Peter Gorm Larsen

List of Publications by Year
in descending order

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Version: 2024-02-01

123 papers	2,286 citations	516710 16 h-index	289244 40 g-index
136 all docs	136 docs citations	136 times ranked	1155 citing authors

#	Article	IF	Citations
1	Formal methods. ACM Computing Surveys, 2009, 41, 1-36.	23.0	436
2	Systems of Systems Engineering. ACM Computing Surveys, 2015, 48, 1-41.	23.0	297
3	Co-Simulation. ACM Computing Surveys, 2019, 51, 1-33.	23.0	207
4	The overture initiative integrating tools for VDM. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2010, 35, 1-6.	0.7	92
5	Integrated tool chain for model-based design of Cyber-Physical Systems: The INTO-CPS project. , 2016, , .		74
6	The IFAD VDM-SL toolbox. ACM SIGPLAN Notices, 1994, 29, 77-80.	0.2	71
7	Modeling and Validating Distributed Embedded Real-Time Systems with VDM++. Lecture Notes in Computer Science, 2006, , 147-162.	1.3	70
8	Features of CML: A formal modelling language for Systems of Systems. , 2012, , .		57
9	Maestro: The INTO-CPS co-simulation framework. Simulation Modelling Practice and Theory, 2019, 92, 45-61.	3.8	52
10	An overview of the ISO/VDM-SL standard. ACM SIGPLAN Notices, 1992, 27, 76-82.	0.2	41
11	Collaborative Design for Embedded Systems. , 2014, , .		38
12	Cyber-Physical Systems Design: Formal Foundations, Methods and Integrated Tool Chains. , 2015, , .		33
13	A Formal Semantics of Data Flow Diagrams. Formal Aspects of Computing, 1994, 6, 586-606.	1.8	26
14	Incremental Development of a Distributed Real-Time Model of a Cardiac Pacing System Using VDM. , 2008, , 181-197.		26
15	A multidisciplinary engineering summer school in an industrial setting. European Journal of Engineering Education, 2009, 34, 511-526.	2.3	25
16	COMPASS tool vision for a system of systems Collaborative Development Environment. , 2012, , .		25
17	An executable subset of Meta-IV with loose specification. Lecture Notes in Computer Science, 1991, , 604-618.	1.3	24
18	Multi-modelling and Co-simulation in the Engineering of Cyber-Physical Systems: Towards the Digital Twin. Lecture Notes in Computer Science, 2019, , 40-55.	1.3	24

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19	Collaborative Modelâ€based Systems Engineering for Cyberâ€Physical Systems, with a Building Automation Case Study. Incose International Symposium, 2016, 26, 817-832.	0.6	20
20	The formal semantics of ISO VDM-SL. Computer Standards and Interfaces, 1995, 17, 585-601.	5.4	19
21	Features of Integrated Model-Based Co-modelling and Co-simulation Technology. Lecture Notes in Computer Science, 2018, , 377-390.	1.3	18
22	A Lightweight Approach to Formal Methods. Lecture Notes in Computer Science, 1999, , 168-183.	1.3	17
23	Towards Semantically Integrated Models and Tools for Cyber-Physical Systems Design. Lecture Notes in Computer Science, 2016, , 171-186.	1.3	17
24	Collaborative Modelling and Co-simulation in the Development of Dependable Embedded Systems. Lecture Notes in Computer Science, 2010, , 12-26.	1.3	16
25	Distributed Co-Simulation of Embedded Control Software with Exhaust Gas Recirculation Water Handling System using INTO-CPS. , 2017, , .		16
26	Foundations for Model-Based Engineering of Systems of Systems. , 2014, , 1-19.		15
27	Industrial Practice in Formal Methods: A Review. Lecture Notes in Computer Science, 2009, , 810-813.	1.3	14
28	Combinatorial Testing for VDM. , 2010, , .		14
29	A formal approach to collaborative modelling and co-simulation for embedded systems. Mathematical Structures in Computer Science, 2013, 23, 726-750.	0.6	14
30	A Survey of Practical Formal Methods for Security. Formal Aspects of Computing, 2022, 34, 1-39.	1.8	14
31	Industrial digitalization in the industry 4.0 era: Classification, reuse and authoring of digital models on Digital Twin platforms. Array, 2022, 14, 100176.	4.0	14
32	Semantics of under-determined expressions. Formal Aspects of Computing, 1996, 8, 47-66.	1.8	13
33	Towards a Digital Twin Framework for Autonomous Robots. , 2021, , .		13
34	Towards the Verification of Hybrid Co-simulation Algorithms. Lecture Notes in Computer Science, 2018, , 5-20.	1.3	13
35	A Deterministic Interpreter Simulating a Distributed Real Time System Using VDM. Lecture Notes in Computer Science, 2011, , 179-194.	1.3	13
36	Uncertainty Quantification and Runtime Monitoring Using Environment-Aware Digital Twins. Lecture Notes in Computer Science, 2021, , 72-87.	1.3	12

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37	Connecting UML and VDM++ with Open Tool Support. Lecture Notes in Computer Science, 2009, , 563-578.	1.3	12
38	Combining VDM with Executable Code. Lecture Notes in Computer Science, 2012, , 266-279.	1.3	12
39	Design support and tooling for dependable embedded control software. , 2010, , .		11
40	Enhancing non-technical skills by a multidisciplinary engineering summer school. European Journal of Engineering Education, 2017, 42, 1076-1096.	2.3	11
41	Combining VDM-SL specifications with C++ code. Lecture Notes in Computer Science, 1996, , 179-194.	1.3	11
42	From Embedded to Cyber-Physical Systems: Challenges and Future Directions. , 2014, , 293-303.		10
43	Co-modelling and co-simulation in the engineering of systems of cyber-physical systems. , 2014, , .		10
44	Development of a Driverless Lawn Mower Using Co-simulation. Lecture Notes in Computer Science, 2018, , 330-344.	1.3	10
45	Industrial Deployment of Formal Methods: Trends and Challenges. , 2013, , 123-143.		10
46	Practice-oriented courses in formal methods using VDM++. Formal Aspects of Computing, 2009, 21, 245-257.	1.8	9
47	Automated translation of VDM to JML-annotated Java. International Journal on Software Tools for Technology Transfer, 2018, 20, 211-235.	1.9	9
48	Multi-Paradigm Discrete-Event Modelling and Co-simulation of Cyber-Physical Systems. Studies in Informatics and Control, 2018, 27, .	1.2	9
49	Facilitating model-based design of cyber-manufacturing systems. Procedia CIRP, 2021, 104, 1936-1941.	1.9	9
50	Balancing Insight and Effort: The Industrial Uptake of Formal Methods. , 2007, , 237-254.		8
51	Validation Support for Distributed Real-Time Embedded Systems in VDM++. , 2007, , .		8
52	PICGAL: Practical use of formal specification to develop a complex critical system. Lecture Notes in Computer Science, 1997, , 221-236.	1.3	8
53	Towards Reuse of Synchronization Algorithms in Co-simulation Frameworks. Lecture Notes in Computer Science, 2020, , 50-66.	1.3	8
54	Triumphs and Challenges for Model-Oriented Formal Methods: The VDM++ Experience (Abstract). , 2006, , .		7

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55	A holistic approach to energy-aware design of cyber-physical systems. International Journal of Embedded Systems, 2017, 9, 283.	0.3	7
56	Robotic Design Choice Overview Using Co-Simulation and Design Space Exploration. Robotics, 2015, 4, 398-420.	3.5	6
57	The Harvest Coach Architecture: Embedding Deviation-Tolerance in a Harvest Logistic Solution. Computers, 2019, 8, 31.	3.3	6
58	Migrating the INTO-CPS Application to the Cloud. Lecture Notes in Computer Science, 2020, , 254-271.	1.3	6
59	Generation of Co-simulation Algorithms Subject to Simulator Contracts. Lecture Notes in Computer Science, 2020, , 34-49.	1.3	6
60	Extending VDM-RT to enable the formal modelling of System of Systems. , 2012, , .		5
61	Co-simulation: The Past, Future, and Open Challenges. Lecture Notes in Computer Science, 2018, , 504-520.	1.3	5
62	Code generation for distributed embedded systems with VDM-RT. Design Automation for Embedded Systems, 2019, 23, 153-177.	1.0	5
63	Injecting Formal Verification in FMI-Based Co-simulations of Cyber-Physical Systems. Lecture Notes in Computer Science, 2018, , 284-299.	1.3	5
64	Response to ?the formal specification of safety requirements for storing explosives?. Formal Aspects of Computing, 1994, 6, 565-568.	1.8	4
65	Proving consistency of VDM models using HOL. , 2010, , .		4
66	Model checking CML: tool development and industrial applications. Formal Aspects of Computing, 2015, 27, 975-1001.	1.8	4
67	VDMPad: A Lightweight IDE for Exploratory VDM-SL Specification. , 2015, , .		4
68	A secure dynamic collaboration environment in a cloud context. Future Generation Computer Systems, 2016, 55, 165-175.	7.5	4
69	Towards Enabling Overture as a Platform for Formal Notation IDEs. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 187, 14-27.	0.8	4
70	Support for Co-modelling and Co-simulation: The Crescendo Tool. , 2014, , 97-114.		4
71	Fault Injecting Co-simulations for Safety. , 2021, , .		4
72	An approach for managing semantic heterogeneity in Systems of Systems Engineering. , 2014, , .		3

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73	Collaborative formal modeling of System of Systems. , 2014, , .		3
74	A Formal Modeling Tool for Exploratory Modeling in Software Development. IEICE Transactions on Information and Systems, 2017, E100.D, 1210-1217.	0.7	3
75	Collaborative Modelling and Co-simulation in Engineering and Computing Curricula. Lecture Notes in Computer Science, 2020, , 196-213.	1.3	3
76	Energy-Aware Model-Driven Development of a Wearable Healthcare Device. Lecture Notes in Computer Science, 2017, , 44-63.	1.3	3
77	Developing a Physical and Digital Twin: An Example Process Model. , 2021, , .		3
78	The evolution of VDM tools from the 1990s to 2015 and the influence of CAMILA. Journal of Logical and Algebraic Methods in Programming, 2016, 85, 985-998.	0.5	2
79	Security analysis of cloud-connected industrial control systems using combinatorial testing. , 2019, , .		2
80	Realization of distributed system models using code generation extensions. Software - Practice and Experience, 2019, 49, 478-497.	3.6	2
81	Enabling continuous integration in a formal methods setting. International Journal on Software Tools for Technology Transfer, 2020, 22, 667-683.	1.9	2
82	The IFAD VDM Tools. Lecture Notes in Computer Science, 1999, , 326-329.	1.3	2
83	Evaluation of underdetermined explicit definitions. Lecture Notes in Computer Science, 1994, , 233-250.	1.3	2
84	Formalising and Validating the Interface Description in the FMI Standard. Lecture Notes in Computer Science, 2016, , 344-351.	1.3	2
85	Collaborative Development of Dependable Cyber-Physical Systems by Co-Modeling and Co-Simulation. Advances in Systems Analysis, Software Engineering, and High Performance Computing Book Series, 2014, , 1-28.	0.5	2
86	Contracts in CML. Lecture Notes in Computer Science, 2014, , 54-73.	1.3	2
87	Distributed Simulation of Formal Models in System of Systems Engineering. , 2014, , .		1
88	ViennaTalk and Assertch. , 2016, , .		1
89	A Non-unified View of Modelling, Specification and Programming. Lecture Notes in Computer Science, 2018, , 52-68.	1.3	1
90	Multi-paradigm modelling and co-simulation in prototyping a cyber-physical production system. , 2021, , 169-194.		1

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91	The Specification Language Server Protocol: A Proposal for Standardised LSP Extensions. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 338, 3-18.	0.8	1
92	Cyber-Physical Systems Engineering: An Introduction. Lecture Notes in Computer Science, 2018, , 407-410.	1.3	1
93	Collaborative Systems of Systems Need Collaborative Design. Lecture Notes in Computer Science, 2014, , 16-23.	1.3	1
94	Co-model Structuring and Design Patterns. , 2014, , 115-137.		1
95	Towards Proof Rules for Looseness in Explicit Definitions from VDM-SL. Workshops in Computing, 1994, , 118-134.	0.4	1
96	Towards a Static Check of FMUs in VDM-SL. Lecture Notes in Computer Science, 2020, , 272-288.	1.3	1
97	On the Design of a New Software Engineering Curriculum in Computer Engineering. Lecture Notes in Computer Science, 2020, , 178-195.	1.3	1
98	Application of Model-Based Testing to Dynamic Evaluation ofFunctional Mockup Units. , 2020, , .		1
99	Using VDMTools to Model and Validate the Cash Dispenser Example. Formal Aspects of Computing, 2000, 12, 216-217.	1.8	0
100	Describing System Properties Using Logical Expressions. , 0, , 55-76.		0
101	Constructing a Model. , 0, , 13-34.		0
102	VDMTools Lite. , 0, , 35-54.		0
103	Mappings. , 0, , 137-156.		0
104	Recursive Structures. , 0, , 157-170.		0
105	Validating Models. , 0, , 171-188.		0
106	State-Based Modelling. , 0, , 189-202.		0
107	Large-Scale Modelling. , 0, , 203-216.		0
108	Using VDM in Practice. , 0, , 217-234.		0

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109	The Elements of a Formal Model. , 0, , 77-98.		0
110	Editorial to the theme section on model-based engineering of smart systems. Software and Systems Modeling, 2020, 19, 579-580.	2.7	0
111	Introducing Regression Tests and Upgrades to the INTO-CPS Application. Lecture Notes in Computer Science, 2021, , 311-317.	1.3	0
112	Estimating the maximum allowable delay bound for networked control systems using co-simulation and design space exploration. , 2021, , 257-280.		0
113	HUBCAP: A Novel Collaborative Approach to Model-Based Design ofÂCyber-Physical Systems. Lecture Notes in Networks and Systems, 2022, , 90-110.	0.7	0
114	Getting Software Engineering out of Isolation. , 2012, , .		0
115	Using VDM in a Co-Simulation Setting for an Industrial Conveyor System. , 2013, , .		0
116	Industrial Application of Co-modelling and Co-simulation Technology. , 2014, , 223-259.		0
117	Discrete-Event Modelling in VDM. , 2014, , 61-95.		0
118	Deploying Co-modelling in Commercial Practice. , 2014, , 263-271.		0
119	Semantics of Co-simulation. , 2014, , 273-292.		0
120	Energy-Aware Design of Embedded Software through Modelling and Simulation. , 2014, , .		0
121	A holistic approach to energy-aware design of cyber-physical systems. International Journal of Embedded Systems, 2017, 9, 283.	0.3	0
122	From Software Specifications to Constraint Programming. Lecture Notes in Computer Science, 2018, , 21-36.	1.3	0
123	ViennaDoc: An Animatable and Testable Specification Documentation Tool. Lecture Notes in Computer Science, 2020, , 289-302.	1.3	0