

Christian Kästner

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Curriculum Vitae

Affiliation Researcher (Post-Doc)
Philipps University Marburg
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Born 1982 in Schwedt/Oder, Germany; German citizenship

Profile

Post-doctoral researcher at the Philipps University Marburg interested in controlling the complexity caused by variability in software systems. Developing mechanisms, languages, and tools to implement variability in a disciplined way, to detect errors, and to improve program comprehension in systems with a high amount of variability.

Education

- Apr. 2007 – May 2010 Doctoral degree in computer science (Doktor-Ingenieur),
University of Magdeburg, Germany,
Grade “**summa cum laude**” (with distinction)
Reviewers: Prof. Gunter Saake (University of Magdeburg), Prof. Don Batory (University of Texas at Austin), Prof. Krzysztof Czarnecki (University of Waterloo)
- Oct. 2002 – Mar. 2007 Diploma degree in business information systems
(M.Sc. equivalent; Diplom-Wirtschaftsinformatiker),
University of Magdeburg, Germany,
Grade “**1.0**” (with distinction)

Academic Employment

- since Jul. 2010 Researcher (Post-Doc),
Host: Prof. Klaus Ostermann,
Philipps University Marburg, Germany
- Apr. 2007 – Jun. 2010 Research Assistant,
Host: Prof. Gunter Saake,
University of Magdeburg, Germany
- Oct. 2006 – Mar. 2007 Visiting scholar,
Host: Prof. Don Batory
University of Texas at Austin, USA
- Oct. 2005 – Sep. 2006 Student Research Assistant,
Host: Prof. Gunter Saake,
University of Magdeburg, Germany

Awards and Honors

- Oct. 2011 **GI-Dissertationspreis 2010**: Best-Dissertation Award of the German Computer Science Association (€ 5 000)
(Joint award of the German, Swiss, and Austrian Associations for Computer Science (GI, SI, and OCG) and the German Chapter of the ACM.)
- Oct. 2011 Distinguished-Paper Award at the Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA) 2011
- Aug. 2011 Best-Research-Paper Award at the International Software Product Line Conference (SPLC) 2011
- Nov. 2010 Best-Dissertation Award from the School of Computer Science, University of Magdeburg (€ 1 000)
- Dec. 2009 Research-Award from the School of Computer Science, University of Magdeburg for the best scientific publication (ASE'08 paper; € 1 000)
- Oct. 2007 Best-Graduate Award from the School of Computer Science, University of Magdeburg
- Sep. 2007 **Best-Master's-Thesis Award** from the Ernst-Denert Foundation for Software Engineering (€ 2 000)
- Sep. 2006 Student Scholarship of the Germany Academic Exchange Service

Research Grants

Variability Mining: Migrating Legacy Systems into Software Product Lines. German Research Foundation. Principal investigator.
Applied February 2011, still under review.

Invited Talks

- Apr. 2012 Parsing and Type Checking all 2^{10000} Configurations of the Linux Kernel, University of Passau, Germany
- Apr. 2012 Parsing and Type Checking all 2^{10000} Configurations of the Linux Kernel, Carnegie Mellon University, Pittsburgh, PA
- Apr. 2012 Parsing and Type Checking all 2^{10000} Configurations of the Linux Kernel, University of Edinburgh, UK
- Mar. 2012 Parsing and Type Checking all 2^{10000} Configurations of the Linux Kernel, Purdue University, West Lafayette, IN
- Dec. 2011 Parsing and Type Checking all 2^{10000} Configurations of the Linux Kernel, Technical University Ilmenau, Germany
- Oct. 2011 Virtual Separation of Concerns, Oregon State University, Corvallis, OR
- Oct. 2011 Modularity in Feature-Oriented Software Development, University of Texas at Austin, TX
- Jan. 2011 Variability-Aware Analysis: Type Checking entire Product Lines, Dagstuhl Seminar 11021 Feature-Oriented Software Development
- Dec. 2010 Modularity – Current State and Challenges, University of Waterloo, ON
- Dec. 2010 Variability Analysis of C Code in the Presence of Lexical Macros and Conditional Compilation, IFIP WG 2.11 Meeting, Waterloo, ON

- Jul. 2010 From Aspectual Decomposition to Virtual Separation of Concerns, Colloquium Honorary Doctorate Ernst Denert, University of Kaiserslautern
- Apr. 2010 Virtual Separation of Concerns: Toward Preprocessors 2.0, University of Namur (FUNDP), Belgium
- Mar. 2010 Virtual Separation of Concerns: Toward Preprocessors 2.0, IFIP WG 2.11 Meeting, St. Andrews, UK
- Jul. 2008 Decomposing Berkeley DB: Granularity and Interactions, Dagstuhl Seminar 08281 Software Engineering for Tailor-made Data Management

Teaching and Advising

Courses

- 2012 Empirical methods for computer scientists (in German)
- 2011 Software product lines: Concepts and implementation (in German)
- 2010 Introduction to software engineering (in German; shared with K. Ostermann)
- 2008, 2009 Product-line implementation for tailor-made data management (in German)
- 2008, 2009, 2010 Student conference on software engineering and database systems (in English)

Exercise Classes, Seminars, and others

- 2011 Software product lines: Concepts and implementation (in German)
- 2010 Software-Product-Lines Seminar (in German)
- 2007, 2008, 2009 Product-line implementation for tailor-made data management (in German)
- 2007, 2008, 2009 Database implementation concepts (in German)
 - 2009 Specification technologies (in German)
 - 2007 Advanced database models (in English)
- 2007–2011 Supervised 10 software projects of the course “IT Project Management”
 - 2010 Supervising tutors for course introduction to software engineering
- 2004, 2005 Student assistant for “Cost accounting”
- 2004 Student assistant for “Algorithms and data structures”

Advising

- M. Kreutzer, 2012 Bachelor thesis on Static Analysis of Product Lines (in German).
- S. Haase, 2012 Diploma thesis “A Program Slicing Approach to Feature Identification in Legacy C Code”.
- C. Adler, 2010 Master’s thesis “Optional Composition – A Solution to the Optional Feature Problem?”.
- M. Ritter, 2010 Diploma thesis on Software Protection at Source Code Level with Product-Line Techniques (in German).
- A. Kenner, 2010 Diploma thesis on Static Reference Analysis of Implementations with C-Preprocessor Variability (in German). – *Results published as a workshop paper at FOSD 2010.*

- A. Dreiling, 2010 Diploma thesis on Feature Mining: Semiautomatic Transition from Legacy Systems to Software Product Lines (in German). – *A conference paper about the results is currently under review.*
- C. Becker, 2010 Diploma thesis on Development of a Native Feature-Oriented Compiler (in German).
- T. Thüm, 2010 Diploma thesis “A Machine-Checked Proof for a Product-Line-Aware Type System”. – **Best-thesis award of the Denert Foundation for Software Engineering.** Results published as part of a journal paper in *ACM Transactions on Software Engineering and Methodology (TOSEM)*, 2011.
- A. Schulze, 2009 Diploma thesis on Analysis of Feature Interactions in Software Product Lines (in German).
- D. Aporius, 2009 Diploma thesis on Reducing Software Development Effort for Portable Devices (in German).
- J. Feigenspan, 2009 Diploma thesis “Empirical Comparison of FOSD Approaches Regarding Program Comprehension – A Feasibility Study”. – **Best-thesis award by Metop Research Center and Research Award by IHK Magdeburg.** A journal paper about the results is currently under review.
- C. Le Minh, 2009 Diploma thesis on Feature-Based Service-Oriented Architectures for Domestic Scenarios (in German).
- M. Rosenthal, 2009 Diploma thesis on Alternative Features in Colored Featherweight Java (in German).
- S. Kegel, 2009 Bachelor thesis “Streamed Verification of a Data Stream Management Benchmark”.
- J. Feigenspan, 2009 Bachelor thesis “Requirements and Design for a Language-Independent IDE Framework to Support Feature-Oriented Programming”.
- C. Hübner, 2008 Diploma thesis on Support for Requirements Engineering of Satellite Navigation Systems based on Feature-Oriented Domain Models (in German).
- A. Hoffmann, 2008 Bachelor thesis on Traceable Management of Very Big Data Collections for Financial Controlling (in German).
- T. Thüm, 2008 Bachelor thesis “Reasoning about Feature Model Edits”. – *Results published as conference paper at the International Conference on Software Engineering (ICSE), 2009.*

Memberships

IFIP Working Group 2.11 (Program Generation)

Association for Computing Machinery (ACM)

Gesellschaft für Informatik (GI)

Deutscher Hochschulverband

Professional Service

Organization Committees

- FOSD 2012 4th Int’l Workshop on Feature-Oriented Software Development
- ESCOT 2012 3rd International Workshop on Empirical Evaluation of Software Composition Techniques
- FOSD 2011 3rd Int’l Workshop on Feature-Oriented Software Development

- FOSD 2010 2nd Int'l Workshop on Feature-Oriented Software Development
- FOSD 2009 1st Int'l Workshop on Feature-Oriented Software Development
- FOSD-Tr. 2009-12 Annual German Student Meeting on Feature-Oriented Software Development (2009 Passau, 2010 Magdeburg, 2011 Dresden, 2012 Dagstuhl)

Program Committees

- SE 2013 SE 13 – GI Konferenz Software Engineering
- GPCE 2012 11th ACM International Conference on Generative Programming and Component Engineering
- SPLC 2012 16th International Software Product Line Conference – Tools and Demonstrations Track
- NFPinDSML 2012 4th Workshop on Non-functional System Properties and Domain Specific Modeling Languages
- RAM-SE 2012 9th Workshop on Reflection, AOP and Meta-Data for Software Evolution
- MISS 2012 2n Workshop on Modularity in Systems Software
- PEPM 2012 21st ACM SIGPLAN Workshop on Partial Evaluation and Program Manipulation
- VaMoS 2012 6th Int'l Workshop on Variability Modelling of Software-Intensive Systems
- FREECO 2011 ECOOP Workshop on Free Composition
- SC 2011 10th International Conference on Software Composition
- GPCE 2011 10th ACM International Conference on Generative Programming and Component Engineering
- ASE 2010 25th International Conference on Automated Software Engineering – Tool Demonstration Committee
- PLEERPS 2010 Workshop on Product-Line Engineering for Enterprise Resource Planning Systems

Reviewing

- AI 2012 Acta Informatica
- SPE 2012 Software: Practice and Experience
- SCP 2012 Science of Computer Programming
- TOSEM 2011 ACM Transactions on Software Engineering and Methodology
- JSS 2012 Journal of Systems and Software
- IST 2011 Information and Software Technology
- STTT 2011 Software Tools for Technology Transfer
- SCP 2011 Science of Computer Programming
- ECOOP 2011 European Conference on Object-Oriented Programming (invited by Sven Apel)
- AOSD 2011 International Conference on Aspect-Oriented Software Development (invited by Sven Apel)
- IST 2010 Information and Software Technology
- TSE 2010 IEEE Transactions on Software Engineering

- SLE 2010 International Conference on Software Language Engineering
(invited by Gabriele Taentzer)
- SCP 2010 Science of Computer Programming
- ASE 2010 International Conference on Automated Software Engineering
(invited by Sven Apel)
- IS 2009 IEEE Software
- GPCE 2009 International Conference on Generative Programming and Component Engineering
(invited by Sven Apel)
- ASE 2009 International Conference on Automated Software Engineering
(invited by Sven Apel)
- DKE 2008 Data & Knowledge Engineering (Elsevier Journal; invited by Gunter Saake)
- TII 2008 IEEE Transactions on Industrial Informatics (invited by Gunter Saake)
- GPCE 2008 International Conference on Generative Programming and Component Engineering
(invited by Christian Lengauer)

Software

- TypeChef Parsing and Analyzing #ifdef Variability in C Code,
<https://github.com/ckaestne/TypeChef>
- CIDE Feature-Oriented Analysis and Decomposition of Legacy Code,
<http://fosd.net/cide/>
- FeatureIDE A Tool Framework for Feature-Oriented Software Development,
<http://fosd.net/featureide/>
- LEADT Consistent Semi-Automatic Detection of Product-Line Features,
<http://fosd.net/leadt/>
- FeatureHouse Language-Independent, Automated Software Composition,
<http://fosd.net/fh/>
- ARJ Extending AspectJ with Aspect Refinement and Mixin-Based Aspect Inheritance,
http://wwwiti.cs.uni-magdeburg.de/iti_db/forschung/arj/

References

- Prof. Don Batory, Ph. D., University of Texas at Austin,
<http://www.cs.utexas.edu/~dsb/>
- Prof. Krzysztof Czarnecki, Ph. D., University of Waterloo,
<http://gsd.uwaterloo.ca/kczarnec>
- Prof. Christian Lengauer, Ph. D., University of Passau,
<http://www.infosun.fim.uni-passau.de/cl/staff/lengauer/>
- Prof. Dr. Klaus Ostermann, Philipps University Marburg,
<http://www.mathematik.uni-marburg.de/~kos/>
- Prof. Dr. Gunter Saake, University of Magdeburg,
<http://wwwiti.cs.uni-magdeburg.de/~saake/>

Publications

h-index: 21 g-index: 35

Key publications are highlighted with ★. PDF versions available online:
<http://www.uni-marburg.de/fb12/ps/team/kaestner>.

Refereed Journal Articles

- ★ 1. Janet Feigenspan, Christian Kästner, Sven Apel, Jörg Liebig, Michael Schulze, Raimund Dachsel, Maria Papendieck, Thomas Leich, and Gunter Saake. Do background colors improve program comprehension in the #ifdef hell? *Empirical Software Engineering*, 2012. to appear; accepted 12 Apr 2012.
2. Janet Feigenspan, Michael Schulze, Maria Papendieck, Christian Kästner, Raimund Dachsel, Veit Köppen, Mathias Frisch, and Gunter Saake. Supporting program comprehension in large preprocessor-based software product lines. *IET Software*, 2012. to appear; accepted 11 Apr 2012.
- ★ 3. Sven Apel, Christian Kästner, and Christian Lengauer. Language-independent and automated software composition: The FeatureHouse experience. *IEEE Transactions on Software Engineering (TSE)*, 2012. to appear; submitted 21 Oct 2010, accepted 29 Nov 2011.
4. Mario Pukall, Christian Kästner, Walter Cazzola, Sebastian Götz, Alexander Grebhahn, Reimar Schröter, and Gunter Saake. JavAdaptor: Flexible runtime updates of Java applications. *Software: Practice and Experience*, 2012. online first.
5. Norbert Siegmund, Marko Rosenmüller, Martin Kuhlemann, Christian Kästner, Sven Apel, and Gunter Saake. SPL Conqueror: Toward optimization of non-functional properties in software product lines. *Software Quality Journal - Special issue on Quality Engineering for Software Product Lines*, 2011. online first.
- ★ 6. Christian Kästner, Sven Apel, Thomas Thüm, and Gunter Saake. Type checking annotation-based product lines. *ACM Transactions on Software Engineering and Methodology (TOSEM)*, 21(3), 2012. to appear; submitted 8 Jun 2010, accepted 4 Jan 2011.
7. Sven Apel, Sergiy Kolesnikov, Jörg Liebig, Christian Kästner, Martin Kuhlemann, and Thomas Leich. Access control in feature-oriented programming. *Science of Computer Programming (Special Issue on Feature-Oriented Software Development)*, 77(3):174–187, March 2012.
- ★ 8. Sven Apel, Christian Lengauer, Bernhard Möller, and Christian Kästner. An algebraic foundation for automatic feature-based program synthesis. *Science of Computer Programming (SCP)*, 75(11):1022–1047, November 2010.
- ★ 9. Sven Apel, Christian Kästner, Armin Größlinger, and Christian Lengauer. Type safety for feature-oriented product lines. *Automated Software Engineering – An International Journal*, 17(3):251–300, 2010.
10. Friedrich Steimann, Thomas Pawlitzki, Sven Apel, and Christian Kästner. Types and modularity for implicit invocation with implicit announcement. *ACM Transactions on Software Engineering and Methodology (TOSEM)*, 20(1):Article 1; 43 pages, 2010.
11. Sven Apel, Christian Kästner, Martin Kuhlemann, and Thomas Leich. Pointcuts, advice, refinements, and collaborations: Similarities, differences, and synergies. *Innovations in Systems and Software Engineering (ISSE) – A NASA Journal*, 3(3-4):281–289, December 2007.
12. Sven Apel, Christian Kästner, Thomas Leich, and Gunter Saake. Aspect refinement - unifying AOP and stepwise refinement. *Journal of Object Technology (JOT)*, 6(9):13–33, October 2007. Special Issue: TOOLS EUROPE 2007.

Refereed Conference Papers (with acceptance rates if known)

13. Janet Feigenspan, Christian Kästner, Jörg Liebig, Sven Apel, and Stefan Hanenberg. Measuring programming experience. In *Proceedings of*

the 20th International Conference on Program Comprehension (ICPC), Los Alamitos, CA, 2012. IEEE Computer Society. accepted for publication; acceptance rate: 41 % (21/51).

- ★ 14. Norbert Siegmund, Sergiy S. Kolesnikov, Christian Kästner, Sven Apel, Don Batory, Marko Rosenmüller, and Gunter Saake. Predicting performance via automated feature-interaction detection. In *Proceedings of the 34th International Conference on Software Engineering (ICSE)*, 2012. to appear; submitted 29 Sep 2011, accepted 26 Jan 2012, acceptance rate 21 % (87/408).
15. Sebastian Erdweg, Lennart C. L. Kats, Tillmann Rendel, Christian Kästner, Klaus Ostermann, and Eelco Visser. Growing a language environment with editor libraries. In *Proceedings of the 10th International Conference on Generative Programming and Component Engineering (GPCE)*, pages 167–176, New York, NY, October 2011. ACM Press. Acceptance rate: 31 % (18/58).
- ★ 16. Christian Kästner, Paolo G. Giarrusso, Tillmann Rendel, Sebastian Erdweg, Klaus Ostermann, and Thorsten Berger. Variability-aware parsing in the presence of lexical macros and conditional compilation. In *Proceedings of the 26th Annual ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA)*, pages 805–824, New York, NY, October 2011. ACM Press. Acceptance rate: 37 % (61/166).
17. Sebastian Erdweg, Tillmann Rendel, Christian Kästner, and Klaus Ostermann. Sugarj: Library-based syntactic language extensibility. In *Proceedings of the 26th Annual ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA)*, pages 391–406, New York, NY, October 2011. ACM Press. Acceptance rate: 37 % (61/166); **Distinguished Paper Award**.
18. Sven Apel, Jörg Liebig, Benjamin Brandl, Christian Lengauer, and Christian Kästner. Semistructured merge: Rethinking merge in revision control systems. In *Proceedings of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE)*, pages 190–200, New York, NY, September 2011. ACM Press. Acceptance rate: 17 % (34/203).
19. Janet Feigenspan, Sven Apel, Jörg Liebig, and Christian Kästner. Exploring software measures to assess program comprehension. In *Proceedings of the 5th International Symposium on Empirical Software Engineering and Measurement (ESEM)*, pages 1–10, paper 3, Los Alamitos, CA, September 2011. IEEE Computer Society. Acceptance rate: 31 % (33/105).
20. Thomas Thüm, Christian Kästner, Sebastian Erdweg, and Norbert Siegmund. Abstract features in feature modeling. In *Proceedings of the 15th International Software Product Line Conference (SPLC)*, pages 191–200, Los Alamitos, CA, August 2011. IEEE Computer Society. Acceptance rate 29 % (20/69).
21. Norbert Siegmund, Marko Rosenmüller, Christian Kästner, Paolo G. Giarrusso, Sven Apel, and Sergiy Kolesnikov. Scalable prediction of non-functional properties in software product lines. In *Proceedings of the 15th International Software Product Line Conference (SPLC)*, pages 160–169, Los Alamitos, CA, August 2011. IEEE Computer Society. Acceptance rate 29 % (20/69); **Best Paper Award**.
22. Janet Feigenspan, Michael Schulze, Maria Papendieck, Christian Kästner, Raimund Dachsel, Veit Köppen, and Mathias Frisch. Using background colors to support program comprehension in software product lines. In *Proceedings of the 15th International Conference on Evaluation and Assessment in Software Engineering (EASE)*, pages 66–75. Institution of Engineering and Technology, 2011. Acceptance rate: 39 % (20/51).

- ★ 23. Jörg Liebig, Christian Kästner, and Sven Apel. Analyzing the discipline of preprocessor annotations in 30 million lines of C code. In *Proceedings of the 10th ACM International Conference on Aspect-Oriented Software Development (AOSD)*, pages 191–202. ACM Press, March 2011. Acceptance rate: 23 % (21/92).
- 24. Sven Apel, Wolfgang Scholz, Christian Lengauer, and Christian Kästner. Dependences and interactions in feature-oriented design. In *Proceedings of the 21st IEEE International Symposium on Software Reliability Engineering (ISSRE)*, pages 161–170, Los Alamitos, CA, November 2010. IEEE Computer Society. Acceptance rate: 31 % (40/130).
- 25. Sandro Schulze, Sven Apel, and Christian Kästner. Code clones in feature-oriented software product lines. In *Proceedings of the 9th International Conference on Generative Programming and Component Engineering (GPCE)*, pages 103–112, New York, NY, October 2010. ACM Press. Acceptance rate: 31 % (18/59).
- ★ 26. Jörg Liebig, Sven Apel, Christian Lengauer, Christian Kästner, and Michael Schulze. An analysis of the variability in forty preprocessor-based software product lines. In *Proceedings of the 32nd International Conference on Software Engineering (ICSE)*, pages 105–114, New York, NY, May 2010. ACM Press. Acceptance rate: 14 % (52/380).
- 27. Christian Kästner, Sven Apel, and Gunter Saake. Virtuelle Trennung von Belangen (Präprozessor 2.0). In *Software Engineering 2010 – Fachtagung des GI-Fachbereichs Softwaretechnik*, number P-159 in Lecture Notes in Informatics, pages 165–176, Bonn, Germany, February 2010. Gesellschaft für Informatik (GI). Acceptance rate: 36 % (17/47).
- ★ 28. Christian Kästner, Sven Apel, and Martin Kuhlemann. A model of refactoring physically and virtually separated features. In *Proceedings of the 8th International Conference on Generative Programming and Component Engineering (GPCE)*, pages 157–166, New York, NY, October 2009. ACM Press. Acceptance rate: 31 % (19/62).
- 29. Martin Kuhlemann, Don Batory, and Christian Kästner. Safe composition of non-monotonic features. In *Proceedings of the 8th International Conference on Generative Programming and Component Engineering (GPCE)*, pages 177–185, New York, NY, October 2009. ACM Press. Acceptance rate: 31 % (19/62).
- ★ 30. Christian Kästner, Sven Apel, Syed Saif ur Rahman, Marko Rosenmüller, Don Batory, and Gunter Saake. On the impact of the optional feature problem: Analysis and case studies. In *Proceedings of the 13th International Software Product Line Conference (SPLC)*, pages 181–190, Pittsburgh, PA, USA, August 2009. SEI. Acceptance rate: 36 % (30 / 83).
- 31. Sven Apel, Florian Janda, Salvador Trujillo, and Christian Kästner. Model superimposition in software product lines. In *Proceedings of the Second International Conference on Model Transformation (ICMT)*, volume 5563 of *Lecture Notes in Computer Science*, pages 4–19, Berlin/Heidelberg, June 2009. Springer-Verlag. Acceptance rate: 21 % (14 / 67).
- 32. Sven Apel, Christian Kästner, Armin Größlinger, and Christian Lengauer. Feature (de)composition in functional programming. In *Proceedings of the 8th International Conference on Software Composition (SC)*, volume 5634 of *Lecture Notes in Computer Science*, pages 9–26, Berlin/Heidelberg, July 2009. Springer-Verlag. Acceptance rate: 33 % (10 / 30).
- 33. Stefan Boxleitner, Sven Apel, and Christian Kästner. Language-independent quantification and weaving for feature composition. In *Proceedings of the 8th International Conference on Software Composition (SC)*, volume 5634 of *Lecture Notes in Computer Science*, pages 45–54, Berlin/Heidelberg, July 2009. Springer-Verlag. Short Paper; Acceptance rate: 33 % (10 / 30).

- ★ 34. Christian Kästner, Sven Apel, Salvador Trujillo, Martin Kuhlemann, and Don Batory. Guaranteeing syntactic correctness for all product line variants: A language-independent approach. In *Proceedings of the 47th International Conference Objects, Models, Components, Patterns (TOOLS EUROPE)*, volume 33 of *Lecture Notes in Business Information Processing*, pages 175–194, Berlin/Heidelberg, June 2009. Springer-Verlag. Acceptance rate: 28 % (19 / 67).
- 35. Marko Rosenmüller, Christian Kästner, Norbert Siegmund, Sagar Sunkle, Sven Apel, Thomas Leich, and Gunter Saake. Sql à la carte – toward tailor-made data management. In *Proceedings 13. GI-Fachtagung Datenbanksysteme für Business, Technologie und Web (BTW)*, volume P-144 of *Lecture Notes in Informatics*, pages 117–136, Bonn, Germany, March 2009. Gesellschaft für Informatik (GI).
- 36. Norbert Siegmund, Christian Kästner, Marko Rosenmüller, Florian Heidenreich, Sven Apel, and Gunter Saake. Bridging the gap between variability in client application and database schema. In *Proceedings 13. GI-Fachtagung Datenbanksysteme für Business, Technologie und Web (BTW)*, volume P-144 of *Lecture Notes in Informatics*, pages 297–306, Bonn, Germany, March 2009. Gesellschaft für Informatik (GI).
- 37. Sven Apel, Christian Kästner, and Christian Lengauer. Vergleich und Integration von Komposition und Annotation zur Implementierung von Produktlinien. In *Software Engineering 2009 – Fachtagung des GI-Fachbereichs Softwaretechnik*, volume P-143 of *Lecture Notes in Informatics*, pages 101–112, Bonn, Germany, March 2009. Gesellschaft für Informatik (GI).
- ★ 38. Thomas Thüm, Don Batory, and Christian Kästner. Reasoning about edits to feature models. In *Proceedings of the 31th International Conference on Software Engineering (ICSE)*, pages 254–264, Los Alamitos, CA, May 2009. IEEE Computer Society. Acceptance rate: 12 % (50/405).
- ★ 39. Sven Apel, Christian Kästner, and Christian Lengauer. FeatureHouse: Language-independent, automated software composition. In *Proceedings of the 31th International Conference on Software Engineering (ICSE)*, pages 221–231, Los Alamitos, CA, May 2009. IEEE Computer Society. Acceptance rate: 12 % (50/405).
- 40. Norbert Siegmund, Marko Rosenmüller, Martin Kuhlemann, Christian Kästner, and Gunter Saake. Measuring non-functional properties in software product lines for product derivation. In *Proceedings of the 15th Asia-Pacific Software Engineering Conference (APSEC)*, pages 187–194, Los Alamitos, CA, December 2008. IEEE Computer Society. Acceptance rate: 30 % (66/221).
- 41. Mario Pukall, Christian Kästner, and Gunter Saake. Towards unanticipated runtime adaptation of Java applications. In *Proceedings of the 15th Asia-Pacific Software Engineering Conference (APSEC)*, pages 85–92, Los Alamitos, CA, December 2008. IEEE Computer Society. Acceptance rate: 30 % (66/221).
- 42. Sven Apel, Christian Kästner, and Christian Lengauer. Feature Featherweight Java: A calculus for feature-oriented programming and stepwise refinement. In *Proceedings of the 7th International Conference on Generative Programming and Component Engineering (GPCE)*, pages 101–112, New York, NY, October 2008. ACM Press. Acceptance rate: 29 % (16/55).
- 43. Sven Apel, Christian Kästner, and Don Batory. Program refactoring using functional aspects. In *Proceedings of the 7th International Conference on Generative Programming and Component Engineering (GPCE)*, pages 161–170, New York, NY, October 2008. ACM Press. Acceptance rate: 29 % (16/55).
- 44. Chang Hwan Peter Kim, Christian Kästner, and Don Batory. On the modularity of feature interactions. In *Proceedings of the 7th International Conference on Generative Programming and Component Engineering (GPCE)*,

pages 23–34, New York, NY, October 2008. ACM Press. Acceptance rate: 29 % (16/55).

- ★ 45. Christian Kästner and Sven Apel. Type-checking software product lines - a formal approach. In *Proceedings of the 23rd IEEE/ACM International Conference on Automated Software Engineering (ASE)*, pages 258–267, Los Alamitos, CA, September 2008. IEEE Computer Society. Acceptance rate: 12 % (30/280).
- 46. Sven Apel, Christian Lengauer, Bernhard Möller, and Christian Kästner. An algebra for features and feature composition. In *Proceedings of the 12th International Conference on Algebraic Methodology and Software Technology (AMAST)*, volume 5140 of *Lecture Notes in Computer Science*, pages 36–50, Berlin/Heidelberg, Germany, July 2008. Springer-Verlag. Acceptance rate: 47 % (27/58).
- ★ 47. Christian Kästner, Sven Apel, and Martin Kuhlemann. Granularity in software product lines. In *Proceedings of the 30th International Conference on Software Engineering (ICSE)*, pages 311–320, New York, NY, May 2008. ACM Press. Acceptance rate: 15 % (56/371).
- ★ 48. Christian Kästner, Sven Apel, and Don Batory. A case study implementing features using AspectJ. In *Proceedings of the 11th International Software Product Line Conference (SPLC)*, pages 223–232, Los Alamitos, CA, September 2007. IEEE Computer Society. Acceptance rate: 35 % (28/80).

Invited Papers

- 49. Christian Kästner. Virtual separation of concerns: Toward preprocessors 2.0. *it-Information Technology*, 54(1):42–46, 2012.
- 50. Christian Kästner. Virtuelle Trennung von Belangen. In *Ausgezeichnete Informatikdissertationen 2010*, volume D-11 of *Lecture Notes in Informatics*, pages 121–130. Gesellschaft für Informatik (GI), 2011. invited paper.
- ★ 51. Christian Kästner and Sven Apel. Virtual separation of concerns – a second chance for preprocessors. *Journal of Object Technology (JOT)*, 8(6):59–78, September 2009. Refereed Column.
- ★ 52. Sven Apel and Christian Kästner. An overview of feature-oriented software development. *Journal of Object Technology (JOT)*, 8(5):49–84, July/August 2009. Refereed Column.
- 53. Sven Apel, Christian Kästner, Martin Kuhlemann, and Thomas Leich. Modularität von Softwarebausteinen: Aspekte versus Merkmale. *iX Magazin für Professionelle Informationstechnik*, (10):116–122, October 2006.

Refereed Workshop Papers, Posters, and Tool Demos

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