Marlon E Pierce

List of Publications by Year
in descending order

182 papers	2,022 citations	331538 21 h-index	414303 32 g-index
186 all docs	186 docs citations	186 times ranked	1515 citing authors

#	Article	IF	Citations
1	Apache airavata. , 2011, , .		115
2	Science gateways today and tomorrow: positive perspectives of nearly 5000 members of the research community. Concurrency Computation Practice and Experience, 2015, 27, 4252-4268.	1.4	75
3	Community Science Exemplars in SEAGrid Science Gateway: Apache Airavata Based Implementation of Advanced Infrastructure. Procedia Computer Science, 2016, 80, 1927-1939.	1.2	66
4	The Open Grid Computing Environments collaboration: portlets and services for science gateways. Concurrency Computation Practice and Experience, 2007, 19, 921-942.	1.4	50
5	Path-integral Monte Carlo simulation of the second layer of4Headsorbed on graphite. Physical Review B, 1999, 59, 3802-3814.	1.1	47
6	Fault tolerant high performance Information Services for dynamic collections of Grid and Web services. Future Generation Computer Systems, 2007, 23, 317-337.	4.9	45
7	Monolayer SolidH4eClusters on Graphite. Physical Review Letters, 1999, 83, 5314-5317.	2.9	44
8	Phase Diagram of Second Layer ofH4eAdsorbed on Graphite. Physical Review Letters, 1998, 81, 156-159.	2.9	42
9	Web Service Infrastructure for Chemoinformatics. Journal of Chemical Information and Modeling, 2007, 47, 1303-1307.	2.5	41
10	Apache Airavata: design and directions of a science gateway framework. Concurrency Computation Practice and Experience, 2015, 27, 4282-4291.	1.4	38
11	Role of substrate corrugation in helium monolayer solidification. Physical Review B, 2000, 62, 5228-5237.	1.1	37
12	Information Services for Dynamically Assembled Semantic Grids. , 2005, , .		35
13	iSERVO: Implementing the International Solid Earth Research Virtual Observatory by Integrating Computational Grid and Geographical Information Web Services. Pure and Applied Geophysics, 2006, 163, 2281-2296.	0.8	33
14	Automated Estimation and Tools to Extract Positions, Velocities, Breaks, and Seasonal Terms From Daily GNSS Measurements: Illuminating Nonlinear Salton Trough Deformation. Earth and Space Science, 2020, 7, e2019EA000644.	1.1	32
15	Building and applying geographical information system Grids. Concurrency Computation Practice and Experience, 2008, 20, 1653-1695.	1.4	31
16	BioDrugScreen: a computational drug design resource for ranking molecules docked to the human proteome. Nucleic Acids Research, 2010, 38, D765-D773.	6.5	31
17	The Apache Airavata Application Programming Interface: Overview and Evaluation with the UltraScan Science Gateway. , 2014, , .		29
18	Advances in Cheminformatics Methodologies and Infrastructure to Support the Data Mining of Large, Heterogeneous Chemical Datasets. Current Computer-Aided Drug Design, 2010, 6, 50-67.	0.8	28

#	Article	IF	Citations
19	UAVSAR observations of triggered slip on the Imperial, Superstition Hills, and East Elmore Ranch Faults associated with the 2010 M 7.2 El Mayorâ€Cucapah earthquake. Geochemistry, Geophysics, Geosystems, 2014, 15, 815-829.	1.0	28
20	Apache Airavata: Design and Directions of a Science Gateway Framework. , 2014, , .		27
21	The Gateway computational Web portal. Concurrency Computation Practice and Experience, 2002, 14, 1411-1426.	1.4	26
22	VLab: collaborative Grid services and portals to support computational material science. Concurrency Computation Practice and Experience, 2007, 19, 1717-1728.	1.4	26
23	XML Metadata Services. Concurrency Computation Practice and Experience, 2008, 20, 801-823.	1.4	26
24	Building the PolarGrid portal using web 2.0 and OpenSocial. , 2009, , .		26
25	Algorithms and the Grid. Computing and Visualization in Science, 2009, 12, 115-124.	1.2	26
26	Using Service-Based GIS to Support Earthquake Research and Disaster Response. Computing in Science and Engineering, 2012, 14, 21-30.	1.2	26
27	Real Time Streaming Data Grid Applications. , 2006, , 253-267.		24
28	Building messaging substrates for Web and Grid applications. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2005, 363, 1757-1773.	1.6	23
29	A Framework for Secure End-to-End Delivery of Messages in Publish/Subscribe Systems. , 2006, , .		23
30	BioVLAB-Microarray: Microarray Data Analysis in Virtual Environment. , 2008, , .		23
31	The QuakeSim Project: Web Services for Managing Geophysical Data and Applications. Pure and Applied Geophysics, 2008, 165, 635-651.	0.8	22
32	Highâ€performance hybrid information service architecture. Concurrency Computation Practice and Experience, 2010, 22, 2095-2123.	1.4	22
33	Potential for a large earthquake near Los Angeles inferred from the 2014 La Habra earthquake. Earth and Space Science, 2015, 2, 378-385.	1.1	22
34	Supporting Science Gateways Using Apache Airavata and SciGaP Services. , 2018, , .		22
35	Community Organizations: Changing the Culture in Which Research Software Is Developed and Sustained. Computing in Science and Engineering, 2019, 21, 8-24.	1.2	22
36	Grid services for earthquake science. Concurrency Computation Practice and Experience, 2002, 14, 371-393.	1.4	21

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37	Open grid computing environments. , 2010, , .		20
38	Integrating Apache Airavata with Docker, Marathon, and Mesos. Concurrency Computation Practice and Experience, 2016, 28, 1952-1959.	1.4	19
39	Managing authentication and authorization in distributed science gateway middleware. Future Generation Computer Systems, 2020, 111, 780-785.	4.9	18
40	An Overview of the XSEDE Extended Collaborative Support Program. Communications in Computer and Information Science, 2016, , 3-13.	0.4	18
41	Science Gateways: The Long Road to the Birth of an Institute. , 2017, , .		18
42	Implementing a caching and tiling map server: a Web 2.0 case study. , 2007, , .		17
43	Ground Deformation Data from GEER Investigations of Ridgecrest Earthquake Sequence. Seismological Research Letters, 2020, 91, 2024-2034.	0.8	17
44	Message-based cellular peer-to-peer grids: foundations for secure federation and autonomic services. Future Generation Computer Systems, 2005, 21, 401-415.	4.9	16
45	A Credential Store for Multi-tenant Science Gateways. , 2014, , .		16
46	Virtual laboratory for planetary materials: System service architecture overview. Physics of the Earth and Planetary Interiors, 2007, 163, 321-332.	0.7	15
47	Using Web 2.0 for scientific applications and scientific communities. Concurrency Computation Practice and Experience, 2009, 21, 583-603.	1.4	15
48	Jetstream2: Accelerating cloud computing via Jetstream. , 2021, , .		15
49	Management of real-time streaming data Grid services. Concurrency Computation Practice and Experience, 2007, 19, 983-998.	1.4	14
50	Apache Airavata as a Laboratory. , 2015, , .		14
51	Clustering Analysis Methods for GNSS Observations: A Data€Driven Approach to Identifying California's Major Faults. Earth and Space Science, 2021, 8, e2021EA001680.	1.1	14
52	Automatic Task Re-organization in MapReduce. , 2011, , .		13
53	Twitter bootstrap and AngularJS: Frontend frameworks to expedite science gateway development. , 2013, , .		13
54	Management of Real-Time Streaming Data Grid Services. Lecture Notes in Computer Science, 2005, , 3-12.	1.0	13

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55	Quantum films adsorbed on graphite: Third and fourth helium layers. Physical Review B, 2001, 63, .	1.1	12
56	Designing a road map for geoscience workflows. Eos, 2012, 93, 225-226.	0.1	12
57	The Science Gateways Community Institute at Two Years. , 2018, , .		12
58	Science gateways: Sustainability via on-campus teams. Future Generation Computer Systems, 2019, 94, 97-102.	4.9	12
59	XML Metadata Services. , 2006, , .		11
60	VLAB: Web services, portlets, and workflows for enabling cyber-infrastructure in computational mineral physics. Physics of the Earth and Planetary Interiors, 2007, 163, 333-346.	0.7	11
61	The GenApp framework integrated with Airavata for managed compute resource submissions. Concurrency Computation Practice and Experience, 2015, 27, 4292-4303.	1.4	11
62	A Web Services-Based Universal Approach to Heterogeneous Fault Databases. Computing in Science and Engineering, 2005, 7, 51-57.	1.2	10
63	The QuakeSim Project: Web Services for Managing Geophysical Data and Applications. , 2008, , 635-651.		10
64	Cyberaide JavaScript: A JavaScript Commodity Grid Kit. , 2008, , .		10
65	Grids challenged by a Web 2.0 and multicore sandwich. Concurrency Computation Practice and Experience, 2009, 21, 265-280.	1.4	10
66	Jetstreamâ€"Early operations performance, adoption, and impacts. Concurrency Computation Practice and Experience, 2019, 31, e4683.	1.4	10
67	Interacting Data Services for Distributed Earthquake Modeling. Lecture Notes in Computer Science, 2003, , 863-872.	1.0	9
68	Analysis of streaming GPS measurements of surface displacement through a web services environment. , 2007, , .		8
69	Apache Airavata security manager: Authentication and authorization implementations for a multi-tenant escience framework. , 2016, , .		8
70	An extensible Django-based web portal for Apache Airavata. , 2020, , .		8
71	Scalable, fault-tolerant management in a service oriented architecture. , 2007, , .		7
72	Architecture, performance, and scalability of a real-time global positioning system data grid. Physics of the Earth and Planetary Interiors, 2007, 163, 347-359.	0.7	7

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73	SWARM: Scheduling Large-Scale Jobs over the Loosely-Coupled HPC Clusters. , 2008, , .		7
74	Supporting Cloud Computing with the Virtual Block Store System. , 2009, , .		7
75	Distributed web security for science gateways. , 2011, , .		7
76	E-DECIDER: Using Earth Science Data and Modeling Tools to Develop Decision Support for Earthquake Disaster Response. Pure and Applied Geophysics, 2015, 172, 2305-2324.	0.8	7
77	Gathering requirements for advancing simulations in HPC infrastructures via science gateways. Future Generation Computer Systems, 2018, 82, 544-554.	4.9	7
78	Fracture Advancing Step Tectonics Observed in the Yuha Desert and Ocotillo, CA, Following the 2010 M$_w$7.2 El Mayorâ€Cucapah Earthquake. Earth and Space Science, 2018, 5, 456-472.	1.1	7
79	Targeted High-Resolution Structure from Motion Observations over the MwÂ6.4 and 7.1 Ruptures of the Ridgecrest Earthquake Sequence. Seismological Research Letters, 2020, 91, 2087-2095.	0.8	7
80	GridFTP and Parallel TCP Support in NaradaBrokering. Lecture Notes in Computer Science, 2005, , 93-102.	1.0	7
81	Ultrascan solution modeler. , 2012, , .		7
82	Virtual Clusters in the Jetstream Cloud. , 2019, , .		7
83	QuakeSim: Enabling Model Interactions in Solid Earth Science Sensor Webs. , 2007, , .		6
84	Social networking for scientists using tagging and shared bookmarks: a Web 2.0 application. , 2008, , .		6
85	Building a Distributed Block Storage System for Cloud Infrastructure. , 2010, , .		6
86	Authentication and Authorization Considerations for a Multi-tenant Service. , 2015, , .		6
87	Using the Jetstream Research Cloud to Provide Science Gateway Resources. , 2017, , .		6
88	Making scientific applications as web services. Computing in Science and Engineering, 2004, 6, 93-96.	1.2	5
89	Building Problem-Solving Environments with Application Web Service toolkits. Future Generation Computer Systems, 2005, 21, 856-867.	4.9	5
90	Generative topographic mapping by deterministic annealing. Procedia Computer Science, 2010, 1, 47-56.	1.2	5

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91	Virtual laboratory for planetary materials (<i>VLab</i>). , 2011, , .		5
92	Advantages to Geoscience and Disaster Response from QuakeSim Implementation of Interferometric Radar Maps in a GIS Database System. Pure and Applied Geophysics, 2015, 172, 2295-2304.	0.8	5
93	QuakeSim and the Solid Earth Research Virtual Observatory. , 2006, , 2263-2279.		5
94	A Federated Approach to Information Management in Grids. International Journal of Web Services Research, 2010, 7, 65-98.	0.5	5
95	QuakeSim and the Solid Earth Research Virtual Observatory. Pure and Applied Geophysics, 2006, 163, 2263-2279.	0.8	4
96	Providing Portlet-Based Client Access to CIMA-Enabled Crystallographic Instruments, Sensors, and Data. , 2006, , .		4
97	GTLAB: Grid Tag Libraries Supporting Workflows within Science Gateways. , 2007, , .		4
98	Web 2.0 for E-Science Environments. , 2007, , .		4
99	QuakeSim: Web Services, Portals, and Infrastructure for Geophysics. Aerospace Conference Proceedings IEEE, 2008, , .	0.0	4
100	Modeling and On-the-Fly Solutions for Solid Earth Sciences: Web Services and Data Portal for Earthquake Early Warning System. , 2008, , .		4
101	Open community development for science gateways with apache rave. , 2011, , .		4
102	Who Cares about Science Gateways? A Large-Scale Survey of Community Use and Needs. , 2014, , .		4
103	Building a Science Gateway For Processing and Modeling Sequencing Data Via Apache Airavata. , 2018, 2018, .		4
104	LSU Computational System Biology Gateway for Education. , 2019, , .		4
105	Cyberinfrastructure, Cloud Computing, Science Gateways, Visualization, and Cyberinfrastructure Ease of Use. , 2018, , 1063-1074.		4
106	Towards dependable grid and web services. Ubiquity, 2003, 2003, 3-3.	0.2	4
107	INTEGRATED MODEL OF MODELS FOR GLOBAL FLOOD ALERTING. , 2020, , .		4
108	Automating metadata Web service deployment for problem solving environments. Future Generation Computer Systems, 2005, 21, 910-919.	4.9	3

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109	Scalable, fault-tolerant management of Grid Services. , 2007, , .		3
110	Information Federation in Grids. , 2008, , .		3
111	The Quakesim portal and services: new approaches to science gateway development techniques. Concurrency Computation Practice and Experience, 2010, 22, 1732-1749.	1.4	3
112	UltraScan gateway enhancements. , 2011, , .		3
113	A Distributed Approach to Computational Earthquake Science: Opportunities and Challenges. Computing in Science and Engineering, 2012, 14, 31-42.	1.2	3
114	QuakeSim: Integrated modeling and analysis of geologic and remotely sensed data. , 2012, , .		3
115	Integrating Science Gateways with XSEDE Security. , 2014, , .		3
116	Multihazard Simulation and Cyberinfrastructure. Pure and Applied Geophysics, 2015, 172, 2083-2085.	0.8	3
117	Web Services for Dynamic Coloring of UAVSAR Images. Pure and Applied Geophysics, 2015, 172, 2325-2332.	0.8	3
118	GSoC 2015 student contributions to GenApp and Airavata. Concurrency Computation Practice and Experience, 2016, 28, 1960-1970.	1.4	3
119	Django Content Management System Evaluation and Integration with Apache Airavata. , 2018, , .		3
120	Improving access to geodetic imaging crustal deformation data using GeoGateway. Earth Science Informatics, 0, , 1.	1.6	3
121	Enabling dark energy survey science analysis with simulations on XSEDE resources. , 2013, , .		3
122	Towards dependable grid and web services. Ubiquity, 2003, 2003, 3-3.	0.2	3
123	Custos: Security Middleware for Science Gateways. , 2020, , .		3
124	Improving usability and accessibility of cheminformatics tools for chemists through cyberinfrastructure and education. In Silico Biology, 2011, 11, 41-60.	0.4	3
125	Building Sensor Filter Grids: Information Architecture for the Data Deluge. , 2005, , .		2
126	Grid Portal System Based on GPIR. , 2006, , .		2

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127	Collective Collaborative Tagging System. , 2008, , .		2
128	SQMD: Architecture for Scalable, Distributed Database System Built on Virtual Private Servers. , 2008, , .		2
129	Dynamic Resource-Critical Workflow Scheduling in Heterogeneous Environments. Lecture Notes in Computer Science, 2009, , 1-15.	1.0	2
130	Web Service andWorkflow Abstractions to Large Scale Nuclear Physics Calculations. , 2012, , .		2
131	GenApp Module Execution and Airavata Integration. , 2014, , .		2
132	Anatomy of the SEAGrid Science Gateway. , 2016, , .		2
133	Radar Determination of Fault Slip and Location in Partially Decorrelated Images. Pure and Applied Geophysics, 2017, 174, 2295-2310.	0.8	2
134	Science Gateways Incubator: Software Sustainability Meets Community Needs. , 2017, , .		2
135	Evaluating NextCloud as a File Storage for Apache Airavata. , 2018, , .		2
136	A New Science Gateway to Provide Decision Support on Carbon Capture and Storage Technologies. , 2018, , .		2
137	InterACTWEL Science Gateway for Adaptation Planning in Food-Energy-Water Sectors of Local Communities. , 2019, , .		2
138	US-SOMO cluster methods. , 2013, , .		2
139	Cyberinfrastructure as a Platform to Facilitate Effective Collaboration between Institutions and Support Collaboratories. , 2016, , .		2
140	A Retrospective on the Development of Web Service Specifications. , 2008, , 22-49.		2
141	Cyberinfrastructure, Cloud Computing, Science Gateways, Visualization, and Cyberinfrastructure Ease of Use. Advances in Computer and Electrical Engineering Book Series, 2019, , 157-170.	0.2	2
142	Messaging in web service grid with applications to geographical information systems. Advances in Parallel Computing, 2005, 14, 305-331.	0.3	1
143	GTLAB: Grid Tag Libraries Supporting Workflows within Science Gateways. , 2007, , .		1
144	Special Issue Editorial Introduction: Grids and Geospatial Information Systems. Concurrency Computation Practice and Experience, 2008, 20, 1611-1615.	1.4	1

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145	Open Grid Computing Environment's Workflow Suite for E-Science Projects. , 2008, , .		1
146	QuakeSim: Efficient Modeling of Sensor Web Data in a Web Services Environment. Aerospace Conference Proceedings IEEE, 2008, , .	0.0	1
147	The Problem Solving Environments of TeraGrid, Science Gateways, and the Intersection of the Two. , 2008, , .		1
148	AVATS: Audio-video and textual synchronization. , 2009, , .		1
149	Integrating chemistry scholarship with web architectures, grid computing and semantic web. , 2010, , .		1
150	Investigating the Use of Gadgets, Widgets, and OpenSocial to Build Science Gateways. , 2011, , .		1
151	Transitioning BioVLab cloud workbench to a science gateway. , 2011, , .		1
152	Authoring a Science Gateway Cookbook. , 2013, , .		1
153	GeoGateway: A system for analysis of UAVSAR data products. , 2016, , .		1
154	Science Gateway Implementation at the University of South Dakota. , 2018, , .		1
155	Using a Science Gateway to Deliver SimVascular Software as a Service for Classroom Instruction. , 2018, , .		1
156	How the Science Gateways Community Institute Supports Those Who Are Creating Websites to Access Shared Resources. , 2019, , .		1
157	The Distant Reader. , 2019, , .		1
158	The Quakes Concept for Observing and Mitigating Natural Disasters. , 2019, , .		1
159	User-Centric Design and Evolvable Architecture for Science Gateways: A Case Study. , 2021, , .		1
160	Buried Aseismic Slip and Off‑Fault Deformation on the Southernmost San Andreas Fault Triggered by the 2010 El Mayor Cucapah Earthquake Revealed by UAVSAR. Earth and Space Science, 2021, 8, e2021EA001682.	1.1	1
161	Radar Determination of Fault Slip and Location in Partially Decorrelated Images. Pageoph Topical Volumes, 2018, , 101-116.	0.2	1
162	Cyberinfrastructure, Science Gateways, Campus Bridging, and Cloud Computing. , 2015, , 6562-6572.		1

#	ARTICLE	IF	CITATIONS
163	Integrating Hydrologic Models and Earth Observation Data for Global Flood Forecasting and Alerting in Near Real-Time. , 2021, , .		1
164	Custos Secrets: a Service for Managing User-Provided Resource Credential Secrets for Science Gateways. , 2022, , .		1
165	Supporting cloud computing with the virtual block store system. , 2009, , .		0
166	Implementation, performance, and science results from a 30.7 TFLOPS IBM BladeCenter cluster. Concurrency Computation Practice and Experience, 2010, 22, 157-174.	1.4	0
167	Cloud computing for geodetic imaging data processing, analysis, and modeling. , 2014, , .		0
168	Science gateways - leveraging modeling and simulations in HPC infrastructures via increased usability. , 2015, , .		0
169	Apache Airavata Resource Allocation System. , 2018, , .		0
170	Simplifying Access to Campus Resources at Southern Illinois University with a Science Gateway. , 2018, , .		0
171	The CSBG - LSU Gateway. , 2018, , .		0
172	The USD Science Gateway. , 2019, , .		0
173	Common Resource Descriptions for Interoperable Gateway Cyberinfrastructure. , 2021, , .		0
174	Unified Data Access/Query over Integrated Data-views for Decision Making in Geographic Information Systems. , 2009, , 276-298.		0
175	Chaining Data and Visualization Web Services for Decision Making in Information Systems. Lecture Notes in Computer Science, 2013, , 44-53.	1.0	0
176	TopPIC Gateway: A Web Gateway for Top-Down Mass Spectrometry Data Interpretation. , 2020, , .		0
177	Toward Interoperable Cyberinfrastructure: Common Descriptions for Computational Resources and Applications. , 2020, , .		0
178	A Federated Approach to Information Management in Grids. , 0, , 71-103.		0
179	The Quakes Analytic Center Framework for Addressing Diverse Spatiotemporal Scales of Tectonic and Earthquake Processes. , 2020, , .		0
180	Integrating Science Gateways with Secure Cloud Computing Resources: An Examination of Two Deployment Patterns and Their Requirements. , 2020, , .		0

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181	Building the RNAMake Gateway on PATh: a Student-Led Design Project. , 2022, , .		0
182	SimVascular Gateway for Education and Research. , 2022, , .		0