

# Jean-Yves Choley

## List of Publications by Year in descending order

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Version: 2024-02-01

100  
papers

782  
citations

933447

10  
h-index

752698

20  
g-index

106  
all docs

106  
docs citations

106  
times ranked

425  
citing authors

#	ARTICLE	IF	CITATIONS
1	A SysML-based methodology for mechatronic systems architectural design. <i>Advanced Engineering Informatics</i> , 2014, 28, 218-231.	8.0	101
2	Automatic fault tree generation from SysML system models. , 2014, , .		43
3	SafeSysE: A Safety Analysis Integration in Systems Engineering Approach. <i>IEEE Systems Journal</i> , 2018, 12, 161-172.	4.6	43
4	Layout optimization of power modules using a sequentially coupled approach. <i>International Journal of Simulation Modelling</i> , 2011, 10, 122-132.	1.3	35
5	Collaborative design process and product knowledge methodology for mechatronic systems. <i>Computers in Industry</i> , 2019, 105, 213-228.	9.9	26
6	Improved Safety Analysis Integration in a Systems Engineering Approach. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1246.	2.5	22
7	Transient response of a rotor-AMBs system connected by a flexible mechanical coupling. <i>Mechatronics</i> , 2013, 23, 573-580.	3.3	21
8	Multidisciplinary approach for modelling and optimization of Road Electric Vehicles in conceptual design level. , 2012, , .		20
9	Topology-based Safety Analysis for Safety Critical CPS. <i>Procedia Computer Science</i> , 2016, 95, 32-39.	2.0	19
10	Multidisciplinary approach for optimizing mechatronic systems: Application to the optimal design of an electric vehicle. , 2014, , .		18
11	A multi-agent methodology for multi-level modeling of mechatronic systems. <i>Advanced Engineering Informatics</i> , 2014, 28, 208-217.	8.0	16
12	Towards Model Synchronization for Consistency Management of Mechatronic Systems. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 3577.	2.5	15
13	Knowledge sharing for mechatronic systems design and optimization. <i>IFAC-PapersOnLine</i> , 2018, 51, 1365-1370.	0.9	14
14	Safety analysis integration in a SysML-based complex system design process. , 2013, , .		13
15	SysML and safety analysis for mechatronic systems. , 2012, , .		12
16	Introduction of geometrical constraints modeling in SysML for mechatronic design. , 2014, , .		12
17	Evolution from mechatronics to cyber physical systems: An educational point of view. , 2016, , .		10
18	Narrowing the set of complex systemsâ€™ possible design solutions derived from the set-based concurrent engineering approach. <i>Concurrent Engineering Research and Applications</i> , 2019, 27, 233-248.	3.2	10

#	ARTICLE	IF	CITATIONS
19	SAMOS for Spatial Architecture based on Multi-physics and Organisation of Systems in conceptual design. , 2015, , .		9
20	TheReSE: SysML extension for thermal modeling. , 2015, , .		9
21	Integrating model-based system engineering with set-based concurrent engineering principles for reliability and manufacturability analysis of mechatronic products. Concurrent Engineering Research and Applications, 2019, 27, 80-94.	3.2	9
22	Pre-designing of a mechatronic system using an analytical approach with Dymola. Journal of Theoretical and Applied Mechanics, 0, , 697.	0.5	9
23	A New Variational Association Process for the Verification of Geometrical Specifications. Journal of Computing and Information Science in Engineering, 2007, 7, 66-71.	2.7	8
24	Flight Control System Modeling with SysML to Support Validation, Qualification and Certification. IFAC-PapersOnLine, 2016, 49, 453-458.	0.9	8
25	Conceptual design methodology for the preliminary study of a mechatronic system: application to wind turbine system. Mechanics and Industry, 2017, 18, 413.	1.3	8
26	Generic Framework for Holonic Modelling and Multi-Agent Based Verification of Reconfigurable Manufacturing Systems. International Journal of Precision Engineering and Manufacturing, 2018, 19, 1793-1809.	2.2	8
27	Dynamic Fault Tree Generation for Safety-Critical Systems Within a Systems Engineering Approach. IEEE Systems Journal, 2020, 14, 1512-1522.	4.6	8
28	Toward a Robust Design of an Aileron Electromechanical Actuator: Sensitivity Analysis and Parametric Tolerancing Using a Variational Approach. IEEE Systems Journal, 2020, 14, 3977-3986.	4.6	8
29	Interoperability of CAD models and SysML specifications for the automated checking of design requirements. Procedia CIRP, 2021, 100, 259-264.	1.9	8
30	Heterogeneous Models Integration for Safety Critical Mechatronic Systems and Related Digital Twin Definition: Application to a Collaborative Workplace for Aircraft Assembly. Applied Sciences (Switzerland), 2022, 12, 2787.	2.5	8
31	Extended mechatronic systems architecture modeling with SysML for enhanced safety analysis. , 2014, , .		7
32	SysML extensions for safety-critical mechatronic systems design. , 2015, , .		7
33	Mechatronic System Design using Model-Based Systems Engineering and Set-Based Concurrent Engineering Principles. , 2018, , .		7
34	Multiphysical Design Approach for Automotive Electronic Throttle Body. IEEE Transactions on Industrial Electronics, 2020, 67, 6752-6761.	7.9	7
35	Topological approach to solve 2D truss structure using MGS language. , 2012, , .		6
36	Dynamic behaviour of active magnetic bearings spindle in high-speed domain. International Journal of Mechatronics and Manufacturing Systems, 2013, 6, 474.	0.1	6

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37	Electric vehicle design, modelling and optimization. Mechanics and Industry, 2016, 17, 405.	1.3	6
38	Modeling and multi-objective optimization of an Electronic Throttle in open-loop. , 2016, , .		6
39	Multi-agent approach based on a design process for the optimization of mechatronic systems. Mechanics and Industry, 2017, 18, 507.	1.3	6
40	Integrated design methodology of a mechatronic system. Mecanique Et Industries, 2010, 11, 401-406.	0.2	5
41	Topological modeling of a one stage spur gear transmission. Chinese Journal of Mechanical Engineering (English Edition), 2014, 27, 900-908.	3.7	5
42	Analytical approach for the integrated preliminary analysis of mechatronic systems subjected to vibration. , 2014, , .		5
43	SysML safety profile for mechatronics. , 2014, , .		5
44	Agent-based approach for collaborative distributed mechatronic design. , 2014, , .		5
45	Integration of topological modification within the modeling of multi-physics systems: Application to a Pogo-stick. Comptes Rendus - Mecanique, 2018, 346, 351-365.	2.1	5
46	Collaborative Mechatronic Design and Systems Engineering: an Educational Experiment with KAREN. , 2018, , .		5
47	Conceptual design decision support of a mechatronic system using analytical approach with Modelica. Mechanics and Industry, 2018, 19, 103.	1.3	5
48	Mechatronic system design with manufacturing constraints using set-based concurrent engineering. , 2018, , .		5
49	A Survey on Systems Engineering Methodologies for Large Multi-Energy Cyber-Physical Systems. , 2019, , .		5
50	Synchronization of System Architecture and Safety Models: a Proof of Concept. , 2019, , .		5
51	QHAR: Q-Holonic-Based ARchitecture for Self-Configuration of Cyber-Physical Production Systems. Applied Sciences (Switzerland), 2021, 11, 9013.	2.5	5
52	Multidisciplinary Optimization of Mechatronic Systems: Application to an Electric Vehicle. Lecture Notes in Mechanical Engineering, 2014, , 1-14.	0.4	5
53	EMC risk assessment process through a topological analysis. , 2018, , .		4
54	Conflict Resolution in Mechatronic Collaborative Design Using Category Theory. Applied Sciences (Switzerland), 2021, 11, 4486.	2.5	4

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55	Design of an Electronic Throttle Body Based on a New Knowledge Sharing Engineering Methodology. Lecture Notes in Mechanical Engineering, 2020, , 55-63.	0.4	4
56	Topological approach to solve frame structures using topological collections and transformations. Comptes Rendus - Mecanique, 2014, 342, 466-477.	2.1	3
57	An integrated design methodology for safety critical systems. , 2016, , .		3
58	Systems engineering analysis approach based on interoperability for reconfigurable manufacturing systems. , 2016, , .		3
59	Free and open source fault tree analysis tools survey. , 2017, , .		3
60	The usage of a system engineering approach for integrating machining constraints in the upstream design stage. , 2017, , .		3
61	Topological Modeling of 2D Piezoelectric Truss Structure Using the MGS Language. Lecture Notes in Mechanical Engineering, 2018, , 349-360.	0.4	3
62	Systems engineering approach for the conjoint design of mechatronic products and their manufacturing systems. , 2018, , .		3
63	Modeling Framework for a Consistent Integration of Geometry Knowledge During Conceptual Design. Journal of Computing and Information Science in Engineering, 2019, 19, .	2.7	3
64	A SysML profile for mechanical assembly. , 2020, , .		3
65	Integration of Electromagnetic Constraints as of the Conceptual Design Through an MBSE Approach. IEEE Systems Journal, 2021, 15, 747-758.	4.6	3
66	Cutting parameters and vibrations analysis of magnetic bearing spindle in milling process. Journal of Theoretical and Applied Mechanics, 0, , 691.	0.5	3
67	Synchronization of System Architecture, Multi-physics and Safety Models. , 2020, , 37-48.		3
68	CAD-MBSE Interoperability for the Checking of Design Requirements Based on Assemblability Indicators. Applied Sciences (Switzerland), 2022, 12, 566.	2.5	3
69	Knowledge capitalization in mechatronic collaborative design. Concurrent Engineering Research and Applications, 2022, 30, 32-45.	3.2	3
70	Category Theory Framework for System Engineering and Safety Assessment Model Synchronization Methodologies. Applied Sciences (Switzerland), 2022, 12, 5880.	2.5	3
71	Parametric compact modelling of dynamical systems using meshfree method with multi-port technique. International Journal of Dynamical Systems and Differential Equations, 2015, 5, 206.	0.0	2
72	Needs for a 3D enriched ontology for mechatronic systems design. , 2015, , .		2

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73	Modeling and Analysis of Spindle with Active Magnetic Bearings for High-Speed Milling Process. Journal of Mechanics, 2016, 32, 131-141.	1.4	2
74	Topological modeling of a wind turbine. , 2017, , .		2
75	Variational approach for robust design and sensitivity analysis of mechatronic systems. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an, 2020, 43, 357-364.	1.1	2
76	Agent-Based Approach for the Optimal Design of Mechatronic Systems. Applied Condition Monitoring, 2015, , 189-198.	0.4	2
77	A NEW APPROACH TO DATUMS ASSOCIATION FOR THE VERIFICATION OF GEOMETRICAL SPECIFICATIONS. , 2006, , .		2
78	A Categorical Framework for Collaborative Design of Safety Critical Mechatronic Systems. , 2021, , .		2
79	Model Based Systems Engineering approach for the improvement of manufacturing system flexibility. , 2020, , .		2
80	Topological approach for assessment of electromagnetic interferences to support mechatronic conceptual design. Mechanics and Industry, 2020, 21, 609.	1.3	2
81	PLACIS: Systems engineering through a project-based learning approach general framework, debates and achievements through an overview and a concrete example. , 2015, , .		1
82	An agent-supported approach for the collaborative design of complex systems. International Journal of Modeling, Simulation, and Scientific Computing, 2016, 07, 1642001.	1.4	1
83	Use of technologically and topologically related surfaces (TTRS) geometrical theory for mechatronic design ontology. Computer-Aided Design and Applications, 2017, 14, 595-609.	0.6	1
84	Reuse of SysML model to support innovation in mechatronic systems design. , 2017, , .		1
85	Product-Process MBSE and Dysfunctional Analysis Approach Applied to a Production Line. , 2019, , .		1
86	A Model-Based Engineering Methodology for Stakeholders Coordination of Multienergy Cyber-Physical Systems. IEEE Systems Journal, 2021, , 1-12.	4.6	1
87	Mechatronics in a New Context: a Structuring Conceptual Framework Proposal for MBSE. , 2021, , .		1
88	Analytical Based Approach for Vibration Analysis in Modelica: Application to the Bridge Crane System. Applied Condition Monitoring, 2019, , 83-91.	0.4	1
89	Topological Approach for the Modeling of Complex and Mechatronic Systems. Lecture Notes in Mechanical Engineering, 2014, , 15-21.	0.4	1
90	Predesign of a flexible multibody system excited by moving load using a mechatronic system approach. Mechanics and Industry, 2020, 21, 604.	1.3	1

#	ARTICLE	IF	CITATIONS
91	Metrics factory for mechatronics. , 2014, , .		0
92	A holonic-based method for design process of cyber-physical reconfigurable systems. , 2016, , .		0
93	A SysML based-methodology for modelling disturbances in manufacturing systems using ADACOR holonic control architecture. , 2016, , .		0
94	Variational approach for mechatronic tolerancing: application to a DC motor. Mechanics and Industry, 2020, 21, 206.	1.3	0
95	CAD-MBSE interoperability for the checking of design requirements. , 2021, , .		0
96	Integrating Radial Basis Functions with Modelica for Mechatronic Design. Lecture Notes in Mechanical Engineering, 2013, , 19-25.	0.4	0
97	Metrics Generation Process for Mechatronics. Journal of Robotics and Mechatronics, 2016, 28, 50-60.	1.0	0
98	A Unified Topological Approach for the Modeling: Application to a 2D Beams Structure. Lecture Notes in Mechanical Engineering, 2020, , 19-29.	0.4	0
99	Conflict Management for Mechatronic Systems Design. , 2021, , .		0
100	An Analytical Approach to Model-Based Parametric Design of Mechatronic Systems with Modelica: A Case Study. Lecture Notes in Mechanical Engineering, 2020, , 11-18.	0.4	0