Jianwu Wang

List of Publications by Year
in descending order

94 papers	1,844 citations	516710 16 h-index	345221 36 g-index
100 all docs	100 docs citations	100 times ranked	1806 citing authors

#	Article	IF	Citations
1	Machine learning on big data: Opportunities and challenges. Neurocomputing, 2017, 237, 350-361.	5.9	631
2	Smart Manufacturing. Annual Review of Chemical and Biomolecular Engineering, 2015, 6, 141-160.	6.8	116
3	A review of Earth Artificial Intelligence. Computers and Geosciences, 2022, 159, 105034.	4.2	80
4	Kepler + Hadoop. , 2009, , .		79
5	Big data provenance: Challenges, state of the art and opportunities. , 2015, 2015, 2509-2516.		62
6	Workflow as a Service in the Cloud: Architecture and Scheduling Algorithms. Procedia Computer Science, 2014, 29, 546-556.	2.0	43
7	An Approach to Detecting Diabetic Retinopathy Based on Integrated Shallow Convolutional Neural Networks. IEEE Access, 2020, 8, 178552-178562.	4.2	36
8	Cloud computing in e-Science: research challenges andÂopportunities. Journal of Supercomputing, 2014, 70, 408-464.	3.6	34
9	Provenance for MapReduce-based data-intensive workflows. , 2011, , .		33
10	Deploying Kepler Workflows as Services on a Cloud Infrastructure for Smart Manufacturing. Procedia Computer Science, 2014, 29, 2254-2259.	2.0	32
11	Big Data Applications Using Workflows for Data Parallel Computing. Computing in Science and Engineering, 2014, 16, 11-21.	1.2	30
12	Wearable sensor based human posture recognition. , 2016, , .		29
13	Subgrid variations of the cloud water and droplet number concentration over the tropical ocean: satellite observations and implications for warm rain simulations in climate models. Atmospheric Chemistry and Physics, 2019, 19, 1077-1096.	4.9	26
14	Machine Learning Based Algorithms for Global Dust Aerosol Detection from Satellite Images: Inter-Comparisons and Evaluation. Remote Sensing, 2021, 13, 456.	4.0	25
15	Early Cloud Experiences with the Kepler Scientific Workflow System. Procedia Computer Science, 2012, 9, 1630-1634.	2.0	24
16	A Scalable Data Science Workflow Approach for Big Data Bayesian Network Learning. , 2014, , .		24
17	A Smart Manufacturing Use Case: Furnace Temperature Balancing in Steam Methane Reforming Process via Kepler Workflows. Procedia Computer Science, 2016, 80, 680-689.	2.0	22
18	Blockchain Based Provenance Sharing of Scientific Workflows. , 2018, , .		20

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19	CAFISE: An approach to enabling adaptive configuration of service grid applications. Journal of Computer Science and Technology, 2003, 18, 484-494.	1.5	19
20	Challenges and approaches for distributed workflow-driven analysis of large-scale biological data. , 2012, , .		19
21	A Framework for Distributed Data-Parallel Execution in the Kepler Scientific Workflow System. Procedia Computer Science, 2012, 9, 1620-1629.	2.0	18
22	A Hybrid Processing System for Large-Scale Traffic Sensor Data. IEEE Access, 2015, 3, 2341-2351.	4.2	18
23	A Hybrid Learning Framework for Imbalanced Stream Classification. , 2017, , .		18
24	Sensor Data Based System-Level Anomaly Prediction for Smart Manufacturing. , 2018, , .		18
25	A Deterministic Self-Organizing Map Approach and its Application on Satellite Data based Cloud Type Classification. , 2018, , .		16
26	Hybrid Causality Analysis of ENSOâ€™s Global Impacts on Climate Variables Based on Data-Driven Analytics and Climate Model Simulation. Frontiers in Earth Science, 2019, 7, .	1.8	15
27	MAAMD: a workflow to standardize meta-analyses and comparison of affymetrix microarray data. BMC Bioinformatics, 2014, 15, 69.	2.6	14
28	Approaches to Distributed Execution of Scientific Workflows in Kepler. Fundamenta Informaticae, 2013, 128, 281-302.	0.4	13
29	Personalized Active Service Spaces for End-User Service Composition. , 2006, , .		12
30	Kepler + CometCloud: Dynamic Scientific Workflow Execution on Federated Cloud Resources. Procedia Computer Science, 2016, 80, 700-711.	2.0	11
31	A Service Modeling Approach with Business-Level Reusability and Extensibility. , 0, , .		10
32	Benchmarking of Data-Driven Causality Discovery Approaches in the Interactions of Arctic Sea Ice and Atmosphere. Frontiers in Big Data, 2021, 4, 642182.	2.9	10
33	Accelerating Parameter Sweep Workflows by Utilizing Ad-hoc Network Computing Resources: An Ecological Example. , 2009, , .		9
34	EPiK-a Workflow for Electron Tomography in Kepler1. Procedia Computer Science, 2014, 29, 2295-2305.	2.0	9
35	An Approach to Domain-Specific Reuse in Service-Oriented Environments. Lecture Notes in Computer Science, 2008, , 221-232.	1.3	9
36	Adaptive and Efficient Streaming Time Series Forecasting with Lambda Architecture and Spark. , 2020, , .		9

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37	A High-Level Distributed Execution Framework for Scientific Workflows. , 2008, , .		8
38	Content-bootstrapped Collaborative Filtering for Medical Article Recommendations. , 2018, , .		8
39	On Fairness-Aware Learning for Non-discriminative Decision-Making. , 2019, , .		8
40	Theoretical enzyme design using the Kepler scientific workflows on the Grid. Procedia Computer Science, 2010, 1, 1175-1184.	2.0	7
41	Mashroom+: An Interactive Data Mashup Approach with Uncertainty Handling. Journal of Grid Computing, 2014, 12, 221-244.	3.9	7
42	Instant Discovery of Moment Companion Vehicles from Big Streaming Traffic Data. , 2015, , .		7
43	Zero-Day Attack Identification in Streaming Data Using Semantics and Spark. , 2017, , .		7
44	An Integrated Processing Platform for Traffic Sensor Data and Its Applications in Intelligent Transportation Systems. , 2014, , .		6
45	Progress towards Automated Kepler Scientific Workflows for Computer-aided Drug Discovery and Molecular Simulations. Procedia Computer Science, 2014, 29, 1745-1755.	2.0	6
46	An Approach to Modeling and Discovering Event Correlation for Service Collaboration. Lecture Notes in Computer Science, 2017, , 191-205.	1.3	6
47	Task Allocation in Hybrid Big Data Analytics for Urban IoT Applications. ACM/IMS Transactions on Data Science, 2020, 1, 1-22.	2.0	6
48	A Physical and Virtual Compute Cluster Resource Load Balancing Approach to Data-Parallel Scientific Workflow Scheduling. , 2011, , .		5
49	Facilitating e-Science Discovery Using Scientific Workflows on the Grid. Computer Communications and Networks, 2011, , 353-382.	0.8	5
50	FlowGate. , 2015, , .		5
51	A Service-Friendly Approach to Discover Traveling Companions Based on ANPR Data Stream. , 2016, , .		5
52	Service Hyperlink: Modeling and Reusing Partial Process Knowledge by Mining Event Dependencies among Sensor Data Services. , 2017, , .		5
53	PEnBayes: A Multi-Layered Ensemble Approach for Learning Bayesian Network Structure from Big Data. Sensors, 2019, 19, 4400.	3.8	5
54	Performance Benchmarking of Data Augmentation and Deep Learning for Tornado Prediction. , 2019, , .		5

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55	A Hybrid Algorithm for Mineral Dust Detection Using Satellite Data. , 2019, , .		5
56	A Deep Learning Model for Detecting Dust in Earth's Atmosphere from Satellite Remote Sensing Data. , 2020, , .		5
57	Application-driven sensing data reconstruction and selection based on correlation mining and dynamic feedback. , 2016, , .		4
58	Scalable and Flexible Two-Phase Ensemble Algorithms for Causality Discovery. Big Data Research, 2021, 26, 100252.	4.2	4
59	Benchmarking Parallel K-Means Cloud Type Clustering from Satellite Data. Lecture Notes in Computer Science, 2019, , 248-260.	1.3	4
60	A Spatio-temporal Parallel Processing System for Traffic Sensory Data. , 2014, , .		3
61	Enhancing Smart Re-run of Kepler Scientific Workflows Based on Near Optimum Provenance Caching in Cloud. , 2014, , .		3
62	A Periodic Task-Oriented Scheduling Architecture in Cloud Computing. , 2018, , .		3
63	Parallel Gradient Boosting based Granger Causality Learning. , 2019, , .		3
64	Potential trend discovery for highway drivers on spatioâ€temporal data. Wireless Networks, 2021, 27, 3407-3422.	3.0	3
65	Performance Benchmarking of Parallel Hyperparameter Tuning for Deep Learning Based Tornado Predictions. Big Data Research, 2021, 25, 100212.	4.2	3
66	An Approach to Dynamically Reconfiguring Service-Oriented Applications from a Business Perspective. Lecture Notes in Computer Science, 2004, , 357-368.	1.3	3
67	A Unified Data and Service Integration Approach for Dynamic Business Collaboration. , 2012, , .		2
68	An Item-Targeted User Similarity Method for Data Service Recommendation. , 2012, , .		2
69	Enhancing the MapReduce training of BP neural networks based on local weight matrix evolution. , 2017, , .		2
70	Efficient and Flexible Aggregation and Distribution of MODIS Atmospheric Products Based on Climate Analytics as a Service Framework. Remote Sensing, 2021, 13, 3541.	4.0	2
71	A Business-Level Service Model Supporting End-User Customization. Lecture Notes in Computer Science, 2009, , 295-303.	1.3	2
72	Improving Reproducibility in Earth Science Research. Eos, 2019, 100, .	0.1	2

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73	Deep Domain Adaptation based Cloud Type Detection using Active and Passive Satellite Data. , 2020, , .		2
74	Image Segmentation for Dust Detection Using Semi-supervised Machine Learning. , 2020, , .		2
75	Scalable and Hybrid Ensemble-Based Causality Discovery. , 2020, , .		2
76	Flexible and Adaptive Fairness-aware Learning in Non-stationary Data Streams. , 2020, , .		2
77	A comparison of big data application programming approaches: A travel companion case study. , 2017, , .		1
78	Training Back Propagation Neural Networks in MapReduce on High-Dimensional Big Datasets With Global Evolution. IEEE Access, 2019, 7, 159855-159867.	4.2	1
79	Team-Based Online Multidisciplinary Education on Big Data + High-Performance Computing + Atmospheric Sciences. Transactions on Computational Science and Computational Intelligence, 2021, , 43-54.	0.3	1
80	Curve-Registration-Based Feature Extraction for Predictive Maintenance of Industrial Equipment. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2018, , 253-263.	0.3	1
81	Situation-Aware Data Service Composition Based on Service Hyperlinks. Lecture Notes in Computer Science, 2014, , 153-167.	1.3	1
82	Discovery of Service HyperLinks with User Feedbacks for Situational Data Mashup. International Journal of Database Theory and Application, 2015, 8, 71-80.	0.2	1
83	Use of On-Demand Cloud Services to Model the Optimization of an Austenitization Furnace. Smart and Sustainable Manufacturing Systems, 2018, 2, 20180024.	0.7	1
84	An Open Source Cloud-Based NoSQL and NewSQL Database Benchmarking Platform for IoT Data. Lecture Notes in Computer Science, 2019, , 65-77.	1.3	1
85	Latency-Aware Deployment of IoT Services in a Cloud-Edge Environment. Lecture Notes in Computer Science, 2019, , 231-236.	1.3	1
86	Scalable Aggregation Service for Satellite Remote Sensing Data. Lecture Notes in Computer Science, 2020, , 184-199.	1.3	1
87	Multi-Task Deep Learning Based Spatiotemporal Arctic Sea Ice Forecasting. , 2021, , .		1
88	MAAMD: A Workflow to Standardize Meta-Analyses of Affymetrix Microarray Data. , 2012, , .		0
89	The Second International Workshop on Service and Cloud Based Data Integration (SCDI) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5		0
90	Guest Editorsâ€™ Introduction: Special Issue on Service and Cloud Based Data Integration. Journal of Grid Computing, 2014, 12, 187-189.	3.9	0

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91	Benchmarking Discretisation Level of Continuous Attributes: Theoretical and Experimental Approaches. , 2019, , .		0
92	A Reflective Approach to Keeping Business Characteristics in Business-End Service Composition. Lecture Notes in Computer Science, 2004, , 479-490.	1.3	0
93	Tornado Storm Data Synthesization Using Deep Convolutional Generative Adversarial Network. Transactions on Computational Science and Computational Intelligence, 2021, , 383-388.	0.3	0
94	Large-Scale Causality Discovery Analytics as a Service. , 2021, , .		0