Sergey Kovalchuk

List of Publications by Year
in descending order

79 papers	817 citations	686830 13 h-index	642321 23 g-index
87 all docs	87 docs citations	87 times ranked	667 citing authors

#	Article	IF	Citations
1	CLAVIRE: e-Science infrastructure for data-driven computing. Journal of Computational Science, 2012, 3, 504-510.	1.5	79
2	Simulation of patient flow in multiple healthcare units using process and data mining techniques for model identification. Journal of Biomedical Informatics, 2018, 82, 128-142.	2.5	68
3	Execution time estimation for workflow scheduling. Future Generation Computer Systems, 2017, 75, 376-387.	4.9	62
4	Distributed data-driven platform for urgent decision making in cardiological ambulance control. Future Generation Computer Systems, 2018, 79, 144-154.	4.9	33
5	Analysis of publication activity of computational science society in 2001â€"2017 using topic modelling and graph theory. Journal of Computational Science, 2018, 26, 193-204.	1.5	24
6	Data-driven modeling of clinical pathways using electronic health records. Procedia Computer Science, 2017, 121, 835-842.	1.2	23
7	Complex Data-driven Predictive Modeling in Personalized Clinical Decision Support for Acute Coronary Syndrome Episodes. Procedia Computer Science, 2016, 80, 518-529.	1.2	20
8	Deadline-driven Resource Management within Urgent Computing Cyberinfrastructure. Procedia Computer Science, 2013, 18, 2203-2212.	1.2	19
9	Pattern-based Mining in Electronic Health Records for Complex Clinical Process Analysis. Procedia Computer Science, 2017, 119, 197-206.	1.2	19
10	Towards Predicting Trend of Scientific Research Topics using Topic Modeling. Procedia Computer Science, 2018, 136, 304-310.	1.2	16
11	Execution Time Estimation for Workflow Scheduling. , 2014, , .		15
12	Human-Computer Interaction in Electronic Medical Records: From the Perspectives of Physicians and Data Scientists. Procedia Computer Science, 2016, 100, 915-920.	1.2	15
13	Analysis of Computational Science Papers from ICCS 2001-2016 using Topic Modeling and Graph Theory. Procedia Computer Science, 2017, 108, 7-17.	1.2	15
14	Personalized Clinical Decision Support with Complex Hospital-Level Modelling. Procedia Computer Science, 2015, 66, 392-401.	1.2	14
15	Comparison of Temporal and Non-Temporal Features Effect on Machine Learning Models Quality and Interpretability for Chronic Heart Failure Patients. Procedia Computer Science, 2019, 156, 87-96.	1.2	14
16	Workflow-based Collaborative Decision Support for Flood Management Systems. Procedia Computer Science, 2013, 18, 2213-2222.	1.2	13
17	Towards Better Workflow Execution Time Estimation. IERI Procedia, 2014, 10, 216-223.	0.3	13
18	Domain Ontologies Integration for Virtual Modelling and Simulation Environments. Procedia Computer Science, 2014, 29, 2507-2514.	1.2	13

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19	Towards Ensemble Simulation of Complex Systems. Procedia Computer Science, 2015, 51, 532-541.	1.2	13
20	Towards evolutionary discovery of typical clinical pathways in electronic health records. Procedia Computer Science, 2017, 119, 234-244.	1.2	13
21	Identification of risk factors for patients with diabetes: diabetic polyneuropathy case study. BMC Medical Informatics and Decision Making, 2020, 20, 201.	1.5	13
22	Three-stage intelligent support of clinical decision making for higher trust, validity, and explainability. Journal of Biomedical Informatics, 2022, 127, 104013.	2.5	13
23	Knowledge-Based Resource Management for Distributed Problem Solving. Advances in Intelligent and Soft Computing, 2011, , 121-128.	0.2	11
24	Virtual Simulation Objects concept as a framework for system-level simulation. , 2012, , .		11
25	Simulation of Patient Flow and Load of Departments in a Specialized Medical Center. Procedia Computer Science, 2016, 101, 143-151.	1.2	11
26	Text and Data Mining Techniques in Judgment Open Data Analysis for Administrative Practice Control. Communications in Computer and Information Science, 2019, , 169-180.	0.4	11
27	Classification issues within ensemble-based simulation: application to surge floods forecasting. Stochastic Environmental Research and Risk Assessment, 2017, 31, 1183-1197.	1.9	10
28	Dynamic mortality prediction using machine learning techniques for acute cardiovascular cases. Procedia Computer Science, 2018, 136, 351-358.	1.2	10
29	A Conceptual Approach to Complex Model Management with Generalized Modelling Patterns and Evolutionary Identification. Complexity, 2018, 2018, 1-15.	0.9	10
30	Emerging Complexity in Distributed Intelligent Systems. Entropy, 2020, 22, 1437.	1.1	10
31	Unified domain-specific language for collecting and processing data of social media. Journal of Intelligent Information Systems, 2018, 51, 389-414.	2.8	9
32	Coupling Game Theory and Discrete-Event Simulation for Model-Based Ambulance Dispatching. Procedia Computer Science, 2018, 136, 398-407.	1.2	9
33	Forecasting Purchase Categories with Transition Graphs Using Financial and Social Data. Lecture Notes in Computer Science, 2018, , 439-454.	1.0	8
34	Knowledge-Based Support for Complex Systems Exploration in Distributed Problem Solving Environments. Communications in Computer and Information Science, 2013, , 147-161.	0.4	7
35	Towards Infrastructure for Knowledge-based Decision Support in Clinical Practice. Procedia Computer Science, 2016, 100, 907-914.	1.2	7
36	A Technology for BigData Analysis Task Description Using Domain-specific Languages. Procedia Computer Science, 2014, 29, 488-498.	1.2	6

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37	Citywide quality of health information system through text mining of electronic health records. Applied Network Science, 2021, 6, .	0.8	6
38	Knowledge-Based Expressive Technologies Within Cloud Computing Environments. Advances in Intelligent Systems and Computing, 2014, , 1-11.	0.5	5
39	Dynamic Selection of Ensemble Members in Multi-model Hydrometeorological Ensemble Forecasting. Procedia Computer Science, 2015, 66, 220-227.	1.2	5
40	Agent-based Modelling Using Ensemble Approach with Spatial and Temporal Composition. Procedia Computer Science, 2016, 80, 530-541.	1.2	5
41	Towards a simulation-based framework for decision support in healthcare quality assessment. Procedia Computer Science, 2017, 119, 207-214.	1.2	5
42	Holistic Modeling of Chronic Diseases for Recommendation Elaboration and Decision Making. Procedia Computer Science, 2018, 138, 228-237.	1.2	5
43	Hybrid predictive modelling: Thyrotoxic atrial fibrillation case. Journal of Computational Science, 2021, 51, 101365.	1.5	5
44	Post-hoc Interpretation of Clinical Pathways Clustering using Bayesian Inference. Procedia Computer Science, 2020, 178, 264-273.	1.2	5
45	An Unsupervised Approach to Structuring and Analyzing Repetitive Semantic Structures in Free Text of Electronic Medical Records. Journal of Personalized Medicine, 2022, 12, 25.	1.1	5
46	Cloud Technology for Forecasting Accuracy Evaluation of Extreme Metocean Events. Procedia Computer Science, 2015, 51, 2933-2937.	1.2	4
47	Multiscale modeling of comorbidity relations in hypertensive outpatients. Procedia Computer Science, 2017, 121, 446-450.	1.2	4
48	Multi-View Data approaches in Recommender Systems: an Overview. Procedia Computer Science, 2017, 119, 30-41.	1.2	4
49	High-Level Knowledge-Based Structures for Simulation within Urgent Computing Tasks. Procedia Computer Science, 2012, 9, 1694-1703.	1.2	3
50	e-Learning course design based on the virtual simulation objects concept. , 2014, , .		3
51	Modeling and Simulation Framework for Development of Interactive Virtual Environments. Procedia Computer Science, 2014, 29, 332-342.	1.2	3
52	Toolbox for Visual Explorative Analysis of Complex Temporal Multiscale Contact Networks Dynamics in Healthcare. Procedia Computer Science, 2016, 80, 2107-2118.	1.2	3
53	Evolutionary simulation of complex networks' structures with specific functional properties. Journal of Applied Logic, 2017, 24, 39-49.	1.1	3
54	Simulation of emergency care for patients with ACS in Saint Petersburg for ambulance decision making. Procedia Computer Science, 2017, 108, 2210-2219.	1.2	3

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55	Improving Electronic Medical Records with Support of Human Computer Interaction in Medical Information Systems. Procedia Computer Science, 2017, 121, 469-474.	1.2	3
56	Application of clustering methods for detecting critical acute coronary syndrome patients. Procedia Computer Science, 2018, 136, 370-379.	1.2	3
57	Deadline-driven approach for multi-fidelity surrogate-assisted environmental model calibration. , 2019, , .		3
58	Modelling and Analysis of Complex Patient-Treatment Process Using GraphMiner Toolbox. Lecture Notes in Computer Science, 2019, , 674-680.	1.0	3
59	Time Expressions Identification Without Human-Labeled Corpus for Clinical Text Mining in Russian. Lecture Notes in Computer Science, 2020, , 591-602.	1.0	3
60	Linked-Data Integration for Workflow-Based Computational Experiments. Communications in Computer and Information Science, 2014, , 175-183.	0.4	3
61	Hybrid Genetic Predictive Modeling for Finding Optimal Multipurpose Multicomponent Therapy. Journal of Computational Science, 2022, , 101772.	1.5	3
62	Provenance-based workflow composition with virtual simulation objects technology. , 2014, , .		2
63	Preoperational Time Prediction for Percutaneous Coronary Intervention Using Machine Learning Techniques. Procedia Computer Science, 2016, 101, 172-176.	1.2	2
64	Human Computer Interaction During Clinical Decision Support With Electronic Health Records Improvement. International Journal of E-Health and Medical Communications, 2020, 11, 93-106.	1.4	2
65	Analyzing the spatial distribution of individuals predisposed to arterial hypertension in Saint Petersburg using synthetic populations. ITM Web of Conferences, 2020, 31, 03002.	0.4	2
66	Hybrid Predictive Modelling for Finding Optimal Multipurpose Multicomponent Therapy. Lecture Notes in Computer Science, 2021, , 479-493.	1.0	2
67	Feature Engineering with Process Mining Technique for Patient State Predictions. Lecture Notes in Computer Science, 2021, , 584-592.	1.0	2
68	Human Computer Interaction During Clinical Decision Support With Electronic Health Records Improvement. , 2021, , 1316-1330.		2
69	Constructing Holistic Patient Flow Simulation Using System Approach. Lecture Notes in Computer Science, 2020, , 418-429.	1.0	2
70	Surrogate-assisted performance prediction for data-driven knowledge discovery algorithms: Application to evolutionary modeling of clinical pathways. Journal of Computational Science, 2022, 59, 101562.	1.5	2
71	Investigating Application of Change Point Analysis in Monitoring Health Condition of Acute Coronary Syndrome Patients. Procedia Computer Science, 2018, 136, 408-415.	1.2	1
72	Machine Learning Based Text Mining in Electronic Health Records: Cardiovascular Patient Cases. Lecture Notes in Computer Science, 2018, , 818-824.	1.0	1

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73	Informational Support of Automated Quality Management Systems for Medical Service Provision Based on the Prognosis of the Patient Affects Outcome in Social Emergencies. , 2019, , .		1
74	Comparison of Efficiency, Stability and Interpretability of Feature Selection Methods for Multiclassification Task on Medical Tabular Data. Lecture Notes in Computer Science, 2021, , 623-633.	1.0	1
75	Dynamic Features Impact on the Quality of Chronic Heart Failure Predictive Modelling. Studies in Health Technology and Informatics, 2019, 261, 179-184.	0.2	1
76	Interactive environment for affective visual analysis of large data within virtual reality. , 2014, , .		0
77	Towards management of complex modeling through a hybrid evolutionary identification. , 2018, , .		0
78	Holistic Monitoring and Analysis of Healthcare Processes Through Public Internet Data Collection. Lecture Notes in Computer Science, 2019, , 42-50.	1.0	0
79	Technological platform for complex processing of large data within early warning systems. WIT Transactions on Information and Communication Technologies, 2014, , .	0.0	0