

HELMUT VEITH

TECHNISCHE UNIVERSITÄT WIEN

CURRICULUM VITAE & LIST OF PUBLICATIONS

HELMUT VEITH – CURRICULUM VITAE

PERSONAL DATA

<i>Name</i>	Helmut Veith
<i>Position</i>	Full Professor, Vienna University of Technology, Austria Adjunct Professor, Carnegie Mellon University, Pittsburgh, USA
<i>Date of Birth</i>	February 5, 1971, in Vienna, Austria
<i>Citizenship</i>	Austria
<i>Office Address</i>	Technische Universität Wien Institut für Informationssysteme 184/4 AB Formal Methods in Systems Engineering Favoritenstraße 9, 1040 Wien, Austria
<i>Phone</i>	+43-1-58801-18441
<i>Email</i>	veith@forsyte.tuwien.ac.at
<i>WWW</i>	www.forsyte.tuwien.ac.at
<i>Marital Status</i>	married
<i>Languages</i>	Fluent in German, English and Russian

ACADEMIC POSITIONS AND EDUCATION

since 12/2009

	Full Professor, Vienna University of Technology (TU Wien), Austria
2008–2009	Professor (W3), Technical University of Darmstadt, Germany.
2005–	Adjunct Full Professor, Carnegie Mellon University, Pittsburgh, USA.
2003–2007	Professor (C3), Technical University of Munich, Germany.
2001–2003	Associate professor, Vienna University of Technology (TU Wien), Austria.
2001	Habilitation in <i>Applied and Theoretical Computer Science</i> , TU Wien, Austria.
1999–2000	Visiting Scientist, Carnegie Mellon University, Pittsburgh, USA
1998	Doctoral defense, TU Wien, with highest distinction. Doctoral award ceremony performed in 1999 by the Austrian president (<i>sub auspiciis praesidentis</i>).
1995–2001	Teaching Assistant (Universitätsassistent), Institut für Informationssysteme, TU Wien.
1994	Diplom-Ingenieur (similar to M.Sc.) in Computational Logic, TU Wien, Austria, with highest distinction.
1989	High school graduation with highest distinction, Bundesgymnasium Tulln, Austria.

ACADEMIC WRITINGS

Contributions to Scalability and Complexity Issues in Computer Aided Verification and Logic-Based Information Systems, Habilitation Thesis, TU Wien, 2000.

Succinct Representation and the Complexity of Logics and Database Query Languages, Dissertation (Adviser Prof. Georg Gottlob), TU Wien, 1997.

Logical Reducibilities in Finite Model Theory, Diploma Thesis (Adviser Prof. Thomas Eiter, Prof. Georg Gottlob), TU Wien, 1994.

AWARDS

- 2003 ACM SIGSOFT Distinguished Paper Award.
- 1999-2000 Max Kade Scholarship, Carnegie Mellon University, Pittsburgh, USA.
- 1999 PhD graduation *sub auspiciis praesidentis* by the Austrian president.
- 1998 Research Award by the Austrian Ministry for Science and Education.
- 1991-1994 Several Austrian and Lower Austrian scholarships.
- 1989 First prize, international programming contest, Ukrainian Academy of Sciences.

Students' Awards

- 1999 Christian Schallhart, TU Wien. Kurt Gödel Scholarship to visit Columbia University.
- 2002 Christian Schallhart, TU Wien. Best diploma thesis award, Austrian Computer Society.
- 2005 Johannes Kinder, TU Munich. General Electric Silver Award for diploma thesis.
- 2005 Johannes Kinder, TU Munich. Bavarian State PhD Scholarship for Excellent Students (“Bayerische Eliteförderung”)
- 2006 Marko Samer, TU Wien. Biennial Hans Zemanek Award for best Austrian PhD thesis in Computer Science.
- 2006 Florian Zuleger, TU Munich. Accepted to the Max Weber Program for highly gifted students.
- 2006 Florian Zuleger, TU Munich. Accepted to the TopMath PhD program for highly gifted students of mathematics.
- 2007 Florian Zuleger, TU Munich. Microsoft European PhD Scholarship.

PHD STUDENTS

Stefan Katzenbeisser. Cryptographic Watermarking.
Graduation *summa cum laude* in April 2004.

Marko Samer. Reasoning about Specifications in Model Checking.
Graduation *summa cum laude* in November 2004.

Christian Schallhart. Architecture and Security in Networked Virtual Environments
Graduation *summa cum laude* in June 2007.

Current PhD Students

Andreas Holzer
Visar Januzaj
Mohammad Khaleghi
Stefan Kugele
Boris Langer
Michael Tautschnig
Florian Zuleger

PROGRAM COMMITTEES, ORGANIZATION COMMITTEES, EDITORSHIPS, PEER REVIEWER FOR JOURNALS AND CONFERENCES

PROGRAM CHAIR

CSL 2010, LPAR 2008, CAV 2013 (tentative)

PROGRAM COMMITTEE MEMBERSHIPS

CAV 2009–2010, 2005, 2003, FMCAD 2009–2010, ATVA 2010, CSL 2009 & 2007, CSR 2007–2009, ICTAC 2009–2010, EC 2009–2010, WING 2009, ISOLA 2008, SYNASC 2004–2009, FSTTCS 2007, VISSAS 2005, LICS 2004, WMF 2002, KGC 1999, *etc.*

CONFERENCE ORGANIZATION

Tutorial Chair, FMCAD 2010; Co-Organizer, Decision Procedures in SW, HW, Bioware, Dagstuhl 2010; Co-Organizer, 25 Years of Model Checking, FLOC 2005; OC committee member of Logic Colloquium 2001, *Finite Model Theory, Databases and Symbolic Model Checking*, Dagstuhl, 1999; chair of the lecture series *Collegium Logicum* of the Kurt-Gödel society from 1994 to 2003, featuring approx. 120 talks.

PEER REVIEWER FOR JOURNALS

ACM Transactions on Computational Logic, ACM Transactions on Design Automation of Electronic Systems, ACM Transactions on Database Systems, ACM Transactions on Programming Languages and Systems, ACM Transactions on Software Engineering and Methodology, Formal Methods in System Design, Logical Methods in Computer Science, IEEE Transactions on Knowledge and Data Engineering, Artificial Intelligence, Information and Computation, Theoretical Computer Science, Chicago Journal of Theoretical Computer Science, Information Processing Letters, Foundations of Computer Science, Journal of Automated Reasoning, Artificial Intelligence Communications (AICOM), Soft Computing, Acta Informatica, Studia Logica, *etc.*

PEER REVIEWER FOR CONFERENCES

Computer-Aided Verification (CAV), Conference on Concurrency Theory (CONCUR), ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL), Principles of Database Systems (PODS), Logic in Computer Science (LICS), Computer Science Logic (CSL), Knowledge Representation (KR), IEEE Computational Complexity Conference (CCC), Mathematical Foundations of Computer Science (MFCS), International Conference on Automata, Languages and Programming (ICALP), International Conference on Database Theory (ICDT), Very Large Databases (VLDB), Foundations of Software Technology and Theoretical Computer Science (FST & TCS), Joint European Conference on Logic in AI (JELIA), International Conference on Artificial Intelligence and Symbolic Mathematical Computation (AISM), Kurt Gödel Colloquium (KGC), Database and Expert Systems Applications (DEXA), Logic Programming and Nonmonotonic Reasoning (LPNMR), Joint German/Austrian Conference on Artificial Intelligence (KI), FLOPS *etc.*

LIST OF PUBLICATIONS

PEER-REVIEWED JOURNALS

- [1] S. Jha, S. Katzenbeisser, C. Schallhart, H. Veith, S. Chenney
Semantic Integrity in Large-Scale Online Simulations.
ACM Transactions on Internet Technology (TOIT), 2010.
- [2] J. Kinder, S. Katzenbeisser, C. Schallhart, H. Veith.
Proactive Detection of Computer Worms using Model Checking.
IEEE Transactions on Dependable and Secure Computing, 2008.
- [3] M. Christodorescu, S. Jha, J. Kinder, S. Katzenbeisser, H. Veith
Software Transformations to Improve Malware Detection.
Journal of Computer Virology, Vol. 3(4): 253-265, 2007.
- [4] O. Pikhurko, O. Verbitsky, H. Veith.
First Order Definability of Graphs: Upper Bounds for Quantifier Rank.
Discrete Applied Mathematics, 154(17): 2511-2529, 2006.
- [5] S. Chaki, E. Clarke, S. Jha, H. Veith.
An Iterative Framework for Simulation Conformance.
Journal of Logic and Computation, Vol. 15(4): 465-488, 2005.
- [6] S. Chaki, E. Clarke, A. Groce, S. Jha, H. Veith.
Modular Verification of Software Components in C.
IEEE Transactions on Software Engineering, Vol. 30(6): 388-402, 2004.
- [7] E. Clarke, O. Grumberg, S. Jha, Y. Lu, H. Veith.
Counterexample-guided Abstraction Refinement for Symbolic Model Checking.
Journal of the ACM, Vol. 50(5):752-794, 2003.
- [8] G. Gottlob, E. Grädel, and H. Veith.
Datalog LITE: a deductive query language for efficient temporal reasoning.
ACM Transactions on Computational Logic (TOCL), 3(1): 42-79, 2002
- [9] T. Eiter and H. Veith.
On the Complexity of Data Disjunctions.
Theoretical Computer Science, 288(1):101-128, 2002.
- [10] M. Baaz, P. Hajék, F. Montagna, and H. Veith.
Complexity of t-norms.
Annals of Pure and Applied Logic, 113(1-3): 3-11, 2001.
- [11] G. Gottlob, N. Leone, and H. Veith.
Succinctness as a source of complexity in logical formalisms.
Annals of Pure and Applied Logic, 97(1-3):231-260, 1999.

- [12] M. Baaz and H. Veith.
Interpolation in fuzzy logic.
Archive for Mathematical Logic, 38(7):461–489, 1999.
- [13] H. Veith.
Succinct representation, leaf languages and projection reductions.
Information and Computation, 142(2):207–236, 1998.
- [14] H. Veith.
Languages represented by boolean formulas.
Information Processing Letters, 63:251–256, 1997.

EDITED VOLUMES

- [15] O. Grumberg, H. Veith, editors.
25 Years of Model Checking
 Lecture Notes in Computer Science (LNCS) 5000, 2008.
- [16] I. Cervesato, H. Veith, A. Voronkov, editors.
Proc. Logic for Programming, Artificial Intelligence, and Reasoning (LPAR)
 Lecture Notes in Computer Science (LNCS), 2008.

BOOK CONTRIBUTIONS AND INVITED PAPERS

- [17] M. Samer, H. Veith.
On the Notion of Vacuous Truth.
In Proc. Logic for Programming, Artificial Intelligence, and Reasoning (LPAR), Lecture Notes in Computer Science (LNCS) 4790, pages 2–14, 2007.
- [18] E. Clarke, A. Gupta, H. Jain, H. Veith.
Model Checking: Back and Forth between Software and Hardware
In Verified Software: Theories, Tools, Experiments, Lecture Notes in Computer Science (LNCS), to appear.
- [19] E. Clarke, A. Fenkner, S. K. Jha, H. Veith.
Temporal Logic Model Checking.
In Handbook of Networked and Embedded Control Systems, pages 539-558, Springer, 2005.
- [20] E. Clarke and H. Veith.
Counterexamples Revisited: Principles, Algorithms, Applications.
In International Symposium on Verification (Theory and Practice), Lecture Notes in Computer Science (LNCS) 2772, pages 208–224. Springer, 2003.
- [21] M. Samer, H. Veith.
From Temporal Logic Queries to Vacuity Checking.
 NATO Advanced Research Workshop *VISSAS 2005*, IOS Publishers, to appear.

- [22] E. Clarke, O. Grumberg, S. Jha, Y. Lu, and H. Veith.
Progress on the state explosion problem in model checking.
 In *Informatics: 10 years back, 10 years ahead.*, Lecture Notes in Computer Science (LNCS) 2000, pages 154–169. Springer, 2000.
- [23] M. Baaz and H. Veith.
An axiomatization of quantified propositional Gödel logic using the Takeuti-Titani rule.
 In *Logic Colloquium 1998*, volume 13 of *Lecture Notes in Logic*, pages 91–104. Association for Symbolic Logic, 2000.
- [24] G. Gottlob, E. Grädel, and H. Veith.
Linear Time Datalog and Branching Time Logic.
 In *Logic-Based AI*, J. Minker editor, chapter 19, pages 443-468. Kluwer, 2000.

PEER-REVIEWED CONFERENCES

- [25] A. Holzer, C. Schallhart, M. Tautschnig, H. Veith.
Query-Driven Program Testing
 In *Proc. Int. Conference on Verification, Model Checking, and Abstract Interpretation (VMCAI)*, Lecture Notes in Computer Science (LNCS) 5403, pages 151-166, 2009.
- [26] J. Kinder, F. zuleger, H. Veith.
An Abstract Interpretation-Based Framework for Control Flow Reconstruction from Binaries
 In *Proc. Int. Conference on Verification, Model Checking, and Abstract Interpretation (VMCAI)*, Lecture Notes in Computer Science (LNCS) 5403, 2009.
- [27] M. Samer, H. Veith.
Encoding Treewidth into SAT
 In *Proc. Int. Conference on Satisfiability (SAT)*, Lecture Notes in Computer Science (LNCS) 5584, pages 45-50, 2009.
- [28] A. Holzer, C. Schallhart, M. Tautschnig, H. Veith.
FShell: Systematic Test Case Generation for Dynamic Analysis and Measurement
 In *Proc. Computer Aided Verification (CAV)*, Lecture Notes in Computer Science (LNCS) 5123, pages 209-213, 2008.
- [29] J. Kinder and H. Veith
Jakstab: A Static Analysis Platform for Binaries
 In *Proc. Computer Aided Verification (CAV)*, Lecture Notes in Computer Science (LNCS) 5123, 2008.
- [30] Edmund. Clarke, M. Talupur, H. Veith.
Proving Ptolemy Right: The Environment Abstraction Framework for Model Checking Concurrent Systems
 In *Proc. Tools and Algorithms for the Construction and Analysis of Systems (TACAS)*, Lecture Notes in Computer Science (LNCS) 4963, pages 33-47, 2008.

- [31] S. Chaki, C. Schallhart, H. Veith.
Verification Across Intellectual Property Boundaries.
 In *Proc. Computer-Aided Verification (CAV)*, Lecture Notes in Computer Science (LNCS) 4590, pages 82-94, 2007.
- [32] S. Jha, S. Katzenbeisser, C. Schallhart, H. Veith, S. Chenney.
Enforcing Semantic Integrity on Untrusted Clients in Networked Virtual Environments (Extended Abstract).
 In *Proc. IEEE Symposium on Security and Privacy*, pages 179–186, 2007.
- [33] U. Schmid, A. Steininger, H. Veith.
Towards a systematic design of fault-tolerant asynchronous circuits.
 In *Proc. GMM/GI/ITG-Fachtagung Zuverlässigkeit und Entwurf*, pages 173–174, 2007.
- [34] A. Holzer, J. Kinder, H. Veith
Using Verification Technology to Specify and Detect Malware.
 In *Proc. Computer Aided Systems Theory (EUROCAST)*, Lecture Notes in Computer Science (LNCS) 4739, pages 497–504, 2007.
- [35] E. Clarke, M. Talupur, H. Veith.
Environment Abstraction for Parameterized Verification.
 In *Proc. Verification, Model Checking, and Abstract Interpretation (VMCAI)*, Lecture Notes in Computer Science (LNCS) 3855, pages 126-141, 2006.
- [36] S. Chaki, E. Clarke, O. Grumberg, J. Ouaknine, N. Sharygina, T. Touili, H. Veith
State/Event Software Verification for Branching-Time Specifications.
 In *Proc. International Conference on Integrated Formal Methods*, pages 53-69, 2005.
- [37] M. Samer, H. Veith.
Deterministic CTL Query Solving.
 In *Proc. 12th Int. Symposium on Temporal Representation and Reasoning (TIME 2005)*, pages 156-165, IEEE Computer Society, 2005.
- [38] S. Katzenbeisser, C. Schallhart, H. Veith, J. Ditmann.
Ensuring Media Integrity on Third-Party Infrastructures.
 In *Proc. 20th IFIP International Information Security Conference (SEC 2005)*, pages 493-508, 2005.
- [39] J. Kinder, S. Katzenbeisser, C. Schallhart, H. Veith.
Detecting Malicious Code by Model Checking.
 In *Proc. Conference on Detection of Intrusions and Malware & Vulnerability Assessment (DIMVA 2005)*, Lecture Notes in Computer Science (LNCS) 3548, pages 174-187, Springer, 2005.
- [40] S. Katzenbeisser, C. Schallhart, H. Veith.
Malware Engineering.
 In *Proc. Sicherheit 2005*, Lecture Notes in Informatics (LNI) 62, pages 139-148, 2005.
- [41] E. Clarke, M. Talupur, T. Touilli, H. Veith.
Verification by Network Decomposition.

- In *Proc. International Conference on Concurrency Theory (CONCUR 2004)*, Lecture Notes in Computer Science (LNCS) 3170, pages 276-291. Springer, 2004.
- [42] M. Samer, H. Veith
Parameterized Vacuity.
 In *Proc. Formal Methods in Computer-Aided Design (FMCAD 2004)*, pages 322-336.
- [43] M. Samer, H. Veith.
A Syntactic Characterization of Distributive LTL Queries.
 In *Proc. Automata, Languages and Programming: 31st International Colloquium (ICALP 2004)*, Lecture Notes in Computer Science (LNCS) 3142, pages 1099-1110. Springer, 2004.
- [44] S. Chaki, E. Clarke, A. Groce, S. Jha, H. Veith.
Modular Verification of Software Components in C.
 In *Proc. International Conference on Software Engineering (ICSE)*, pages 385–395. IEEE Computer Society, 2003.
ACM SIGSOFT Distinguished Paper Award.
- [45] E. Clarke, M. Talupur, H. Veith, and D. Wang.
SAT based Predicate Abstraction for Hardware Verification.
 In *Proc. 6th International Conference on Theory and Applications of Satisfiability Testing (SAT'03)*, Lecture Notes in Computer Science (LNCS) 2919, pages 78-92. Springer, 2003.
- [46] M. Samer, H. Veith.
Verification of Temporal Logic Queries Revisited.
 In *Computer Science Logic (CSL)*, Lecture Notes in Computer Science (LNCS) 2803, pages 470-483. Springer, 2003.
- [47] P. Fenkam, S. Chaki, H. Gall, S. Jha, E. Kirda, H. Veith.
Integrating Publish/Subscribe into a Mobile Teamwork Support Platform.
 In *Software Engineering and Knowledge Engineering (SEKE)*, 2003.
- [48] P. Chauhan, E. Clarke, J. Kukula, S. Sappala, H. Veith, D. Wang.
Automated Abstraction Refinement for Model Checking Large State Spaces using SAT based Conflict Analysis.
 In *Proc. Formal Methods in Computer-Aided Design (FMCAD'02)*. Lecture Notes in Computer Science (LNCS) 2517, pages 33-50. Springer, 2002.
- [49] E. Clarke, S. Jha, Y. Lu, H. Veith.
Tree-like counterexamples in model checking.
 In *Proc. Logic in Computer Science (LICS)*, pages 19-29. IEEE Computer Society, 2002.
- [50] P. Chauhan, E. Clarke, S. Jha, J. Kukula, T. Shiple, H. Veith, and D. Wang.
Non-linear Quantification Scheduling in Image Computation.
 In *International Conference on Computer-Aided Design (ICCAD'01)*, pp. 293–298, 2001.
- [51] A. Campailla, S. Chaki, E. Clarke, S. Jha, and H. Veith.
Efficient filtering in publish-subscribe systems using binary decision diagrams.

- In *International Conference on Software Engineering (ICSE)*, pages 443-452. IEEE Computer Society, 2001.
- [52] P. Chauhan, E. Clarke, S. Jha, J. Kukula, H. Veith, and D. Wang.
Using combinatorial optimization methods for quantification scheduling.
 In *Conference on Correct Hardware Design and Verification Methods (CHARME)*, Lecture Notes in Computer Science (LNCS) 2144, pages 293-309. Springer, 2001.
- [53] E. Clarke, S. German, Y. Lu, H. Veith, and D. Wang.
Executable protocol specification in ESL.
 In *Proc. Formal Methods in Computer-Aided Design (FMCAD)*, Lecture Notes in Computer Science (LNCS) 1954, pages 197–216. Springer, 2000.
- [54] M. Baaz, C. Fermüller, and H. Veith.
An analytic calculus for quantified propositional Gödel logic.
 In *Proc. Automated Reasoning with Analytic Tableaux and Related Methods (TABLEAUX 2000)*, Lecture Notes in Computer Science (LNCS) 1847, pages 112–126. Springer, 2000.
- [55] E. Clarke, O. Grumberg, S. Jha, Y. Lu, and H. Veith.
Counterexample-guided abstraction refinement.
 In *Proc. Computer-Aided Verification (CAV) 2000*, Lecture Notes in Computer Science (LNCS) 1855, pages 154–169. Springer, 2000.
- [56] M. Baaz, A. Ciabattoni, C. Fermüller, and H. Veith.
On the undecidability of some sub-classical first-order logics: Urquhart’s C and related logics.
 In *Proc. Conference on Foundations of Software Technology and Theoretical Computer Science (FST&TCS ’99)*, Lecture Notes in Computer Science (LNCS) 1738, pages 258–268. Springer, 1999.
- [57] H. Veith.
How to encode a logical structure as an OBDD.
 In *Proc. 13th Annual IEEE Conference on Computational Complexity (CCC)*, pages 122–131. IEEE Computer Society, 1998.
- [58] M. Baaz, A. Ciabattoni, C. Fermüller, and H. Veith.
Proof theory of fuzzy logics: Urquhart’s C and related logics.
 In *Proc. Mathematical Foundations of Computer Science 1998 (MFCS’98)*, Lecture Notes in Computer Science (LNCS) 1450, pages 203–212. Springer, 1998.
- [59] M. Baaz and H. Veith.
Quantifier elimination in fuzzy logic.
 In *Proc. Computer Science Logic (CSL)*, Lecture Notes in Computer Science (LNCS) 1584, pages 399–414. Springer, 1998.
- [60] T. Eiter, G. Gottlob, and H. Veith.
Modular Logic Programming and Generalized Quantifiers.
 In J. Dix, U. Furbach, and A. Nerode, editors, *Proceedings of the 4th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR-97)*, Lecture Notes in Computer Science (LNCS) 1265, pages 290–309. Springer, 1997.

- [61] H. Veith.
Succinct representation, leaf languages and projection reductions.
 In *11th Annual IEEE Conference on Computational Complexity (CCC)*, pages 118–126. IEEE Computer Society, 1996.
- [62] G. Gottlob, N. Leone, and H. Veith.
Second order logic and the weak exponential hierarchies.
 In *Mathematical Foundations of Computer Science (MFCS)*, Lecture Notes in Computer Science (LNCS) 969, pages 66–81. Springer, 1995.

PEER-REVIEWED WORKSHOPS

- [63] M. Talupur, H. Veith.
Domain Pattern Abstraction + Ptolemaic Abstract Domains = Environment Abstraction for Concurrent Systems
 In *Proc. Exploiting Concurrency Efficiently and Correctly – (EC)²*, Princeton, 2008.
- [64] M. Baaz, A. Ciabattoni, and H. Veith.
An overview of quantified Gödel logic.
 In *Workshop on Theory and Applications of Quantified Boolean Formulas (QBF 2001)*, 2001.
- [65] T. Eiter, G. Gottlob, and H. Veith.
Generalized Quantifiers in Logic Programs.
 In J. Väänänen, editor, *Workshop on Generalized Quantifiers, Aix-en-Provence*, Lecture Notes in Computer Science (LNCS) 1754, pages 72–98. Springer, 1999.
- [66] S. Katzenbeisser, H. Veith.
Watermarking Schemes Provably Secure Against Copy and Ambiguity Attacks.
 In *ACM Workshop on Digital Rights Management (DRM)*, pages 111-119. ACM Press, 2003.
- [67] S. Katzenbeisser, H. Veith.
Securing symmetric watermarking schemes against protocol attacks.
 In *Proc. SPIE vol. 4675: Security and Watermarking of Multimedia Contents IV*. International Society of Optical Engineering, 2002.
- [68] P. Koppensteiner, H. Veith.
A Novel SAT Procedure for Linear Real Arithmetic.
 Proc. *Pragmatical Aspects of Decision Procedures (PDPAR)*, CAV affiliated Workshop, 2005.

SELECTED OTHER PUBLICATIONS

- [69] H. Veith.
Friends or Foes: Communities in Software Verification.
 In *Computer Science Logic / Kurt Goedel Colloquium*, Lecture Notes in Computer Science (LNCS) 2803, pages 528–529. Springer, 2003.

- [70] C. Schallhart, G. Gottlob, H. Veith.
The ATOM Middleware for MMorgs.
Feasibility Study, 2003.
- [71] E. Clarke, Y. Lu, and H. Veith.
A survey of abstract BDDs.
 In *Proc. 4th World Multiconference on Systemics, Cybernetics and Informatics (SCI)*, 2000.
- [72] J. Dorn, A. Prianichnikova, M. Stumptner, H. Veith, J. Reisinger, and R. Schlatterbeck.
Multiprocessor scheduling using the DÉJÀ VU class library.
OEGAI (Journal of the Austrian Society for AI), 2000.
- [73] H. Veith.
Review of Logical Dilemmas: The Life and Work of Kurt Gödel.
 In *Vienna Circle Institute Yearbook*. Kluwer, 1998.
- [74] M. Baaz and H. Veith.
Interpolation and quantifier elimination in fuzzy logic.
 In *Logic Colloquium 1998, Bulletin of Symbolic Logic*, 1998.
- [75] G. Gottlob, N. Leone, and H. Veith.
Eine allgemeine Methode zur Bestimmung der Ausdruckskomplexität von Datenbanken.
 In *Proc. GI Workshop Grundlagen von Datenbanken*, volume 63 of *Konstanzer Schriften in Mathematik und Informatik*, 1998.
- [76] H. Veith.
Succinctness in descriptive complexity.
 In *Collegium Logicum 1998: Complexity*, Annals of the Kurt Gödel Society, 1998.
- [77] M. Baaz and H. Veith.
Interpolation in fuzzy logic.
 In *Proc. COST 15 Meeting on Fuzzy Logic, Patras*, 1997.
- [78] T. Eiter, G. Gottlob, and H. Veith.
Logic programming: modularity and revisions.
 In *Proc. Dagstuhl Workshop Logic Databases: The Meaning of Change*, 1996.
- [79] H. Veith.
Succinct representation and leaf languages.
Electronic Colloquium on Computational Complexity (ECCC), TR95-048, 1995. ISSN 1433-8092.
- [80] J. Ditmann, S. Katzenbeisser, C. Schallhart, H. Veith.
Provably Secure Authentication of Digital Media Through Invertible Watermarks.
 IACR Cryptology ePrint Archive, Report 2004/923, 2004.

TALKS

INVITED TALKS AT CONFERENCES AND WORKSHOPS

Danger Inside: Computer Errors in the Infrastructure

European Forum Alpbach, 8/2008.

Embedding Formal Methods into Systems Engineering

FIT-IT Keynote Address, Vienna, 5/2008.

Ptolemaic Software Analysis

Symposium on Software Quality - State of the Art, Zürich, 10/2007.

Quantifier Distribution as Abstraction Method

Collegium Logicum 2007: Proofs and Structures, Vienna, 10/2007.

On the Notion of Vacuous Truth

International Conference on Logic for Programming, Artificial Intelligence and Reasoning (LPAR), Erevan, 10/2007.

On the Secrecy of Proofs

Workshop Analytic Proof Systems 3, Erevan, 10/2007.

Environment Abstraction: Proving Ptolemy Right

EMC² Workshop on Hardware and Software Verification, Pittsburgh, 4/2006.

Temporal Logic Model Checking

Tutorial, Summer School on Logic in Computer Science, Tiflis, Georgia, 9/2005.

Verification Beyond Single-Pass Model Checking

NATO Advanced Research Workshop *Verification of Infinite-State Systems with Applications to Security*, Timisoara, Romania, 3/2005.

Model Checking: from Hardware to Software

5th International Workshop on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC), Timisoara, Romania, 10/2003.

Friends or Foes ? Communities in Software Verification

Computer Science Logic (CSL) and Kurt Gödel Colloquium (Joint Conference), 8/2003.

Counterexamples in Computer-Aided Verification.

ASL Annual Meeting, Special Session on Logic in Computer Science, Las Vegas, 5/2002.

Complexity in Computer-Aided Verification.

Foundations of the Formal Sciences III, Wien, 9/2001.

Finite Structures in Computer-Aided Verification.

Finite Model Theory Workshop, Luminy, 5/2000.

INVITED TALKED AT DAGSTUHL WORKSHOPS

From Manual Proofs to Model Checking.

Dagstuhl Workshop *Fault-Tolerant Distributed Algorithms on VLSI Chips*, 9/2008.

Environment Abstraction for Distributed Software.

Dagstuhl Workshop *Software Verification: Infinite-State Model Checking and Static Program Analysis*, 2/2006.

Modular Verification of Software Components in C.

Dagstuhl Workshop *Deduction and Infinite-State Model Checking*, Dagstuhl, 4/2003.

Linear Time Datalog: Temporal versus Deductive Reasoning in Verification.

Dagstuhl Workshop *Databases, Finite Model Theory, and Computer Aided Verification*, Dagstuhl, 10/1999.

Linear Time Datalog for Branching Time Logics.

Dagstuhl Workshop *Temporal Logics for Distributed Systems - Paradigms and Algorithms*, Dagstuhl, 10/1999.

Logic Programming: Modularity and Revisions.

Dagstuhl Workshop *Logic Databases: The Meaning of Change*, Dagstuhl, 9/1996.

INVITED COLLOQUIUM TALKS

Interpolation in Fuzzy Logic.

Collegium Logicum of the Kurt Gödel Society, Vienna, 5/1997.

Die Komplexität sukzinkter Probleme.

Universität Gießen, 11/1997.

Komplexität von OBDD-Problemen.

Universität Würzburg, 7/1998.

Elimination of Quantifiers in Fuzzy Logic. (In Russian.)

Moscow State University, 9/1998.

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