

Reiner HÄhnlle

List of Publications by Year in descending order

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133
papers

2,236
citations

304368

22
h-index

301761

39
g-index

152
all docs

152
docs citations

152
times ranked

721
citing authors

#	ARTICLE	IF	CITATIONS
1	ABS: A Core Language for Abstract Behavioral Specification. Lecture Notes in Computer Science, 2011, , 142-164.	1.0	236
2	The KeY tool. Software and Systems Modeling, 2005, 4, 32-54.	2.2	161
3	A Theorem Proving Approach to Analysis of Secure Information Flow. Lecture Notes in Computer Science, 2005, , 193-209.	1.0	102
4	Many-valued logic and mixed integer programming. Annals of Mathematics and Artificial Intelligence, 1994, 12, 231-263.	0.9	67
5	Short Conjunctive Normal Forms in Finitely Valued Logics. Journal of Logic and Computation, 1994, 4, 905-927.	0.5	65
6	A Survey of Active Object Languages. ACM Computing Surveys, 2018, 50, 1-39.	16.1	65
7	Tableaux and Related Methods. , 2001, , 101-178.		62
8	Resource Analysis of Complex Programs with Cost Equations. Lecture Notes in Computer Science, 2014, , 275-295.	1.0	49
9	Formal modeling and analysis of resource management for cloud architectures: an industrial case study using Real-Time ABS. Service Oriented Computing and Applications, 2014, 8, 323-339.	1.3	48
10	OpenJDK's Java.util.Collection.sort() Is Broken: The Good, the Bad and the Worst Case. Lecture Notes in Computer Science, 2015, , 273-289.	1.0	48
11	The liberalized ?-rule in free variable semantic tableaux. Journal of Automated Reasoning, 1994, 13, 211-221.	1.1	47
12	Deductive Software Verification: From Pen-and-Paper Proofs to Industrial Tools. Lecture Notes in Computer Science, 2019, , 345-373.	1.0	43
13	Advanced Many-Valued Logics. , 2001, , 297-395.		43
14	Formal Methods in Software Product Line Engineering. Computer, 2011, 44, 82-85.	1.2	38
15	Generating Unit Tests from Formal Proofs. Lecture Notes in Computer Science, 2007, , 169-188.	1.0	38
16	The KeY Platform for Verification and Analysis of Java Programs. Lecture Notes in Computer Science, 2014, , 55-71.	1.0	37
17	Modeling Spatial and Temporal Variability with the HATS Abstract Behavioral Modeling Language. Lecture Notes in Computer Science, 2011, , 417-457.	1.0	35
18	The Approach: Integrating Object Oriented Design and Formal Verification. Lecture Notes in Computer Science, 2000, , 21-36.	1.0	34

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19	Tableaux for Many-Valued Logics. , 1999, , 529-580.		34
20	Towards an efficient tableau proof procedure for multiple-valued logics. Lecture Notes in Computer Science, 1991, , 248-260.	1.0	32
21	KeY-ABS: A Deductive Verification Tool for the Concurrent Modelling Language ABS. Lecture Notes in Computer Science, 2015, , 517-526.	1.0	30
22	A Liskov Principle for Delta-Oriented Programming. Lecture Notes in Computer Science, 2012, , 32-46.	1.0	30
23	The Abstract Behavioral Specification Language: A Tutorial Introduction. Lecture Notes in Computer Science, 2013, , 1-37.	1.0	29
24	The SAT Problem of Signed CNF Formulas. Applied Logic Series, 2000, , 59-80.	0.3	26
25	The even more liberalized $\hat{\tau}$ -rule in free variable Semantic Tableaux. , 1993, , 108-119.		25
26	An Authoring Tool for Informal and Formal Requirements Specifications. Lecture Notes in Computer Science, 2002, , 233-248.	1.0	25
27	Intelligent Systems and Formal Methods in Software Engineering. IEEE Intelligent Systems, 2006, 21, 71-81.	4.0	24
28	Reuse in Software Verification by Abstract Method Calls. Lecture Notes in Computer Science, 2013, , 300-314.	1.0	24
29	Verification of Switch-level designs with many-valued logic. Lecture Notes in Computer Science, 1993, , 158-169.	1.0	21
30	Many-Valued Logic, Partiality, and Abstraction in Formal Specification Languages. Logic Journal of the IGPL, 2005, 13, 415-433.	1.3	20
31	Formal modeling and analysis of railway operations with active objects. Science of Computer Programming, 2018, 166, 167-193.	1.5	20
32	Verifying OpenJDK's Sort Method for Generic Collections. Journal of Automated Reasoning, 2019, 62, 93-126.	1.1	19
33	Commodious Axiomatization of Quantifiers in Multiple-Valued Logic. Studia Logica, 1998, 61, 101-121.	0.4	17
34	Verified resource guarantees using COSTA and KeY. , 2011, , .		17
35	The Key System: Integrating Object-Oriented Design and Formal Methods. Lecture Notes in Computer Science, 2002, , 327-330.	1.0	17
36	A General Lattice Model for Merging Symbolic Execution Branches. Lecture Notes in Computer Science, 2016, , 57-73.	1.0	15

#	ARTICLE	IF	CITATIONS
37	An improved method for adding equality to free variable semantic tableaux. Lecture Notes in Computer Science, 1992, , 507-521.	1.0	15
38	Formal Modeling of Resource Management for Cloud Architectures: An Industrial Case Study. Lecture Notes in Computer Science, 2012, , 91-106.	1.0	15
39	Fully Abstract Operation Contracts. Lecture Notes in Computer Science, 2014, , 120-134.	1.0	15
40	The tableau-based theorem prover 3 T A P Version 4.0. Lecture Notes in Computer Science, 1996, , 303-307.	1.0	14
41	Abstract Interpretation of Symbolic Execution with Explicit State Updates. Lecture Notes in Computer Science, 2009, , 247-277.	1.0	14
42	A visual interactive debugger based on symbolic execution. , 2010, , .		14
43	History-Based Specification and Verification of Scalable Concurrent and Distributed Systems. Lecture Notes in Computer Science, 2015, , 217-233.	1.0	14
44	Uniform Modeling of Railway Operations. Communications in Computer and Information Science, 2017, , 55-71.	0.4	13
45	Proof Repositories for Compositional Verification of Evolving Software Systems. Lecture Notes in Computer Science, 2016, , 130-156.	1.0	12
46	A Unified and Formal Programming Model for Deltas and Traits. Lecture Notes in Computer Science, 2017, , 424-441.	1.0	11
47	Engineering virtualized services. , 2013, , .		11
48	Verification of Safety Properties in the Presence of Transactions. Lecture Notes in Computer Science, 2005, , 151-171.	1.0	11
49	Locally Abstract, Globally Concrete Semantics of Concurrent Programming Languages. Lecture Notes in Computer Science, 2017, , 22-43.	1.0	11
50	A-ordered tableaux. Journal of Logic and Computation, 1996, 6, 819-833.	0.5	10
51	Exploit Generation for Information Flow Leaks in Object-Oriented Programs. IFIP Advances in Information and Communication Technology, 2015, , 401-415.	0.5	10
52	Testing abstract behavioral specifications. International Journal on Software Tools for Technology Transfer, 2015, 17, 107-119.	1.7	10
53	Visualizing Unbounded Symbolic Execution. Lecture Notes in Computer Science, 2014, , 82-98.	1.0	10
54	An Interactive Verification Tool Meets an IDE. Lecture Notes in Computer Science, 2014, , 55-70.	1.0	10

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55	Entwurfsmustergesteuerte Erzeugung von OCL-Constraints. Informatik Aktuell, 2000, , 389-404.	0.4	10
56	Linearity and regularity with negation normal form. Theoretical Computer Science, 2004, 328, 325-354.	0.5	9
57	Designing Resource-Aware Cloud Applications. Computer, 2015, 48, 72-75.	1.2	9
58	An empirical evaluation of two user interfaces of an interactive program verifier. , 2016, , .		9
59	The interactive verification debugger: effective understanding of interactive proof attempts. , 2016, , .		9
60	A formal verification framework for static analysis. Software and Systems Modeling, 2016, 15, 987-1012.	2.2	9
61	The Symbolic Execution Debugger (SED): a platform for interactive symbolic execution, debugging, verification and more. International Journal on Software Tools for Technology Transfer, 2019, 21, 485-513.	1.7	9
62	Verified Resource Guarantees for Heap Manipulating Programs. Lecture Notes in Computer Science, 2012, , 130-145.	1.0	9
63	A UML profile for delta-oriented programming to support software product line engineering. , 2016, , .		8
64	The KeY system 1.0 (Deduction Component). Lecture Notes in Computer Science, 2007, , 379-384.	1.0	8
65	HATS Abstract Behavioral Specification: The Architectural View. Lecture Notes in Computer Science, 2013, , 109-132.	1.0	8
66	Improving temporal logic tableaux using integer constraints. , 1994, , 535-539.		7
67	Modular, Correct Compilation with Automatic Soundness Proofs. Lecture Notes in Computer Science, 2018, , 424-447.	1.0	7
68	Normal Forms for Knowledge Compilation. Lecture Notes in Computer Science, 2005, , 304-313.	1.0	7
69	Analysis of Executable Software Models. Lecture Notes in Computer Science, 2014, , 1-25.	1.0	7
70	KeY: A Formal Method for Object-Oriented Systems. Lecture Notes in Computer Science, 2007, , 32-43.	1.0	7
71	KeY-C: A Tool for Verification of C Programs. Lecture Notes in Computer Science, 2007, , 385-390.	1.0	7
72	A Dynamic Logic with Traces and Coinduction. Lecture Notes in Computer Science, 2015, , 307-322.	1.0	7

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73	Ordered tableaux: Extensions and applications. Lecture Notes in Computer Science, 1997, , 173-187.	1.0	6
74	Fast Subsumption Checks Using Anti-Links. Journal of Automated Reasoning, 1997, 18, 47-83.	1.1	5
75	Integration of a security type system into a program logic. Theoretical Computer Science, 2008, 402, 172-189.	0.5	5
76	Correctness-by-Construction and Post-hoc Verification: Friends or Foes?. Lecture Notes in Computer Science, 2016, , 723-729.	1.0	5
77	Short CNF in finitely-valued logics. Lecture Notes in Computer Science, 1993, , 49-58.	1.0	5
78	Program Transformation Based on Symbolic Execution and Deduction. Lecture Notes in Computer Science, 2013, , 289-304.	1.0	5
79	Deductive Verification of Railway Operations. Lecture Notes in Computer Science, 2017, , 131-147.	1.0	5
80	Completeness for linear regular negation normal form inference systems. Lecture Notes in Computer Science, 1997, , 590-599.	1.0	4
81	Automatic detection and demonstrator generation for information flow leaks in object-oriented programs. Computers and Security, 2017, 67, 335-349.	4.0	4
82	Interoperability of software product line variants. , 2018, , .		4
83	Automated Planning of ETCS Tracks. Lecture Notes in Computer Science, 2019, , 79-90.	1.0	4
84	Towards a Circular Economy of Industrial Software. Procedia CIRP, 2020, 90, 37-42.	1.0	4
85	Towards Incremental Validation of Railway Systems. Lecture Notes in Computer Science, 2016, , 433-446.	1.0	4
86	Using a Software Testing Technique to Improve Theorem Proving. Lecture Notes in Computer Science, 2004, , 30-41.	1.0	4
87	Integration of a Security Type System into a Program Logic. , 2006, , 116-131.		4
88	Verifying Object-Oriented Programs with KeY: AÄTutorial. Lecture Notes in Computer Science, 2007, , 70-101.	1.0	4
89	Behavioral Contracts for Cooperative Scheduling. Lecture Notes in Computer Science, 2020, , 85-121.	1.0	4
90	Complexity of Many-valued Logics. Studies in Fuzziness and Soft Computing, 2003, , 211-233.	0.6	3

#	ARTICLE	IF	CITATIONS
91	Same Same But Different: Interoperability of Software Product Line Variants. , 2018, , 99-117.		3
92	Constraint-Based Behavioral Consistency of Evolving Software Systems. Lecture Notes in Computer Science, 2018, , 205-218.	1.0	3
93	Automated model extraction: From non-deterministic C code to active objects. Science of Computer Programming, 2021, 204, 102597.	1.5	3
94	Model Generation Theorem Proving with Finite Interval Constraints. Lecture Notes in Computer Science, 2000, , 285-299.	1.0	3
95	The tableau-based theorem prover 3 T A P for multiple-valued logics. Lecture Notes in Computer Science, 1992, , 758-760.	1.0	3
96	A Program Logic for Dependence Analysis. Lecture Notes in Computer Science, 2019, , 83-100.	1.0	3
97	Integrated and Tool-Supported Teaching of Testing, Debugging, and Verification. Lecture Notes in Computer Science, 2009, , 125-143.	1.0	3
98	Prototyping Formal System Models with Active Objects. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 279, 52-67.	0.8	3
99	Program Specialization via a Software Verification Tool. Lecture Notes in Computer Science, 2011, , 80-101.	1.0	3
100	Integration of informal and formal development of object-oriented safety-critical software. International Journal on Software Tools for Technology Transfer, 2005, 7, 197-211.	1.7	2
101	An Architectural Pattern to Realize Multi Software Product Lines in Java. , 2021, , .		2
102	Array Abstraction with Symbolic Pivots. Lecture Notes in Computer Science, 2016, , 104-121.	1.0	2
103	Ordered Resolution vs. Connection Graph resolution. Lecture Notes in Computer Science, 2001, , 182-194.	1.0	2
104	Abstract Interpretation. Lecture Notes in Computer Science, 2016, , 167-189.	1.0	2
105	Abstraction Refinement for the Analysis of Software Product Lines. Lecture Notes in Computer Science, 2017, , 3-20.	1.0	2
106	Asynchronous Cooperative Contracts for Cooperative Scheduling. Lecture Notes in Computer Science, 2019, , 48-66.	1.0	2
107	Analysis of SLA Compliance in the Cloud - An Automated, Model-based Approach. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 302, 1-15.	0.8	2
108	Integration of Informal and Formal Development of Object-Oriented Safety-Critical Software. Electronic Notes in Theoretical Computer Science, 2003, 80, 1-23.	0.9	1

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109	Variability modules for Java-like languages. , 2021, , .		1
110	Deduction by combining semantic tableaux and integer programming. Lecture Notes in Computer Science, 1996, , 52-63.	1.0	1
111	Debugging and Visualization. Lecture Notes in Computer Science, 2016, , 383-413.	1.0	1
112	Proof Theory of Many-Valued Logic and Linear Optimization. , 2001, , 15-33.		1
113	Adaptable and Evolving Software for Eternal Systems. Lecture Notes in Computer Science, 2012, , 1-3.	1.0	1
114	On anti-links. Lecture Notes in Computer Science, 1994, , 275-289.	1.0	1
115	Automated Deduction and Integer Programming. Journal of Zoological Systematics and Evolutionary Research, 1995, , 67-86.	0.6	1
116	Some Remarks on Completeness, Connection Graph Resolution, and Link Deletion. Lecture Notes in Computer Science, 1998, , 172-186.	1.0	1
117	Quo Vadis Formal Verification?. Lecture Notes in Computer Science, 2016, , 1-19.	1.0	1
118	Inferring Secrets by Guided Experiments. Lecture Notes in Computer Science, 2017, , 269-287.	1.0	1
119	Automating Software Re-engineering. Lecture Notes in Computer Science, 2020, , 3-8.	1.0	1
120	The Trace Modality. Lecture Notes in Computer Science, 2020, , 124-140.	1.0	1
121	Who Carries the Burden of Modularity?. Lecture Notes in Computer Science, 2020, , 3-21.	1.0	1
122	Delta-based verification of software product families. , 2021, , .		1
123	Finding Semantic Bugs Fast. Lecture Notes in Computer Science, 2022, , 145-154.	1.0	1
124	24 Challenges in Deductive Software Verification. , 0, , .		1
125	Dijkstra's Legacy on Program Verification. , 2022, , 105-140.		1
126	Tests and Proofs. Journal of Automated Reasoning, 2010, 45, 327-329.	1.1	0

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127	Preface: Special Issue of Selected Extended Papers of IJCAR 2010. Journal of Automated Reasoning, 2011, 47, 337-339.	1.1	0
128	Automated model analysis tools and techniques presented at FASE 2019. International Journal on Software Tools for Technology Transfer, 2021, 23, 285-287.	1.7	0
129	Fair Constraint Merging Tableaux in Lazy Functional Programming Style. Lecture Notes in Computer Science, 2003, , 252-256.	1.0	0
130	Verification by Parallelization of Parametric Code. Lecture Notes in Computer Science, 2007, , 138-159.	1.0	0
131	Specifying Imperative ML-Like Programs Using Dynamic Logic. Lecture Notes in Computer Science, 2011, , 122-137.	1.0	0
132	Introduction to Track on Engineering Virtualized Services. Lecture Notes in Computer Science, 2014, , 1-4.	1.0	0
133	Restart tableaux with selection function. Lecture Notes in Computer Science, 1997, , 219-232.	1.0	0