John S Fitzgerald

List of Publications by Year
in descending order

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63 papers	1,477 citations	932766 10 h-index	476904 29 g-index
65 all docs	65 docs citations	65 times ranked	900 citing authors

#	Article	IF	Citations
1	HUBCAP: A Novel Collaborative Approach to Model-Based Design ofÂCyber-Physical Systems. Lecture Notes in Networks and Systems, 2022, , 90-110.	0.5	0
2	Modelling the impacts of crowds on occupants in the built environmentâ€"A static, rule-based approach to human perception and movement. Advanced Engineering Informatics, 2022, 51, 101452.	4.0	3
3	Six Software Engineering Principles for Smarter Cyber-Physical Systems. , 2021, , .		2
4	Editorial to the theme section on model-based engineering of smart systems. Software and Systems Modeling, 2020, 19, 579-580.	2.2	0
5	Collaborative Modelling and Co-simulation in Engineering and Computing Curricula. Lecture Notes in Computer Science, 2020, , 196-213.	1.0	3
6	A Cloud-based Collaboration Platform for Model-based Design of Cyber-Physical Systems. , 2020, , .		10
7	Multi-modelling and Co-simulation in the Engineering of Cyber-Physical Systems: Towards the Digital Twin. Lecture Notes in Computer Science, 2019, , 40-55.	1.0	24
8	A Non-unified View of Modelling, Specification and Programming. Lecture Notes in Computer Science, 2018, , 52-68.	1.0	1
9	Collaborative modelling and co-simulation for Transportation Cyber-Physical Systems. , 2018, , 51-79.		2
10	Engineering Cyber-Physical Swarms with Collaborative Modelling. Incose International Symposium, 2018, 28, 1052-1066.	0.2	2
11	Cyber-Physical Systems Engineering: An Introduction. Lecture Notes in Computer Science, 2018, , 407-410.	1.0	1
12	Features of Integrated Model-Based Co-modelling and Co-simulation Technology. Lecture Notes in Computer Science, 2018, , 377-390.	1.0	18
13	Towards Resilience-Explicit Modelling and Co-simulation of Cyber-Physical Systems. Lecture Notes in Computer Science, 2018, , 361-376.	1.0	1
14	Exploring the Cyber-Physical Design Space. Incose International Symposium, 2017, 27, 371-385.	0.2	5
15	Applying Modelâ€based SE Techniques for Dependable Land Systems. Incose International Symposium, 2016, 26, 1783-1798.	0.2	0
16	Collaborative Modelâ€based Systems Engineering for Cyberâ€Physical Systems, with a Building Automation Case Study. Incose International Symposium, 2016, 26, 817-832.	0.2	20
17	Integrated tool chain for model-based design of Cyber-Physical Systems: The INTO-CPS project. , 2016, , .		74
18	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.	0.4	2

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19	Towards Semantically Integrated Models and Tools for Cyber-Physical Systems Design. Lecture Notes in Computer Science, 2016, , 171-186.	1.0	17
20	Model-based Engineering of Emergence in a Collaborative SoS: Exploiting SysML & Formalism. Incose International Symposium, 2015, 25, 404-419.	0.2	4
21	Integrating an Upgraded Constituent System in a System of Systems: A SysML Case Study. Incose International Symposium, 2015, 25, 1193-1208.	0.2	2
22	Architectural Modelling Patterns for Systems of Systems. Incose International Symposium, 2015, 25, 1177-1192.	0.2	14
23	Systems of Systems Engineering. ACM Computing Surveys, 2015, 48, 1-41.	16.1	297
24	Insider Threats. , 2015, , .		10
25	Cyber-Physical Systems Design: Formal Foundations, Methods and Integrated Tool Chains. , 2015, , .		33
26	SysML contracts for systems of systems. , 2014, , .		23
27	Co-modelling of Faults and Fault Tolerance Mechanisms. , 2014, , 185-197.		0
28	From Embedded to Cyber-Physical Systems: Challenges and Future Directions. , 2014, , 293-303.		10
29	An approach for managing semantic heterogeneity in Systems of Systems Engineering. , 2014, , .		3
30	Co-modelling and co-simulation in the engineering of systems of cyber-physical systems. , 2014, , .		10
31	2.2.2 Maintaining Emergence in Systems of Systems Integration: a Contractual Approach using SysML. Incose International Symposium, 2014, 24, 166-181.	0.2	10
32	Foundations for Model-Based Engineering of Systems of Systems. , 2014, , 1-19.		15
33	Co-modelling and Co-simulation in Embedded Systems Design. , 2014, , 15-25.		8
34	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
35	Discrete-Event Modelling in VDM. , 2014, , 61-95.		0
36	Contracts in CML. Lecture Notes in Computer Science, 2014, , 54-73.	1.0	2

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37	Collaborative Systems of Systems Need Collaborative Design. Lecture Notes in Computer Science, 2014, , 16-23.	1.0	1
38	Co-model Structuring and Design Patterns. , 2014, , 115-137.		1
39	Fault modelling for systems of systems. , 2013, , .		17
40	Industrial Deployment of Formal Methods: Trends and Challenges. , 2013, , 123-143.		10
41	A rigorous approach to the design of resilient cyber-physical systems through co-simulation. , 2012, , .		6
42	Interface specification for system-of-systems architectures. , 2012, , .		6
43	A Formal Model-Based Approach to Engineering Systems-of-Systems. International Federation for Information Processing, 2012, , 53-62.	0.4	13
44	Refinement-Based Techniques in the Analysis of Information Flow Policies for Dynamic Virtual Organisations. International Federation for Information Processing, 2011, , 314-321.	0.4	6
45	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.	0.5	92
46	MetaSelf. , 2010, , .		18
47	Collaborative Modelling and Co-simulation in the Development of Dependable Embedded Systems. Lecture Notes in Computer Science, 2010, , 12-26.	1.0	16
48	Practice-oriented courses in formal methods using VDM++. Formal Aspects of Computing, 2009, 21, 245-257.	1.4	9
49	Formal methods. ACM Computing Surveys, 2009, 41, 1-36.	16.1	436
50	Formal Modelling and Analysis of Business Information Applications with Fault Tolerant Middleware. , 2009, , .		5
51	The connection between two ways of reasoning about partial functions. Information Processing Letters, 2008, 107, 128-132.	0.4	5
52	Development of a formalism for modelling and analysis of dynamic reconfiguration of dependable real-time systems. , 2008, , .		3
53	Incremental Development of a Distributed Real-Time Model of a Cardiac Pacing System Using VDM. , 2008, , 181-197.		26
54	A metadata-based architectural model for dynamically resilient systems. , 2007, , .		21

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55	Balancing Insight and Effort: The Industrial Uptake of Formal Methods. , 2007, , 237-254.		8
56	Validation Support for Distributed Real-Time Embedded Systems in VDM++. , 2007, , .		8
57	The industrialization of formal methods. International Journal on Software Tools for Technology Transfer, 2006, 8, 301-302.	1.7	1
58	Triumphs and Challenges for Model-Oriented Formal Methods: The VDM++ Experience (Abstract). , 2006, , .		7
59	Formal Modelling of Dynamic Coalitions, with an Application in Chemical Engineering. , 2006, , .		5
60	Formal Methods Europe Update. Formal Aspects of Computing, 2004, 16, 2-3.	1.4	0
61	Proof in VDM: A Practitionerâ€™s Guide. , 1994, , .		65
62	Common Representation of Information Flows for Dynamic Coalitions. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 16, 15-25.	0.8	0
63	Modelling System of Systems Interface Contract Behaviour. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 245, 1-15.	0.8	5