

Hans Vangheluwe

List of Publications by Year in descending order

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131
papers

2,075
citations

361045

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h-index

315357

38
g-index

139
all docs

139
docs citations

139
times ranked

1190
citing authors

#	ARTICLE	IF	CITATIONS
1	Co-Simulation. ACM Computing Surveys, 2019, 51, 1-33.	16.1	207
2	AToM3: A Tool for Multi-formalism and Meta-modelling. Lecture Notes in Computer Science, 2002, , 174-188.	1.0	205
3	WEST: modelling biological wastewater treatment. Journal of Hydroinformatics, 2003, 5, 27-50.	1.1	128
4	Computer Automated Multi-Paradigm Modeling: An Introduction. Simulation, 2004, 80, 433-450.	1.1	123
5	Meta-modelling and graph grammars for multi-paradigm modelling in AToM3. Software and Systems Modeling, 2004, 3, 194-209.	2.2	72
6	A framework for evolution of modelling languages. Science of Computer Programming, 2011, 76, 1223-1246.	1.5	49
7	Defining visual notations and their manipulation through meta-modelling and graph transformation. Journal of Visual Languages and Computing, 2004, 15, 309-330.	1.8	48
8	An evaluation of DEVS simulation tools. Simulation, 2017, 93, 103-121.	1.1	46
9	Towards Domain-specific Model Editors with Automatic Model Completion. Simulation, 2010, 86, 109-126.	1.1	40
10	A Tridimensional Approach for Studying the Formal Verification of Model Transformations. , 2012, , .		37
11	A characterization of integrated multi-view modeling in the context of embedded and cyber-physical systems. , 2013, , .		36
12	Model-driven assessment of system dependability. Software and Systems Modeling, 2008, 7, 487-502.	2.2	35
13	Computer Aided Multi-paradigm Modelling to Process Petri-Nets and Statecharts. Lecture Notes in Computer Science, 2002, , 239-253.	1.0	34
14	3 Metamodelling. Lecture Notes in Computer Science, 2010, , 57-76.	1.0	34
15	Explicit Transformation Modeling. Lecture Notes in Computer Science, 2010, , 240-255.	1.0	29
16	FTG+PM: An Integrated Framework for Investigating Model Transformation Chains. Lecture Notes in Computer Science, 2013, , 182-202.	1.0	28
17	Blended Modelling - What, Why and How. , 2019, , .		27
18	Formal Verification Techniques for Model Transformations: A Tridimensional Classification .. Journal of Object Technology, 2015, 14, 1:1.	0.8	27

#	ARTICLE	IF	CITATIONS
19	The FTG+PM framework for multi-paradigm modelling. , 2012, , .		24
20	Advances in Model-Driven Security. Advances in Computers, 2014, 93, 103-152.	1.2	24
21	A modular timed graph transformation language for simulation-based design. Software and Systems Modeling, 2013, 12, 387-414.	2.2	23
22	Applying Model Driven Engineering Techniques to the Development of Contiki-Based IoT Systems. , 2019, , .		22
23	Privacy-Preserving Telemonitoring for eHealth. Lecture Notes in Computer Science, 2009, , 95-110.	1.0	22
24	ProMoBox: A Framework for Generating Domain-Specific Property Languages. Lecture Notes in Computer Science, 2014, , 1-20.	1.0	20
25	Automating the transformation-based analysis of visual languages. Formal Aspects of Computing, 2010, 22, 297-326.	1.4	19
26	T-Core: a framework for custom-built model transformation engines. Software and Systems Modeling, 2015, 14, 1215-1243.	2.2	19
27	Semantic adaptation for FMI co-simulation with hierarchical simulators. Simulation, 2019, 95, 241-269.	1.1	18
28	Search-Based Model Optimization Using Model Transformations. Lecture Notes in Computer Science, 2014, , 80-95.	1.0	17
29	Programmed Graph Rewriting with Time for Simulation-Based Design. Lecture Notes in Computer Science, 2008, , 91-106.	1.0	17
30	Multi-paradigm modelling for cyber-physical systems: a descriptive framework. Software and Systems Modeling, 2021, 20, 611-639.	2.2	16
31	DISCRETE EVENT SYSTEM SPECIFICATION MODELING AND SIMULATION. , 2018, , .		15
32	HintCO - Hint-based Configuration of Co-simulations. , 2019, , .		15
33	Modeling a Model Transformation Language. , 2013, , 211-237.		14
34	A Multi-Paradigm Modelling approach to live modelling. Software and Systems Modeling, 2019, 18, 2821-2842.	2.2	14
35	Translating Model Simulators to Analysis Models. Lecture Notes in Computer Science, 2008, , 77-92.	1.0	14
36	Modular synthesis of mobile device applications from domain-specific models. , 2010, , .		13

#	ARTICLE	IF	CITATIONS
37	Debugging Parallel DEVS. Simulation, 2017, 93, 285-306.	1.1	13
38	The Modelverse: A tool for Multi-Paradigm Modelling and simulation. , 2017, , .		13
39	Towards the Verification of Hybrid Co-simulation Algorithms. Lecture Notes in Computer Science, 2018, , 5-20.	1.0	13
40	Summary of the Workshop on Multi-Paradigm Modeling: Concepts and Tools. Lecture Notes in Computer Science, 2007, , 252-262.	1.0	13
41	Platform-specific Modeling for RIOT based IoT Systems. , 2020, , .		13
42	Using Meta-Modelling and Graph Grammars to Create Modelling Environments. Electronic Notes in Theoretical Computer Science, 2003, 72, 36-50.	0.9	12
43	Migrating Automotive Product Lines: A Case Study. Lecture Notes in Computer Science, 2015, , 82-97.	1.0	12
44	Ontological reasoning for consistency in the design of cyber-physical systems. , 2016, , .		12
45	DEVS for AUTOSAR-based system deployment modeling and simulation. Simulation, 2017, 93, 489-513.	1.1	11
46	Systematic Literature Review of MBSE Tool-Chains. Applied Sciences (Switzerland), 2022, 12, 3431.	1.3	11
47	A Privacy-Preserving eHealth Protocol Compliant with the Belgian Healthcare System. Lecture Notes in Computer Science, 2008, , 118-133.	1.0	10
48	Model transformation of dependability-focused requirements models. , 2009, , .		10
49	Activity regions for the specification of discrete event systems. , 2010, , .		10
50	Comparing and classifying model transformation reuse approaches across metamodels. Software and Systems Modeling, 2020, 19, 441-465.	2.2	10
51	Exploring Validity Frames in Practice. Communications in Computer and Information Science, 2020, , 131-148.	0.4	10
52	Programmed Graph Rewriting with DEVS. Lecture Notes in Computer Science, 2008, , 136-151.	1.0	10
53	Domain-specific engineering of domain-specific languages. , 2010, , .		9
54	Automated testing support for reactive domain-specific modelling languages. , 2016, , .		9

#	ARTICLE	IF	CITATIONS
55	Multi-paradigm modelling of cyber-physical systems. , 2018, , .		9
56	Semantics of Co-simulation Algorithms with Simulator Contracts. , 2019, , .		9
57	Domain-Specific Model Editors with Model Completion. Lecture Notes in Computer Science, 2007, , 259-270.	1.0	9
58	Debugging in Domain-Specific Modelling. Lecture Notes in Computer Science, 2011, , 276-285.	1.0	9
59	Activity in PythonPDEVS. ITM Web of Conferences, 2014, 3, 01002.	0.4	8
60	Classic DEVS modelling and simulation. , 2017, , .		8
61	A Model-Driven Engineering Framework to Support the Functional Safety Process. , 2019, , .		8
62	Validating Industrial Requirements with a Contract-Based Approach. , 2019, , .		8
63	A Framework for Temporal Verification Support in Domain-Specific Modelling. IEEE Transactions on Software Engineering, 2020, 46, 362-404.	4.3	8
64	Kiltera: A Simulation Language for Timed, Dynamic Structure Systems. , 2007, , .		7
65	MDE and customization of modeling and simulation web applications. Simulation Modelling Practice and Theory, 2009, 17, 408-429.	2.2	7
66	A multi-paradigm decision modeling framework for combat system effectiveness measurement based on domain-specific modeling. Journal of Zhejiang University: Science C, 2013, 14, 311-331.	0.7	7
67	Towards domain-specific property languages. , 2013, , .		7
68	Hint-Based Configuration of Co-simulations with Algebraic Loops. Advances in Intelligent Systems and Computing, 2021, , 1-28.	0.5	7
69	Towards employing ABM and MAS integrated with MBSE for the lifecycle of sCPSoS. , 2020, , .		7
70	The Process of Model Building and Simulation of Ill-Defined Systems: Application to Wastewater Treatment. Mathematical and Computer Modelling of Dynamical Systems, 1999, 5, 298-312.	1.4	6
71	Domain-specific decision modelling and statistical analysis for combat system effectiveness simulation. Journal of Statistical Computation and Simulation, 2014, 84, 1261-1279.	0.7	6
72	Approximated Stability Analysis of Bi-modal Hybrid Co-simulation Scenarios. Lecture Notes in Computer Science, 2018, , 345-360.	1.0	6

#	ARTICLE	IF	CITATIONS
73	TRANSLATING ENGINEERING WORKFLOW MODELS TO DEVS FOR PERFORMANCE EVALUATION. , 2018, , .		6
74	Towards a Formal Specification of Multi-paradigm Modelling. , 2019, , .		6
75	Model-Driven Assessment of Use Cases for Dependable Systems. Lecture Notes in Computer Science, 2006, , 558-573.	1.0	6
76	Generation of Co-simulation Algorithms Subject to Simulator Contracts. Lecture Notes in Computer Science, 2020, , 34-49.	1.0	6
77	Domain-Specific Modelling for Human-Computer Interaction. Human-computer Interaction Series, 2017, , 435-463.	0.4	6
78	Exceptional Transformations. Lecture Notes in Computer Science, 2010, , 199-214.	1.0	6
79	FTG+PM: Describing Engineering Processes in Multi-Paradigm Modelling. , 2020, , 259-271.		6
80	A modelling and simulation based process for dependable systems design. Software and Systems Modeling, 2007, 6, 437-451.	2.2	5
81	Co-simulation: The Past, Future, and Open Challenges. Lecture Notes in Computer Science, 2018, , 504-520.	1.0	5
82	Towards Adaptive Abstraction in Agent Based Simulation. , 2019, , .		5
83	Causal-Block Diagrams: A Family of Languages for Causal Modelling of Cyber-Physical Systems. , 2020, , 97-125.		5
84	Second International Workshop on Multi-Paradigm Modeling: Concepts and Tools. Lecture Notes in Computer Science, 2008, , 237-246.	1.0	5
85	Model-Based Design of Computer-Controlled Game Character Behavior. Lecture Notes in Computer Science, 2007, , 650-665.	1.0	5
86	Towards a Family of Digital Model/Shadow/Twin Workflows and Architectures. , 2021, , .		5
87	Activity-based simulation using DEVS: increasing performance by an activity model in parallel DEVS simulation. Journal of Zhejiang University: Science C, 2014, 15, 13-30.	0.7	4
88	Managing Heterogeneity in Model-Based Systems Engineering of Cyber-Physical Systems. , 2015, , .		4
89	Concrete syntax: a multi-paradigm modelling approach. , 2017, , .		4
90	Challenges for Automation in Adaptive Abstraction. , 2019, , .		4

#	ARTICLE	IF	CITATIONS
91	The Computational Notebook Paradigm for Multi-paradigm Modeling. , 2019, , .		4
92	Anonymous k-Show Credentials. Lecture Notes in Computer Science, 2007, , 181-192.	1.0	4
93	The Two-Hemisphere Modelling Approach to the Composition of Cyber-Physical Systems. , 2017, , .		4
94	Translating Process Interaction World View Models to DEVS: GPSS to (Python(P))DEVS. , 2020, , .		4
95	Specifying and Executing the Combination of Timed Finite State Automata and Causal-Block Diagrams by Mapping Onto Devs. , 2021, , .		4
96	Minimally, Constrained Stable Switched Systems and Application to Co-Simulation. , 2018, , .		3
97	Unifying Model- and Screen Sharing. , 2018, , .		3
98	An Introduction to Modeling and Simulation with (Python(P))DEVS. , 2019, , .		3
99	Meta-Modelling, Graph Transformation and Model Checking for the Analysis of Hybrid Systems. Lecture Notes in Computer Science, 2004, , 292-298.	1.0	3
100	Web-based simulation of systems described by partial differential equations. , 0, , .		2
101	Towards an aspect-oriented language module. , 2012, , .		2
102	Towards Modular Language Design Using Language Fragments: The Hybrid Systems Case Study. Advances in Intelligent Systems and Computing, 2016, , 785-797.	0.5	2
103	Machine Learning-Based Fault Injection for Hazard Analysis and Risk Assessment. Lecture Notes in Computer Science, 2021, , 178-192.	1.0	2
104	Dynamic Scope Discovery for Model Transformations. Lecture Notes in Computer Science, 2014, , 302-321.	1.0	2
105	DEVS as a Semantic Domain for Programmed Graph Transformation. Computational Analysis, Synthesis, and Design of Dynamic Models Series, 2010, , 3-28.	0.2	2
106	Integrating a Neutral Action Language in a DEVS Modelling Environment. , 2015, , .		2
107	Ontological Reasoning as an Enabler of Contract-Based Co-design. Lecture Notes in Computer Science, 2017, , 101-115.	1.0	2
108	Stable Adaptive Co-simulation: A Switched Systems Approach. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2019, , 81-97.	0.1	2

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109	Extending Explicitly Modelled Simulation Debugging Environments with Dynamic Structure. ACM Transactions on Modeling and Computer Simulation, 2020, 30, 1-25.	0.6	2
110	Multi-domain physical system modeling and control based on meta-modeling and graph rewriting. , 2006, , .		1
111	Invited Talk: Promises and Challenges of Model-Driven Engineering. , 2011, , .		1
112	Modelling and simulation-based design of a distributed DEVS simulator. , 2011, , .		1
113	Invariant preservation in iterative modeling. , 2012, , .		1
114	Modular artifact synthesis from domain-specific models. Innovations in Systems and Software Engineering, 2012, 8, 65-77.	1.6	1
115	Increasing the performance of a Discrete Event System Specification simulator by means of computational resource usage "activity" models. Simulation, 2017, 93, 1045-1061.	1.1	1
116	INTRODUCTION TO STATECHARTS MODELING, SIMULATION, TESTING, AND DEPLOYMENT. , 2018, , .		1
117	Introduction to Statecharts Modeling, Simulation, Testing, and Deployment. , 2019, , .		1
118	Co-Simulation of Continuous Systems: A Hands-on Approach. , 2019, , .		1
119	Model-Based Development. , 2006, , 289-312.		1
120	Transforming Timeline Specifications into Automata for Runtime Monitoring. Lecture Notes in Computer Science, 2008, , 249-264.	1.0	1
121	Summary of the Workshop on Multi-Paradigm Modelling: Concepts and Tools. Lecture Notes in Computer Science, 2012, , 83-88.	1.0	1
122	An Architecture and Reference Implementation for WSN-Based IoT Systems. Advances in Web Technologies and Engineering Book Series, 2022, , 80-103.	0.4	1
123	Multi-paradigm modelling for design of complex heterogeneous systems. , 2008, , .		0
124	Summary of the First Workshop on the Analysis of Model Transformations (AMT'12). , 2012, , .		0
125	Logisim to DEVS Translation. , 2013, , .		0
126	Model Driven Engineering for Building Automation, a Research Agenda. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
127	Scope in model transformations. <i>Software and Systems Modeling</i> , 2018, 17, 1227-1252.	2.2	0
128	Towards Sketching Interfaces for Multi-paradigm Modeling. , 2019, , .		0
129	The Fundamentals of Domain-Specific Simulation Language Engineering. , 2019, , .		0
130	Summary of the Workshop on Multi-Paradigm Modelling: Concepts and Tools. <i>Lecture Notes in Computer Science</i> , 2011, , 274-278.	1.0	0
131	An Introduction to Modular Modeling and Simulation with PythonPDEVS and the Building-Block Library PythonPDEVS-BBL. , 2020, , .		0