

# Maria Christakis

Date of birth : October 9, 1986  
Place of birth : Heraklion, Crete, Greece  
Sex : Female  
Nationality : Greek  
Website : <https://mariachris.github.io>  
E-mail : [maria.christakis@tuwien.ac.at](mailto:maria.christakis@tuwien.ac.at)

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## Current Position

SEP 2022– Full Professor  
Head of the **Rigorous Software Engineering** Group  
Head of the **Software Engineering** Research Unit  
Information Systems Engineering Institute,  
TU Wien Faculty of Informatics,  
Vienna, Austria

## Research Interests

My research goal is to develop theoretical foundations and practical tools for building more reliable and usable software and increasing developer productivity. I am primarily interested in **software engineering and formal methods**. I particularly like investigating topics in automatic test generation, program analysis, and software verification. My tools and techniques explore novel ways in writing, specifying, verifying, testing, and debugging programs in order to make them more robust while improving the developer experience.

## Previous Positions

2017–2022 Tenure-track faculty (W2)  
Head of the **Practical Formal Methods** Group  
(On maternity leave from OCT 2020 to SEP 2021)  
Max Planck Institute for Software Systems (MPI-SWS),  
Kaiserslautern, Germany

2016–2017 Lecturer (Assistant Professor)  
School of Computing,  
University of Kent,  
Canterbury, England

2015–2016 Post-doctoral researcher  
Research in Software Engineering (RiSE) and Tools for Software Engineers (TSE),  
Microsoft Research Redmond,  
Washington, USA

## Education

- 2011–2015 Ph.D., Chair of Programming Methodology,  
Department of Computer Science,  
ETH Zurich, Switzerland  
*GPA* : 6/6  
*Thesis* : Narrowing the Gap between Verification and Systematic Testing  
*Advisor* : Peter Müller
- 2009–2011 Research assistantship in Computer Science (Completion of Ph.D. courses)  
Department of Electrical and Computer Engineering,  
National Technical University of Athens, Greece  
*GPA* : 9.83/10  
*Advisor* : Konstantinos Sagonas
- 2003–2009 Diploma,  
Department of Electrical and Computer Engineering,  
National Technical University of Athens, Greece  
*GPA* : 8.58/10 (upper 9%)  
*Major* : Computer Science  
*Thesis* : Race Condition Detection in Concurrent Erlang Applications  
Using Static Analysis  
*Advisor* : Konstantinos Sagonas

## Awards and Distinctions

- 2026 **ACM-W Rising Star Award** for significant early-career research contributions with impact on the computing discipline and financial sum (1,000 USD)
- 2025 **Aztec Award** (joint with Diligence Security) for detecting soundness and completeness bugs in the Noir zero-knowledge pipeline (30,000 USD)
- 2024 **Member of the Young Academy of the Austrian Academy of Sciences**
- 2024 **Amazon Research Award Fall 2023** for conducting research on “Testing Dafny for Unsoundness and Brittleness Bugs” (50,000 USD and 20,000 USD in AWS credits)
- 2022 **Google Research Scholar Award** for conducting research on “Metamorphic Specification and Testing of Machine-Learning Models” (60,000 USD)
- 2021 **ICSE Distinguished Reviewer Award**
- 2020 **Scientific Member of IFIP Working Group 2.4** Software Implementation Technology
- 2019 **ASE Distinguished Reviewer Award**
- 2017 **Facebook Faculty Research Award** for significant research contributions in the area of Program Analysis (30,000 USD)
- 2017 **EAPLS Best PhD Dissertation 2015** for the most original and influential doctoral thesis in the area of Programming Languages and Systems, which was published in 2015 at a European academic institute

- 2016 **Distinguished Paper at ICSE'16** for  
 “Guiding Dynamic Symbolic Execution Toward Unverified Program Executions”,  
 which is also listed as a **notable item in ACM's 21st Annual Best of Computing**
- 2016 **Nomination for the GI Dissertation Prize** by the Department of Computer Science  
 at ETH Zurich, Switzerland, which is awarded to an outstanding dissertation in Computer  
 Science in Austria, Germany, and Switzerland
- 2016 **ETH Medal** for an outstanding doctoral thesis and financial sum (2,000 CHF)
- 2016 **Empirikion Scholarship** for doctoral thesis (5,000 EUR)
- 2015 **Google Anita Borg Finalist**
- 2015 **Invitation from VMCAI'15** to submit an extended version of  
 “An Experimental Evaluation of Deliberate Unsoundness in a Static Program Analyzer”  
 to the Computer Languages, Systems & Structures journal
- 2014 **Invitation from SEFM'14** to submit an extended version of  
 “Synthesizing Parameterized Unit Tests to Detect Object Invariant Violations”  
 to the Formal Aspects of Computing journal
- 2013 **Google Anita Borg Finalist**
- 2011 **Travel grant** for attending Summer School Marktoberdorf, Germany
- 2010 **Empirikion Scholarship** for research (5,000 EUR)
- 2009 **Thomaideio Award** for publishing “Static Detection of Race Conditions in Erlang”,  
 one of the best 200 research papers among all departments  
 of the National Technical University of Athens, Greece
- 2009 **Distinction for the best diploma thesis**  
 in the Department of Electrical and Computer Engineering  
 of the National Technical University of Athens, Greece

## Research Grants

- 2025 **Ethereum Foundation Academic Grant on “Systematic Testing of zkVMs”**  
 (start: Oct 1, 2025, role: sole principal investigator, total funds: ca. 100K EUR, own funds:  
 ca. 100K EUR)  
 TU Wien, Austria
- 2024 **FWF doc.funds Doctoral Program on “Automated Reasoning”**  
 (start: Oct 1, 2025, role: deputy speaker/principal investigator, total funds: ca. 2.5M EUR,  
 own funds: ca. 480K EUR)  
 TU Wien, Austria

- 2023 **ERC Starting Grant 2022 on “Testing Program Analyzers Ad Absurdum”**  
(start: Jul 1, 2023, role: sole principal investigator, total funds: ca. 1.5M EUR, own funds: 1.5M EUR)  
TU Wien, Austria
- 2022 **WWTF Information and Communication Technology  
on “ForSmart: Effective Formal Methods for Smart-Contract Certification”**  
(start: Sep 1, 2023, role: leading principal investigator, total funds: ca. 800K EUR, own funds: ca. 270K EUR)  
TU Wien, Austria
- 2018 **DFG Transregional Collaborative Research Center  
on “Foundations of Perspicuous Software Systems”**  
(start: Jan 1, 2019, role: principal investigator, total funds: ca. 24M EUR from 2019 to 2026, own funds: 530K EUR)  
Saarland University, Dresden University of Technology, MPI-INF, MPI-SWS, Germany
- 2017 **International Academic Visitor** research grant (1,000 GBP)  
University of Kent, England
- 2017 **Faculty of Sciences** research grant (500 GBP)  
University of Kent, England

## Conference Papers

1. Sebastian Watzinger, Valentin Wüstholtz, Deepak Garg and [Maria Christakis](#). **Cost-Effective Testing of MPC Compilers**. In Proceedings of the 34th International Conference on the Foundations of Software Engineering (**FSE’26**), 2026. ACM.
2. Christoph Hochrainer, Valentin Wüstholtz and [Maria Christakis](#). **Arguzz: Testing zkVMs for Soundness and Completeness Bugs**. In Proceedings of the 35th USENIX Security Symposium (**Security’26**), 2026. USENIX.
3. David Kaindlstorfer, Anastasia Isychev, Valentin Wüstholtz and [Maria Christakis](#). **Interrogation Testing of CHC Solvers**. In Proceedings of the 34th International Conference on the Foundations of Software Engineering (**FSE’26**), 2026. ACM.
4. Hasan Ferit Eniser, Songtuan Lin, Nicola Müller, Anastasia Isychev, Valentin Wüstholtz, Isabel Valera, Jörg Hoffmann and [Maria Christakis](#). **Using Action-Policy Testing in RL to Reduce the Number of Bugs**. In Proceedings of the 18th International Symposium on Combinatorial Search (**SoCS’25**), 2025. AAAI Press.  
Acceptance rate: 52.9%
5. Anastasia Isychev, Valentin Wüstholtz and [Maria Christakis](#). **Lazy Testing of Machine-Learning Models**. In Proceedings of the 34th International Joint Conference on Artificial Intelligence (**IJCAI’25**), 2025. ijcai.org.  
Acceptance rate: 19.3%
6. Christoph Hochrainer, Anastasia Isychev, Valentin Wüstholtz and [Maria Christakis](#). **Fuzzing Processing Pipelines for Zero-Knowledge Circuits**. In Proceedings of the 31st International Conference on Computer and Communications Security (**CCS’25**), 2025. ACM.  
Acceptance rate: 14.5%

7. David Kaindlstorfer, Anastasia Isychev, Valentin Wüstholtz and Maria Christakis. **Interrogation Testing of Program Analyzers for Soundness and Precision Issues**. In Proceedings of the 39th International Conference on Automated Software Engineering (ASE'24), 2024. ACM.  
Acceptance rate: 27.3%
8. Markus Fleischmann, David Kaindlstorfer, Anastasia Isychev, Valentin Wüstholtz and Maria Christakis. **Constraint-Based Test Oracles for Program Analyzers**. In Proceedings of the 39th International Conference on Automated Software Engineering (ASE'24), 2024. ACM.  
Acceptance rate: 27.3%
9. Jana Chadt, Christoph Hochrainer, Valentin Wüstholtz and Maria Christakis. **Olympia: Fuzzer Benchmarking for Solidity**. In Proceedings of the 39th International Conference on Automated Software Engineering (ASE'24), 2024. ACM.  
Acceptance rate: 51.1%
10. Scott Wesley, Maria Christakis, Jorge A. Navas, Richard Trefler, Valentin Wüstholtz and Arie Gurfinkel. **Inductive Predicate Synthesis Modulo Programs**. In Proceedings of the 38th European Conference on Object-Oriented Programming (ECOOP'24), 2024. Schloss Dagstuhl.  
Acceptance rate: 42.0%
11. Anagha Athavale, Ezio Bartocci, Maria Christakis, Matteo Maffei, Dejan Nickovic and Georg Weissenbacher. **Verifying Global Two-Safety Properties in Neural Networks with Confidence**. In Proceedings of the 36th International Conference on Computer-Aided Verification (CAV'24), 2024. Springer.  
Acceptance rate: 26.2%
12. Jan Eisenhut, Xandra Schuler, Daniel Fiser, Daniel Höller, Maria Christakis and Jörg Hoffmann. **New Fuzzing Biases for Action Policy Testing**. In Proceedings of the 34th International Conference on Automated Planning and Scheduling (ICAPS'24), 2024. AAAI Press.  
Acceptance rate: 21.6%
13. Hasan Ferit Eniser, Valentin Wüstholtz and Maria Christakis. **Automatically Testing Functional Properties of Code Translation Models**. In Proceedings of the 38th AAAI Conference on Artificial Intelligence (AAAI'24), 2024. AAAI Press.  
Acceptance rate: 24.1%
14. Jiradet Ounjai, Valentin Wüstholtz and Maria Christakis. **Green Fuzzer Benchmarking**. In Proceedings of the 32nd International Symposium on Software Testing and Analysis (ISSTA'23), 2023. ACM.  
Acceptance rate: 28.8%
15. Maria Christakis, Hasan Ferit Eniser, Jörg Hoffmann, Adish Singla and Valentin Wüstholtz. **Specifying and Testing k-Safety Properties for Machine-Learning Models**. In Proceedings of the 32nd International Joint Conference on Artificial Intelligence (IJCAI'23), 2023. ijcai.org.  
Acceptance rate: 15.0%

16. Jan Eisenhut, Álvaro Torralba, [Maria Christakis](#) and Jörg Hoffmann. **Automatic Metamorphic Test Oracles for Action-Policy Testing**. In Proceedings of the 33rd International Conference on Automated Planning and Scheduling (**ICAPS'23**), 2023. AAAI Press.  
Acceptance rate: 30.6%
17. Muhammad Numair Mansur, Valentin Wüstholtz and [Maria Christakis](#). **Dependency-Aware Metamorphic Testing of Datalog Engines**. In Proceedings of the 32nd International Symposium on Software Testing and Analysis (**ISSTA'23**), 2023. ACM.  
Acceptance rate: 28.8%
18. [Maria Christakis](#), Thomas Cottenier, Antonio Filieri, Linghui Luo, Muhammad Numair Mansur, Lee Pike, Nicolás Rosner, Martin Schäf, Aritra Sengupta and Willem Visser. **Input Splitting for Cloud-Based Static Application Security Testing Platforms**. In Proceedings of the 30th Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (**ESEC/FSE'22**), 2022. ACM.  
Acceptance rate: 37.6%
19. Hasan Ferit Eniser, Timo P. Gros, Valentin Wüstholtz, Jörg Hoffmann and [Maria Christakis](#). **Metamorphic Relations via Relaxations: An Approach to Obtain Oracles for Action-Policy Testing**. In Proceedings of the 31st International Symposium on Software Testing and Analysis (**ISSTA'22**), 2022. ACM.  
Acceptance rate: 24.4%
20. Marcel Steinmetz, Daniel Fiser, Hasan Ferit Eniser, Patrick Ferber, Timo P. Gros, Philippe Heim, Daniel Höller, Xandra Schuler, Valentin Wüstholtz, [Maria Christakis](#) and Jörg Hoffmann. **Debugging a Policy: Automatic Action-Policy Testing in AI Planning**. In Proceedings of the 32nd International Conference on Automated Planning and Scheduling (**ICAPS'22**), 2022. AAAI Press.  
Acceptance rate: 30.7%
21. Scott Wesley, [Maria Christakis](#), Jorge A. Navas, Richard Trefler, Valentin Wüstholtz and Arie Gurfinkel. **Verifying Solidity Smart Contracts via Communication Abstraction in SmartACE**. In Proceedings of the 23rd International Conference on Verification, Model Checking, and Abstract Interpretation (**VMCAI'22**), 2022. Springer.  
Acceptance rate: 36.5%
22. Scott Wesley, [Maria Christakis](#), Jorge A. Navas, Richard Trefler, Valentin Wüstholtz and Arie Gurfinkel. **Compositional Verification of Smart Contracts Through Communication Abstraction**. In Proceedings of the 28th Static Analysis Symposium (**SAS'21**), 2021. Springer.  
Acceptance rate: 55.0%
23. Muhammad Numair Mansur, [Maria Christakis](#) and Valentin Wüstholtz. **Metamorphic Testing of Datalog Engines**. In Proceedings of the 29th Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (**ESEC/FSE'21**), 2021. ACM.  
Acceptance rate: 24.5%

24. Maria Christakis, Hasan Ferit Eniser, Holger Hermanns, Jörg Hoffmann, Yuges Kothari, Jianlin Li, Jorge A. Navas and Valentin Wüstholtz. **Automated Safety Verification of Programs Invoking Neural Networks**. In Proceedings of the 33rd International Conference on Computer-Aided Verification (CAV'21), 2021. Springer. Acceptance rate: 27.2%
25. Muhammad Numair Mansur, Benjamin Mariano, Maria Christakis, Jorge A. Navas and Valentin Wüstholtz. **Automatically Tailoring Abstract Interpretation to Custom Usage Scenarios**. In Proceedings of the 33rd International Conference on Computer-Aided Verification (CAV'21), 2021. Springer. Acceptance rate: 27.2%
26. Debasmita Lohar, Clothilde Jeangoudoux, Joshua Sobel, Eva Darulova and Maria Christakis. **A Two-Phase Approach for Conditional Floating-Point Verification**. In Proceedings of the 27th International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS'21), 2021. Springer. Acceptance rate: 33.3%
27. Umair Z. Ahmed, Maria Christakis, Aleksandr Efremov, Nigel Fernandez, Ahana Ghosh, Abhik Roychoudhury and Adish Singla. **Synthesizing Tasks for Block-based Programming**. In Proceedings of the 34th Conference on Neural Information Processing Systems (NeurIPS'20), 2020. Acceptance rate: 20.1%
28. Caterina Urban, Maria Christakis, Valentin Wüstholtz and Fuyuan Zhang. **Perfectly Parallel Fairness Certification of Neural Networks**. In Proceedings of the ACM on Programming Languages (OOPSLA'20), 2020. ACM. Acceptance rate: 36.1%
29. Valentin Wüstholtz and Maria Christakis. **Harvey: A Greybox Fuzzer for Smart Contracts**. In Proceedings of the 28th Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE'20), 2020. ACM. Acceptance rate: 35.8%
30. Muhammad Numair Mansur, Maria Christakis, Valentin Wüstholtz and Fuyuan Zhang. **Detecting Critical Bugs in SMT Solvers Using Blackbox Mutational Fuzzing**. In Proceedings of the 28th Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE'20), 2020. ACM. Acceptance rate: 28.1%  
Received the **best presentation award**.
31. Fuyuan Zhang, Sankalan Pal Chowdhury and Maria Christakis. **DeepSearch: A Simple and Effective Blackbox Attack for Deep Neural Networks**. In Proceedings of the 28th Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE'20), 2020. ACM. Acceptance rate: 28.1%
32. Valentin Wüstholtz and Maria Christakis. **Targeted Greybox Fuzzing with Static Lookahead Analysis**. In Proceedings of the 42nd International Conference on Software Engineering (ICSE'20), 2020. ACM. Acceptance rate: 20.9%

33. Christian Klinger, [Maria Christakis](#) and Valentin Wüstholtz. **Differentially Testing Soundness and Precision of Program Analyzers**. In Proceedings of the 28th International Symposium on Software Testing and Analysis (**ISSTA'19**), 2019. ACM. Acceptance rate: 22.5%
34. [Maria Christakis](#), Matthias Heizmann, Muhammad Numair Mansur, Christian Schilling and Valentin Wüstholtz. **Semantic Fault Localization and Suspiciousness Ranking**. In Proceedings of the 25th International Conference on Tools and Algorithms for the Construction and Analysis of Systems (**TACAS'19**), 2019. Springer. Acceptance rate: 30.5%
35. Alexandra Bugariu, Valentin Wüstholtz, [Maria Christakis](#) and Peter Müller. **Automatically Testing Implementations of Numerical Abstract Domains**. In Proceedings of the 33rd International Conference on Automated Software Engineering (**ASE'18**), 2018. ACM. Acceptance rate: 19.9%
36. Austin Henley, Kivanç Muşlu, [Maria Christakis](#), Scott Fleming and Christian Bird. **CFar: A Tool to Increase Communication, Productivity, and Review Quality in Collaborative Code Reviews**. In Proceedings of the 36th International Conference on Human Factors in Computing Systems (**CHI'18**), 2018. ACM. Acceptance rate: 25.7%
37. Kostas Ferles, Valentin Wüstholtz, [Maria Christakis](#) and Isil Dillig. **Failure-Directed Program Trimming**. In Proceedings of the Eleventh Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (**ESEC/FSE'17**), 2017. ACM. Acceptance rate: 24.4%
38. [Maria Christakis](#), Patrick Emmisberger, Patrice Godefroid and Peter Müller. **A General Framework for Dynamic Stub Injection**. In Proceedings of the 39th International Conference on Software Engineering (**ICSE'17**), 2017. ACM. Acceptance rate: 16.4%
39. [Maria Christakis](#) and Christian Bird. **What Developers Want and Need from Program Analysis: An Empirical Study**. In Proceedings of the 31st International Conference on Automated Software Engineering (**ASE'16**), 2016. ACM. Acceptance rate: 19.1%
40. [Maria Christakis](#) and Valentin Wüstholtz. **Bounded Abstract Interpretation**. In Proceedings of the 23rd Static Analysis Symposium (**SAS'16**), 2016. Springer. Acceptance rate: 38.2%
41. [Maria Christakis](#), K. Rustan M. Leino, Peter Müller and Valentin Wüstholtz. **Integrated Environment for Diagnosing Verification Errors**. In Proceedings of the 22nd International Conference on Tools and Algorithms for the Construction and Analysis of Systems (**TACAS'16**), 2016. Springer. Acceptance rate: 28.7%
42. [Maria Christakis](#), Peter Müller and Valentin Wüstholtz. **Guiding Dynamic Symbolic Execution Toward Unverified Program Executions**. In Proceedings of the 38th International Conference on Software Engineering (**ICSE'16**), 2016. ACM. Acceptance rate: 19.1%  
Received a **distinguished paper award**.  
Listed as a **notable item in ACM's 21st Annual Best of Computing**.

43. [Maria Christakis](#) and Patrice Godefroid. **IC-Cut: A Compositional Search Strategy for Dynamic Test Generation**. In Proceedings of the 22nd International SPIN Symposium on Model Checking of Software (**SPIN'15**), 2015. Springer.  
Acceptance rate: 69.2%
44. [Maria Christakis](#), Peter Müller and Valentin Wüstholtz. **An Experimental Evaluation of Deliberate Unsoundness in a Static Program Analyzer**. In Proceedings of the Sixteenth International Conference on Verification, Model Checking, and Abstract Interpretation (**VMCAI'15**), 2015. Springer.  
Acceptance rate: 45.3%  
Selected for submission to the Computer Languages, Systems & Structures journal.
45. [Maria Christakis](#) and Patrice Godefroid. **Proving Memory Safety of the ANI Windows Image Parser Using Compositional Exhaustive Testing**. In Proceedings of the Sixteenth International Conference on Verification, Model Checking, and Abstract Interpretation (**VMCAI'15**), 2015. Springer.  
Acceptance rate: 45.3%
46. [Maria Christakis](#), Patrick Emmisberger and Peter Müller. **Dynamic Test Generation with Static Fields and Initializers**. In Proceedings of the Fourteenth International Conference on Runtime Verification (**RV'14**), 2014. Springer.  
Acceptance rate: 29.8%
47. [Maria Christakis](#), Peter Müller and Valentin Wüstholtz. **Synthesizing Parameterized Unit Tests to Detect Object Invariant Violations**. In Proceedings of the Twelfth International Conference on Software Engineering and Formal Methods (**SEFM'14**), 2014. Springer.  
Acceptance rate: 27.4%  
Selected for submission to the Formal Aspects of Computing journal.
48. [Maria Christakis](#), K. Rustan M. Leino and Wolfram Schulte. **Formalizing and Verifying a Modern Build Language**. In Proceedings of the Nineteenth International Symposium on Formal Methods (**FM'14**), 2014. Springer.  
Acceptance rate: 43.8%
49. [Maria Christakis](#), Alkis Gotovos and Konstantinos Sagonas. **Systematic Testing for Detecting Concurrency Errors in Erlang Programs**. In Proceedings of the Sixth International Conference on Software Testing, Verification and Validation (**ICST'13**), 2013. IEEE.  
Acceptance rate: 25.0%
50. [Maria Christakis](#), Peter Müller and Valentin Wüstholtz. **Collaborative Verification and Testing with Explicit Assumptions**. In Proceedings of the Eighteenth International Symposium on Formal Methods (**FM'12**), 2012. Springer.  
Acceptance rate: 26.5%
51. [Maria Christakis](#) and Konstantinos Sagonas. **Detection of Asynchronous Message Passing Errors Using Static Analysis**. In Proceedings of the Thirteenth International Symposium on Practical Aspects of Declarative Languages (**PADL'11**), 2011. Springer.  
Acceptance rate: 45.0%
52. [Maria Christakis](#) and Konstantinos Sagonas. **Static Detection of Race Conditions in Erlang**. In Proceedings of the Twelfth International Symposium on Practical Aspects of Declarative Languages (**PADL'10**), 2010. Springer.  
Acceptance rate: 37.9%

## Workshop Papers

1. Alperen Tercan, Ahana Ghosh, Hasan Ferit Eniser, [Maria Christakis](#) and Adish Singla. **Synthesizing a Progression of Subtasks for Block-Based Visual Programming Tasks**. In Proceedings of the Fifth Annual Workshop on Artificial Intelligence for Education (**AI4ED'24**), 2024. PMLR.
2. Anagha Athavale, Ezio Bartocci, [Maria Christakis](#), Matteo Maffei, Dejan Nickovic and Georg Weissenbacher. **Verifying Global Two-Safety Properties in Neural Networks with Confidence**. Presented at the Third Workshop on Hyperproperties: Advances in Theory and Applications (**HYPER'24**), 2024.
3. Hasan Ferit Eniser, Timo P. Gros, Valentin Wüstholtz, Jörg Hoffmann and [Maria Christakis](#). **Metamorphic Relations via Relaxations: An Approach to Obtain Oracles for Action-Policy Testing**. Presented at the First International Workshop on Reliable Data-Driven Planning and Scheduling (**RDDPS'22**), 2022.
4. Christel Baier, [Maria Christakis](#), Timo P. Gros, David Groß, Stefan Gumhold, Holger Hermanns, Jörg Hoffmann and Michaela Klauk. **Lab Conditions for Research on Explainable Automated Decisions**. In Proceedings of the First International Workshop on the Scientific Foundations of Trustworthy AI - Integrating Learning, Optimisation and Reasoning (**TAILOR'20**), 2020. Springer.
5. Alkis Gotovos, [Maria Christakis](#) and Konstantinos Sagonas. **Test-Driven Development of Concurrent Programs Using Concuerror**. In Proceedings of the Tenth Erlang Workshop (**ERLANG'11**), 2011. ACM.

## Invited Papers

1. Maria Christakis. **Systematic Testing for Complex Systems in the Absence of Oracles**. In Software Engineering 2026 (SE'26), 2026. GI.
2. Maria Christakis. **On Narrowing the Gap between Verification and Systematic Testing**. In it - Information Technology, 2017. de Gruyter.
3. Maria Christakis. **Brückenschlag zwischen Verifikation und Systematischem Testen**. In Ausgezeichnete Informatikdissertationen 2015 (GIDISS'15), 2015. GI.

## Technical Reports

1. Christoph Hochrainer, Valentin Wüstholtz and [Maria Christakis](#). **Arguzz: Testing zkVMs for Soundness and Completeness Bugs**. CoRR abs/2509.10819, 2025.
2. Christoph Hochrainer, Anastasia Isychev, Valentin Wüstholtz and [Maria Christakis](#). **Fuzzing Processing Pipelines for Zero-Knowledge Circuits**. CoRR abs/2411.02077, 2024.
3. Scott Wesley, [Maria Christakis](#), Jorge A. Navas, Richard Trefler, Valentin Wüstholtz and Arie Gurfinkel. **Inductive Predicate Synthesis Modulo Programs (Extended)**. CoRR abs/2407.08455, 2024.
4. Anagha Athavale, Ezio Bartocci, [Maria Christakis](#), Matteo Maffei, Dejan Nickovic and Georg Weissenbacher. **Verifying Global Two-Safety Properties in Neural Networks with Confidence**. CoRR abs/2405.14400, 2024.

5. Hasan Ferit Eniser, Hanliang Zhang, Cristina David, Meng Wang, [Maria Christakis](#), Brandon Paulsen, Joey Dodds and Daniel Kroening. **Towards Translating Real-World Code with LLMs: A Study of Translating to Rust**. CoRR abs/2405.11514, 2024.
6. Hasan Ferit Eniser, Valentin Wüstholtz and [Maria Christakis](#). **Automatically Testing Functional Properties of Code Translation Models**. CoRR abs/2309.12813, 2023.
7. Alperen Tercan, Ahana Ghosh, Hasan Ferit Eniser, [Maria Christakis](#) and Adish Singla. **Synthesizing a Progression of Subtasks for Block-Based Visual Programming Tasks**. CoRR abs/2305.17518, 2023.
8. [Maria Christakis](#), Hasan Ferit Eniser, Jörg Hoffmann, Adish Singla and Valentin Wüstholtz. **Specifying and Testing  $k$ -Safety Properties for Machine-Learning Models**. CoRR abs/2206.06054, 2022.
9. Scott Wesley, [Maria Christakis](#), Jorge A. Navas, Richard Trefler, Valentin Wüstholtz and Arie Gurfinkel. **Compositional Verification of Smart Contracts Through Communication Abstraction (Extended)**. CoRR abs/2107.08583, 2021.
10. Muhammad Numair Mansur, Benjamin Mariano, [Maria Christakis](#), Jorge A. Navas and Valentin Wüstholtz. **Automatically Tailoring Static Analysis to Custom Usage Scenarios**. CoRR abs/2009.13860, 2020.
11. Umair Z. Ahmed, [Maria Christakis](#), Aleksandr Efremov, Nigel Fernandez, Ahana Ghosh, Abhik Roychoudhury and Adish Singla. **Synthesizing Tasks for Block-Based Programming**. CoRR abs/2006.16913, 2020.
12. Muhammad Numair Mansur, [Maria Christakis](#), Valentin Wüstholtz and Fuyuan Zhang. **Detecting Critical Bugs in SMT Solvers Using Blackbox Mutational Fuzzing**. CoRR abs/2004.05934, 2020.
13. Hasan Ferit Eniser, [Maria Christakis](#) and Valentin Wüstholtz. **RAID: Randomized Adversarial-Input Detection for Neural Networks**. CoRR abs/2002.02776, 2020.
14. Caterina Urban, [Maria Christakis](#), Valentin Wüstholtz and Fuyuan Zhang. **Perfectly Parallel Fairness Certification of Neural Networks**. CoRR abs/1912.02499, 2019.
15. Fuyuan Zhang, Sankalan Pal Chowdhury and [Maria Christakis](#). **DeepSearch: Simple and Effective Blackbox Fuzzing of Deep Neural Networks**. CoRR abs/1910.06296, 2019.
16. Valentin Wüstholtz and [Maria Christakis](#). **Targeted Greybox Fuzzing with Static Lookahead Analysis**. CoRR abs/1905.07147, 2019.
17. Valentin Wüstholtz and [Maria Christakis](#). **Harvey: A Greybox Fuzzer for Smart Contracts**. CoRR abs/1905.06944, 2019.
18. Christian Klinger, [Maria Christakis](#) and Valentin Wüstholtz. **Differentially Testing Soundness and Precision of Program Analyzers**. CoRR abs/1812.05033, 2018.
19. Valentin Wüstholtz and [Maria Christakis](#). **Learning Inputs in Greybox Fuzzing**. CoRR abs/1807.07875, 2018.
20. Florentin Guth, Valentin Wüstholtz, [Maria Christakis](#) and Peter Müller. **Specification Mining for Smart Contracts with Automatic Abstraction Tuning**. CoRR abs/1807.07822, 2018.

21. Kostas Ferles, Valentin Wüstholtz, [Maria Christakis](#) and Isil Dillig. **Failure-Directed Program Trimming (Extended Version)**. CoRR abs/1706.04468, 2017.
22. [Maria Christakis](#), Patrick Emmisberger, Patrice Godefroid and Peter Müller. **A General Framework for Dynamic Stub Injection**. MSR-TR-2016-35, 2016. Microsoft Research.
23. [Maria Christakis](#), Peter Müller and Valentin Wüstholtz. **Guiding Dynamic Symbolic Execution Toward Unverified Program Executions**. 2015. ETH Zurich.
24. [Maria Christakis](#) and Patrice Godefroid. **IC-Cut: A Compositional Search Strategy for Dynamic Test Generation**. MSR-TR-2015-10, 2015. Microsoft Research.
25. [Maria Christakis](#), Peter Müller and Valentin Wüstholtz. **An Experimental Evaluation of Deliberate Unsoundness in a Static Program Analyzer**. 2014. ETH Zurich.
26. [Maria Christakis](#) and Patrice Godefroid. **Proving Memory Safety of the ANI Windows Image Parser Using Compositional Exhaustive Testing**. MSR-TR-2013-120, 2013. Microsoft Research.
27. [Maria Christakis](#) and Konstantinos Sagonas. **Static Detection of Deadlocks in Erlang**. In Draft Proceedings of the Twelfth International Symposium on Trends in Functional Programming (TFP'11), 2011. Department of Computer Systems and Computing, Universidad Complutense de Madrid.

## Theses

1. Maria Christakis. **Narrowing the Gap between Verification and Systematic Testing**. Ph.D. thesis advised by Peter Müller. Department of Computer Science, ETH Zurich, Switzerland, June 2015.
2. Maria Christakis. **Race Condition Detection in Concurrent Erlang Applications Using Static Analysis**. Diploma thesis advised by Konstantinos Sagonas. Department of Electrical and Computer Engineering, National Technical University of Athens, Greece, September 2009.

## Research Internships

- SUMMER 2014 Microsoft Research Redmond,  
Washington, USA  
*Mentor* : Patrice Godefroid
- SUMMER 2013 Microsoft Research Redmond,  
Washington, USA  
*Mentors* : K. Rustan M. Leino and Wolfram Schulte
- SPRING 2013 Microsoft Research Redmond,  
Washington, USA  
*Mentor* : Patrice Godefroid

## Summer Schools

- JUN 2012 SAT/SMT Summer School, Trento, Italy
- AUG 2011 “Tools for Analysis and Verification of Software Safety and Security”  
Summer School Marktoberdorf, Bayrischzell, Germany

## Service

- Organizer* : Dagstuhl Seminar on “Bridging Formal Guarantees and Real-World Implementations of Zero-Knowledge Proofs” (2027),  
Dagstuhl Seminar on “Testing Program Analyzers and Verifiers” (2025),  
Dagstuhl Seminar on “Software Bug Detection: Challenges and Synergies” (2023),  
Dagstuhl Seminar on “Rigorous Methods for Smart Contracts” (2021),  
Dagstuhl Seminar on “Ensuring the Reliability and Robustness of Database Management Systems” (2021),  
DATE’21 session on “Perspicuous Computing”
- Steering Committee chair* : ISSTA (2025–26)
- Steering Committee vice-chair* : ISSTA (2024–25)
- General chair* : ISSTA’24
- Program Committee (co-)chair* : VSTTE’20
- Program Committee associate/area chair* : FSE’27, OOPSLA’26
- Track (co-)chair* : ECOOP/ISSTA’21 Workshops, ECOOP’19 Artifact Evaluation,  
PLDI’19 Student Research Competition,  
ECOOP’18 Artifact Evaluation,  
PLDI’18 Student Research Competition
- Steering Committee member* : ISSTA (2022–29), DeFi Security Summit (since 2022)
- Program Committee member* : AAAI’24, ESEC/FSE’22, ICSE’22, ICSE’21, CAV’20, ISSTA’20,  
FASE’20, FMBC’19, ASE’19, ISSTA’19, ICSE’19, TACAS’19,  
ACM Student Research Competition’18, iFM’18, OOPSLA’18,  
VMCAI’18, SAS’17, ECOOP’17, PrePost’16,  
ESEC/FSE’15 Artifact Evaluation
- External Review Committee member* : PLDI’18, PLDI’17
- Journal reviewer* : IEEE TSE (on the Review Board 2020–2023),  
ACM TOSEM (on the Board of Distinguished Reviewers 2019–2023),  
IEEE Software (2016), Systems and Software (2016), JLAMP (2014),  
TSE (2013, 2019), STTT (2013)
- External Hiring Committee member* : University of Stuttgart (2024), ETH Zurich (2023)
- Panel member* : “A View from the Trenches (from Junior and Mid-Career Faculty Members)”  
: at the New Faculty Symposium of ICSE’22
- External reviewer* : ERC CoG’23 (PE6), ISSTA’18, TAP’16, TACAS’16, VMCAI’16, FM’15, WFLP’14,  
FLOPS’14, OOPSLA’13, PADL’11, DAMP’10
- Thesis reviewer* : Ph.D. thesis by Winterer (ETH Zurich, Switzerland, 2024),  
Ph.D. thesis by O. Haarklou Veileborg (Aarhus University, Denmark, 2023),  
Master’s thesis by J. Eisenhut (Saarland University, Germany, 2022),  
Master’s thesis by A. Leid (Stellenbosch University, South Africa, 2020)
- Student volunteer* : Software Correctness and Reliability Workshop at ETH Zurich (2014),  
ICSE’12

## Teaching Experience

- 2023–2025 Lecturer in “Software Engineering”  
Bachelor’s course  
Faculty of Informatics,  
TU Wien, Austria
- 2022–2025 Lecturer in “Advanced Software Engineering”  
Master’s course  
Faculty of Informatics,  
TU Wien, Austria
- 2022–2025 Lecturer in “Seminar in Software Engineering”  
Master’s seminar  
Faculty of Informatics,  
TU Wien, Austria
- 2022–2026 Lecturer in “Seminar for Master Students in Software Engineering”  
Master’s seminar  
Faculty of Informatics,  
TU Wien, Austria
- FALL 2022, 2024–2026 Lecturer in “Orientation Bachelor with Honors of Informatics and Business Informatics”  
Bachelor’s seminar  
Faculty of Informatics,  
TU Wien, Austria
- FALL 2020 Lecturer in “Program Analysis”  
Master’s course  
Department of Computer Science,  
Technical University of Kaiserslautern, Germany
- SPRING 2020 Lecturer in “Machine Learning and Formal Methods”  
Master’s seminar  
Department of Computer Science,  
Saarland University, Germany
- FALL 2019 Lecturer in “Research Topics in Software Reliability”  
Master’s seminar  
Department of Computer Science,  
Technical University of Kaiserslautern, Germany
- FALL 2019 Lecturer in “Program Analysis”  
Master’s course  
Department of Computer Science,  
Technical University of Kaiserslautern, Germany
- FALL 2018 Lecturer in “Program Analysis”  
Master’s course  
Department of Computer Science,  
Technical University of Kaiserslautern and Saarland University, Germany

- SUMMER 2018 Lecturer in “Static Program Analysis Meets Test Case Generation”  
 Summer-school lecture series  
 Cornell, Maryland, Max Planck Pre-Doctoral Research School (CMMRS) 2018,  
 MPI-SWS, Germany
- SPRING 2017 Lecturer in “Programming for University Study”  
 International-foundation-programme course  
 School of Computing,  
 University of Kent, England
- 2011–2014 Teaching assistant in “Computer Science for Mathematicians and Physicists”  
 Bachelor’s course  
 Department of Computer Science,  
 ETH Zurich, Switzerland  
*Lecturers* : Bernd Gärtner, Juraj Hromkovic
- FALL 2014 Teaching assistant in “Software Engineering Seminar”  
 Bachelor’s seminar  
 Department of Computer Science,  
 ETH Zurich, Switzerland  
*Lecturer* : Peter Müller
- SPRING 2014 Teaching assistant in “Software Architecture and Engineering”  
 Bachelor’s course  
 Department of Computer Science,  
 ETH Zurich, Switzerland  
*Lecturers* : Peter Müller, Martin Vechev
- 2012–2013 Head teaching assistant in “Quality Assurance in .NET with Code Contracts”  
 Industry course  
 Department of Computer Science,  
 ETH Zurich, Switzerland  
*Lecturer* : Peter Müller
- SPRING 2012 Head teaching assistant in “Software Architecture and Engineering”  
 Bachelor’s course  
 Department of Computer Science,  
 ETH Zurich, Switzerland  
*Lecturer* : Peter Müller
- SPRING 2012 Teaching assistant in “Research Topics in Software Engineering”  
 Master’s seminar  
 Department of Computer Science,  
 ETH Zurich, Switzerland  
*Lecturers* : Peter Müller, Martin Vechev

- FALL 2011 Teaching assistant in “Software and Security Testing”  
 Master’s seminar  
 Department of Computer Science,  
 ETH Zurich, Switzerland  
*Lecturers* : David Basin, Peter Müller
- 2009–2011 Teaching assistant in “Programming Languages I”  
 Diploma course  
 Department of Electrical and Computer Engineering,  
 National Technical University of Athens, Greece  
*Lecturers* : Nikolaos Papaspyrou, Konstantinos Sagonas
- 2009–2011 Teaching assistant in “Computer Programming”  
 Diploma course  
 Department of Electrical and Computer Engineering,  
 National Technical University of Athens, Greece  
*Lecturers* : Stathis Zachos, Nikolaos Papaspyrou, Dimitris Fotakis

## Advisees

- 2026– Mahyar Karimi  
 PhD  
 TU Wien, Austria
- 2026– Alexander Stromberger  
 PhD  
 TU Wien, Austria
- 2025– Sebastian Watzinger  
 PhD  
 TU Wien, Austria
- 2024– Markus Fleischmann  
 PhD  
 TU Wien, Austria
- 2023– Anastasia Isychev  
 Postdoc  
 TU Wien, Austria
- 2023– Samuel Pilz  
 PhD  
 TU Wien, Austria
- 2023– Christoph Hochrainer  
 PhD  
 TU Wien, Austria
- 2023– David Kaindlstorfer  
 PhD  
 TU Wien, Austria

2026 Ralph Tomic  
Bachelor's thesis  
TU Wien, Austria

2026 Mona Eisenkirchner  
Bachelor's thesis  
TU Wien, Austria

2026 Vineet Naik  
Project in Computer Science  
TU Wien, Austria

2026 Paul Spörker  
Project in Computer Science  
TU Wien, Austria

2026 Harald Korinek  
Project in Computer Science  
TU Wien, Austria

2026 Jonas Tatzberger  
Project in Computer Science  
TU Wien, Austria

2026 Lukas Schatzer  
Project in Computer Science  
TU Wien, Austria

2026– Lukas Karafiat  
Master's thesis  
TU Wien, Austria

2026 Tom Goalard  
Internship  
TU Wien, Austria

2025– Mathias Möller  
Master's thesis  
TU Wien, Austria

2025–2026 Alexander Stromberger  
Master's thesis  
TU Wien, Austria

2025 Alexander Stromberger  
Project in Computer Science  
TU Wien, Austria

- 2024–2025 Alexander Woda  
**Fuzzing Processing Pipelines for Zero-Knowledge Circuits**  
Project in Computer Science  
TU Wien, Austria
- 2024– Sophia Schober  
Master’s thesis  
TU Wien, Austria
- 2024–2025 Sebastian Watzinger  
**Differential Testing of Secure Multiparty Computation Compilers**  
Master’s thesis  
TU Wien, Austria  
Won the **Research Prize 2025 of the Austrian Federal Chamber of Civil Engineers**
- 2019–2024 Hasan Ferit Eniser  
**Specifying and Fuzzing Machine-Learning Models**  
PhD  
MPI-SWS, Germany
- 2023–2025 Florian Tesarek  
**Differential Testing of Static Taint Analysis Tools**  
Master’s thesis  
TU Wien, Austria
- 2023–2025 Robin Knoll  
**Finding Inconsistency Bugs in Solidity Smart Contracts**  
Master’s thesis  
TU Wien, Austria
- 2023–2024 Philipp Leeb  
**Metamorphic Testing of ZKC Infrastructure**  
Master’s thesis  
TU Wien, Austria
- 2023–2024 Jana Chadt  
**Generating Multi-Lingual, Semantically Equivalent Fuzzer-Benchmarks from Mazes**  
Master’s thesis  
TU Wien, Austria
- 2022–2024 Markus Fleischmann  
**Automated Soundness Testing of Program Analyzers**  
Master’s thesis  
TU Wien, Austria
- 2020–2023 Jiradet Ounjai  
**Enhancing Fuzzers and Fuzzer-Benchmarking Platforms**  
Internship  
MPI-SWS, Germany and TU Wien, Austria

- 2018–2022 Muhammad Numair Mansur  
**Automatically Detecting and Mitigating Issues in Program Analyzers**  
PhD  
MPI-SWS, Germany  
Won the **Ernst Denert Software Engineering Prize 2023**
- 2022 Sofia Barkatsa  
**Automatically Testing Abstract Interpreters**  
Internship  
MPI-SWS, Germany
- 2022 Andrea Borgarelli  
**Enhancing Fuzzing Mutations with Reinforcement Learning**  
Research immersion lab  
MPI-SWS, Germany
- 2021 Andreea Buterchi  
**Metamorphic Testing of Machine-Learning Models**  
Internship  
MPI-SWS, Germany
- 2020–2021 Yugesh Kothari  
**Automated Safety Verification of Programs Invoking Neural Networks**  
Internship  
MPI-SWS, Germany
- 2019–2021 Fuyuan Zhang  
Postdoc  
MPI-SWS, Germany
- 2019–2020 Sankalan Pal Chowdhury  
**Testing the Robustness of Machine-Learning Software**  
Internship  
MPI-SWS, Germany
- 2019–2021 Xuan Xie  
**Integrating Dynamic Symbolic Execution into Greybox Fuzzing**  
PhD preparatory phase  
MPI-SWS, Germany
- 2020 Jiradet Ounjai  
**Potential Coverage Analysis for Coverage-Guided Greybox Fuzz Testing**  
Master's thesis  
MPI-SWS, Germany
- 2020 Parv Mor  
**Combining Bounded Model Checking with Abstract Interpretation**  
Internship  
MPI-SWS, Germany

- 2019 Ben Mariano  
**Automatically Tailoring Abstract Interpretation to Custom Usage Scenarios**  
Internship  
MPI-SWS, Germany
- 2019 Adam Geller  
**Integrating Dynamic Symbolic Execution into Greybox Fuzzing**  
Internship  
MPI-SWS, Germany
- 2019 Ahmed Anwar  
**Testing SMT Solvers**  
Internship  
MPI-SWS, Germany
- 2018 Praveen Kulkarni  
**Automatically Balancing Precision and Performance in Abstract Interpretation**  
Internship  
MPI-SWS, Germany
- 2018 Christos Vrachas  
**Combining Bounded Model Checking with Abstract Interpretation**  
Internship  
MPI-SWS, Germany
- 2018 Abel Nieto  
**Targeted Greybox Fuzzing with Static Lookahead Analysis**  
Internship  
MPI-SWS, Germany
- 2018 Tobias Zimmermann  
**Applying Backwards Abstract Interpretation to Binary Classification Neural Networks**  
Bachelor's thesis  
MPI-SWS, Germany
- 2018 Christian Klinger  
**Automatically Finding Differences in Soundness and Precision of Program Analyzers**  
Master's thesis  
MPI-SWS, Germany
- 2017 Malte Schledjewski  
**Diffing Program Analyzers**  
Research immersion lab  
MPI-SWS, Germany

- 2016 Austin Henley  
**Augmenting Code Reviews with Static Analysis Warnings to Improve Code and Enhance Collaboration**  
Internship  
Microsoft Research Redmond,  
Washington, USA
- 2016 Kostas Ferles  
**Failure-Directed Program Trimming**  
Internship  
Microsoft Research Redmond,  
Washington, USA
- 2016 Patrick Emmisberger  
**Testing Program Robustness Against Deviant Behavior**  
Master's thesis (during an internship at Microsoft Research Redmond)  
ETH Zurich, Switzerland  
Received the **ETH Medal** for an outstanding Master's thesis
- 2015 Patrick Emmisberger  
**Integrating Dynamic Test Generation with Sound Verification**  
Research in Computer Science  
ETH Zurich, Switzerland
- 2014 David Rohr  
**Fixing Violated Object Invariants and Testing Inferred Object Invariants**  
Research in Computer Science  
ETH Zurich, Switzerland
- 2013 Patrick Spettel  
**Delfy: Dynamic Test Generation for Dafny**  
Master's thesis  
ETH Zurich, Switzerland
- 2013 Patrick Emmisberger  
**Dynamic Test Generation with Static Fields and Initializers**  
Bachelor's thesis  
ETH Zurich, Switzerland
- 2013 Timon Gehr  
**Synthesizing Method Sequences to Detect Object Invariant Violations**  
Bachelor's thesis  
ETH Zurich, Switzerland
- 2011 Alkis Gotovos  
**Dynamic Systematic Testing of Concurrent Erlang Programs**  
Diploma thesis  
National Technical University of Athens, Greece

## Invited Talks

1. Keynote at KLEE 2026, Munich, Germany, October 2026.
2. Keynote at CAV 2026, Lisbon, Portugal, July 2026.
3. Keynote at SE 2026, Bern, Switzerland, February 2026.
4. CISPA Helmholtz Center for Information Security, Saarbrücken, Germany, July 2025.
5. Research Symposium at MPI-SWS, Saarbrücken, Germany, June 2025.
6. 70th IFIP WG2.4 Meeting on Software Implementation Technology, Singapore, February 2025.
7. 68th IFIP WG2.4 (Online) Meeting on Software Implementation Technology, November 2023.
8. Research in Software Engineering (RiSE) Group, Microsoft Research Redmond, Washington, USA, July 2023.
9. SBA Research, Austria, June 2023.
10. Amazon Automated Reasoning Symposium, February 2023.
11. 65th IFIP WG2.4 (Online) Meeting on Software Implementation Technology, November 2021.
12. Technische Universität Wien (TU Wien), Austria, September 2021.
13. IFIP WG2.2 Meeting on Formal Description of Programming Concepts, Münster, Germany, September 2021.
14. Technical University of Berlin, Germany, January 2021.
15. Cornell, Maryland, Max Planck Pre-Doctoral Research School (CMMRS) 2020, Saarbrücken, Germany, August 2020.
16. 62nd IFIP WG2.4 Meeting on Software Implementation Technology, Port Elizabeth, South Africa, January 2020.
17. “Fuzzing and Symbolic Execution: Reflections, Challenges, and Opportunities”, NII Shonan Meeting, Kanagawa, Japan, September 2019.
18. “Bringing CP, SAT and SMT Together: Next Challenges in Constraint Solving”, Dagstuhl Seminar, Saarland, Germany, February 2019.
19. Imperial College London, UK, November 2018.
20. 60th IFIP WG2.4 Meeting on Software Implementation Technology, Dijon, France, July 2018.
21. Joint Lecture Series of MPI-INF, MPI-SWS, MMCI, and the Computer Science Department of Saarland University, Saarbrücken, Germany, July 2018.
22. 59th IFIP WG2.4 Meeting on Software Implementation Technology, Essex, Vermont, USA, October 2017.
23. New Faculty Symposium at ICSE’17, Buenos Aires, Argentina, May 2017.

24. Royal Holloway University of London, UK, March 2017.
25. Max Planck Institute for Software Systems, Germany, February 2017.
26. Aarhus University, Denmark, January 2017.
27. Queen Mary University of London, UK, January 2017.
28. University of Washington, Washington, USA, August 2016.
29. “Kolloquium zum GI Dissertationspreis 2015”, Dagstuhl Seminar, Saarland, Germany, May 2016.
30. University of Kent, England, March 2016.
31. École Polytechnique Fédérale de Lausanne (EPFL), Switzerland, February 2015.
32. “Symbolic Execution and Constraint Solving”, Dagstuhl Seminar, Saarland, Germany, October 2014.
33. Carnegie Mellon University, Pennsylvania, USA, September 2014.
34. University of Washington, Washington, USA, May 2013.
35. Programming Language Working Group, Microsoft Research Redmond, Washington, USA, April 2013.
36. Program Analysis Working Group, Microsoft Research Redmond, Washington, USA, March 2013.
37. Imperial College London, UK, February 2013.
38. Commissariat à l’Énergie Atomique (CEA), Paris, France, February 2013.
39. “Symbolic Methods in Testing”, Dagstuhl Seminar, Saarland, Germany, January 2013.
40. Tenth Programming Language Seminar, National Technical University of Athens, Greece, December 2012.
41. Eighth Programming Language Seminar, National Technical University of Athens, Greece, December 2010.

## Selected Software

- **BabelFuzz**: A cost-effective testing framework for MPC compilers
- **HornGator**: An interrogation-testing framework for CHC solvers
- **Arguzz**: A fuzzer for zkVMs
- **Circuzz**: A fuzzer for processing pipelines of zero-knowledge circuits
- **LaZ**: An extension of Nomos for lazy testing of machine-learning models
- **Sherlock**: An interrogation-testing framework for program analyzers
- **Minotaur**: A constraint-based program generator for testing program analyzers
- **Olympia**: A benchmarking platform for Solidity fuzzers

- **GreenBench**: A green fuzzer-benchmarking platform
- **Nomos**: A specification language and framework for expressing and testing k-safety properties of machine-learning models
- **DLSmith**: A dependency-aware metamorphic-testing framework for Datalog engines
- **$\pi$ -fuzz**: A metamorphic-testing framework for action policies
- **SmartACE**: A compositional verifier for smart contracts
- **queryFuzz**: A metamorphic-testing framework for Datalog engines
- **Neuro-aware program analyzer**: A static analyzer for verifying system properties of programs invoking neural networks
- **tAllor**: A framework for automatically tailoring an abstract interpreter to the code under analysis and any given resource constraints
- **LIBRA**: A static-analysis framework for certifying fairness of deep neural networks
- **STORM**: A blackbox mutational fuzzer for SMT solvers
- **DeepSearch**: A blackbox attack for deep neural networks
- **bran**: A static-analysis framework for EVM bytecode
- **$\alpha$ -Diff**: A framework for differentially testing soundness and precision of program analyzers

## Languages

<i>Greek</i>	: Mother tongue
<i>English</i>	: TOEFL iBT (Score: 117/120), 2011 Certificate of Proficiency in English (University of Cambridge), 2003
<i>Italian</i>	: Diploma di Lingua Italiana (CELI 5), 2011
<i>Spanish</i>	: Diploma Superior de Español, 2003
<i>French</i>	: Diplôme d'Études en Langue Française (DELF), 2001
<i>German</i>	: Intermediate proficiency