

Oleg Sokolsky

List of Publications by Year in descending order

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Version: 2024-02-01

90
papers

2,246
citations

394421

19
h-index

377865

34
g-index

92
all docs

92
docs citations

92
times ranked

1581
citing authors

#	ARTICLE	IF	CITATIONS
1	Challenges and Research Directions in Medical Cyber-Physical Systems. Proceedings of the IEEE, 2012, 100, 75-90.	21.3	258
2	Java-MaC: A Run-Time Assurance Approach for Java Programs. Formal Methods in System Design, 2004, 24, 129-155.	0.8	169
3	Robustness of attack-resilient state estimators. , 2014, , .		162
4	Medical cyber physical systems. , 2010, , .		125
5	Weak Bisimulation for Probabilistic Systems. Lecture Notes in Computer Science, 2000, , 334-349.	1.3	71
6	Real-time multi-core virtual machine scheduling in xen. , 2014, , .		68
7	Dynamic Trust Management. Computer, 2009, 42, 44-52.	1.1	62
8	Safety-assured development of the GPCA infusion pump software. , 2011, , .		54
9	Realizing Compositional Scheduling through Virtualization. , 2012, , .		49
10	From Verification to Implementation: A Model Translation Tool and a Pacemaker Case Study. , 2012, , .		44
11	Monitoring, Checking, and Steering of Real-Time Systems. Electronic Notes in Theoretical Computer Science, 2002, 70, 95-111.	0.9	43
12	Attack resilient state estimation for autonomous robotic systems. , 2014, , .		42
13	Patient Infusion Pattern based Access Control Schemes for Wireless Insulin Pump System. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 3108-3121.	5.6	38
14	Cyber-Physical System Checkpointing and Recovery. , 2018, , .		37
15	Compositional Analysis of Multi-mode Systems. , 2010, , .		36
16	Simulation-Based Graph Similarity. Lecture Notes in Computer Science, 2006, , 426-440.	1.3	36
17	Compositional Refinement for Hierarchical Hybrid Systems. Lecture Notes in Computer Science, 2001, , 33-48.	1.3	35
18	Equivalence and Preorder Checking for Finite-State Systems. , 2001, , 391-424.		34

#	ARTICLE	IF	CITATIONS
19	Resources in process algebra. The Journal of Logic and Algebraic Programming, 2007, 72, 98-122.	1.4	30
20	Incremental schedulability analysis of hierarchical real-time components. , 2006, , .		29
21	Cache-Aware Compositional Analysis of Real-Time Multicore Virtualization Platforms. , 2013, , .		28
22	Assurance Cases in Model-Driven Development of the Pacemaker Software. Lecture Notes in Computer Science, 2010, , 343-356.	1.3	28
23	Fighting Livelock in the i-Protocol: A Comparative Study of Verification Tools. Lecture Notes in Computer Science, 1999, , 74-88.	1.3	27
24	A Safety-Assured Development Approach for Real-Time Software. , 2010, , .		26
25	CARTS. ACM SIGBED Review, 2011, 8, 62-63.	1.8	26
26	A Verifiable Language for Programming Real-Time Communication Schedules. IEEE Transactions on Computers, 2007, 56, 1505-1519.	3.4	25
27	Declarative Network Verification. Lecture Notes in Computer Science, 2008, , 61-75.	1.3	24
28	Reasoning about Conditions and Exceptions to Laws in Regulatory Conformance Checking. Lecture Notes in Computer Science, 2008, , 110-124.	1.3	23
29	Computational Analysis of Run-time Monitoring. Electronic Notes in Theoretical Computer Science, 2002, 70, 80-94.	0.9	21
30	Statistical Runtime Checking of Probabilistic Properties. , 2007, , 164-175.		21
31	Introduction to the special section on runtime verification. International Journal on Software Tools for Technology Transfer, 2012, 14, 243-247.	1.9	21
32	Model-Based Development of the Generic PCA Infusion Pump User Interface Prototype in PVS. Lecture Notes in Computer Science, 2013, , 228-240.	1.3	21
33	Checking Traces for Regulatory Conformance. Lecture Notes in Computer Science, 2008, , 86-103.	1.3	21
34	Generating embedded software from hierarchical hybrid models. ACM SIGPLAN Notices, 2003, 38, 171-182.	0.2	20
35	Overhead-aware compositional analysis of real-time systems. , 2013, , .		20
36	Cloud-Based Secure Logger for Medical Devices. , 2016, , .		20

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37	The Concurrency Factory: A development environment for concurrent systems. Lecture Notes in Computer Science, 1996, , 398-401.	1.3	20
38	Compositional Schedulability Analysis of Hierarchical Real-Time Systems. , 2007, , .		19
39	A Systematic Approach to Justifying Sufficient Confidence in Software Safety Arguments. Lecture Notes in Computer Science, 2012, , 305-316.	1.3	19
40	Steering of Discrete Event Systems: Control Theory Approach. Electronic Notes in Theoretical Computer Science, 2006, 144, 21-39.	0.9	18
41	DMaC: Distributed Monitoring and Checking. Lecture Notes in Computer Science, 2009, , 184-201.	1.3	17
42	Specification and analysis of real-time systems with PARAGON. Annals of Software Engineering, 1999, 7, 211-234.	0.5	16
43	Cache-aware compositional analysis of real-time multicore virtualization platforms. Real-Time Systems, 2015, 51, 675-723.	1.3	15
44	Compositional modeling and refinement for hierarchical hybrid systems. The Journal of Logic and Algebraic Programming, 2006, 68, 105-128.	1.4	14
45	Assuring the safety of on-demand medical cyber-physical systems. , 2013, , .		14
46	R-Charon, a Modeling Language for Reconfigurable Hybrid Systems. Lecture Notes in Computer Science, 2006, , 392-406.	1.3	14
47	Co-Design of Arbitrated Network Control Systems With Overrun Strategies. IEEE Transactions on Control of Network Systems, 2018, 5, 128-141.	3.7	13
48	Representation of Confidence in Assurance Cases Using the Beta Distribution. , 2016, , .		12
49	Process-Algebraic Interpretation of AADL Models. Lecture Notes in Computer Science, 2009, , 222-236.	1.3	12
50	Permission to speak: A logic for access control and conformance. The Journal of Logic and Algebraic Programming, 2011, 80, 50-74.	1.4	11
51	Medical Cyber-Physical Systems. , 2011, , .		11
52	Improving resource utilization for compositional scheduling using DPRM interfaces. ACM SIGBED Review, 2011, 8, 38-45.	1.8	11
53	PADS: An approach to modeling resource demand and supply for the formal analysis of hierarchical scheduling. Theoretical Computer Science, 2012, 413, 2-20.	0.9	11
54	LogSafe: Secure and Scalable Data Logger for IoT Devices. , 2018, , .		11

#	ARTICLE	IF	CITATIONS
55	Probabilistic resource failure in real-time process algebra. Lecture Notes in Computer Science, 1998, , 389-404.	1.3	10
56	A Semantic Framework for Mode Change Protocols. , 2011, , .		10
57	Automatic verification of linear controller software. , 2015, , .		10
58	Removing Abstraction Overhead in the Composition of Hierarchical Real-Time Systems. , 2011, , .		9
59	Towards synthesis of platform-aware attack-resilient control systems. , 2013, , .		9
60	Runtime Verification of Traces under Recording Uncertainty. Lecture Notes in Computer Science, 2012, , 442-456.	1.3	9
61	AS-CRED: Reputation and Alert Service for Interdomain Routing. IEEE Systems Journal, 2013, 7, 396-409.	4.6	8
62	Multi-Mode Virtualization for Soft Real-Time Systems. , 2018, , .		8
63	Modeling and Analysis of Power-Aware Systems. Lecture Notes in Computer Science, 2003, , 409-424.	1.3	8
64	Reasoning About Confidence and Uncertainty in Assurance Cases: A Survey. Lecture Notes in Computer Science, 2017, , 64-80.	1.3	8
65	A Family of Resource-Bound Real-Time Process Algebras. , 2001, , 443-458.		6
66	Parametric approach to the specification and analysis of real-time scheduling based on ACSR-VP. Science of Computer Programming, 2002, 42, 49-60.	1.9	6
67	Simulation of Simultaneous Events in Regular Expressions for Run-Time Verification. Electronic Notes in Theoretical Computer Science, 2005, 113, 123-143.	0.9	6
68	A stochastic approach for attack resilient UAV motion planning. , 2016, , .		6
69	Towards Assurance for Plug & Play Medical Systems. Lecture Notes in Computer Science, 2015, , 228-242.	1.3	6
70	SMEDL: Combining Synchronous and Asynchronous Monitoring. Lecture Notes in Computer Science, 2016, , 482-490.	1.3	6
71	Data Freshness Over-Engineering: Formulation and Results. , 2018, , .		5
72	A Framework for Reasoning About Animation Systems. Lecture Notes in Computer Science, 2001, , 47-60.	1.3	5

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73	Logic-Based Regulatory Conformance Checking. Lecture Notes in Computer Science, 2008, , 147-160.	1.3	5
74	Research challenges in embedded and hybrid systems. ACM SIGBED Review, 2004, 1, 1-5.	1.8	4
75	Assurance Case Patterns for Cyber-Physical Systems with Deep Neural Networks. Lecture Notes in Computer Science, 2020, , 82-97.	1.3	4
76	A General Resource Framework for Real-Time Systems. Lecture Notes in Computer Science, 2004, , 234-248.	1.3	4
77	GENERATING PROPERTIES FOR RUNTIME MONITORING FROM SOFTWARE SPECIFICATION PATTERNS. International Journal of Software Engineering and Knowledge Engineering, 2007, 17, 107-126.	0.8	3
78	Towards Assurance Cases for Resilient Control Systems. , 2014, , .		3
79	Unit & dynamic typing in hybrid systems modeling with CHARON. , 2006, , .		2
80	Attack-resilient minimum mean-squared error estimation. , 2014, , .		2
81	Hierarchical multi-formalism proofs of cyber-physical systems. , 2015, , .		2
82	A process algebraic approach to the schedulability analysis and workload abstraction of hierarchical real-time systems. Journal of Logical and Algebraic Methods in Programming, 2017, 92, 1-18.	0.5	2
83	Resiliency in Cyber-Physical Systems [Guest Editors' Introduction]. Computer, 2018, 51, 10-12.	1.1	2
84	The Concurrency Factory software development environment. Lecture Notes in Computer Science, 1996, , 391-395.	1.3	2
85	Functional Alarms for Systems of Interoperable Medical Devices. , 2014, 2014, 247-248.		1
86	Unit & Dynamic Typing in Hybrid Systems Modeling with CHARON. , 2006, , .		1
87	A Retrospective Look at the Monitoring and Checking (MaC) Framework. Lecture Notes in Computer Science, 2019, , 1-14.	1.3	1
88	Real-time and embedded technology and applications symposium (RTAS '05). ACM SIGBED Review, 2005, 2, 1-2.	1.8	0
89	A Process Algebraic Framework for Modeling Resource Demand and Supply. Lecture Notes in Computer Science, 2010, , 183-197.	1.3	0
90	Executing Model-Based Tests on Platform-Specific Implementations (T). , 2015, , .		0