Frank Piessens

List of Publications by Year
in descending order

168	3,653	361413 20	361022 35
papers	citations	h-index	g-index

180	180	180	1316
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Cookieless Monster: Exploring the Ecosystem of Web-Based Device Fingerprinting. , 2013, , .		252
2	VeriFast: A Powerful, Sound, Predictable, Fast Verifier for C and Java. Lecture Notes in Computer Science, 2011, , 41-55.	1.3	211
3	You are what you include. , 2012, , .		195
4	Noninterference through Secure Multi-execution. , 2010, , .		167
5	Plundervolt: Software-based Fault Injection Attacks against Intel SGX. , 2020, , .		137
6	Breaking the memory secrecy assumption. , 2009, , .		103
7	Implicit Dynamic Frames: Combining Dynamic Frames and Separation Logic. Lecture Notes in Computer Science, 2009, , 148-172.	1.3	86
8	FlowFox. , 2012, , .		84
9	JSand. , 2012, , .		73
10	LVI: Hijacking Transient Execution through Microarchitectural Load Value Injection. , 2020, , .		72
11	A Quick Tour of the VeriFast Program Verifier. Lecture Notes in Computer Science, 2010, , 304-311.	1.3	70
12	Secure Compilation to Protected Module Architectures. ACM Transactions on Programming Languages and Systems, 2015, 37, 1-50.	2.1	64
13	Sancus 2.0. ACM Transactions on Privacy and Security, 2017, 20, 1-33.	3.0	61
14	Fides. , 2012, , .		57
15	The 1st Verified Software Competition: Experience Report. Lecture Notes in Computer Science, 2011, , 154-168.	1.3	54
16	Secure Compilation to Modern Processors. , 2012, , .		53
17	PAriCheck. , 2010, , .		50
18	Bitsquatting. , 2013, , .		49

#	Article	IF	Citations
19	Efficient Isolation of Trusted Subsystems in Embedded Systems. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2010, , 344-361.	0.3	48
20	A Tale of Two Worlds. , 2019, , .		48
21	Expressive modular fine-grained concurrency specification. , 2011, , .		43
22	Security-by-contract on the .NET platform. Information Security Technical Report, 2008, 13, 25-32.	1.3	42
23	Runtime countermeasures for code injection attacks against C and C++ programs. ACM Computing Surveys, 2012, 44, 1-28.	23.0	42
24	WebJail. , 2011, , .		40
25	Implicit dynamic frames. ACM Transactions on Programming Languages and Systems, 2012, 34, 1-58.	2.1	40
26	Soundsquatting: Uncovering the Use of Homophones in Domain Squatting. Lecture Notes in Computer Science, 2014, , 291-308.	1.3	37
27	Reactive non-interference for a browser model. , 2011, , .		35
28	VulCAN. , 2017, , .		35
29	Software verification with VeriFast: Industrial case studies. Science of Computer Programming, 2014, 82, 77-97.	1.9	34
30	On the bright side of type classes. , 2011, , .		33
31	Nemesis. , 2018, , .		33
32	CsFire: Transparent Client-Side Mitigation of Malicious Cross-Domain Requests. Lecture Notes in Computer Science, 2010, , 18-34.	1.3	33
33	Automatic and Precise Client-Side Protection against CSRF Attacks. Lecture Notes in Computer Science, 2011, , 100-116.	1.3	30
34	Extended Protection against Stack Smashing Attacks without Performance Loss. Proceedings of the Computer Security Applications Conference, 2006, , .	0.0	29
35	Stateful Declassification Policies for Event-Driven Programs. , 2014, , .		29
36	Universal Arrow Foundations for Visual Modeling. Lecture Notes in Computer Science, 2000, , 345-360.	1.3	28

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37	Bridging the gap between web application firewalls and web applications. , 2006, , .		26
38	Fully-abstract compilation by approximate back-translation. , 2016, , .		26
39	A programming model for concurrent object-oriented programs. ACM Transactions on Programming Languages and Systems, 2008, 31, 1-48.	2.1	25
40	Expressive modular fine-grained concurrency specification. ACM SIGPLAN Notices, 2011, 46, 271-282.	0.2	24
41	Multi-Tier Functional Reactive Programming for the Web. , 2014, , .		23
42	Security of Web Mashups: A Survey. Lecture Notes in Computer Science, 2012, , 223-238.	1.3	23
43	ICE. , 2014, , .		22
44	Reasoning about Object Capabilities with Logical Relations and Effect Parametricity. , 2016, , .		22
45	Sound Modular Verification of C Code Executing in an Unverified Context. , 2015, , .		21
46	Efficient Protection Against Heap-Based Buffer Overflows Without Resorting to Magic. Lecture Notes in Computer Science, 2006, , 379-398.	1.3	20
47	An Automatic Verifier for Java-Like Programs Based on Dynamic Frames. Lecture Notes in Computer Science, 2008, , 261-275.	1.3	20
48	On the bright side of type classes. ACM SIGPLAN Notices, 2011, 46, 143-155.	0.2	19
49	Secure Compilation of Object-Oriented Components to Protected Module Architectures. Lecture Notes in Computer Science, 2013, , 176-191.	1.3	18
50	Secure Multi-Execution through Static Program Transformation. Lecture Notes in Computer Science, 2012, , 186-202.	1.3	18
51	A flexible security architecture to support third-party applications on mobile devices. , 2007, , .		17
52	On the Workings and Current Practices of Web-Based Device Fingerprinting. IEEE Security and Privacy, 2014, 12, 28-36.	1.2	17
53	VeriCool: An Automatic Verifier for a Concurrent Object-Oriented Language. Lecture Notes in Computer Science, 2008, , 220-239.	1.3	17
54	Low-Level Software Security by Example. , 2010, , 633-658.		17

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55	Failboxes: Provably Safe Exception Handling. Lecture Notes in Computer Science, 2009, , 470-494.	1.3	16
56	The S3MS.NET Run Time Monitor. Electronic Notes in Theoretical Computer Science, 2009, 253, 153-159.	0.9	15
57	Pattern matching without K. , 2014, , .		15
58	ValueGuard: Protection of Native Applications against Data-Only Buffer Overflows. Lecture Notes in Computer Science, 2010, , 156-170.	1.3	15
59	Serene: Self-Reliant Client-Side Protection against Session Fixation. Lecture Notes in Computer Science, 2012, , 59-72.	1.3	15
60	HeapSentry: Kernel-Assisted Protection against Heap Overflows. Lecture Notes in Computer Science, 2013, , 177-196.	1.3	15
61	Provably Secure Isolation for Interruptible Enclaved Execution on Small Microprocessors. , 2020, , .		14
62	A Caller-Side Inline Reference Monitor for an Object-Oriented Intermediate Language. Lecture Notes in Computer Science, 2008, , 240-258.	1.3	14
63	Protected Software Module Architectures. , 2013, , 241-251.		14
64	Sound, Modular and Compositional Verification of the Input/Output Behavior of Programs. Lecture Notes in Computer Science, 2015, , 158-182.	1.3	14
65	Secure multi-execution of web scripts: Theory and practice. Journal of Computer Security, 2014, 22, 469-509.	0.8	13
66	Runtime Enforcement of Security Policies on Black Box Reactive Programs. , 2015, , .		13
67	NodeSentry. , 2014, , .		12
68	Parametricity versus the universal type. , 2018, 2, 1-23.		12
69	Breaking Virtual Memory Protection and the SGX Ecosystem with Foreshadow. IEEE Micro, 2019, 39, 66-74.	1.8	12
70	Evolution of Security Engineering Artifacts. International Journal of Secure Software Engineering, 2014, 5, 48-98.	0.4	11
71	On Modular and Fully-Abstract Compilation. , 2016, , .		11
72	Annotation Inference for Separation Logic Based Verifiers. Lecture Notes in Computer Science, 2011, , 319-333.	1.3	11

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73	Code Pointer Masking: Hardening Applications against Code Injection Attacks. Lecture Notes in Computer Science, 2011, , 194-213.	1.3	11
74	A Principled Approach to Tracking Information Flow in the Presence of Libraries. Lecture Notes in Computer Science, 2017, , 49-70.	1.3	11
75	Featherweight VeriFast. Logical Methods in Computer Science, 0, Volume 11, Issue 3, .	0.4	11
76	Sound reasoning about unchecked exceptions. , 2007, , .		10
77	Filter-resistant code injection on ARM. , 2009, , .		10
78	Finally tagless observable recursion for an abstract grammar model. Journal of Functional Programming, 2012, 22, 757-796.	0.8	10
79	Runtime Enforcement of Security Policies on Black Box Reactive Programs. ACM SIGPLAN Notices, 2015, 50, 43-54.	0.2	10
80	Linear capabilities for fully abstract compilation of separation-logic-verified code. , 2019, 3, 1-29.		10
81	Plundervolt: How a Little Bit of Undervolting Can Create a Lot of Trouble. IEEE Security and Privacy, 2020, 18, 28-37.	1.2	10
82	Static Verification of Code Access Security Policy Compliance of .NET Applications.. Journal of Object Technology, 2006, 5, 35.	0.9	10
83	Aion: Enabling Open Systems through Strong Availability Guarantees for Enclaves. , 2021, , .		10
84	Selective attribute elimination for categorical data specifications. Lecture Notes in Computer Science, 1997, , 424-436.	1.3	9
85	Secure interrupts on low-end microcontrollers. , 2014, , .		9
86	Test Input Generation for Programs with Pointers. Lecture Notes in Computer Science, 2009, , 277-291.	1.3	9
87	State Coverage: Software Validation Metrics beyond Code Coverage. Lecture Notes in Computer Science, 2012, , 542-553.	1.3	9
88	Sound Formal Verification of Linuxâ€™s USB BP Keyboard Driver. Lecture Notes in Computer Science, 2012, , 210-215.	1.3	9
89	VeriFast for Java: A Tutorial. Lecture Notes in Computer Science, 2013, , 407-442.	1.3	9
90	A Simple Sequential Reasoning Approach for Sound Modular Verification of Mainstream Multithreaded Programs. Electronic Notes in Theoretical Computer Science, 2007, 174, 23-47.	0.9	8

#	Article	IF	Citations
91	Generics of a higher kind. ACM SIGPLAN Notices, 2008, 43, 423-438.	0.2	8
92	Security enforcement aware software development. Information and Software Technology, 2009, 51, 1172-1185.	4.4	8
93	Automatic verification of Java programs with dynamic frames. Formal Aspects of Computing, 2010, 22, 423-457.	1.8	8
94	Provably correct inline monitoring for multithreaded Java-like programs. Journal of Computer Security, 2010, 18, 37-59.	0.8	8
95	Typed syntactic meta-programming. , 2013, , .		8
96	Mitigating Password Database Breaches with Intel SGX. , 2016, , .		8
97	Authentic Execution of Distributed Event-Driven Applications with a Small TCB. Lecture Notes in Computer Science, 2017, , 55-71.	1.3	8
98	Heap-Dependent Expressions in Separation Logic. Lecture Notes in Computer Science, 2010, , 170-185.	1.3	8
99	Solving the VerifyThis 2012 challenges with VeriFast. International Journal on Software Tools for Technology Transfer, 2015, 17, 659-676.	1.9	7
100	Tracking Information Flow via Delayed Output. Lecture Notes in Computer Science, 2018, , 19-37.	1.3	7
101	CapablePtrs: Securely Compiling Partial Programs Using the Pointers-as-Capabilities Principle. , 2021, , .		7
102	Inspector Methods for State Abstraction.. Journal of Object Technology, 2007, 6, 55.	0.9	7
103	Provable Protection against Web Application Vulnerabilities Related to Session Data Dependencies. IEEE Transactions on Software Engineering, 2008, 34, 50-64.	5.6	6
104	Protecting Global and Static Variables from Buffer Overflow Attacks. , 2009, , .		6
105	A Server-Side JavaScript Security Architecture for Secure Integration of Third-Party Libraries. Security and Communication Networks, 2019, 2019, 1-21.	1.5	6
106	Client Side Web Session Integrity as a Non-interference Property. Lecture Notes in Computer Science, 2014, , 89-108.	1.3	6
107	Lightweight and Flexible Trust Assessment Modules for the Internet of Things. Lecture Notes in Computer Science, 2015, , 503-520.	1.3	6
108	Theoretical Aspects of Compositional Symbolic Execution. Lecture Notes in Computer Science, 2011, , 247-261.	1.3	6

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109	Monadic abstract interpreters. ACM SIGPLAN Notices, 2013, 48, 399-410.	0.2	6
110	Software Security: Vulnerabilities and Countermeasures for Two Attacker Models. , 2016, , .		6
111	Salus: Non-hierarchical Memory Access Rights to Enforce the Principle of Least Privilege. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2013, , 252-269.	0.3	6
112	Adaptable Access Control Policies for Medical Information Systems. Lecture Notes in Computer Science, 2003, , 133-140.	1.3	5
113	Filter-resistant code injection on ARM. Journal in Computer Virology, 2011, 7, 173-188.	1.9	5
114	CPM. ACM Transactions on Information and System Security, 2013, 16, 1-27.	4.5	5
115	Fixing idioms. , 2013, , .		5
116	Sound Modular Verification of C Code Executing in an Unverified Context. ACM SIGPLAN Notices, 2015, 50, 581-594.	0.2	5
117	SecSess. , 2015, , .		5
118	Letâ€™s Face It: Faceted Values for Taint Tracking. Lecture Notes in Computer Science, 2016, , 561-580.	1.3	5
119	Eliminating dependent pattern matching without K. Journal of Functional Programming, 2016, 26, .	0.8	5
120	Prudent Design Principles for Information Flow Control. , 2018, , .		5
121	Temporal Safety for Stack Allocated Memory on Capability Machines. , 2019, , .		5
122	Robust authentication for automotive control networks through covert channels. Computer Networks, 2021, 193, 108079.	5.1	5
123	Secure Resource Sharing for Embedded Protected Module Architectures. Lecture Notes in Computer Science, 2015, , 71-87.	1.3	5
124	Automatically Generating Secure Wrappers for SGX Enclaves from Separation Logic Specifications. Lecture Notes in Computer Science, 2017, , 105-123.	1.3	5
125	DEMACRO: Defense against Malicious Cross-Domain Requests. Lecture Notes in Computer Science, 2012, , 254-273.	1.3	5
126	A Machine Checked Soundness Proof for an Intermediate Verification Language. Lecture Notes in Computer Science, 2009, , 570-581.	1.3	5

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127	Proving semantical equivalence of data specifications. Journal of Pure and Applied Algebra, 1997, 116, 291-322.	0.6	4
128	Supporting Security Monitor-Aware Development. , 2007, , .		4
129	PESAP: A Privacy Enhanced Social Application Platform. , 2012, , .		4
130	Protected Web Components: Hiding Sensitive Information in the Shadows. IT Professional, 2015, 17, 36-43.	1.5	4
131	Linear capabilities for fully abstract compilation of separation-logic-verified code. Journal of Functional Programming, 2021, 31, .	0.8	4
132	Partial Type Signatures for Haskell. Lecture Notes in Computer Science, 2014, , 17-32.	1.3	4
133	Fixing non-determinism. , 2015, , .		3
134	Security Guarantees for the Execution Infrastructure of Software Applications. , 2016, , .		3
135	Towards availability and real-time guarantees for protected module architectures. , 2016, , .		3
136	Securing Interruptible Enclaved Execution on Small Microprocessors. ACM Transactions on Programming Languages and Systems, 2021, 43, 1-77.	2.1	3
137	Exploring the Ecosystem of Referrer-Anonymizing Services. Lecture Notes in Computer Science, 2012, , 259-278.	1.3	3
138	Fully-abstract compilation by approximate back-translation. ACM SIGPLAN Notices, 2016, 51, 164-177.	0.2	3
139	What vs. How of Visual Modeling: The Arrow Logic of Graphic Notations. , 1999, , 27-44.		3
140	Improving Memory Management Security for C and C++. International Journal of Secure Software Engineering, 2010, 1, 57-82.	0.4	2
141	There Is Safety in Numbers: Preventing Control-Flow Hijacking by Duplication. Lecture Notes in Computer Science, 2012, , 105-120.	1.3	2
142	Developing Secure SGX Enclaves. , 2016, , .		2
143	Unifiers as equivalences: proof-relevant unification of dependently typed data. ACM SIGPLAN Notices, 2016, 51, 270-283.	0.2	2
144	Salus: Kernel Support for Secure Process Compartments. EAI Endorsed Transactions on Security and Safety, 2015, 2, e1.	0.6	2

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145	Static Verification of Indirect Data Sharing in Loosely-coupled Component Systems. Lecture Notes in Computer Science, 2006, , 34-49.	1.3	2
146	A Categorical Approach to Secure Compilation. Lecture Notes in Computer Science, 2020, , 155-179.	1.3	2
147	Canonical forms for data-specifications. Lecture Notes in Computer Science, 1995, , 397-411.	1.3	1
148	Attacks on the Browserâ€™s Requests. SpringerBriefs in Computer Science, 2014, , 57-68.	0.2	1
149	Attacks on the Userâ€™s Session. SpringerBriefs in Computer Science, 2014, , 69-82.	0.2	1
150	Security monitor inlining and certification for multithreaded Java. Mathematical Structures in Computer Science, 2015, 25, 528-565.	0.6	1
151	Policy ignorant caller-side inline reference monitoring. International Journal on Software Tools for Technology Transfer, 2015, 17, 291-303.	1.9	1
152	Efficient and Effective Buffer Overflow Protection on ARM Processors. Lecture Notes in Computer Science, 2010, , 1-16.	1.3	1
153	Security across abstraction layers: old and new examples. , 2020, , .		1
154	A decision procedure for semantical equivalence of thin FM specifications. Journal of Pure and Applied Algebra, 1999, 143, 351-379.	0.6	0
155	Traditional Building Blocks of the Web. SpringerBriefs in Computer Science, 2014, , 11-24.	0.2	0
156	Generating safe boundary APIs between typed EDSLs and their environments. , 2015, , .		0
157	Security-By-Contract for the Future Internet. Lecture Notes in Computer Science, 2009, , 29-43.	1.3	0
158	Report: Extensibility and Implementation Independence of the .NET Cryptographic API. Lecture Notes in Computer Science, 2009, , 101-110.	1.3	0
159	Orchestrating Security and System Engineering for Evolving Systems. Lecture Notes in Computer Science, 2011, , 134-143.	1.3	0
160	Recent Developments in Low-Level Software Security. Lecture Notes in Computer Science, 2012, , 1-16.	1.3	0
161	State Coverage: An Empirical Analysis Based on a User Study. Lecture Notes in Computer Science, 2013, , 469-480.	1.3	0
162	Information Flow Control for Web Scripts. Lecture Notes in Computer Science, 2014, , 124-145.	1.3	0

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163	Evolution of Security Engineering Artifacts. , 2015, , 1508-1562.		0
164	Improving Memory Management Security for C and C++. , 0, , 190-216.		0
165	Security and Privacy of Online Social Network Applications. , 0, , 206-221.		0
166	POSTER: An Open-Source Framework for Developing Heterogeneous Distributed Enclave Applications. , 2021, , .		0
167	THREAT MODELLING FOR WEB SERVICES BASED WEB APPLICATIONS. , 2005, , 131-144.		0
168	A GENERIC ARCHITECTURE FOR WEB APPLICATIONS TO SUPPORT THREAT ANALYSIS OF INFRASTRUCTURAL COMPONENTS. , 2005, , 125-130.		0