edit19] C. Benzmüller and R. Endsuleit, eds. *CALCULEMUS Autumn School 2002: Course Notes (Part I).* SR-02-07. SEKI Publications (ISSN 1437-4447), 2002, pp. 1–168. Preprint: http://christoph-benzmueller.de/papers/E2.pdf.

[edit20] C. Benzmüller and R. Endsuleit, eds. *CALCULEMUS Autumn School 2002: Course Notes (Part II).* SR-02-08. SEKI Publications (ISSN 1437-4447), 2002, pp. 1–130. Preprint: http://christoph-benzmueller.de/papers/E3.pdf.

[edit21] C. Benzmüller and R. Endsuleit, eds. *CALCULEMUS Autumn School 2002: Course Notes (Part III).* SR-02-09. SEKI Publications (ISSN 1437-4447), 2002. Preprint: http://christoph-benzmueller.de/papers/E4.pdf.

[edit22] J. Zimmer and C. Benzmüller, eds. *CALCULEMUS Autumn School 2002: Student Poster Abstracts.* SR-02-06. SEKI Publications (ISSN 1437-4447), 2002, pp. 1–116. Preprint: http://christoph-benzmueller.de/papers/E1.pdf.

3 Chapters in Books/Handbooks/Encyclopedias

[chap1] C. Benzmüller, A. Farjami and X. Parent. 'Dyadic Deontic Logic in HOL: Faithful Embedding and Meta-Theoretical Experiments'. In: *New Developments in Legal Reasoning and Logic: From Ancient Law to Modern Legal Systems.* Ed. by S. Rahman, M. Armgardt and H. C. Nordtveit Kvernenes. Vol. 23. Logic, Argumentation & Reasoning. Springer Nature Switzerland AG, 2022. DOI: 978-3-030-70084-3_14. Preprint https://doi.org/10.13140/RG.2.2.35175.88487.

[chap2] D. Fuenmayor and C. Benzmüller. 'A Case Study On Computational Hermeneutics: E. J. Lowe's Modal Ontological Argument'. In: *Beyond Faith and Rationality: Essays on Logic, Religion and Philosophy.* Ed. by R. Silvestre, B. Göcke, J.-Y. Béziau and P. Bilimoria. Vol. 34. Sophia Studies in Cross-cultural Philosophy of Traditions and Cultures. Springer Nature Switzerland AG, 2020. Chap. 12. DOI: 10.1007/978-3-030-43535-6_12.

[chap3]   C. Benzmüller and P. Andrews. 'Church's Type Theory'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by E. N. Zalta. Summer 2019. Metaphysics Research Lab, Stanford University, 2019, 1–62 (in pdf version). URL: https://plato.stanford.edu/entries/type-theory-church/.

[chap4]   D. Fuenmayor and C. Benzmüller. 'A Computational-Hermeneutic Approach for Conceptual Explicitation'. In: *Model-Based Reasoning in Science and Technology. Inferential Models for Logic, Language, Cognition and Computation*. Ed. by A. Nepomuceno, L. Magnani, F. Salguero, C. Bares and M. Fontaine. Vol. 49. SAPERE. Springer, 2019, pp. 441–469. DOI: 10.1007/978-3-030-32722-4_25.

[chap5]   D. Fuenmayor and C. Benzmüller. 'Computational Hermeneutics: An Integrated Approach for the Logical Analysis of Natural-Language Arguments'. In: *Dynamics, Uncertainty and Reasoning – The Second Chinese Conference on Logic and Argumentation*. Ed. by B. Liao, T. Agotnes and Y. N. Wang. Logic in Asia: Studia Logica Library. Springer Singapore, 2019, pp. 187–207. DOI: 10.1007/978-981-13-7791-4_9. Preprint: http://doi.org/10.13140/RG.2.2.11784.26881.

[chap6]   M. Bentert, C. Benzmüller, D. Streit and B. Woltzenlogel Paleo. 'Analysis of an Ontological Proof Proposed by Leibniz'. In: *Death and Anti-Death, Volume 14: Four Decades after Michael Polanyi, Three Centuries after G.W. Leibniz*. Ed. by C. Tandy. Ria University Press, 2016. URL: https://philpapers.org/rec/TANDAA-10. Preprint: https://www.researchgate.net/publication/311456135.

[chap7]   C. Benzmüller and B. Woltzenlogel Paleo. 'The Modal Collapse as a Collapse of the Modal Square of Opposition'. In: *The Square of Opposition: A Cornerstone of Thought (Collection of papers related to the World Congress on the Square of Opposition IV, Vatican, 2014), http://www.springer.com/us/book/9783319450612*. Ed. by J.-Y. Béziau and G. Basti. Studies in Universal Logic. Birkhäuser Basel, 2016, pp. 307–313. DOI: 10.1007/978-3-319-45062-9_18. Preprint: https://www.researchgate.net/publication/268211774.

[chap8]   C. Benzmüller. 'Higher-Order Automated Theorem Provers'. In: *All about Proofs, Proof for All*. Ed. by D. Delahaye and B. Woltzenlogel Paleo. Mathematical Logic and Foundations. London, UK: College Publications, 2015, pp. 171–214. Preprint: http://christoph-benzmueller.de/papers/B14.pdf.

[chap9]   C. Benzmüller and D. Miller. 'Automation of Higher-Order Logic'. In: *Handbook of the History of Logic, Volume 9 — Computational Logic*. Ed. by D. M. Gabbay, J. H. Siekmann and J. Woods. North Holland, Elsevier, 2014, pp. 215–254. DOI: 10.1016/B978-0-444-51624-4.50005-8. Preprint: http://christoph-benzmueller.de/papers/B5.pdf.

[chap10]   C. Benzmüller and A. Pease. 'Knowledge Engineering Tools'. In: *Ontology: A Practical Guide*. Ed. by A. Pease. Angwin, CA, USA: Articulate Software Press, 2011, pp. 171–214. URL: http://www.ontologyportal.org/Book.html. (This chapter has some essential overlap with the 2012 journal paper with A. Pease titled Higher-Order Aspects and Context in SUMO).

[chap11]   S. Autexier, C. Benzmüller, D. Dietrich and J. Siekmann. 'OMEGA: Resource-Adaptive Processes in an Automated Reasoning Systems'. In: *Resource-Adaptive Cognitive Processes*. Ed. by M. W. Crocker and J. Siekmann. Cognitive Technologies. Springer, 2010, pp. 389–423. DOI: 10.1007/978-3-540-89408-7_17. Preprint: http://christoph-benzmueller.de/papers/B10.pdf.

[chap12]   C. Benzmüller. 'Verifying the Modal Logic Cube is an Easy Task (for Higher-Order Automated Reasoners)'. In: *Verification, Induction, Termination Analysis - Festschrift for Christoph Walther on the Occasion of His 60th Birthday*. Ed. by S. Siegler and N. Wasser. Vol. 6463. LNCS. Springer, 2010, pp. 117–128. DOI: 10.1007/978-3-642-17172-7_7. Preprint: http://christoph-benzmueller.de/papers/B12.pdf.

[chap13]   C. Benzmüller, M. Schiller and J. Siekmann. 'Resource-Bounded Modelling and Analysis of Human-Level Interactive Proofs'. In: *Resource-Adaptive Cognitive Processes*. Ed. by M. W. Crocker and J. Siekmann. Cognitive Technologies. Springer, 2010, pp. 291–311. DOI: 10.1007/978-3-540-89408-7_13. Preprint: http://christoph-benzmueller.de/papers/B11.pdf.

[chap14]   C.-P. Wirth, J. Siekmann, C. Benzmüller and S. Autexier. 'Jacques Herbrand: Life, Logic, and Automated Deduction'. In: *Handbook of the History of Logic, Volume 5 – Logic from Russell to Church*. Ed. by D. Gabbay and J. Woods. Elsevier, 2009. DOI: 10.1016/S1874-5857(09)70009-3.

[chap15]   C. Benzmüller, C. Brown and M. Kohlhase. 'Cut Elimination with Xi-Functionality'. In: *Reasoning in Simple Type Theory — Festschrift in Honor of Peter B. Andrews on His 70th Birthday*. Ed. by C. Benzmüller, C. Brown, J. Siekmann and R. Statman. Studies in Logic, Mathematical Logic and Foundations. College Publications, 2008, pp. 84–100. Preprint: http://christoph-benzmueller.de/papers/B8.pdf.

[chap16]   C. Benzmüller and L. C. Paulson. 'Exploring Properties of Normal Multimodal Logics in Simple Type Theory with LEO-II'. In: *Reasoning in Simple Type Theory — Festschrift in Honor of Peter B. Andrews on His 70th Birthday*. Ed. by C. Benzmüller, C. Brown, J. Siekmann and R. Statman. Studies in Logic, Mathematical Logic and Foundations. College Publications, 2008, pp. 386–406. Preprint: http://christoph-benzmueller.de/papers/B9.pdf.

[chap17] C. Benzmüller and C. Brown. 'The curious inference of Boolos in MIZAR and OMEGA'. In: *From Insight to Proof – Festschrift in Honour of Andrzej Trybulec*. Ed. by R. Matuszewski and A. Zalewska. Vol. 10(23). Studies in Logic, Grammar, and Rhetoric. The University of Bialystok, Polen, 2007, pp. 299–388. Preprint: http://christoph-benzmueller.de/papers/B6.pdf.

[chap18] C. Benzmüller, H. Horacek, I. Kruijff-Korbayova, M. Pinkal, J. Siekmann and M. Wolska. 'Natural Language Dialog with a Tutor System for Mathematical Proofs'. In: *Cognitive Systems*. Ed. by R. Lu, J. Siekmann and C. Ullrich. Vol. 4429. LNCS. Springer, 2007, pp. 1–14. DOI: 10.1007/978-3-540-70934-3_1. Preprint: http://christoph-benzmueller.de/papers/B7.pdf.

[chap19] C. Benzmüller, A. Fiedler, A. Meier, M. Pollet and J. Siekmann. 'OMEGA'. In: *The Seventeen Provers of the World*. Ed. by F. Wiedijk. LNCS 3600. Springer, 2006, pp. 127–141. DOI: 10.1007/11542384_17. Preprint: http://christoph-benzmueller.de/papers/B3.pdf.

[chap20] C. Benzmüller, A. Meier and V. Sorge. 'Bridging Theorem Proving and Mathematical Knowledge Retrieval'. In: *Mechanizing Mathematical Reasoning: Essays in Honor of Jörg Siekmann on the Occasion of His 60th Birthday*. Ed. by D. Hutter and W. Stephan. Vol. 2605. LNCS. Springer, 2004, pp. 277–296. DOI: 10.1007/978-3-540-32254-2_17. Preprint: http://christoph-benzmueller.de/papers/B2.pdf.

[chap21] J. Siekmann, C. Benzmüller, A. Fiedler, A. Meier, I. Normann and M. Pollet. 'Proof Development in OMEGA: The Irrationality of Square Root of 2'. In: *Thirty Five Years of Automating Mathematics*. Ed. by F. Kamareddine. Applied Logic series (28). Kluwer Academic Publishers, 2003, pp. 271–314. DOI: 10.1007/978-94-017-0253-9_11. Preprint: http://christoph-benzmueller.de/papers/B1.pdf.

4   Peer Reviewed Papers at Conferences & Workshops

Some of these conferences (e.g. IJCAI, KR, ECAI, CADE, IJCAR, LPAR) are way more competitive than many journals.

[conf1] C. Benzmüller and D. Fuenmayor. 'Value-oriented Legal Argumentation in Isabelle/HOL'. In: *International Conference on Interactive Theorem Proving (ITP), Proceedings*. Ed. by L. Cohen and C. Kaliszyk. Vol. 193. LIPIcs 23. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2021, 23:1–23:18. DOI: 10.4230/LIPIcs.ITP.2021.7. Preprint: https://dx.doi.org/10.13140/RG.2.2.21514.80320.

[conf2] V. Solopova, O.-I. Popescu, M. Chikobava, R. Romeike, T. Landgraf and C. Benzmüller. 'A German Corpus of Reflective Sentences'. In: *Proceedings of the 18th International Conference on Natural Language Processing, ICON 2021, Silchar, India, December 16-19, 2021*. Ed. by S. Bandyopadhyay and S. L. NLP, 2021.

[conf3] C. Benzmüller. 'A (Simplified) Supreme Being Necessarily Exists, says the Computer: Computationally Explored Variants of Gödel's Ontological Argument'. In: *Proceedings of the 17th International Conference on Principles of Knowledge Representation and Reasoning, KR 2020*. IJCAI organization, Sept. 2020, pp. 779–789. DOI: 10.24963/kr.2020/80. URL: https://doi.org/10.24963/kr.2020/80.

[conf4] C. Benzmüller, D. Fuenmayor and B. Lomfeld. 'Encoding Legal Balancing: Automating an Abstract Ethico-Legal Value Ontology in Preference Logic'. In: *Workshop on Models of Legal Reasoning, hosted by 17th Conference on Principles of Knowledge Representation and Reasoning (KR 2020)*. 2020. Preprint: https://arxiv.org/abs/2006.12789 or https://www.researchgate.net/publication/342380027.

[conf5] C. Benzmüller and B. Lomfeld. 'Reasonable Machines: A Research Manifesto'. In: *KI 2020: Advances in Artificial Intelligence – 43rd German Conference on Artificial Intelligence, Bamberg, Germany, September 21–25, 2020, Proceedings*. Ed. by U. Schmid, F. Klügl and D. Wolter. Vol. 12352. Lecture Notes in Artificial Intelligence. Springer, Cham, 2020, pp. 251–258. DOI: 10.1007/978-3-030-58285-2_20. URL: https://doi.org/10.1007/978-3-030-58285-2_20. Preprint: https://dx.doi.org/10.13140/RG.2.2.28918.63045.

[conf6] C. Benzmüller, X. Parent and L. van der Torre. 'Designing Normative Theories for Ethical and Legal Reasoning: LogiKEy Framework, Methodology, and Tool Support (extended abstract)'. In: *17th Conference on Principles of Knowledge Representation and Reasoning (KR 2020), Recently Published Research track*. 2020. Preprint: https://www.researchgate.net/publication/343676062.

[conf7] D. Fuenmayor and C. Benzmüller. 'Computer-supported Analysis of Arguments in Climate Engineering'. In: *Logic and Argumentation, Fourth International Conference, CLAR 2021, Hangzhou, China, April 6-9, 2020, Proceedings*. Ed. by M. Dastani, H. Dong and L. van der Torre. Vol. 12061. Lecture Notes in Computer Science. Springer, Cham, 2020, pp. 104–115. DOI: 10.1007/978-3-030-44638-3_7. URL: https://link.springer.com/chapter/10.1007/978-3-030-44638-3_7. Preprint: https://www.researchgate.net/publication/338829452.

[conf8] D. Fuenmayor and C. Benzmüller. 'Normative Reasoning with Expressive Logic Combinations'. In: *ECAI 2020 – 24th European Conference on Artificial Intelligence, June 8-12, Santiago de Compostela, Spain*. Ed. by G. De Giacomo et al. Vol. 325. Frontiers in Artificial Intelligence and Applications. IOS Press, 2020, pp. 2903–2904. DOI: `10.3233/FAIA200445`. URL: `https://dx.doi.org/10.3233/FAIA200445`. Preprint: `https://www.researchgate.net/publication/339413206`.

[conf9] I. Makarenko and C. Benzmüller. 'Positive Free Higher-Order Logic and its Automation via a Semantical Embedding'. In: *KI 2020: Advances in Artificial Intelligence – 43rd German Conference on Artificial Intelligence, Bamberg, Germany, September 21–25, 2020, Proceedings*. Ed. by U. Schmid, F. Klügl and D. Wolter. Vol. 12352. Lecture Notes in Artificial Intelligence. Springer, Cham, 2020, pp. 116–131. DOI: `10.1007/978-3-030-58285-2_9`. URL: `https://doi.org/10.1007/978-3-030-58285-2_9`. EasyChair Preprint no. 3621, EasyChair, `https://easychair.org/publications/preprint/JVx1`.

[conf10] S. Reiche and C. Benzmüller. 'Public Announcement Logic in HOL'. In: *Dynamic Logic. New Trends and Applications. DaLi 2020*. Ed. by M. A. Martins and S. Igor. Vol. 12569. Lecture Notes in Computer Science. Springer, Cham, 2020. DOI: `10.1007/978-3-030-65840-3_14`. URL: `https://doi.org/10.1007/978-3-030-65840-3_14`. Preprint: `https://arxiv.org/abs/2010.00810`.

[conf11] A. Steen and C. Benzmüller. 'The Higher-Order Prover Leo-III'. In: *ECAI 2020 – 24th European Conference on Artificial Intelligence, June 8-12, Santiago de Compostela, Spain*. Ed. by G. De Giacomo et al. Frontiers in Artificial Intelligence and Applications. IOS Press, 2020, pp. 2937–2938. DOI: `10.3233/FAIA200462`. URL: `https://dx.doi.org/10.3233/FAIA200462`. Preprint: `https://www.researchgate.net/publication/339413198`.

[conf12] L. Tiemens, D. S. Scott, C. Benzmüller and M. Benda. 'Computer-supported Exploration of a Categorical Axiomatization of Modeloids'. In: *Relational and Algebraic Methods in Computer Science – 18th International Conference, RAMiCS 2020, Palaiseau, France, April 8–11, 2020, Proceedings*. Vol. 12062. Lecture Notes in Computer Science. Springer, 2020, pp. 302–317. DOI: `10.1007/978-3-030-43520-2_19`. URL: `https://www.springerprofessional.de/computer-supported-exploration-of-a-categorical-axiomatization-o/17853766`. Preprint (with proofs): `https://www.researchgate.net/publication/336838722`.

[conf13] V. Zahoransky and C. Benzmüller. 'Modelling the US Constitution to establish constitutional dictatorship'. In: *Proceedings of the 4th International Workshop on MIning and REasoning with Legal texts, co-located with the 32nd International Conference on Legal Knowledge and Information Systems (JURIX 2019)*. CEUR Workshop Proceedings, Vol-2632, `http://ceur-ws.org/Vol-2632/`, 2020. URL: `http://ceur-ws.org/Vol-2632/MIREL-19_paper_1.pdf`.

[conf14] C. Benzmüller. 'Computational Metaphysics: New Insights on Gödel's Ontological Argument and Modal Collapse'. In: *Formal Methods and Science in Philosophy III, Informal Proceedings*. Ed. by S. Kovac and K. Swietorzecka. Dubrovnik, Croatia, 2019, pp. 3–4. URL: `http://christoph-benzmueller.de/papers/2019-FMSPh-Proceedings.pdf`.

[conf15] D. Fuenmayor and C. Benzmüller. 'Automated Reasoning with Complex Ethical Theories–A Case Study Towards Responsible AI'. In: *16th International Congress on Logic, Methodology and Philosophy of Science and Technology (CLMPST 2019) — Bridging across Academic Cultures, Book of Abstracts*. Prague, Czechia, August 5-10, 2019, 2019, pp. 183–184. URL: `http://clmpst2019.flu.cas.cz/wp-content/uploads/2019/08/BoA_CLMPST2019_web.pdf`.

[conf16] D. Fuenmayor and C. Benzmüller. 'Harnessing Higher-Order (Meta-)Logic to Represent and Reason with Complex Ethical Theories'. In: *PRICAI 2019: Trends in Artificial Intelligence*. Ed. by A. Nayak and A. Sharma. Vol. 11670. Lecture Notes in Artificial Intelligence. Springer, Cham, 2019, pp. 418–432. DOI: `10.1007/978-3-030-29908-8_34`. Preprint: `http://arxiv.org/abs/1903.09818`.

[conf17] D. Fuenmayor and C. Benzmüller. 'Mechanised Assessment of Complex Natural-Language Arguments using Expressive Logic Combinations'. In: *Frontiers of Combining Systems, 12th International Symposium, FroCoS 2019, London, September 4-6*. Ed. by A. Herzig and AndreiPopescu. Vol. 11715. Lecture Notes in Artificial Intelligence. Springer Nature Switzerland AG, 2019, pp. 112–128. DOI: `10.1007/978-3-030-29007-8_7`. Preprint `http://doi.org/10.13140/RG.2.2.20803.45608/1`.

[conf18] C. Benzmüller. 'A Flexible Infrastructure for Normative Reasoning (invited keynote abstract)'. In: *Deontic Logic and Normative Systems — 14th International Conference, DEON 2018, Utrecht, The Netherlands, 3-6 July, 2018*. Ed. by J. Broersen, C. Condoravdi, S. Nair and G. Pigozzi. Vol. 9706. College Publications, 2018, p. 7. Preprint: `http://doi.org/10.13140/RG.2.2.27972.48007`.

8

[conf19] C. Benzmüller, A. Farjami and X. Parent. 'A Dyadic Deontic Logic in HOL'. In: *Deontic Logic and Normative Systems — 14th International Conference, DEON 2018, Utrecht, The Netherlands, 3-6 July, 2018.* Ed. by J. Broersen, C. Condoravdi, S. Nair and G. Pigozzi. Vol. 9706. College Publications, 2018, pp. 33–50. John-Jules Meyer Best Paper Award, Preprint: `https://tinyurl.com/y9wp4p6s`.

[conf20] C. Benzmüller and D. Fuenmayor. 'Can Computers Help to Sharpen our Understanding of Ontological Arguments?' In: *Mathematics and Reality, Proceedings of the 11th All India Students' Conference on Science & Spiritual Quest (AISSQ), 6-7 October, 2018, IIT Bhubaneswar, Bhubaneswar, India.* Ed. by S. Gosh, R. Uppalari, K. V. Rao, V. Agarwal and S. Sharma. The Bhaktivedanta Institute, Kolkata, `www.binstitute.org`, 2018, pp. 195–226. Preprint: `http://doi.org/10.13140/RG.2.2.31921.84323`.

[conf21] C. Benzmüller, X. Parent and L. van der Torre. 'A Deontic Logic Reasoning Infrastructure'. In: *14th Conference on Computability in Europe, CiE 2018, Kiel, Germany, July 30-August, 2018, Proceedings.* Ed. by F. Manea, R. G. Miller and D. Nowotka. Vol. 10936. LNCS. Springer, 2018, pp. 60–69. DOI: `10.1007/978-3-319-94418-0_6`. Preprint: `https://tinyurl.com/y7tgoft9`.

[conf22] C. Benzmüller and D. S. Scott. 'Some Reflections on a Computer-aided Theory Exploration Study in Category Theory (Extended Abstract)'. In: *3rd Conference on Artificial Intelligence and Theorem Proving (AITP 2018), Book of Abstracts.* Ed. by T. C. Hales, C. Kaliszyk, S. Schulz and J. Urban. 2018, pp. 7–8. URL: `http://aitp-conference.org/2018/aitp18-proceedings.pdf`. Online: `http://aitp-conference.org/2018/aitp18-proceedings.pdf`.

[conf23] D. Fuenmayor and C. Benzmüller. 'Computational Hermeneutics: Using Computers to Interpret Philosophical Arguments (Abstract)'. In: *Logical Correctness, Workshop at UNILOG'2018, UNILOG'2018 Book of Abstracts.* 2018. Preprint: `http://christoph-benzmueller.de/papers/W60.pdf`.

[conf24] D. Kirchner, C. Benzmüller and E. N. Zalta. 'Mechanizing Principia Logico-Metaphysica in Functional Type Theory (Extended Abstract)'. In: *3rd Conference on Artificial Intelligence and Theorem Proving (AITP 2018), Book of Abstracts.* Ed. by T. C. Hales, C. Kaliszyk, S. Schulz and J. Urban. 2018, pp. 42–44. URL: `http://aitp-conference.org/2018/aitp18-proceedings.pdf`. Online: `http://aitp-conference.org/2018/aitp18-proceedings.pdf`.

[conf25] A. Steen and C. Benzmüller. 'System Demonstration: The Higher-Order Prover Leo-III'. In: *ARQNL 2018. Automated Reasoning in Quantified Non-Classical Logics.* Ed. by C. Benzmüller and J. Otten. Vol. 2095. CEUR Workshop Proceedings, http://ceur-ws.org, 2018, pp. 79–85. URL: `http://ceur-ws.org/Vol-2095/paper5.pdf`. `http://ceur-ws.org/Vol-2095/`.

[conf26] A. Steen and C. Benzmüller. 'The Higher-Order Prover Leo-III'. In: *Automated Reasoning. IJCAR 2018.* Ed. by D. Galmiche, S. Schulz and R. Sebastiani. Vol. 10900. LNCS. Springer, 2018, pp. 108–116. DOI: `10.1007/978-3-319-94205-6_8`. Preprint: `https://tinyurl.com/y7wg5w5w`.

[conf27] C. Benzmüller. 'Recent Successes with a Meta-Logical Approach to Universal Logical Reasoning (Invited Extended Abstract)'. In: *Formal Methods: Foundations and Applications - 20th Brazilian Symposium, SBMF 2017, Recife, Brazil, November 29 - December 1, 2017, Proceedings.* Ed. by S. A. da Costa Cavalheiro and J. L. Fiadeiro. Vol. 10623. Lecture Notes in Computer Science. Springer, 2017, pp. 7–11. Preprint: `http://christoph-benzmueller.de/papers/C66.pdf`.

[conf28] C. Benzmüller, A. Farjami, X. Parent and L. van der Torre. 'Implementation of Carmo and Jones Dyadic Deontic Logic in Isabelle/HOL'. In: *Workshop on Computational Aspects of Arguments and LogiC (CAALC 2017).* Belgrade, Serbia, 2017. URL: `http://christoph-benzmueller.de/papers/W59.pdf`.

[conf29] C. Benzmüller, A. Steen and M. Wisniewski. 'Leo-III Version 1.1 (System description)'. In: *IWIL@LPAR 2017 Workshop and LPAR-21 Short Presentations, Maun, Botswana, May 7-12, 2017.* Ed. by T. Eiter, D. Sands, G. Sutcliffe and A. Voronkov. Vol. 1. Kalpa Publications in Computing. Maun, Botswana: EasyChair, 2017, pp. 11–61. URL: `http://www.easychair.org/publications/paper/342979`.

[conf30] D. Fuenmayor and C. Benzmüller. 'Automating Emendations of the Ontological Argument in Intensional Higher-Order Modal Logic'. In: *KI 2017: Advances in Artificial Intelligence, 40th Annual German Conference on AI, Dortmund, Germany, September 25-29, 2017, Proceedings.* Vol. 10505. LNAI. Springer, 2017, pp. 114–127. DOI: `10.1007/978-3-319-67190-1_9`. URL: `https://doi.org/10.1007/978-3-319-67190-1_9`. Preprint: `http://christoph-benzmueller.de/papers/C65.pdf`.

[conf31] D. Fuenmayor, C. Benzmüller, A. Steen and M. Wisniewski. 'The Virtues of Automated Theorem Proving in Metaphysics — A Case Study: E. J. Lowe's Modal Ontological Argument'. In: *Handbook of the 2nd World Congress on Logic and Religion, Warsaw, Poland.* Ed. by S. Krajewski and P. Balcerowicz. 2017, p. 3. Preprint: `http://christoph-benzmueller.de/papers/C63.pdf`.

[conf32] T. Gleißner, A. Steen and C. Benzmüller. 'Theorem Provers for Every Normal Modal Logic'. In: *LPAR-21. 21st International Conference on Logic for Programming, Artificial Intelligence and Reasoning*. Ed. by T. Eiter and D. Sands. Vol. 46. EPiC Series in Computing. Maun, Botswana: EasyChair, 2017, pp. 14–30. DOI: 10.29007/jsb9. URL: https://easychair.org/publications/paper/6bjv.

[conf33] A. Steen, M. Wisniewski and C. Benzmüller. 'Going Polymorphic - TH1 Reasoning for Leo-III'. In: *IWIL@LPAR 2017 Workshop and LPAR-21 Short Presentations, Maun, Botswana, May 7-12, 2017*. Ed. by T. Eiter, D. Sands, G. Sutcliffe and A. Voronkov. Vol. 1. Kalpa Publications in Computing. Maun, Botswana: EasyChair, 2017, pp. 100–112. DOI: 10.29007/jgkw. URL: http://www.easychair.org/publications/paper/346851.

[conf34] A. Steen, M. Wisniewski, H.-J. Schurr and C. Benzmüller. 'Capability Discovery for Automated Reasoning Systems'. In: *IWIL@LPAR 2017 Workshop and LPAR-21 Short Presentations, Maun, Botswana, May 7-12, 2017*. Ed. by T. Eiter, D. Sands, G. Sutcliffe and A. Voronkov. Vol. 1. Kalpa Publications in Computing. Maun, Botswana: EasyChair, 2017. URL: http://www.easychair.org/publications/paper/346850.

[conf35] C. Benzmüller and D. S. Scott. 'Automating Free Logic in Isabelle/HOL'. In: *Mathematical Software – ICMS 2016, 5th International Congress, Proceedings*. Ed. by G.-M. Greuel, T. Koch, P. Paule and A. Sommese. Vol. 9725. LNCS. Berlin, Germany: Springer, 2016, pp. 43–50. DOI: 10.1007/978-3-319-42432-3_6. Preprint: http://christoph-benzmueller.de/papers/C57.pdf.

[conf36] C. Benzmüller and B. Woltzenlogel Paleo. 'An Object-Logic Explanation for the Inconsistency in Gödel's Ontological Theory (Extended Abstract, Sister Conferences)'. In: *KI 2016: Advances in Artificial Intelligence, Proceedings*. Ed. by M. Helmert and F. Wotawa. LNCS. Berlin, Germany: Springer, 2016, pp. 244–250. DOI: 10.1007/978-3-319-46073-4. Preprint: https://www.researchgate.net/publication/311455987.

[conf37] C. Benzmüller and B. Woltzenlogel Paleo. 'The Inconsistency in Gödel's Ontological Argument: A Success Story for AI in Metaphysics'. In: *IJCAI 2016*. Ed. by S. Kambhampati. Vol. 1-3. AAAI Press, 2016, pp. 936–942. Url: http://www.ijcai.org/Proceedings/16/Papers/137.pdf; Preprint: https://www.researchgate.net/publication/301295955.

[conf38] H. Boley, C. Benzmüller, M. Luan and Z. Sha. 'Translating Higher-Order Modal Logic from RuleML to TPTP'. In: *Proceedings of the RuleML 2016 Challenge, the Special Industry Track and the RuleML 2016 Doctoral Consortium hosted by the 10th International Web Rule Symposium (RuleML 2016)*. Ed. by A. Giurca, W. Van Woensel, R. Grütter, K. Teymourian, T. Athan and M. Proctor. Vol. Vol-1620. CEUR Workshop Proceedings. CEUR-WS.org, 2016. URL: http://ceur-ws.org/Vol-1620/paper6.pdf.

[conf39] A. Steen, M. Wisniewski and C. Benzmüller. 'Agent-Based HOL Reasoning'. In: *Mathematical Software – ICMS 2016, 5th International Congress, Proceedings*. Ed. by G.-M. Greuel, T. Koch, P. Paule and A. Sommese. Vol. 9725. LNCS. Berlin, Germany: Springer, 2016, pp. 75–81. DOI: 10.1007/978-3-319-42432-3_10. Preprint: https://www.researchgate.net/publication/304919080.

[conf40] A. Steen, M. Wisniewski and C. Benzmüller. 'Tutorial on Reasoning in Expressive Non-Classical Logics with Isabelle/HOL'. In: *GCAI 2016, 2nd Global Conference on Artificial Intelligence*. Ed. by C. Benzüller, R. Rojas and G. Sutcliffe. Vol. 41. EPiC Series in Computing. Berlin, Germany: EasyChair, 2016, pp. 1–10. DOI: 10.29007/4dsr. URL: http://page.mi.fu-berlin.de/cbenzmueller/papers/C61.pdf.

[conf41] M. Wisniewski and C. Benzmüller. 'Is it Reasonable to Employ Agents in Theorem Proving?' In: *Proceedings of the 8th International Conference on Agents and Artificial Intelligence (ICAART 2016) – Volume 1, pages 281-286*. Ed. by J. van den Heerik and J. Filipe. Vol. 1. Rome, Italy: SCITEPRESS – Science and Technology Publications, Lda, 2016, pp. 281–286. DOI: 10.5220/0005824702810286. Preprint: http://christoph-benzmueller.de/papers/C53.pdf.

[conf42] M. Wisniewski, A. Steen and C. Benzmüller. 'Einsatz von Theorembeweisern in der Lehre'. In: *Hochschuldidaktik der Informatik: 7. Fachtagung des GI-Fachbereichs Informatik und Ausbildung/Didaktik der Informatik; 13.-14. September 2016 an der Universität Potsdam*. Ed. by A. Schwill and U. Lucke. Commentarii informaticae didacticae (CID). Potsdam, Germany: Universitätsverlag Potsdam, 2016, pp. 81–92. URL: https://publishup.uni-potsdam.de/opus4-ubp/frontdoor/index/index/docId/9485.

[conf43] M. Wisniewski, A. Steen and C. Benzmüller. 'TPTP and Beyond: Representation of Quantified Non-Classical Logics'. In: *ARQNL 2016. Automated Reasoning in Quantified Non-Classical Logics*. Ed. by C. Benzmüller and J. Otten. Vol. 1770. CEUR Workshop Proceedings, http://ceur-ws.org, 2016, pp. 51–65. URL: http://ceur-ws.org/Vol-1770/.

[conf44] M. Wisniewski, A. Steen, K. Kern and C. Benzmüller. 'Effective Normalization Techniques for HOL'. In: *Automated Reasoning — 8th International Joint Conference, IJCAR 2016, Coimbra, Portugal, June 27 – July 2, 2016, Proceedings*. Ed. by N. Olivetti and A. Tiwari. Vol. 9706. LNCS. Springer, 2016, pp. 362–370. DOI: 10.1007/978-3-319-40229-1_25. Preprint: http://christoph-benzmueller.de/papers/C54.pdf.

[conf45] C. Benzmüller. 'Gödel's Ontological Argument Revisited – Findings from a Computer-supported Analysis (invited)'. In: *Handbook of the 1st World Congress on Logic and Religion, João Pessoa, Brazil*. Ed. by R. S. Silvestre and J.-Y. Béziau. 2015, p. 13. URL: http://christoph-benzmueller.de/papers/2015-handbook-logic-and-religion.pdf. (Invited abstract).

[conf46] C. Benzmüller. 'HOL Provers for First-order Modal Logics — Experiments'. In: *ARQNL 2014. Automated Reasoning in Quantified Non-Classical Logics*. Ed. by C. Benzmüller and J. Otten. Vol. 33. EPiC Series in Computing. EasyChair, 2015, pp. 37–41. DOI: 10.29007/przw. URL: https://easychair.org/publications/paper/sdnL.

[conf47] C. Benzmüller. 'Invited Talk: On a (Quite) Universal Theorem Proving Approach and Its Application in Metaphysics'. In: *TABLEAUX 2015*. Ed. by H. D. Nivelle. Vol. 9323. LNAI. Wroclaw, Poland: Springer, 2015, pp. 213–220. DOI: 10.1007/978-3-319-24312-2_15. Preprint: http://christoph-benzmueller.de/papers/C50.pdf.

[conf48] C. Benzmüller, M. Claus and N. Sultana. 'Systematic Verification of the Modal Logic Cube in Isabelle/HOL'. In: *PxTP 2015*. Ed. by C. Kaliszyk and A. Paskevich. Vol. 186. Berlin, Germany: EPTCS, 2015, pp. 27–41. DOI: 10.4204/EPTCS.186.5. Preprint: http://christoph-benzmueller.de/papers/C47.pdf.

[conf49] C. Benzmüller, L. Weber and B. W. Paleo. 'Computer-Assisted Analysis of the Anderson-Hájek Ontological Controversy'. In: *Handbook of the 1st World Congress on Logic and Religion, Joao Pessoa, Brazil*. Ed. by R. S. Silvestre and J.-Y. Béziau. 2015, pp. 53–54. URL: http://christoph-benzmueller.de/papers/2015-handbook-logic-and-religion.pdf. (superseded by 2016 paper in Logica Universalis).

[conf50] C. Benzmüller and B. Woltzenlogel Paleo. 'Experiments in Computational Metaphysics: Gödel's Proof of God's Existence'. In: *Science & Spiritual Quest, Proceedings of the 9th All India Students' Conference, 30th October – 1 November, 2015, IIT Kharagpur, India*. Ed. by S. C. Mishram, R. Uppaluri and V. Agarwal. Bhaktivedanta Institute, Kolkata, www.binstitute.org, 2015, pp. 23–40. Preprint: https://www.researchgate.net/publication/311587544.

[conf51] C. Benzmüller and B. Woltzenlogel Paleo. 'Higher-Order Modal Logics: Automation and Applications'. In: *Reasoning Web 2015*. Ed. by A. Paschke and W. Faber. LNCS 9203. Berlin, Germany: Springer, 2015, pp. 32–74. DOI: 10.1007/978-3-319-21768-0_2. Preprint: https://www.researchgate.net/publication/281677232.

[conf52] C. Benzmüller and B. Woltzenlogel Paleo. 'Interacting with Modal Logics in the Coq Proof Assistant'. In: *Computer Science - Theory and Applications - 10th International Computer Science Symposium in Russia, CSR 2015, Listvyanka, Russia, July 13-17, 2015, Proceedings*. Ed. by L. D. Beklemishev and D. V. Musatov. Vol. 9139. LNCS. Springer, 2015, pp. 398–411. DOI: 10.1007/978-3-319-20297-6_25. Preprint: https://www.researchgate.net/publication/273201458.

[conf53] C. Benzmüller and B. Woltzenlogel Paleo. 'On Logic Embeddings and Gödel's God'. In: *Recent Trends in Algebraic Development Techniques: 22nd International Workshop, WADT 2014, Sinaia, Romania, September 4-7, 2014, Revised Selected Papers*. Ed. by M. Codescu, R. Diaconescu and I. Tutu. LNCS 9563. Sinaia, Romania: Springer, 2015, pp. 3–6. DOI: 10.1007/978-3-319-28114-8_1. Preprint: https://www.researchgate.net/publication/300112614.

[conf54] A. Steen and C. Benzmüller. 'Sweet SIXTEEN: Automation via Embedding into Classical Higher-Order Logic'. In: *7th International Conference Non-Classical Logic – Theory and Applications, Torun, Poland*. 2015. Preprint: http://christoph-benzmueller.de/papers/C49.pdf.

[conf55] A. Steen and C. Benzmüller. 'There Is No Best Beta-Normalization Strategy for Higher-Order Reasoners'. In: *Logic for Programming, Artificial Intelligence, and Reasoning (LPAR)*. Ed. by M. Davis, A. Fehnker, A. McIver and A. Voronkov. Vol. 9450. LNAI. Suva, Fiji: Springer, 2015, pp. 329–339. DOI: 10.1007/978-3-662-48899-7_23. Preprint: http://christoph-benzmueller.de/papers/C51.pdf.

[conf56] N. Sultana, C. Benzmüller and L. C. Paulson. 'Proofs and reconstructions'. In: *FroCoS 2015*. Ed. by C. Lutz and S. Ranise. Vol. 9322. LNAI. Wroclaw, Poland: Springer, 2015, pp. 256–271. DOI: 10.1007/978-3-319-24246-0_16. Preprint: http://christoph-benzmueller.de/papers/C48.pdf.

[conf57] M. Wisniewski, A. Steen and C. Benzmüller. 'LeoPARD - A Generic Platform for the Implementation of Higher-Order Reasoners'. In: *Intelligent Computer Mathematics - International Conference, CICM 2015, Washington, DC, USA, July 13-17, 2015, Proceedings*. Ed. by M. Kerber, J. Carette, C. Kaliszyk, F. Rabe and V. Sorge. Vol. 9150. LNCS. Springer, 2015, pp. 325–330. DOI: 10.1007/978-3-319-20615-8_22. Preprint: http://christoph-benzmueller.de/papers/C45.pdf.

[conf58] C. Benzmüller and B. Woltzenlogel Paleo. 'Automating Gödel's Ontological Proof of God's Existence with Higher-order Automated Theorem Provers'. In: *ECAI 2014*. Ed. by T. Schaub, G. Friedrich and B. O'Sullivan. Vol. 263. Frontiers in Artificial Intelligence and Applications. IOS Press, 2014, pp. 93–98. DOI: 10.3233/978-1-61499-419-0-93. Preprint: https://www.researchgate.net/publication/265050231.

[conf59]   C. Benzmüller and B. Woltzenlogel Paleo. 'Gödel's Proof of God's Existence'. In: *Handbook of the World Congress on the Square of Opposition IV*. Ed. by J.-Y. Beziau and K. Gan-Krzywoszynska. 2014, pp. 22–23. URL: `http://www.stoqatpul.org/lat/materials/hand_square2014.pdf`. (superseded by ECAI-2014 paper).

[conf60]   M. Wisniewski, A. Steen and C. Benzmüller. 'The Leo-III Project'. In: *Joint Automated Reasoning Workshop and Deduktionstreffen*. Ed. by A. Bolotov and M. Kerber. 2014, p. 38. Preprint: `http://christoph-benzmueller.de/papers/W53.pdf`.

[conf61]   C. Benzmüller. 'A Top-down Approach to Combining Logics'. In: *Proc. of the 5th International Conference on Agents and Artificial Intelligence (ICAART)*. Ed. by J. Filipe and A. Fred. Vol. 1. Barcelona, Spain: SCITE-PRESS – Science and Technology Publications, Lda, 2013, pp. 346–351. DOI: `10.5220/0004324803460351`. Preprint: `http://christoph-benzmueller.de/papers/C35.pdf`.

[conf62]   C. Benzmüller. 'Automating Quantified Conditional Logics in HOL'. In: *23rd International Joint Conference on Artificial Intelligence (IJCAI-13)*. Ed. by F. Rossi. Beijing, China: AAAI Press, 2013, pp. 746–753. Preprint: `http://christoph-benzmueller.de/papers/C37.pdf`.

[conf63]   C. Benzmüller. 'Cut-free Calculi for Challenge Logics in a Lazy Way'. In: *Proceedings of the International Workshop on Algebraic Logic in Computer Science*. Ed. by C. N. Clint van Alten Petr Cintula. 2013. Preprint: `http://christoph-benzmueller.de/papers/W51.pdf`.

[conf64]   C. Benzmüller. 'HOL based Universal Reasoning'. In: *Handbook of the 4th World Congress and School on Universal Logic*. Ed. by J. Beziau, A. Buchsbaum, A. Costa-Leite and A. Altair. Rio de Janeiro, Brazil, 2013, pp. 232–233. Preprint: `http://christoph-benzmueller.de/papers/C36.pdf`.

[conf65]   C. Benzmüller, J. Otten and T. Raths. 'Implementing Different Proof Calculi for First-order Modal Logics'. In: *PAAR-2012*. Ed. by P. Fontaine, R. A. Schmidt and S. Schulz. Vol. 21. EPiC Series in Computing. EasyChair, 2013, pp. 12–18. DOI: `10.29007/mclw`. URL: `http://www.easychair.org/publications/?page=1303066787`.

[conf66]   C. Benzmüller and T. Raths. 'HOL based First-order Modal Logic Provers'. In: *Proceedings of the 19th International Conference on Logic for Programming, Artificial Intelligence and Reasoning (LPAR)*. Ed. by K. L. Mc-Millan, A. Middeldorp and A. Voronkov. Vol. 8312. LNCS. Stellenbosch, South Africa: Springer, 2013, pp. 127–136. DOI: `10.1007/978-3-642-45221-5_9`. Preprint: `http://christoph-benzmueller.de/papers/C38.pdf`.

[conf67]   C. Benzmüller and N. Sultana. 'LEO-II Version 1.5'. In: *PxTP 2013*. Ed. by J. C. Blanchette and J. Urban. Vol. 14. EPiC Series in Computing. EasyChair, 2013, pp. 2–10. DOI: `10.29007/lbxw`. URL: `http://www.easychair.org/publications/?page=1802176591`.

[conf68]   C. Benzmüller and B. Woltzenlogel Paleo. 'Gödel's God on the Computer'. In: *Proceedings of the 10th International Workshop on the Implementation of Logics*. Ed. by S. Schulz, G. Sutcliffe and B. Konev. 2013. Preprint: `http://christoph-benzmueller.de/papers/W50.pdf`.

[conf69]   C. Benzmüller and M. Ziener. 'Automated Consistency Checking of Expressive Ontologies — Beware of the Wrong Interpretation of Success!' In: *The 5th International Workshop on Acquisition, Representation and Reasoning with Contextualized Knowledge (ARCOE-LogIC 2013)*. Ed. by M. Fink, M. Homola, A. Mileo and I. J. Varzinczak. Corunna, Spain, 2013. Preprint: `http://christoph-benzmueller.de/papers/W49.pdf`.

[conf70]   N. Sultana and C. Benzmüller. 'Understanding LEO-II's Proofs'. In: *IWIL 2012*. Ed. by K. Korovin, S. Schulz and E. Ternovska. Vol. 22. EPiC Series in Computing. Merida, Venezuela: EasyChair, 2013, pp. 33–52. DOI: `10.29007/x9c9`. URL: `http://www.easychair.org/publications/?page=572811915`.

[conf71]   C. Benzmüller, J. Otten and T. Raths. 'Implementing and Evaluating Provers for First-order Modal Logics'. In: *ECAI 2012*. Ed. by L. D. Raedt et al. Vol. 242. Frontiers in Artificial Intelligence and Applications. Montpellier, France: IOS Press, 2012, pp. 163–168. DOI: `10.3233/978-1-61499-098-7-163`. Preprint: `http://christoph-benzmueller.de/papers/C34.pdf`.

[conf72]   C. Benzmüller and A. Pease. 'Progress in Automating Higher-Order Ontology Reasoning'. In: *PAAR-2010 – Workshop on Practical Aspects of Automated Reasoning*. Ed. by R. A. Schmidt, S. Schulz and B. Konev. Vol. 9. EPiC Series in Computing. EasyChair, 2012, pp. 22–32. DOI: `10.29007/dtnz`. URL: `http://www.easychair.org/publications/?page=999569486`.

[conf73]   C. Benzmüller and M. Schiller. 'Adaptive Assertion-Level Proofs'. In: *EMSQMS 2010 – Workshop on Evaluation Methods for Solvers and Quality Metrics for Solutions*. Ed. by A. Stump, G. Sutcliffe and C. Tinelli. Vol. 6. EPiC Series in Computing. EasyChair, 2012, pp. 39–40. DOI: `0.29007/gvgn`. URL: `http://www.easychair.org/publications/?page=1718758449`.

[conf74] C. Benzmüller and V. Genovese. 'Quantified Conditional Logics are Fragments of HOL'. In: *The International Conference on Non-classical Modal and Predicate Logics (NCMPL)*. Guangzhou (Canton), China, 2011. URL: http://arxiv.org/abs/1204.5920v1. (The conference had no published proceedings; the paper is available as arXiv:1204.5920v1; superseded by IJCAI-2013 paper).

[conf75] C. Benzmüller. 'Combining Logics in Simple Type Theory'. In: *Computational Logic in Multi-Agent Systems, 11th International Workshop, CLIMA XI, Lisbon, Portugal, August 16-17, 2010. Proceedings*. Ed. by J. Dix, J. Leite, G. Governatori and W. Jamroga. Vol. 6245. Lecture Notes in Artifical Intelligence. Lisbon, Portugal: Springer, 2010, pp. 33–48. DOI: 10.1007/978-3-642-14977-1_6. Preprint: http://christoph-benzmueller.de/papers/W41.pdf.

[conf76] C. Benzmüller. 'Simple Type Theory as Framework for Combining Logics'. In: *Contest paper at the World Congress and School on Universal Logic III (UNILOG)*. Lisbon, Portugal, 2010. URL: http://arxiv.org/abs/1004.5500v1. The conference had no published proceedings for the contest papers; the paper is available as arXiv:1004.5500v1.

[conf77] C. Benzmüller and A. Pease. 'Reasoning with Embedded Formulas and Modalities in SUMO'. In: *The ECAI-10 Workshop on Automated Reasoning about Context and Ontology Evolution (ARCOE-10)*. Ed. by A. Bundy, J. Lehmann, G. Qi and I. J. Varzinczak. August 16-17, Lisbon, Portugal, 2010. Preprint: http://christoph-benzmueller.de/papers/W44.pdf.

[conf78] A. Pease and C. Benzmüller. 'Ontology Archaeology: Mining a Decade of Effort on the Suggested Upper Merged Ontology'. In: *The ECAI-10 Workshop on Automated Reasoning about Context and Ontology Evolution (ARCOE-10)*. Ed. by A. Bundy, J. Lehmann, G. Qi and I. J. Varzinczak. August 16-17, Lisbon, Portugal, 2010. Preprint: http://christoph-benzmueller.de/papers/W43.pdf.

[conf79] A. Pease and C. Benzmüller. 'Sigma: An Integrated Development Environment for Logical Theory Development'. In: *The ECAI 2010 Workshop on Intelligent Engineering Techniques for Knowledge Bases (IKBET'2010)*. Lisbon, Portugal, 2010. Preprint: http://christoph-benzmueller.de/papers/W42.pdf.

[conf80] M. Schiller and C. Benzmüller. 'Human-Oriented Proof Techniques are Relevant for Proof Tutoring'. In: *Workshop on Mathematically Intelligent Proof Search (MIPS 2010, affiliated with CICM 2010)*. Paris, France, 2010. Preprint: http://christoph-benzmueller.de/papers/W45.pdf.

[conf81] C. Benzmüller. 'Automating Access Control Logic in Simple Type Theory with LEO-II'. In: *Emerging Challenges for Security, Privacy and Trust, 24th IFIP TC 11 International Information Security Conference, SEC 2009, Pafos, Cyprus, May 18-20, 2009. Proceedings*. Ed. by D. Gritzalis and J. López. Vol. 297. IFIP. Springer, 2009, pp. 387–398. DOI: 10.1007/978-3-642-01244-0_34. Preprint: http://christoph-benzmueller.de/papers/C27.pdf.

[conf82] M. Schiller and C. Benzmüller. 'Granularity-Adaptive Proof Presentation'. In: *Artificial Intelligence in Education: Building Learning Systems that Care: From Knowledge Representation to Affective Modelling, Proceedings of the 14th International Conference on Artificial Intelligence in Education, AIED 2009, July 6-10, 2009, Brighton, UK*. Vol. 200. Frontiers in Artificial Intelligence and Applications. IOS Press, 2009, pp. 599–601. Preprint: http://christoph-benzmueller.de/papers/C30.pdf.

[conf83] M. Schiller and C. Benzmüller. 'Presenting Proofs with Adapted Granularity'. In: *KI 2009: Advances in Artificial Intelligence, 32nd Annual German Conference on AI, Paderborn, Germany, September 15-18, 2009. Proceedings*. Ed. by B. Mertsching, M. Hund and M. Z. Aziz. Vol. 5803. LNAI. Paderborn, Germany: Springer, 2009, pp. 289–297. DOI: 10.1007/978-3-642-04617-9_37. Preprint: http://christoph-benzmueller.de/papers/C31.pdf.

[conf84] M. Schiller and C. Benzmüller. 'Proof Granularity as an Empirical Problem?' In: *CSEDU 2009 - Proceedings of the First International Conference on Computer Supported Education, Lisboa, Portugal, March 23-26, 2009 - Volume 1*. Ed. by J. A. M. Cordeiro, B. Shishkov, A. Verbraeck and M. Helfert. SciTePress Digital Library, 2009, pp. 350–354. DOI: 10.5220/0002159603500354. Preprint: http://christoph-benzmueller.de/papers/C28.pdf.

[conf85] G. Sutcliffe, C. Benzmüller, C. Brown and F. Theiss. 'Progress in the Development of Automated Theorem Proving for Higher-order Logic'. In: *Automated Deduction - CADE-22, 22nd International Conference on Automated Deduction, Montreal, Canada, August 2-7, 2009. Proceedings*. Ed. by R. Schmidt. Vol. 5663. LNCS. Springer, 2009, pp. 116–130. DOI: 10.1007/978-3-642-02959-2_8. Preprint: http://christoph-benzmueller.de/papers/C29.pdf.

[conf86] C. Benzmüller, F. Rabe, C. Schürmann and G. Sutcliffe. 'Evaluation of Systems for Higher-order Logic (ESHOL)'. In: *Proceedings of the First International Workshop on Practical Aspects of Automated Reasoning, Sydney, Australia, August 10-11, 2008*. Ed. by B. Konev, R. A. Schmidt and S. Schulz. Vol. 373. CEUR Workshop Proceedings. CEUR-WS.org, 2008. Preprint: http://christoph-benzmueller.de/papers/W39.pdf.

[conf87] C. Benzmüller, F. Rabe and G. Sutcliffe. 'THF0 – The Core of the TPTP Language for Classical Higher-Order Logic'. In: *Automated Reasoning, 4th International Joint Conference, IJCAR 2008, Sydney, Australia, August 12-15, 2008, Proceedings*. Ed. by A. Armando, P. Baumgartner and G. Dowek. Vol. 5195. LNCS. Springer, 2008, pp. 491–506. DOI: `10.1007/978-3-540-71070-7_41`. Preprint: `http://christoph-benzmueller.de/papers/C25.pdf`.

[conf88] C. Benzmüller, F. Theiss, L. C. Paulson and A. Fietzke. 'LEO-II - A Cooperative Automatic Theorem Prover for Higher-Order Logic (System Description)'. In: *Automated Reasoning, 4th International Joint Conference, IJCAR 2008, Sydney, Australia, August 12-15, 2008, Proceedings*. Ed. by A. Armando, P. Baumgartner and G. Dowek. Vol. 5195. LNCS. Springer, 2008, pp. 162–170. DOI: `10.1007/978-3-540-71070-7_14`. Preprint: `http://christoph-benzmueller.de/papers/C26.pdf`.

[conf89] C. Benzmüller, D. Dietrich, M. Schiller and S. Autexier. 'Deep Inference for Automated Proof Tutoring?' In: *KI 2007: Advances in Artificial Intelligence, 30th Annual German Conference on AI, KI 2007, Osnabrück, Germany, September 10-13, 2007, Proceedings*. Ed. by J. Hertzberg, M. Beetz and R. Englert. Vol. 4667. Springer, 2007, pp. 435–439. DOI: `10.1007/978-3-540-74565-5_34`. Preprint: `http://christoph-benzmueller.de/papers/C24.pdf`.

[conf90] C. Benzmüller, H. Horacek, H. Lesourd, I. Kruijff-Korbayova, M. Schiller and M. Wolska. 'DiaWOz-II - A Tool for Wizard-of-Oz Experiments in Mathematics'. In: *KI 2006: Advances in Artificial Intelligence, 29th Annual German Conference on AI, KI 2006, Bremen, Germany, June 14-17, 2006, Proceedings*. Ed. by C. Freksa, M. Kohlhase and K. Schill. Vol. 4314. LNCS. Springer, 2007, pp. 159–173. DOI: `10.1007/978-3-540-69912-5_13`. Preprint: `http://christoph-benzmueller.de/papers/C22.pdf`.

[conf91] C. Benzmüller, L. C. Paulson, F. Theiss and A. Fietzke. 'Progress Report on LEO-II – An Automatic Theorem Prover for Higher-Order Logic'. In: *TPHOLs 2007 Emerging Trends Proceedings*. University of Kaiserslautern, Germany: Internal Report 364/07 at Department of Computer Science, 2007, pp. 33–48. Preprint: `http://christoph-benzmueller.de/papers/W37.pdf`.

[conf92] C. Benzmüller, L. C. Paulson, F. Theiss and A. Fietzke. 'The LEO-II Project'. In: *Proceedings of the Fourteenth Workshop on Automated Reasoning, Bridging the Gap between Theory and Practice*. Imperial College, London, England, 2007. Preprint: `http://christoph-benzmueller.de/papers/W36.pdf`.

[conf93] M. Buckley and C. Benzmüller. 'An Agent-based Architecture for Dialogue Systems'. In: *Perspectives of Systems Informatics, 6th International Andrei Ershov Memorial Conference, PSI 2006, Novosibirsk, Russia, June 27-30, 2006. Revised Papers*. Ed. by I. Virbitskaite and A. Voronkov. Vol. 4378. LNCS. Springer, 2007, pp. 135–147. DOI: `10.1007/978-3-540-70881-0_14`. Preprint: `http://christoph-benzmueller.de/papers/C21.pdf`.

[conf94] M. Schiller, D. Dietrich and C. Benzmüller. 'Towards Computer-Assisted Proof Tutoring'. In: *JEM Workshop on identifying and supporting (scientific) communities in education and research*. Jacobs University Bremen, Germany, 2007. Preprint: `http://christoph-benzmueller.de/papers/W38.pdf`.

[conf95] S. Autexier, C. Benzmüller, D. Dietrich, A. Meier and C.-P. Wirth. 'A Generic Modular Data Structure for Proof Attempts Alternating on Ideas and Granularity'. In: *Mathematical Knowledge Management, 4th International Conference, MKM 2005, Bremen, Germany, July 15-17, 2005, Revised Selected Papers*. Ed. by M. Kohlhase. Vol. 3863. LNCS. Springer, 2006, pp. 126–142. DOI: `10.1007/11618027_9`. Preprint: `http://christoph-benzmueller.de/papers/C19.pdf`.

[conf96] C. Benzmüller, C. Brown and M. Kohlhase. 'Cut-Simulation in Impredicate Logics'. In: *Automated Reasoning, Third International Joint Conference, IJCAR 2006, Seattle, WA, USA, August 17-20, 2006, Proceedings*. Ed. by U. Furbach and N. Shankar. Vol. 4130. LNCS. Springer, 2006, pp. 220–234. DOI: `10.1007/11814771_20`. Preprint: `http://christoph-benzmueller.de/papers/C23.pdf`.

[conf97] C. Benzmüller, H. Horacek, H. Lesourd, I. Kruijff-Korbayova, M. Schiller and M. Wolska. 'A corpus of tutorial dialogs on theorem proving; the influence of the presentation of the study-material'. In: *Proceedings of International Conference on Language Resources and Evaluation (LREC 2006)*. Genova, Italy: ELDA, 2006. Preprint: `http://christoph-benzmueller.de/papers/C20.pdf`.

[conf98] M. Schiller and C. Benzmüller. 'Granularity Judgments in Proof Tutoring'. In: *Poster papers at KI 2006: Advances in Artificial Intelligence: 29th Annual German Conference on AI*. Bremen, Germany, 2006. Preprint: `http://christoph-benzmueller.de/papers/W33.pdf`.

[conf99] M. Schiller, C. Benzmüller and A. van de Veire. 'Judging Granularity for Automated Mathematics Teaching'. In: *Short papers at LPAR 2006: 13th International Conference on Logic for Programming Artificial Intelligence and Reasoning*. Pnom Penh, Cambodia, 2006. Preprint: `http://christoph-benzmueller.de/papers/W34.pdf`.

[conf100] F. Theiss and C. Benzmüller. 'Term Indexing for the LEO-II Prover'. In: *IWIL-6 workshop at LPAR 2006: The 6th International Workshop on the Implementation of Logics*. Pnom Penh, Cambodia, 2006. Preprint: `http://christoph-benzmueller.de/papers/W35.pdf`.

[conf101] C. Benzmüller. 'System Description: LEO – A Resolution based Higher-Order Theorem Prover'. In: *Proceedings of the LPAR-05 Workshop: Empirically Successfull Automated Reasoning in Higher-Order Logic (ESHOL)*. Wexford Hotel, Montego Bay, Jamaica, 2005, pp. 25–44. URL: http://arxiv.org/abs/cs/0601042. arXiv:cs/0601042.

[conf102] C. Benzmüller and C. Brown. 'A Structured Set of Higher-Order Problems'. In: *Theorem Proving in Higher Order Logics, 18th International Conference, TPHOLs 2005, Oxford, UK, August 22-25, 2005, Proceedings*. Ed. by J. Hurd and T. F. Melham. LNCS 3603. Springer, 2005, pp. 66–81. DOI: 10.1007/11541868_5. Preprint: http://christoph-benzmueller.de/papers/C17.pdf.

[conf103] C. Benzmüller, V. Sorge, M. Jamnik and M. Kerber. 'Can a Higher-Order and a First-Order Theorem Prover Cooperate?' In: *Logic for Programming, Artificial Intelligence, and Reasoning, 11th International Conference, LPAR 2004, Montevideo, Uruguay, March 14-18, 2005, Proceedings*. Ed. by F. Baader and A. Voronkov. LNCS 3452. Springer, 2005, pp. 415–431. DOI: 10.1007/978-3-540-32275-7_27. Preprint: http://christoph-benzmueller.de/papers/C16.pdf.

[conf104] C. Benzmüller, V. Sorge, M. Jamnik and M. Kerber. 'Combining Proofs of Higher-Order and First-Order Automated Theorem Provers'. In: *Proceedings of the LPAR-05 Workshop: Empirically Successfull Automated Reasoning in Higher-Order Logic (ESHOL)*. Wexford Hotel, Montego Bay, Jamaica, 2005, pp. 45–58. URL: http://arxiv.org/abs/cs/0601042. arXiv:cs/0601042.

[conf105] C. Benzmüller and B. Q. Vo. 'Mathematical Domain Reasoning Tasks in Natural Language Tutorial Dialog on Proofs'. In: *Proceedings, The Twentieth National Conference on Artificial Intelligence and the Seventeenth Innovative Applications of Artificial Intelligence Conference, July 9-13, 2005, Pittsburgh, Pennsylvania, USA*. Ed. by M. Veloso and S. Kambhampati. AAAI Press / The MIT Press, 2005, pp. 516–522. Preprint: http://christoph-benzmueller.de/papers/C18.pdf.

[conf106] M. Buckley and C. Benzmüller. 'Integrating Proof Assistants as Reasoning and Verification Tools into a Scientific WYSIWIG Editor'. In: *Proceedings of the ETAPS Satellite Workshop on User Interfaces for Theorem Provers (UITP)*. Edinburgh, Scotland, 2005, pp. 16–39. Preprint: http://christoph-benzmueller.de/papers/W30.pdf.

[conf107] M. Buckley and C. Benzmüller. 'System Description: A Dialog Manager supporting Tutorial Natural Language Dialogue on Proofs'. In: *Proceedings of the ETAPS Satellite Workshop on User Interfaces for Theorem Provers (UITP)*. Edinburgh, Scotland, 2005, pp. 40–67. Preprint: http://christoph-benzmueller.de/papers/W29.pdf.

[conf108] J. Siekmann and C. Benzmüller. 'OMEGA: Computer Supported Mathematics'. In: *KI 2004: Advances in Artificial Intelligence, 27th Annual German Conference on AI, KI 2004, Ulm, Germany, September 20-24, 2004, Proceedings*. Ed. by S. Biundo, T. W. Frühwirth and G. Palm. LNCS 3228. Ulm, Germany, 2004, pp. 3–28. DOI: 10.1007/978-3-540-30221-6_2. Preprint: http://christoph-benzmueller.de/papers/C15.pdf.

[conf109] M. Wolska et al. 'An annotated corpus of tutorial dialogs on mathematical theorem proving'. In: *Proceedings of International Conference on Language Resources and Evaluation (LREC 2004)*. Lisbon, Portugal: ELDA, 2004. Preprint: http://christoph-benzmueller.de/papers/C14.pdf.

[conf110] S. Autexier and C. Benzmüller. 'OMEGA — From Proof Planning towards Mathematical Knowledge Management'. In: *Mathematical Knowledge Management Symposium*. Heriot-Watt University, Edinburgh, Scotland, 2003. Preprint: http://christoph-benzmueller.de/papers/W27.pdf.

[conf111] C. Benzmüller. 'The CALCULEMUS research training network: A short overview'. In: *Proceedings of the 11th Symposium on the Integration of Symbolic Computation and Mechanized Reasoning (CALCULEMUS 2003)*. Rome, Italy: MMIII ARACNE EDITRICE S.R.L. (ISBN 88-7999-545-6), 2003, pp. 1–16. Preprint: http://christoph-benzmueller.de/papers/W21.pdf.

[conf112] C. Benzmüller. 'The CALCULEMUS research training network: A short overview'. In: *Proceedings of the First QPQ Workshop on Deductive Software Components at CADE-19*. Miami, USA, 2003, pp. 13–27. Preprint: http://christoph-benzmueller.de/papers/W22.pdf.

[conf113] C. Benzmüller et al. 'A Wizard of Oz Experiment for Tutorial Dialogues in Mathematics'. In: *Proceedings of AI in Education (AIED 2003) Workshop on Advanced Technologies for Mathematics Education*. Sydney, Australia, 2003. Preprint: http://christoph-benzmueller.de/papers/W23.pdf.

[conf114] C. Benzmüller et al. 'Language Phenomena in Tutorial Dialogs on Mathematical Proofs'. In: *Proceedings of the 7th Workshop on the semantics and pragmatics of dialogue (DiaBruck)*. Wallerfangen, Germany, 2003. Preprint: http://christoph-benzmueller.de/papers/W25.pdf.

[conf115] C. Benzmüller et al. 'Towards a Principled Approach to Tutoring Mathematical Proofs'. In: *Proceedings of the Workshop on Expressive Media and Intelligent Tools for Learning, German Conference on AI (KI 2003)*. Hamburg, Germany, 2003. Preprint: `http://christoph-benzmueller.de/papers/W26.pdf`.

[conf116] C. Benzmüller et al. 'Tutorial Dialogs on Mathematical Proofs'. In: *Proceedings of IJCAI-03 Workshop on Knowledge Representation and Automated Reasoning for E-Learning Systems*. Acapulco, Mexico, 2003, pp. 12–22. Preprint: `http://christoph-benzmueller.de/papers/W20.pdf`.

[conf117] M. Hübner, C. Benzmüller, S. Autexier and A. Meier. 'Interactive Proof Construction at the Task Level'. In: *Proceedings of the Workshop User Interfaces for Theorem Provers (UITP 2003)*. Rome, Italy: ARACNE EDITRICE S.R.L. (ISBN 88-7999-545-6), 2003, pp. 81–100. Preprint: `http://christoph-benzmueller.de/papers/W24.pdf`.

[conf118] B. Q. Vo, C. Benzmüller and S. Autexier. 'Assertion Application in Theorem Proving and Proof Planning'. In: *Proceedings of the 10th Workshop on Automated Reasoning: Bridging the Gap between Theory and Practice*. Liverpool, England, 2003. Preprint: `http://christoph-benzmueller.de/papers/W19.pdf`.

[conf119] Q. B. Vo, C. Benzmüller and S. Autexier. 'Assertion Application in Theorem Proving and Proof Planning'. In: *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*. Ed. by G. Gottlob and T. Walsh. Acapulco, Mexico, 2003. Preprint: `http://christoph-benzmueller.de/papers/C13.pdf`.

[conf120] C. Benzmüller, C. Giromini and A. Nonnengart. 'Symbolic Verification of Hybrid Systems supported by Mathematical Services'. In: *Additonal Proceedings of 10th Symposium on the Integration of Symbolic Computation and Mechanized Reasoning (CALCULEMUS 2002)*. Marseilles, France, 2002, pp. 1–10. Preprint: `http://christoph-benzmueller.de/papers/W17.pdf`.

[conf121] C. Benzmüller, C. Giromini, A. Nonnengart and J. Zimmer. 'Reasoning Services in the MathWeb-SB for Symbolic Verification of Hybrid Systems'. In: *Proceedings of the Verification Workshop - VERIFY'02 in connection with FLOC 2002*. Kopenhagen, Denmark, 2002, pp. 29–39. Preprint: `http://christoph-benzmueller.de/papers/W18.pdf`.

[conf122] C. Benzmüller and V. Sorge. 'Agent-based Theorem Proving'. In: *Proceedings of the 9th Workshop on Automated Reasoning: Bridging the Gap between Theory and Practice*. London, England, 2002, pp. 1–3. Preprint: `http://christoph-benzmueller.de/papers/W15.pdf`.

[conf123] M. Hübner, S. Autexier and C. Benzmüller. 'Agent-based Proof Search with Indexed Formulas'. In: *Additonal Proceedings of 10th Symposium on the Integration of Symbolic Computation and Mechanized Reasoning (CALCULEMUS 2002)*. Marseilles, France, 2002, pp. 11–20. Preprint: `http://christoph-benzmueller.de/papers/W16.pdf`.

[conf124] M. Jamnik, M. Kerber, M. Pollet and C. Benzmüller. 'Automatic Learning of Proof Methods in Proof Planning'. In: *Proceedings of the 9th Workshop on Automated Reasoning: Bridging the Gap between Theory and Practice*. London, England, 2002, pp. 1–2. Preprint: `http://christoph-benzmueller.de/papers/W28.pdf`.

[conf125] J. Siekmann, C. Benzmüller, A. Fiedler, A. Meier and M. Pollet. 'Proof Development with OMEGA: Sqrt(2) is irrational'. In: *Logic for Programming, Artificial Intelligence, and Reasoning, 9th International Conference, LPAR 2002*. Ed. by M. Baaz and A. Voronkov. LNCS 2514. Springer, 2002, pp. 367–387. Preprint: `http://christoph-benzmueller.de/papers/C12.pdf`.

[conf126] J. Siekmann et al. 'Proof Development with OMEGA'. In: *Proceedings of the 18th International Conference on Automated Deduction (CADE-18)*. Ed. by A. Voronkov. LNCS 2392. Copenhagen, Denmark: Springer, 2002, pp. 144–149. DOI: `10.1007/3-540-45620-1_12`. Preprint: `http://christoph-benzmueller.de/papers/C11.pdf`.

[conf127] C. Benzmüller. 'An Agent Based Approach to Reasoning'. In: *Extended abstract for invited plenary talk at AISB'01 Convention 'Agents and Cognition*. University of York, 2001, pp. 57–58. Preprint: `http://christoph-benzmueller.de/papers/W10.pdf`.

[conf128] C. Benzmüller, M. Jamnik, M. Kerber and V. Sorge. 'An Agent-oriented Approach to Reasoning'. In: *Proceedings of the Calculemus Workshop 2001*. Siena, Italy, 2001, pp. 48–63. Preprint: `http://christoph-benzmueller.de/papers/W11.pdf`.

[conf129] C. Benzmüller, M. Jamnik, M. Kerber and V. Sorge. 'Experiments with an Agent-oriented Reasoning system'. In: *KI 2001: Advances in Artificial Intelligence, Joint German/Austrian Conference on AI, Vienna, Austria, September 19-21, 2001, Proceedings*. Ed. by F. Baader, G. Brewka and T. Eiter. LNCS 2174. Springer, 2001, pp. 409–424. DOI: `10.1007/3-540-45422-5_29`. Preprint: `http://christoph-benzmueller.de/papers/C10.pdf`.

[conf130] C. Benzmüller and M. Kerber. 'A Lost Proof'. In: *Proceedings of the IJCAR 2001 Workshop: Future Directions in Automated Reasoning*. Siena, Italy, 2001, pp. 13–24. Preprint: `http://christoph-benzmueller.de/papers/W13.pdf`.

[conf131] C. Benzmüller, A. Meier, E. Melis, M. Pollet and V. Sorge. 'Proof Planning: A Fresh Start?' In: *Proceedings of the IJCAR 2001 Workshop: Future Directions in Automated Reasoning*. Siena, Italy, 2001, pp. 25–37. Preprint: `http://christoph-benzmueller.de/papers/W12.pdf`.

[conf132] C. Benzmüller, A. Meier, M. Pollet and V. Sorge. 'Proof transformation and expansion with a parameterisable inference machine.' In: *Proceedings of the Eighth Workshop on Automated Reasoning, Bridging the Gap between Theory and Practice*. University of York, 2001, pp. 1–2. Preprint: `http://christoph-benzmueller.de/papers/W9.pdf`.

[conf133] C. Benzmüller, A. Meier and V. Sorge. 'Distributed Assertion Retrieval'. In: *First International Workshop on Mathematical Knowledge Management*. RISC Linz, Schloss Hagenberg, 2001, pp. 1–7. Preprint: `http://christoph-benzmueller.de/papers/W14.pdf`.

[conf134] C. Benzmüller and V. Sorge. 'OANTS – Combining Interactive and Automated Theorem Proving'. In: *Symbolic Computation and Automated Reasoning*. Ed. by M. Kerber and M. Kohlhase. A.K.Peters, 2001, pp. 81–97. Preprint: `http://christoph-benzmueller.de/papers/C8.pdf`.

[conf135] M. Jamnik, M. Kerber and C. Benzmüller. 'Learning proof methods in proof planning'. In: *Proceedings of the Eighth Workshop on Automated Reasoning, Bridging the Gap between Theory and Practice*. University of York, 2001, pp. 5–6. Preprint: `http://christoph-benzmueller.de/papers/W8.pdf`.

[conf136] M. Jamnik, M. Kerber and C. Benzmüller. 'Towards Learning New Methods in Proof Planning'. In: *Proceedings of the CADE-17 Workshop: Automated Deduction in the Context of Mathematics*. 2001, pp. 1–12. Preprint: `http://christoph-benzmueller.de/papers/W6.pdf`.

[conf137] C. Benzmüller, M. Jamnik, M. Kerber and V. Sorge. 'Resource Guided Concurrent Deduction'. In: *Symbolic Computation and Automated Reasoning*. Ed. by M. Kerber and M. Kohlhase. A.K.Peters, 2000, pp. 245–246. Preprint: `http://christoph-benzmueller.de/papers/C7.pdf`.

[conf138] C. Benzmüller, M. Jamnik, M. Kerber and V. Sorge. 'Resource Guided Concurrent Deduction'. In: *Proceedings of the AISB'2000 Symposium 'How to design a functioning mind'*. Birmingham, England, 2000, pp. 137–138. Preprint: `http://christoph-benzmueller.de/papers/W7.pdf`.

[conf139] M. Jamnik, M. Kerber and C. Benzmüller. 'Towards Learning New Methods in Proof Planning'. In: *Symbolic Computation and Automated Reasoning*. Ed. by M. Kerber and M. Kohlhase. A.K.Peters, 2000, pp. 142–159. Preprint: `http://christoph-benzmueller.de/papers/C9.pdf`.

[conf140] J. Siekmann et al. 'Adaptive Course Generation and Presentation'. In: *Proceedings of the Fifth International Conference on Intelligent Tutoring Systems—Workshop W2: Adaptive and Intelligent Web-Based Education Systems*. Ed. by P. Brusilovski. Montreal, 2000, pp. 54–61. Preprint: `http://christoph-benzmueller.de/papers/W5.pdf`.

[conf141] C. Benzmüller. 'Extensional Higher-Order Paramodulation and RUE-Resolution'. In: *Automated Deduction - CADE-16, 16th International Conference on Automated Deduction, Trento, Italy, July 7-10, 1999, Proceedings*. Ed. by H. Ganzinger. LNCS 1632. Springer, 1999, pp. 399–413. DOI: `10.1007/3-540-48660-7_39`. Preprint: `http://christoph-benzmueller.de/papers/C5.pdf`.

[conf142] C. Benzmüller, M. Jamnik, M. Kerber and V. Sorge. 'Agent Based Mathematical Reasoning'. In: *Proceedings of the Calculemus Workshop: Systems for Integrated Computation and Deduction*. Trento, Italy, 1999, pp. 1–12. Preprint: `http://christoph-benzmueller.de/papers/W4.pdf`.

[conf143] C. Benzmüller and V. Sorge. 'Critical Agents Supporting Interactive Theorem Proving'. In: *Progress in Artificial Intelligence, 9th Portuguese Conference on Artificial Intelligence, EPIA '99, Évora, Portugal, September 21-24, 1999, Proceedings*. Ed. by P. Borahona and J. J. Alferes. LNCS 1695. Springer, 1999, pp. 208–221. DOI: `10.1007/3-540-48159-1_15`. Preprint: `http://christoph-benzmueller.de/papers/C6.pdf`.

[conf144] C. Benzmüller and V. Sorge. 'Towards Fine-Grained Proof Planning with Critical Agents'. In: *Proceedings of the 6th Workshop on Automated Reasoning*. Edinburgh College of Art & Divison of Informatics, University of Edinburgh, 1999, pp. 19–20. Preprint: `http://christoph-benzmueller.de/papers/W3.pdf`.

[conf145] C. Benzmüller and M. Kohlhase. 'Extensional Higher-Order Resolution'. In: *Automated Deduction - CADE-15, 15th International Conference on Automated Deduction, Lindau, Germany, July 5-10, 1998, Proceedings*. Ed. by C. Kirchner and H. Kirchner. LNAI 1421. Springer, 1998, pp. 56–71. DOI: `10.1007/BFb0054248`. Preprint: `http://christoph-benzmueller.de/papers/C2.pdf`.

[conf146] C. Benzmüller and M. Kohlhase. 'LEO – A Higher-Order Theorem Prover'. In: *Automated Deduction - CADE-15, 15th International Conference on Automated Deduction, Lindau, Germany, July 5-10, 1998, Proceedings.* Ed. by C. Kirchner and H. Kirchner. LNCS 1421. Springer, 1998, pp. 139–143. DOI: `10.1007/BFb0054256`. Preprint: `http://christoph-benzmueller.de/papers/C3.pdf`.

[conf147] C. Benzmüller and V. Sorge. 'A Blackboard Architecture for Guiding Interactive Proofs'. In: *Artificial Intelligence: Methodology, Systems, and Applications, 8th International Conference, AIMSA '98, Sozopol, Bulgaria, September 21-13, 1998, Proceedings.* Ed. by F. Giunchiglia. LNCS 1480. Springer, 1998, pp. 102–114. DOI: `10.1007/BFb0057438`. Preprint: `http://christoph-benzmueller.de/papers/C4.pdf`.

[conf148] C. Benzmüller and V. Sorge. 'Integrating TPS with OMEGA'. In: *Theorem Proving in Higher Order Logics: Emerging Trends.* Ed. by J. Grundy and M. Newey. Technical Report 98-08, Department of Computer Science and Computer Science Lab, The Australian National University. Canberra, Australia, 1998, pp. 1–18. Preprint: `http://christoph-benzmueller.de/papers/W2.pdf`.

[conf149] J. Siekmann et al. 'A Distributed Graphical User Interface for the Interactive Proof System'. In: *Proceedings of the International Workshop "User Interfaces for Theorem Provers 1998 (UITP'98).* Eindhoven, Netherlands, 1998, pp. 130–138. Preprint: `http://christoph-benzmueller.de/papers/W1.pdf`.

[conf150] C. Benzmüller et al. 'OMEGA: Towards a mathematical assistant'. In: *Automated Deduction - CADE-14, 14th International Conference on Automated Deduction, Townsville, North Queensland, Australia, July 13-17, 1997, Proceedings.* Ed. by W. McCune. LNCS 1249. Springer, 1997, pp. 252–255. DOI: `10.1007/3-540-63104-6_23`. Preprint: `http://christoph-benzmueller.de/papers/C1.pdf`.

5   Theses

[t1] C. Benzmüller. *Cumulative Habilitation Script.* Saarland University, Germany, 2006, pp. 1–357. Preprint: `http://christoph-benzmueller.de/papers/T3.pdf`.

[t2] C. Benzmüller. 'Equality and Extensionality in Higher-Order Theorem Proving'. PhD thesis. Naturwissenschaftlich-Technische Fakultät I, Saarland University, Saarbrücken, Germany, 1999, pp. 1–174. Preprint: `http://christoph-benzmueller.de/papers/T2.pdf`.

[t3] C. Benzmüller. 'Eine Fallstudie zur Spezifikation von Systemanforderungen in der Spezifikationssprache OBSCURE'. MA thesis. Department of Computer Science, Saarland University, Germany, 1994, pp. 1–194. Preprint: `http://christoph-benzmueller.de/papers/T1.pdf`.

6   Technical Reports and Preprints (selection; see also the listing at arXiv)

[rep1] C. Benzmüller and S. Reiche. *Modeling and Automating Public Announcement Logic with Relativized Common Knowledge as a Fragment of HOL in LogiKEy.* Tech. rep. arXiv:2111.01654. CoRR, 2021. eprint: `2111.01654`. URL: `https://arxiv.org/abs/2111.01654`. `https://arxiv.org/abs/2111.01654`.

[rep2] A. Steen and C. Benzmüller. *On Reductions of Hintikka Sets for Higher-Order Logic.* Tech. rep. arXiv:2004.07506. CoRR, 2021. eprint: `2004.07506`. URL: `https://arxiv.org/abs/2004.07506`. `https://arxiv.org/abs/2004.07506`.

[rep3] D. Fuenmayor and C. Benzmüller. *Harnessing Higher-Order (Meta-)Logic to Represent and Reason with Complex Ethical Theories.* Tech. rep. arXiv:1903.09818. CoRR, 2019. URL: `https://arxiv.org/abs/1903.09818`. See also `https://www.researchgate.net/publication/331979647`.

[rep4] L. Tiemens, D. S. Scott, M. Benda and C. Benzmüller. *Computer-supported Exploration of a Categorical Axiomatization of Miroslav Benda's Modeloids.* Tech. rep. arXiv:1910.12863. CoRR, 2019. URL: `https://arxiv.org/abs/1910.12863`. `https://arxiv.org/abs/1910.12863`.

[rep5] C. Benzmüller, A. Farjami and X. Parent. *Faithful Semantical Embedding of a Dyadic Deontic Logic in HOL.* Tech. rep. arXiv:1802.08454. CoRR, 2018. URL: `https://arxiv.org/abs/1802.08454`. `https://arxiv.org/abs/1802.08454`.

[rep6] C. Benzmüller and X. Parent. *First Experiments with a Flexible Infrastructure for Normative Reasoning.* Tech. rep. arXiv:1804.02929. CoRR, 2018. URL: `http://arxiv.org/abs/1804.02929`. `http://arxiv.org/abs/1804.02929`.

[rep7] C. Benzmüller and X. Parent. *I/O Logic in HOL — First Steps.* Tech. rep. arXiv:1803.09681. CoRR, 2018. URL: `http://arxiv.org/abs/1803.09681`. `https://arxiv.org/abs/1803.09681`.

[rep8]   A. Steen and C. Benzmüller. *The Higher-Order Prover Leo-III (Extended Version)*. Tech. rep. arXiv:1802.02732. CoRR, 2018. URL: `https://arxiv.org/abs/1802.02732`. `https://arxiv.org/abs/1802.02732`, preprint of IJCAR 2018 paper.

[rep9]   C. Benzmüller. *Universal Reasoning, Rational Argumentation and Human-Machine Interaction*. Tech. rep. arXiv:1703.09620. CoRR, 2017. URL: `http://arxiv.org/abs/1703.09620`. `http://arxiv.org/abs/1703.09620`.

[rep10]   D. Fuenmayor and C. Benzmüller. *A Case Study on Computational Hermeneutics: E. J. Lowe's Modal Ontological Argument*. Tech. rep. PhilPapers, 2017. URL: `https://philpapers.org/rec/FUEACS`. `https://philpapers.org/rec/FUEACS`.

[rep11]   C. Benzmüller and D. S. Scott. *Axiomatizing Category Theory in Free Logic*. Tech. rep. arXiv:1609.01493. CoRR, 2016. URL: `http://arxiv.org/abs/1609.01493`. `http://arxiv.org/abs/1609.01493`.

[rep12]   C. Benzmüller, A. Steen and M. Wisniewski. *News — 25th International Conference on Automated Deduction (CADE-25)*. Tech. rep. 2015. DOI: `10.1007/s13218-015-0402-z`. Künstliche Intelligenz 29(4):451-452; non-reviewed conference report.

[rep13]   C. Benzmüller and B. Woltzenlogel Paleo. *Formalization, Mechanization and Automation of Gödel's Proof of God's Existence*. Tech. rep. arXiv:1308.4526. CoRR, 2013. URL: `http://arxiv.org/abs/1308.4526`. (not reviewed, superseded by ECAI-2014 paper).

[rep14]   C. Benzmüller and T. Raths. *FMLtoHOL (version 1.0): Automating First-order Modal Logics with LEO-II and Friends*. Tech. rep. Freie Universität Berlin, Germany, 2012. URL: `http://arxiv.org/abs/1207.6685`. arXiv:1207.6685.

[rep15]   C. Benzmüller, D. Gabbay, V. Genovese and D. Rispoli. *Embedding and Automating Conditional Logics in Classical Higher-Order Logic*. Tech. rep. Freie Universität Berlin, Germany, 2011. URL: `http://arxiv.org/abs/1106.3685`. arXiv:1106.3685.

[rep16]   C. Benzmüller. *A Addendum on LEO-II and the Basic Fragment of Simple Type Theory*. Tech. rep. AAR Newsletter No. 84, 2009. URL: `http://www.AARInc.org/Newsletters/084-2009-07.html`.

[rep17]   C. Benzmüller. *Automating Quantified Multimodal Logics in Simple Type Theory – A Case Study*. Tech. rep. DFKI Bremen GmbH, Safe and Secure Cognitive Systems, Cartesium, Enrique Schmidt Str. 5, D–28359 Bremen, Germany: Saarland University, 2009. URL: `http://arxiv.org/abs/0905.4369`. arXiv:0905.4369.

[rep18]   C. Benzmüller and L. C. Paulson. *Quantified Multimodal Logics in Simple Type Theory*. Tech. rep. DFKI Bremen GmbH, Safe and Secure Cognitive Systems, Cartesium, Enrique Schmidt Str. 5, D–28359 Bremen, Germany: Saarland University, 2009. URL: `http://arxiv.org/abs/0905.2435`. arXiv:0905.2435.

[rep19]   C. Benzmüller and G. Sutcliffe. *The THFTPTP Project — An Infrastructure for Typed Higher-order Form Automated Theorem Proving Marie Curie International Incoming Fellowship Grant Agreement PIIF-GA-2008-219982 Project Report — Implications*. Tech. rep. Saarland University, 2009. Preprint: `http://christoph-benzmueller.de/papers/R49.pdf`.

[rep20]   C. Benzmüller and G. Sutcliffe. *The THFTPTP Project — An Infrastructure for Typed Higher-order Form Automated Theorem Proving Marie Curie International Incoming Fellowship Grant Agreement PIIF-GA-2008-219982 Project Report — Scientific*. Tech. rep. Saarland University, 2009. Preprint: `http://christoph-benzmueller.de/papers/R50.pdf`.

[rep21]   M. Schiller and C. Benzmüller. *Granularity-Adaptive Proof Presentation*. Tech. rep. DFKI Bremen GmbH, Safe and Secure Cognitive Systems, Cartesium, Enrique Schmidt Str. 5, D–28359 Bremen, Germany: Saarland University, 2009. URL: `http://arxiv.org/abs/0903.0314`. arXiv:0903.0314.

[rep22]   C. Benzmüller. *Automating Access Control Logics in Simple Type Theory with LEO-II*. SEKI Report SR-2008-01. Saarbrücken, Germany: Universität des Saarlandes, 2008. URL: `http://arxiv.org/abs/0901.3574`. arXiv:0901.3574.

[rep23]   C. Benzmüller, C. Brown and M. Kohlhase. *Cut-Simulation in Impredicative Logics (extended version)*. SEKI Report SR-2006-01. Saarland University, Saarbrücken, Germany, 2006. Preprint: `http://christoph-benzmueller.de/papers/R39.pdf`.

[rep24]   C. Benzmüller, C. Brown and M. Kohlhase. *Semantic Techniques for Cut-Elimination in Higher-Order Logics*. SEKI Report SR-2004-07. Saarland University, Saarbrücken, Germany, 2004. Preprint: `http://christoph-benzmueller.de/papers/R37.pdf`.

[rep25]   M. Buckley and C. Benzmüller. *A Dialogue Manager for the DIALOG Demonstrator*. SEKI Report SR-04-01. Saarland University, SEKI Publications (ISSN 1437-4447), 2004. Preprint: `http://christoph-benzmueller.de/papers/R35.pdf`.

[rep26]   S. Autexier, C. Benzmüller and D. Hutter. *Towards a Framework to Integrate Proof Search Paradigms.* SEKI Report SR-03-02. Saarland University, SEKI Publications (ISSN 1437-4447), 2003. Preprint: `http://christoph-benzmueller.de/papers/R21.pdf`.

[rep27]   C. Benzmüller, C. Brown and M. Kohlhase. *Higher Order Semantics and Extensionality.* Technical Report CMU-01-03. Carnegie Mellon University, Pittsburgh, PA, 2003, pp. 1–74. Preprint: `http://christoph-benzmueller.de/papers/R18.pdf`.

[rep28]   C. Benzmüller, C. Brown and M. Kohlhase. *Semantic Techniques for Cut-Elimination in Higher Order Logic.* Tech. rep. Saarland University, Saarbrücken, Germany and Carnegie Mellon University, Pittsburgh, USA, 2003. Preprint: `http://christoph-benzmueller.de/papers/R19.pdf`.

[rep29]   B. Q. Vo, C. Benzmüller and S. Autexier. *An Approach to Assertion Application via Generalized Resolution.* SEKI Report SR-03-01. Saarland University, SEKI Publications (ISSN 1437-4447), 2003. Preprint: `http://christoph-benzmueller.de/papers/R20.pdf`.

[rep30]   C. Benzmüller. *A remark on higher order RUE-resolution with EXTRUE.* SEKI Report SR-02-05. Saarland University, SEKI Publications (ISSN 1437-4447), 2002, pp. 1–5. URL: `http://arxiv.org/abs/0901.3608`. arXiv:0901.3608.

[rep31]   C. Benzmüller, A. Fiedler, A. Meier and M. Pollet. *Irrationality of square root of 2 – A case study in OMEGA.* SEKI Report SR-02-03. Saarland University, SEKI Publications (ISSN 1437-4447), 2002, pp. 1–103. Preprint: `http://christoph-benzmueller.de/papers/R15.pdf`.

[rep32]   M. Jamnik, M. Kerber, M. Pollet and C. Benzmüller. *Automatic Learning of Proof Methods in Proof Planning.* Tech. rep. CSRP-02-05. University of Birmingham, School of Computer Science, 2002, pp. 1–34. Preprint: `http://christoph-benzmueller.de/papers/R16.pdf`.

[rep33]   M. Jamnik, M. Kerber and C. Benzmüller. *Learning Method Outlines in Proof Planning.* Tech. rep. CSRP-01-08. University of Birmingham, School of Computer Science, 2001, pp. 1–15. Preprint: `http://christoph-benzmueller.de/papers/R14.pdf`.

[rep34]   M. Jamnik, M. Kerber and C. Benzmüller. *Towards Learning new Methods in Proof Planning.* Tech. rep. CSRP-00-09. University of Birmingham, School of Computer Science, 2000, pp. 1–16. Preprint: `http://christoph-benzmueller.de/papers/R13.pdf`.

[rep35]   C. Benzmüller. *Equality and Extensionality in Higher-Order Theorem Proving.* SEKI Report SR-99-08. Saarland University, SEKI Publications (ISSN 1437-4447), 1999, pp. 1–139. Preprint: `http://christoph-benzmueller.de/papers/R11.pdf`.

[rep36]   C. Benzmüller, M. Jamnik, M. Kerber and V. Sorge. *Towards Concurrent Resource Guided Deduction.* SEKI Report SR-99-07. Saarland University, SEKI Publications (ISSN 1437-4447), 1999, pp. 1–27. Preprint: `http://christoph-benzmueller.de/papers/R10.pdf`.

[rep37]   C. Benzmüller and V. Sorge. *Resource Adaptive Agents in Interactive Theorem Proving.* SEKI Report SR-99-02. Saarland University, SEKI Publications (ISSN 1437-4447), 1999, pp. 1–13. URL: `http://arxiv.org/abs/0901.3585`.

[rep38]   C. Benzmüller. *An Adaptation of Paramodulation and RUE-Resolution to Higher-Order Logic.* SEKI Report SR-98-07. Saarland University, SEKI Publications (ISSN 1437-4447), 1998, pp. 1–55. Preprint: `http://christoph-benzmueller.de/papers/R7.pdf`.

[rep39]   C. Benzmüller. *A Calculus and a System Architecture for Extensional Higher-Order Resolution.* Research Report 97-198. Department of Mathematical Sciences, Carnegie Mellon University, Pittsburgh, USA, 1997, pp. 1–28. Preprint: `http://christoph-benzmueller.de/papers/R4.pdf`.

[rep40]   C. Benzmüller and M. Kohlhase. *Henkin Completeness of Higher-Order Resolution.* SEKI Report SR-97-10. Saarland University, SEKI Publications (ISSN 1437-4447), 1997, pp. 1–12. Preprint: `http://christoph-benzmueller.de/papers/R6.pdf`.

[rep41]   C. Benzmüller and M. Kohlhase. *Model Existence for Higher-Order Logic.* SEKI Report SR-97-09. Saarland University, SEKI Publications (ISSN 1437-4447), 1997, pp. 1–34. Preprint: `http://christoph-benzmueller.de/papers/R5.pdf`.

[rep42]   C. Benzmüller. *HDMS–A und OBSCURE in KORSO— Die Funktionale Essenz von HDMS–A aus Sicht der algorithmischen Spezifikationsmethode — TEIL 3: Spezifikation der atomaren Funktionen.* Technischer Bericht A/06/93. Saarland University, SEKI Publications (ISSN 1437-4447), 1993, pp. 1–59. Preprint: `http://christoph-benzmueller.de/papers/R2.pdf`.

[rep43]   S. Autexier, C. Benzmüller and R. A. Heckler. *Das Fallbeispiel 'UNIX' — Dokumentation einer UNIX-Filesystem-Spezifikation mit OWEB*. Working Paper WP 92/36. Saarland University, SEKI Publications (ISSN 1437-4447), 1992. Preprint: `http://christoph-benzmueller.de/papers/R1.pdf`.