Marjan Mernik

List of Publications by Year
in descending order

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129 papers	7,658 citations	201674 27 h-index	51608 86 g-index
135 all docs	135 docs citations	135 times ranked	4954 citing authors

#	Article	IF	Citations
1	RNGSGLR: Generalization of the Context-Aware Scanning Architecture for All Character-Level Context-Free Languages. Mathematics, 2022, 10, 2436.	2.2	2
2	A novel direct measure of exploration and exploitation based on attraction basins. Expert Systems With Applications, 2021, 167, 114353.	7.6	31
3	A Case Study on the Design and Implementation of a Platform for Hand Rehabilitation. Applied Sciences (Switzerland), 2021, 11, 389.	2.5	8
4	The screening phase in systematic reviews: Can we speed up the process?. Advances in Computers, 2021, 123, 115-191.	1.6	4
5	A JSSP solution for production planning optimization combining industrial engineering and evolutionary algorithms. Computer Science and Information Systems, 2021, 18, 349-378.	1.0	2
6	Quality of information and communication technology introduction. Software Quality Journal, 2021, 29, 195-196.	2.2	0
7	Inferring Absolutely Non-Circular Attribute Grammars with a Memetic Algorithm. Applied Soft Computing Journal, 2021, 100, 106956.	7.2	5
8	Attraction Basins in Metaheuristics: A Systematic Mapping Study. Mathematics, 2021, 9, 3036.	2.2	3
9	Graph grammar induction. Advances in Computers, 2020, , 133-181.	1.6	1
10	From Grammar Inference to Semantic Inferenceâ€"An Evolutionary Approach. Mathematics, 2020, 8, 816.	2.2	7
11	Determination of a Hysteresis Model Parameters with the Use of Different Evolutionary Methods for an Innovative Hysteresis Model. Mathematics, 2020, 8, 201.	2.2	14
12	Tuning Multi-Objective Evolutionary Algorithms on Different Sized Problem Sets. Mathematics, 2019, 7, 824.	2.2	10
13	A Tool Support for Model-Driven Development: An Industrial Case Study from a Measurement Domain. Applied Sciences (Switzerland), 2019, 9, 4553.	2.5	9
14	Long Term Memory Assistance for Evolutionary Algorithms. Mathematics, 2019, 7, 1129.	2.2	16
15	Searching for soil modelsâ€™ parameters using metaheuristics. Applied Soft Computing Journal, 2018, 69, 131-148.	7.2	10
16	Program comprehension of domain-specific and general-purpose languages: replication of a family of experiments using integrated development environments. Empirical Software Engineering, 2018, 23, 2734-2763.	3.9	19
17	A Systematic Mapping Study driven by the margin of error. Journal of Systems and Software, 2018, 144, 439-449.	4.5	23
18	On the influence of the number of algorithms, problems, and independent runs in the comparison of evolutionary algorithms. Applied Soft Computing Journal, 2017, 54, 23-45.	7.2	42

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19	The impact of Quality Indicators on the rating of Multi-objective Evolutionary Algorithms. Applied Soft Computing Journal, 2017, 55, 265-275.	7.2	36
20	Two-level evolutionary algorithm for discovering relations between nodesâ€™ features in a complex network. Applied Soft Computing Journal, 2017, 56, 82-93.	7.2	7
21	Ranking Multi-Objective Evolutionary Algorithms using a chess rating system with Quality Indicator ensemble. , 2017, , .		6
22	Domain-Specific Languages: A Systematic Mapping Study. Lecture Notes in Computer Science, 2017, , 464-472.	1.3	8
23	On the Importance of the Artificial Bee Colony Control Parameter â€˜Limitâ€™. Information Technology and Control, 2017, 46, .	2.1	6
24	Special issue on quality in model-driven engineering. Software Quality Journal, 2016, 24, 597-599.	2.2	1
25	Parameter tuning with Chess Rating System (CRS-Tuning) for meta-heuristic algorithms. Information Sciences, 2016, 372, 446-469.	6.9	70
26	Foreword to the Thematic Track: Quality Aspects in Model-Driven Engineering. , 2016, , .		1
27	Quality in model-driven engineering: a tertiary study. Software Quality Journal, 2016, 24, 601-633.	2.2	22
28	Domain-Specific Languages: A Systematic Mapping Study. Information and Software Technology, 2016, 71, 77-91.	4.4	151
29	Test automation of a measurement system using a domain-specific modelling language. Journal of Systems and Software, 2016, 111, 74-88.	4.5	14
30	Declarative specifications for the development of multi-agent systems. Computer Standards and Interfaces, 2016, 43, 91-115.	5.4	18
31	Is a comparison of results meaningful from the inexact replications of computational experiments?. Soft Computing, 2016, 20, 223-235.	3.6	55
32	Information System Software Development with Support for Application Traceability. Lecture Notes in Computer Science, 2015, , 513-527.	1.3	0
33	Hybrid evolutionary algorithm for the b-chromatic number. Journal of Heuristics, 2015, 21, 501-521.	1.4	7
34	Converting metamodels to graph grammars: doing without advanced graph grammar features. Software and Systems Modeling, 2015, 14, 1297-1317.	2.7	14
35	On clarifying misconceptions when comparing variants of the Artificial Bee Colony Algorithm by offering a new implementation. Information Sciences, 2015, 291, 115-127.	6.9	199
36	Globalized Domain Specific Language Engineering. Lecture Notes in Computer Science, 2015, , 43-69.	1.3	1

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37	Debugging measurement systems using a domain-specific modeling language. Computers in Industry, 2014, 65, 622-635.	9.9	12
38	A chess rating system for evolutionary algorithms: A new method for the comparison and ranking of evolutionary algorithms. Information Sciences, 2014, 277, 656-679.	6.9	103
39	Special issue on realizing artificial intelligence synergies in software engineering. Software Quality Journal, 2014, 22, 49-50.	2.2	0
40	On the use of a domain-specific modeling language in the development of multiagent systems. Engineering Applications of Artificial Intelligence, 2014, 28, 111-141.	8.1	44
41	Replication and comparison of computational experiments in applied evolutionary computing: Common pitfalls and guidelines to avoid them. Applied Soft Computing Journal, 2014, 19, 161-170.	7.2	131
42	Towards building a forensics aware language for secure logging. Computer Science and Information Systems, 2014, 11, 1291-1314.	1.0	6
43	SimpleConcepts: A lightweight extension to C++ to support constraints on generic types. Computer Science and Information Systems, 2014, 11, 1361-1379.	1.0	0
44	Graph 3-coloring with a hybrid self-adaptive evolutionary algorithm. Computational Optimization and Applications, 2013, 54, 741-770.	1.6	17
45	Exploration and exploitation in evolutionary algorithms. ACM Computing Surveys, 2013, 45, 1-33.	23.0	894
46	An object-oriented approach to language compositions for software language engineering. Journal of Systems and Software, 2013, 86, 2451-2464.	4.5	45
47	Special section on the Programming Languages track at the 26th ACM Symposium on Applied Computing. Science of Computer Programming, 2013, 78, 613-614.	1.9	0
48	A parameter control method of evolutionary algorithms using exploration and exploitation measures with a practical application for fitting Sovova's mass transfer model. Applied Soft Computing Journal, 2013, 13, 3792-3805.	7.2	78
49	A high-level framework for parallelizing legacy applications for multiple platforms. , 2013, , .		2
50	A DSL for the development of software agents working within a semantic web environment. Computer Science and Information Systems, 2013, 10, 1525-1556.	1.0	19
51	Easytime++: A Case Study Of Incremental Domain-Specific Language Development. Information Technology and Control, 2013, 42, .	2.1	5
52	Report from the first international workshop on realizing artificial intelligence synergies in software engineering (RAISE 2012). Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2012, 37, 34-35.	0.7	2
53	PPModel: a modeling tool for source code maintenance and optimization of parallel programs. Journal of Supercomputing, 2012, 62, 1560-1582.	3.6	2
54	Tools and techniques for non-invasive explicit parallelization. Journal of Supercomputing, 2012, 62, 1583-1608.	3.6	2

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55	Improving Grammar Inference by a Memetic Algorithm. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2012, 42, 692-703.	2.9	9
56	Introducing domain-specific language implementation using web service-oriented technologies. Multiagent and Grid Systems, 2012, 8, 19-44.	0.9	1
57	A hybrid evolutionary algorithm for tuning a cloth-simulation model. Applied Soft Computing Journal, 2012, 12, 266-273.	7.2	30
58	A memetic grammar inference algorithm for language learning. Applied Soft Computing Journal, 2012, 12, 1006-1020.	7.2	28
59	Development of data acquisition systems by using a domain-specific modeling language. Computers in Industry, 2012, 63, 181-192.	9.9	17
60	Raising the level of abstraction for developing message passing applications. Journal of Supercomputing, 2012, 59, 1079-1100.	3.6	12
61	Program comprehension of domain-specific and general-purpose languages: comparison using a family of experiments. Empirical Software Engineering, 2012, 17, 276-304.	3.9	91
62	Implementation of EasyTime formal semantics using a LISA compiler generator. Computer Science and Information Systems, 2012, 9, 1019-1044.	1.0	5
63	Ontop: A Component for Acquiring Information from OWL Ontologies. Acta Electrotechnica Et Informatica, 2012, 12, .	0.3	0
64	Graph Grammar Induction as a Parser-Controlled Heuristic Search Process. Lecture Notes in Computer Science, 2012, , 121-136.	1.3	3
65	Design and implementation of domain-specific language easytime. Computer Languages, Systems and Structures, 2011, 37, 151-167.	1.4	22
66	A technique for non-invasive application-level checkpointing. Journal of Supercomputing, 2011, 57, 227-255.	3.6	13
67	Analysis of exploration and exploitation in evolutionary algorithms by ancestry trees. International Journal of Innovative Computing and Applications, 2011, 3, 11.	0.2	70
68	From DCOM interfaces to domain-specific modeling language: A case study on the sequencer. Computer Science and Information Systems, 2011, 8, 361-378.	1.0	10
69	Ontology driven development of domain-specific languages. Computer Science and Information Systems, 2011, 8, 317-342.	1.0	44
70	Challenges and directions in formalizing the semantics of modeling languages. Computer Science and Information Systems, 2011, 8, 225-253.	1.0	70
71	EMBEDDING DSLS INTO GPLS: A GRAMMATICAL INFERENCE APPROACH *. Information Technology and Control, 2011, 40, .	2.1	6
72	Fitting Sovova's mass transfer model using an evolutionary algorithm and differential evolution. International Journal of Innovative Computing and Applications, 2010, 2, 237.	0.2	3

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73	A hybrid self-adaptive evolutionary algorithm for marker optimization in the clothing industry. Applied Soft Computing Journal, 2010, 10, 409-422.	7.2	24
74	Component-based LR parsing. Computer Languages, Systems and Structures, 2010, 36, 16-33.	1.4	9
75	Abstract syntax driven language development. , 2010, , .		8
76	Domain-specific software engineering. , 2010, , .		15
77	Can domain-specific languages be implemented by service-oriented architecture?. , 2010, , .		1
78	Automatic generation of model traversals from metamodel definitions. , 2010, , .		1
79	CUDACL: A tool for CUDA and OpenCL programmers. , 2010, , .		6
80	A SOA Approach for Domain-Specific Language Implementation. , 2010, , .		2
81	Metamodel Recovery from Multi-tiered Domains Using Extended MARS. , 2010, , .		5
82	Comparing general-purpose and domain-specific languages: An empirical study. Computer Science and Information Systems, 2010, 7, 247-264.	1.0	102
83	On automata and language based grammar metrics. Computer Science and Information Systems, 2010, 7, 309-329.	1.0	21
84	Grammar Inference Technology Applications in Software Engineering. Lecture Notes in Computer Science, 2010, , 276-279.	1.3	0
85	On defining quality based grammar metrics. , 2009, , .		0
86	Applying program comprehension techniques to karel robot programs. , 2009, , .		1
87	MARS: Metamodel Recovery from Multi-tiered Models Using Grammar Inference. , 2009, , .		2
88	To explore or to exploit: An entropy-driven approach for evolutionary algorithms. International Journal of Knowledge-Based and Intelligent Engineering Systems, 2009, 13, 185-206.	1.0	21
89	Guest Editors' Introduction: What Kinds of Nails Need a Domain-Specific Hammer?. IEEE Software, 2009, 26, 15-18.	1.8	78
90	Developing scientific applications using Generative Programming. , 2009, , .		5

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91	Grammar inference algorithms and applications in software engineering. , 2009, , .		4
92	Influence of domain-specific notation to program understanding. , 2009, , .		4
93	Using Ontologies in the Domain Analysis of Domain-Specific Languages. Lecture Notes in Computer Science, 2009, , 332-342.	1.3	28
94	Unit Testing for Domain-Specific Languages. Lecture Notes in Computer Science, 2009, , 125-147.	1.3	8
95	Implementation of Programming Languages Syntax and Semantics. , 2009, , 1863-1869.		1
96	Optimization of markers in clothing industry. Engineering Applications of Artificial Intelligence, 2008, 21, 669-678.	8.1	9
97	Grammarâ€driven generation of domainâ€specific language debuggers. Software - Practice and Experience, 2008, 38, 1073-1103.	3.6	28
98	A preliminary study on various implementation approaches of domain-specific language. Information and Software Technology, 2008, 50, 390-405.	4.4	113
99	MARS: A metamodel recovery system using grammar inference. Information and Software Technology, 2008, 50, 948-968.	4.4	43
100	AN UNSUPERVISED INCREMENTAL LEARNING ALGORITHM FOR DOMAIN-SPECIFIC LANGUAGE DEVELOPMENT. Applied Artificial Intelligence, 2008, 22, 707-729.	3.2	17
101	Domain-specific languages as key tools for ulssis engineering. , 2008, , .		2
102	A Domain-Specific Language for Application-Level Checkpointing. Lecture Notes in Computer Science, 2008, , 26-38.	1.3	4
103	Program comprehension for domain-specific languages. Computer Science and Information Systems, 2008, 5, 1-17.	1.0	25
104	A clustering entropy-driven approach for exploring and exploiting noisy functions. , 2007, , .		4
105	Experiences on DSL Tools for Visual Studio. Information Technology Interfaces (ITI), Proceedings of the International Conference on, 2007, , .	0.0	0
106	A tool for compiler construction based on aspect-oriented specifications. Proceedings - IEEE Computer Society's International Computer Software and Applications Conference, 2007, , .	0.0	0
107	AspectLISA: An Aspect-oriented Compiler Construction System Based on Attribute Grammars. Electronic Notes in Theoretical Computer Science, 2006, 164, 37-53.	0.9	7
108	Self-Adapting Control Parameters in Differential Evolution: A Comparative Study on Numerical Benchmark Problems. IEEE Transactions on Evolutionary Computation, 2006, 10, 646-657.	10.0	2,854

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109	Evolutionary search for optimal combinations of markers in clothing manufacturing. , 2006, , .		4
110	Specifying Languages Using Aspect-oriented Approach: AspectLISA. Journal of Computing and Information Technology, 2006, 14, 343.	0.3	1
111	Extracting grammar from programs. ACM SIGPLAN Notices, 2005, 40, 29-38.	0.2	21
112	Incremental programming language development. Computer Languages, Systems and Structures, 2005, 31, 1-16.	1.4	49
113	When and how to develop domain-specific languages. ACM Computing Surveys, 2005, 37, 316-344.	23.0	1,244
114	Inferring Context-Free Grammars for Domain-Specific Languages. Electronic Notes in Theoretical Computer Science, 2005, 141, 99-116.	0.9	11
115	Extracting grammar from programs. ACM SIGPLAN Notices, 2005, 40, 39-46.	0.2	29
116	Weaving a debugging aspect into domain-specific language grammars. , 2005, , .		23
117	An educational tool for teaching compiler construction. IEEE Transactions on Education, 2003, 46, 61-68.	2.4	48
118	Automatic Generation of Language-based Tools. Electronic Notes in Theoretical Computer Science, 2002, 65, 77-96.	0.9	8
119	Design and implementation of simple object description language. , 2001, , .		3
120	AspectCOOL. ACM SIGPLAN Notices, 2001, 36, 84-94.	0.2	8
121	Implementation of multiple attribute grammar inheritance in the tool LISA. ACM SIGPLAN Notices, 1999, 34, 68-75.	0.2	22
122	Automatic implementation of programming languages using object oriented approach. Journal of Systems Architecture, 1997, 43, 203-210.	4.3	7
123	LISA. ACM SIGPLAN Notices, 1995, 30, 71-79.	0.2	23
124	Decision trees based on automatic learning and their use in cardiology. Journal of Medical Systems, 1994, 18, 201-206.	3.6	45
125	Controlling industrial processes with a dataflow industrial controller: A way to achieve better performances. Microprocessing and Microprogramming, 1990, 28, 95-99.	0.2	2
126	Robot Learning of Domain Specific Knowledge from Natural Language Sources. , 0, , .		0

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127	A Comparison between Different Chess Rating Systems for Ranking Evolutionary Algorithms. , 0, , .		9
128	A Domain-Specific Language for High-Level Parallelization. , 0, , 533-552.		1
129	A Domain-Specific Language for High-Level Parallelization. , 0, , 276-295.		0