Viktor Vafeiadis

List of Publications by Year
in descending order

90 papers	2,870 citations	331670 21 h-index	345221 36 g-index
92 all docs	92 docs citations	92 times ranked	584 citing authors

#	Article	IF	Citations
1	A Marriage of Rely/Guarantee and Separation Logic. Lecture Notes in Computer Science, 2007, , 256-271.	1.3	138
2	Concurrent Abstract Predicates. Lecture Notes in Computer Science, 2010, , 504-528.	1.3	111
3	CompCertTSO. Journal of the ACM, 2013, 60, 1-50.	2.2	108
4	Automatically Proving Linearizability. Lecture Notes in Computer Science, 2010, , 450-464.	1.3	97
5	A promising semantics for relaxed-memory concurrency. , 2017, , .		93
6	Repairing sequential consistency in C/C++11. , 2017, , .		90
7	Common Compiler Optimisations are Invalid in the C11 Memory Model and what we can do about it. , 2015, , .		88
8	Deny-Guarantee Reasoning. Lecture Notes in Computer Science, 2009, , 363-377.	1.3	82
9	Relaxed separation logic. , 2013, , .		79
10	Proving correctness of highly-concurrent linearisable objects. , 2006, , .		70
11	Effective stateless model checking for C/C++ concurrency. , 2018, 2, 1-32.		69
12	GPS. , 2014, , .		67
13	Shape-Value Abstraction for Verifying Linearizability. Lecture Notes in Computer Science, 2008, , 335-348.	1.3	65
14	Owicki-Gries Reasoning for Weak Memory Models. Lecture Notes in Computer Science, 2015, , 311-323.	1.3	62
15	Taming release-acquire consistency. , 2016, , .		59
16	Concurrent Separation Logic and Operational Semantics. Electronic Notes in Theoretical Computer Science, 2011, 276, 335-351.	0.9	54
17	Pilsner: a compositionally verified compiler for a higher-order imperative language. , 2015, , .		54
18	Acute. ACM SIGPLAN Notices, 2005, 40, 15-26.	0.2	52

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19	The marriage of bisimulations and Kripke logical relations. , 2012, , .		49
20	Model checking for weakly consistent libraries. , 2019, , .		49
21	Structuring the verification of heap-manipulating programs. , 2010, , .		46
22	The power of parameterization in coinductive proof. , 2013, , .		43
23	Modular Safety Checking for Fine-Grained Concurrency. Lecture Notes in Computer Science, 2007, , 233-248.	1.3	42
24	Relaxed-memory concurrency and verified compilation. , 2011, , .		40
25	Aspect-Oriented Linearizability Proofs. Lecture Notes in Computer Science, 2013, , 242-256.	1.3	40
26	Bridging the gap between programming languages and hardware weak memory models. , 2019, 3, 1-31.		37
27	Acute. , 2005, , .		37
28	Grounding thin-air reads with event structures. , 2019, 3, 1-28.		35
29	A Program Logic for C11 Memory Fences. Lecture Notes in Computer Science, 2016, , 413-430.	1.3	33
30	Lightweight verification of separate compilation. , 2016, , .		33
31	A formal C memory model supporting integer-pointer casts. , 2015, , .		32
32	Tackling Real-Life Relaxed Concurrency with FSL++. Lecture Notes in Computer Science, 2017, , 448-475.	1.3	31
33	Weak persistency semantics from the ground up: formalising the persistency semantics of ARMv8 and transactional models. , 2019, 3, 1-27.		31
34	Persistency semantics of the Intel-x86 architecture. , 2020, 4, 1-31.		31
35	Proving that non-blocking algorithms don't block. , 2009, , .		30
36	Acute: High-level programming language design for distributed computation. Journal of Functional Programming, 2007, 17, 547-612.	0.8	29

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37	Verifying read-copy-update in a logic for weak memory. , 2015, , .		29
38	Bi-abductive Resource Invariant Synthesis. Lecture Notes in Computer Science, 2009, , 259-274.	1.3	29
39	Promising 2.0: global optimizations in relaxed memory concurrency. , 2020, , .		29
40	Relaxed separation logic. ACM SIGPLAN Notices, 2013, 48, 867-884.	0.2	26
41	RGSep Action Inference. Lecture Notes in Computer Science, 2010, , 345-361.	1.3	25
42	Mtac. , 2013, , .		24
43	A Separation Logic for a Promising Semantics. Lecture Notes in Computer Science, 2018, , 357-384.	1.3	24
44	GPS. ACM SIGPLAN Notices, 2014, 49, 691-707.	0.2	24
45	A promising semantics for relaxed-memory concurrency. ACM SIGPLAN Notices, 2017, 52, 175-189.	0.2	24
46	Persistence semantics for weak memory: integrating epoch persistency with the TSO memory model. , 2018, 2, 1-27.		23
47	Repairing sequential consistency in C/C++11. ACM SIGPLAN Notices, 2017, 52, 618-632.	0.2	22
48	Relaxed-memory concurrency and verified compilation. ACM SIGPLAN Notices, 2011, 46, 43-54.	0.2	20
49	On library correctness under weak memory consistency: specifying and verifying concurrent libraries under declarative consistency models. , 2019, 3, 1-31.		20
50	VSync: push-button verification and optimization for synchronization primitives on weak memory models. , 2021, , .		20
51	Explaining Relaxed Memory Models with Program Transformations. Lecture Notes in Computer Science, 2016, , 479-495.	1.3	20
52	Proving that non-blocking algorithms don't block. ACM SIGPLAN Notices, 2009, 44, 16-28.	0.2	20
53	Structuring the verification of heap-manipulating programs. ACM SIGPLAN Notices, 2010, 45, 261-274.	0.2	19
54	Validating optimizations of concurrent C/C++ programs. , 2016, , .		19

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55	GenMC: A Model Checker for Weak Memory Models. Lecture Notes in Computer Science, 2021, , 427-440.	1.3	19
56	HMC. , 2020, , .		19
57	Finding heap-bounds for hardware synthesis. , 2009, , .		18
58	Modular Verification of Concurrency-Aware Linearizability. Lecture Notes in Computer Science, 2015, , 371-387.	1.3	18
59	Truly stateless, optimal dynamic partial order reduction. , 2022, 6, 1-28.		18
60	Verifying Fence Elimination Optimisations. Lecture Notes in Computer Science, 2011, , 146-162.	1.3	17
61	Effective lock handling in stateless model checking. , 2019, 3, 1-26.		17
62	Aspect-oriented linearizability proofs. Logical Methods in Computer Science, 0, Volume 11, Issue 1, .	0.4	17
63	Taming release-acquire consistency. ACM SIGPLAN Notices, 2016, 51, 649-662.	0.2	16
64	Mtac: A monad for typed tactic programming in Coq. Journal of Functional Programming, 2015, 25, .	0.8	15
65	The power of parameterization in coinductive proof. ACM SIGPLAN Notices, 2013, 48, 193-206.	0.2	15
66	Common Compiler Optimisations are Invalid in the C11 Memory Model and what we can do about it. ACM SIGPLAN Notices, 2015, 50, 209-220.	0.2	11
67	Formalizing the concurrency semantics of an LLVM fragment. , 2017, , .		11
68	Making weak memory models fair. , 2021, 5, 1-27.		10
69	Verifying read-copy-update in a logic for weak memory. ACM SIGPLAN Notices, 2015, 50, 110-120.	0.2	10
70	Reasoning about Fences and Relaxed Atomics. , 2016, , .		9
71	PerSeVerE: persistency semantics for verification under ext4. , 2021, 5, 1-29.		9
72	Lightweight verification of separate compilation. ACM SIGPLAN Notices, 2016, 51, 178-190.	0.2	9

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73	A formal C memory model supporting integer-pointer casts. ACM SIGPLAN Notices, 2015, 50, 326-335.	0.2	9
74	Pilsner: a compositionally verified compiler for a higher-order imperative language. ACM SIGPLAN Notices, 2015, 50, 166-178.	0.2	8
75	Persistent Owicki-Gries reasoning: a program logic for reasoning about persistent programs on Intel-x86. , 2020, 4, 1-28.		8
76	The Decidability of Verification under PS 2.0. Lecture Notes in Computer Science, 2021, , 1-29.	1.3	7
77	On Parallel Snapshot Isolation and Release/Acquire Consistency. Lecture Notes in Computer Science, 2018, , 940-967.	1.3	7
78	GPS$$+$$+: Reasoning About Fences and Relaxed Atomics. International Journal of Parallel Programming, 2018, 46, 1157-1183.	1.5	6
79	The marriage of bisimulations and Kripke logical relations. ACM SIGPLAN Notices, 2012, 47, 59-72.	0.2	5
80	Proving Lock-Freedom Easily and Automatically. , 2015, , .		5
81	Program Verification Under Weak Memory Consistency Using Separation Logic. Lecture Notes in Computer Science, 2017, , 30-46.	1.3	5
82	Separation Logic in the Presence of Garbage Collection. , 2011, , .		4
83	Mtac. ACM SIGPLAN Notices, 2013, 48, 87-100.	0.2	4
84	On the Semantics of Snapshot Isolation. Lecture Notes in Computer Science, 2019, , 1-23.	1.3	4
85	Adjustable References. Lecture Notes in Computer Science, 2013, , 328-337.	1.3	4
86	A Programming Language Approach to Fault Tolerance for Fork-Join Parallelism. , 2013, , .		3
87	Extending Intel-x86 consistency and persistency: formalising the semantics of Intel-x86 memory types and non-temporal stores. , 2022, 6, 1-31.		3
88	Formal Reasoning about the C11 Weak Memory Model. , 2015, , .		2
89	Verifying and Optimizing the HMCS Lock for Arm Servers. Lecture Notes in Computer Science, 2021, , 240-260.	1.3	2
90	BAM: Efficient Model Checking for Barriers. Lecture Notes in Computer Science, 2021, , 223-239.	1.3	1