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# **Publications**

Total citations: 2760; most cited: [C13] with 985. h-index of 21, i10-index of 29. Information based on manually edited Google Scholar profile.

Students under my supervision are highlighted with a \* suffix.

### **Journals and Book Chapters**

- [J1] P. Gill\*, <u>W. Dietl</u>, and M. Tripunitara. Least-Privilege Calls to Amazon Web Services. *IEEE Transactions on Dependable and Secure Computing*, pages 1–13, 2022.
- [J2] N. Juma\*, <u>W. Dietl</u>, and M. Tripunitara. A Computational Complexity Analysis of Tunable Type Inference for Generic Universe Types. *Theoretical Computer Science*, 814:189–209, 2020.
- [J3] W. Dietl and P. Müller. Object ownership in program verification. In D. Clarke, J. Noble, and T. Wrigstad, editors, *Aliasing in Object-Oriented Programming*, volume 7850 of *Lecture Notes in Computer Science*, pages 289–318. Springer-Verlag, 2013.
- [J4] <u>W. Dietl</u>, S. Drossopoulou, and P. Müller. Separating ownership topology and encapsulation with Generic Universe Types. *ACM Transactions on Programming Languages and Systems*, 33:20:1–20:62, 2011.
- [J5] <u>W. Dietl</u> and P. Müller. Universes: Lightweight Ownership for JML. *Journal of Object Technology* (*JOT*), *Special Issue: ECOOP 2004 Workshop FTfJP*, 4(8):5–32, October 2005.
- [J6] W. Dietl, P. Meerwald, and A. Uhl. Protection of Wavelet-based Watermarking Systems using Filter Parametrization. *Signal Processing (Special Issue on Security of Data Hiding Technologies)*, 83:2095–2116, July 2003.

### **Conference Proceedings**

- [C1] P. Jha\* and W. Dietl. OppropBERL: A GNN and BERT-style Reinforcement Learning-based Type Inference System. In *IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER) short papers*, March 2024.
- [C2] F. Lanzinger\*, J. Bachmeier, M. Ulbrich, and W. Dietl. Scalable and Precise Refinement Types for Imperative Languages. In *International Conference on Integrated Formal Methods (iFM) PhD* symposium, volume 14300 of *Lecture Notes in Computer Science*, pages 377–383. Springer-Verlag, November 2023.
- [C3] F. Lanzinger\*, A. Weigl, M. Ulbrich, and <u>W. Dietl.</u> Scalability and Precision by Combining Expressive Type Systems and Deductive Verification. *Object-Oriented Programming Systems*, *Languages, and Applications (OOPSLA)*, 5:1–29, 2021.
- [C4] T. Xiang\*, J.Y. Luo\*, and <u>W. Dietl. Precise Inference of Expressive Units of Measurement Types.</u> *Object-Oriented Programming Systems, Languages, and Applications (OOPSLA)*, pages 1–28, 2020.
- [C5] C.Z. Chen\* and <u>W. Dietl</u>. Don't miss the end: Preventing unsafe end-of-file comparisons. In *NASA Formal Methods*, pages 87–94. Springer-Verlag, 2018.
- [C6] D. Brotherston\*, <u>W. Dietl</u>, and O. Lhoták. Granullar: Gradual Nullable Types for Java. In *Compiler Construction (CC)*, pages 87–97, February 2017.

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[C7] P. Barros, R. Just, S. Millstein, P. Vines, <u>W. Dietl</u>, M. d'Amorim, and M. D. Ernst. Static analysis of implicit control flow: Resolving Java reflection and Android intents. In *Automated Software Engineering (ASE)*, pages 669–679, November 2015.

- [C8] M. D. Ernst, R. Just, S. Millstein, W. Dietl, S. Pernsteiner\*, F. Roesner, K. Koscher, P. Barros, R. Bhoraskar, S. Han, P. Vines, and E. X. Wu. Collaborative verification of information flow for a high-assurance app store. In *Computer and Communications Security (CCS)*, pages 1092–1104, November 2014.
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- [C10] W. Huang, A. Milanova, <u>W. Dietl</u>, and M. D. Ernst. ReIm & ReImInfer: Checking and inference of reference immutability and method purity. In *Object-Oriented Programming Systems, Languages, and Applications (OOPSLA*), pages 879–896, October 2012.
- [C11] W. Huang, <u>W. Dietl</u>, A. Milanova, and M. D. Ernst. Inference and checking of object ownership. In *European Conference on Object-Oriented Programming (ECOOP)*, pages 181–206, June 2012.
- [C12] W. Dietl, M. D. Ernst, and P. Müller. Tunable Static Inference for Generic Universe Types. In European Conference on Object-Oriented Programming (ECOOP), pages 333–357, July 2011. Best Paper Award.
- [C13] A. Sampson, W. Dietl, E. Fortuna, D. Gnanapragasam, L. Ceze, and D. Grossman. EnerJ: Approximate Data Types for Safe and General Low-Power Computation. In *Programming Language Design and Implementation (PLDI)*, pages 164–174, June 2011.
- [C14] W. Dietl, S. Dietzel\*, M. D. Ernst, K. Muslu, and T. W. Schiller. Building and Using Pluggable Type-Checkers. In Software Engineering in Practice Track, International Conference on Software Engineering (ICSE), pages 681–690, May 2011.
- [C15] D. Cunningham, W. Dietl, S. Drossopoulou, A. Francalanza, P. Müller, and A. J. Summers. Universe Types for Topology and Encapsulation. In F. S. de Boer, M. M. Bonsangue, S. Graf, and W.-P. de Roever, editors, Formal Methods for Components and Objects (FMCO), volume 5382 of Lecture Notes in Computer Science, pages 72–112. Springer-Verlag, December 2008.
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- [C17] W. Dietl and A. Uhl. Robustness against Unauthorized Watermark Removal Attacks via Keydependent Wavelet Packet Subband Structures. In *International Conference on Multimedia and Expo (ICME)*, June 2004.
- [C18] W. Dietl and A. Uhl. Watermark Security via Secret Wavelet Packet Subband Structures. In A. Lioy and D. Mazzocchi, editors, *Communications and Multimedia Security*, volume 2828 of *Lecture Notes in Computer Science*, pages 214–225. Springer-Verlag, October 2003.

#### **Workshop Proceedings**

- [W1] W. Xing\*, Y. Cheng\*, and <u>W. Dietl</u>. Ensuring correct cryptographic algorithm and provider usage at compile time. *Formal Techniques for Java-like Programs (FTfJP)*, pages 43–50, 2021.
- [W2] D. Dean, S. Guarino, L. Eusebi, A. Keplinger, T. Pavlik, R. Watro, A. Cammarata, J. Murray, K. McLaughlin, J. Cheng, and T. Maddern. Lessons learned in game development for crowdsourced

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- software formal verification. In *USENIX Summit on Gaming, Games, and Gamification in Security Education (3GSE)*, August 2015.
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- [W4] W. Dietl, S. Dietzel\*, M. D. Ernst, N. Mote\*, B. Walker, S. Cooper, T. Pavlik, and Z. Popović. Verification games: Making verification fun. In *Formal Techniques for Java-like Programs (FTfJP)*, pages 42–49, June 2012.
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- [W11] W. Dietl, P. Müller, and A. Poetzsch-Heffter. A Type System for Checking Applet Isolation in Java Card. In Construction and Analysis of Safe, Secure and Interoperable Smart devices (CASSIS), volume 3362 of Lecture Notes in Computer Science, pages 129–150. Springer-Verlag, March 2004.
- [W12] M. Brachtl, <u>W. Dietl</u>, and A. Uhl. Key-Dependency for a Wavelet-Based Blind Watermarking Algorithm. In J. Dittmann and J. Fridrich, editors, *Multimedia and Security Workshop*, pages 175–179, September 2004.
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- [W14] W. Dietl, P. Meerwald, and A. Uhl. Watermark Security via High-Resolution Wavelet Filter Parametrization. In S. Kmet' and M. Pavluš, editors, *International Scientific Conference, Section 1: Applied Mathematics*, pages 21–28, May 2002.

## **Technical Reports, Theses, and Unpublished Material**

- [U1] JSR 308 Expert Group. Annotations on Java types. http://download.oracle.com/otndocs/jcp/annotations-2014\_01\_08-pfd-spec/, January 2014. Proposed Final Draft.
- [U2] W. Dietl. Type Annotations, the Checker Framework, and JML. In Gary T. Leavens, Peter H. Schmitt, and Jooyong Yi, editors, *The Java Modeling Language*., number 2013-3 in NII Shonan Meeting Report, pages 12–13, May 2013. http://www.nii.ac.jp/shonan/wp-content/uploads/2011/09/No.2013-3.pdf.

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[U3] A. Sampson, W. Dietl, E. Fortuna, D. Gnanapragasam, L. Ceze, and D. Grossman. EnerJ: Approximate Data Types for Safe and General Low-Power Computation — Full Proofs. Technical Report UW-CSE-10-12-01, University of Washington, June 2011.

- [U4] <u>W. Dietl.</u> Universe Types: Topology, Encapsulation, Genericity, and Tools. Summary of my thesis published in the 2009 GI Outstanding Dissertation Award proceedings. Available in German only, July 2010.
- [U5] W. Dietl, M. D. Ernst, and P. Müller. Tunable Universe Type Inference. Technical Report 659, Department of Computer Science, ETH Zurich, December 2009. Updated March 2010.
- [U6] <u>W. Dietl. Universe Types: Topology, Encapsulation, Genericity, and Tools</u>. PhD thesis, Department of Computer Science, ETH Zurich, December 2009. Doctoral Thesis ETH No. 18522.
- [U7] N. Cameron and <u>W. Dietl</u>. Comparing Universes and Existential Ownership Types. Technical Report 06, School of Engineering and Computer Science, VUW, July 2009. https://ecs.victoria.ac.nz/twiki/pub/Main/TechnicalReportSeries/ECSTR09-06.pdf.
- [U8] W. Dietl et al. Three papers. In B. Meyer, P. Müller, and M. Oriol, editors, *Annual Report*. Chair of Software Engineering, ETH Zurich, 2008.
- [U9] G. T. Leavens, E. Poll, C. Clifton, Y. Cheon, C. Ruby, D. Cok, P. Müller, J. Kiniry, P. Chalin, D. M. Zimmerman, and <u>W. Dietl</u>. JML Reference Manual. Available from http://www.jmlspecs.org/, June 2008.
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