Salvatore Cuomo

List of Publications by Year in descending order

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152 papers	1,863 citations	304743 22 h-index	361022 35 g-index
155 all docs	155 docs citations	155 times ranked	1493 citing authors

#	Article	IF	Citations
1	A machine learning approach for IoT cultural data. Journal of Ambient Intelligence and Humanized Computing, 2024, 15, 1715-1726.	4.9	35
2	Effects of spatial decomposition on the efficiency of kNN search in spatial interpolations. International Journal of Parallel, Emergent and Distributed Systems, 2022, 37, 103-121.	1.0	0
3	A machine learning-enhanced biosensor for mercury detection based on an hydrophobin chimera. Biosensors and Bioelectronics, 2022, 196, 113696.	10.1	26
4	An unsupervised learning framework for marketneutral portfolio. Expert Systems With Applications, 2022, 192, 116308.	7.6	2
5	Physics-informed neural networks approach for 1D and 2D Gray-Scott systems. Advanced Modeling and Simulation in Engineering Sciences, 2022, 9, .	1.7	8
6	EEG signal analysis for epileptic seizures detection by applying Data Mining techniques. Internet of Things (Netherlands), 2021, 14, 100048.	7.7	24
7	Data analysis and mining of traffic features based on taxi GPS trajectories: A case study in Beijing. Concurrency Computation Practice and Experience, 2021, 33, e5332.	2.2	7
8	A generic paradigm for mining human mobility patterns based on the GPS trajectory data using complex network analysis. Concurrency Computation Practice and Experience, 2021, 33, e5335.	2.2	3
9	A virtual assistant in cultural heritage scenarios. Concurrency Computation Practice and Experience, 2021, 33, e5331.	2.2	9
10	Special issue on realâ€time behavioral monitoring in IoT applications using big data analytics. Concurrency Computation Practice and Experience, 2021, 33, e5529.	2.2	1
11	A survey on deep learning in medicine: Why, how and when?. Information Fusion, 2021, 66, 111-137.	19.1	188
12	Precision medicine and machine learning towards the prediction of the outcome of potential celiac disease. Scientific Reports, 2021, 11, 5683.	3.3	20
13	Solving 3-D Grayâ€“Scott Systems with Variable Diffusion Coefficients on Surfaces by Closest Point Method with RBF-FD. Mathematics, 2021, 9, 924.	2.2	1
14	The Role of Artificial Intelligence in Fighting the COVID-19 Pandemic. Information Systems Frontiers, 2021, 23, 1467-1497.	6.4	69
15	Special issue on deep learning for emerging big multimedia super-resolution. Multimedia Systems, 2021, 27, 581-587.	4.7	0
16	Predictive Analytics for Smart Parking: A Deep Learning Approach in Forecasting of IoT Data. ACM Transactions on Internet Technology, 2021, 21, 1-21.	4.4	26
17	An analytic framework using deep learning for prediction of traffic accident injury severity based on contributing factors. Accident Analysis and Prevention, 2021, 160, 106322.	5.7	51
18	An Efficient Localized Meshless Method Based on the Spaceâ€“Time Gaussian RBF for High-Dimensional Space Fractional Wave and Damped Equations. Axioms, 2021, 10, 259.	1.9	2

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19	Remarks on the numerical approximation of Dirac delta functions. Results in Applied Mathematics, 2021, 12, 100200.	1.3	4
20	Pricing estimation of a barrier option in an IoT scenario. Future Generation Computer Systems, 2020, 110, 407-412.	7.5	10
21	A computational method for the European option price in an Internet of Things framework. Future Generation Computer Systems, 2020, 107, 730-735.	7.5	8
22	Lessons learned from longitudinal modeling of mobile-equipped visitors in a complex museum. Neural Computing and Applications, 2020, 32, 7785-7801.	5.6	8
23	CudaCHPre2D: A straightforward preprocessing approach for accelerating 2D convex hull computations on the GPU. Concurrency Computation Practice and Experience, 2020, 32, e5229.	2.2	3
24	Comparison of Estimating Missing Values in IoT Time Series Data Using Different Interpolation Algorithms. International Journal of Parallel Programming, 2020, 48, 534-548.	1.5	23
25	Exploring Unsupervised Learning Techniques for the Internet of Things. IEEE Transactions on Industrial Informatics, 2020, 16, 2621-2628.	11.3	46
26	Guest Editorial: Special Issue on Emerging Technology for Software Define Network Enabled Internet of Things. International Journal of Parallel Programming, 2020, 48, 157-161.	1.5	0
27	A stable meshfree PDE solver for source-type flows in porous media. Applied Numerical Mathematics, 2020, 149, 30-42.	2.1	8
28	Decision Making in IoT Environment through Unsupervised Learning. IEEE Intelligent Systems, 2020, 35, 27-35.	4.0	50
29	ARBF: adaptive radial basis function interpolation algorithm for irregularly scattered point sets. Soft Computing, 2020, 24, 17693-17704.	3.6	11
30	A deep learning approach for facility patient attendance prediction based on medical booking data. Scientific Reports, 2020, 10, 14623.	3.3	9
31	Julia language in machine learning: Algorithms, applications, and open issues. Computer Science Review, 2020, 37, 100254.	15.3	35
32	RBF methods in a Stochastic Volatility framework for Greeks computation. Journal of Computational and Applied Mathematics, 2020, 380, 112987.	2.0	2
33	Comparative investigation of GPU-accelerated triangle-triangle intersection algorithms for collision detection. Multimedia Tools and Applications, 2020, , 1.	3.9	3
34	A note on the numerical resolution of Heston PDEs. Ricerche Di Matematica, 2020, 69, 501-508.	1.0	0
35	Greeks computation in the option pricing problem by means of RBF-PU methods. Journal of Computational and Applied Mathematics, 2020, 376, 112882.	2.0	7
36	Uncertainty Quantification of Unsteady Flows Generated by Line-Sources Through Heterogeneous Geological Formations. SIAM-ASA Journal on Uncertainty Quantification, 2020, 8, 807-825.	2.0	4

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37	Special issue on video and imaging systems for critical engineering applications [SI 1096]. Multimedia Tools and Applications, 2020, 79, 8327-8335.	3.9	1
38	Unsupervised learning on multimedia data: a Cultural Heritage case study. Multimedia Tools and Applications, 2020, 79, 34429-34442.	3.9	2
39	Path prediction in IoT systems through Markov Chain algorithm. Future Generation Computer Systems, 2020, 109, 210-217.	7.5	9
40	A network-based method with privacy-preserving for identifying influential providers in large healthcare service systems. Future Generation Computer Systems, 2020, 109, 293-305.	7.5	42
41	Adaptive RBF Interpolation for Estimating Missing Values inÂGeographical Data. Lecture Notes in Computer Science, 2020, , 122-130.	1.3	2
42	Computational error bounds for Laplace transform inversion based on smoothing splines. Applied Mathematics and Computation, 2020, 383, 125376.	2.2	6
43	Data Science for the Internet of Things. IEEE Internet of Things Journal, 2020, 7, 4342-4346.	8.7	8
44	A Travelling Wave Solution for Nonlinear Colloid Facilitated Mass Transport in Porous Media. Lecture Notes in Computer Science, 2020, , 103-108.	1.3	0
45	Serious Games and In-Cloud Data Analytics for the Virtualization and Personalization of Rehabilitation Treatments. IEEE Transactions on Industrial Informatics, 2019, 15, 517-526.	11.3	13
46	Special issue on bio-medical signal processing for smarter mobile healthcare using big data analytics. Journal of Ambient Intelligence and Humanized Computing, 2019, 10, 3739-3745.	4.9	14
47	A simple and generic paradigm for creating complex networks using the strategy of vertex selecting-and-pairing. Future Generation Computer Systems, 2019, 100, 994-1004.	7.5	5
48	On a Class of Integrals Useful to Solve Wellâ€Type Flows in Heterogeneous Porous Formations. Water Resources Research, 2019, 55, 5147.	4.2	2
49	A numerical scheme for solving a class of logarithmic integral equations arisen from two-dimensional Helmholtz equations using local thin plate splines. Applied Mathematics and Computation, 2019, 356, 157-172.	2.2	7
50	Effect of Spatial Decomposition on the Efficiency of k Nearest Neighbors Search in Spatial Interpolation. Lecture Notes in Computer Science, 2019, , 667-679.	1.3	0
51	Efficient method for identifying influential vertices in dynamic networks using the strategy of local detection and updating. Future Generation Computer Systems, 2019, 91, 10-24.	7.5	17
52	The numerical solution of fractional differential equations using the Volterra integral equation method based on thin plate splines. Engineering With Computers, 2019, 35, 1391-1408.	6.1	13
53	A GPU-accelerated parallel K-means algorithm. Computers and Electrical Engineering, 2019, 75, 262-274.	4.8	29
54	Remarks of Social Data Mining Applications in the Internet of Data. Lecture Notes on Data Engineering and Communications Technologies, 2019, , 944-951.	0.7	0

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55	A class of universal approximators of real continuous functions revisited. Ricerche Di Matematica, 2018, 67, 729-738.	1.0	0
56	A predictive Decision Support System (DSS) for a microalgae production plant based on Internet of Things paradigm. Concurrency Computation Practice and Experience, 2018, 30, e4476.	2.2	16
57	Nonlinear Galerkin methods for a system of PDEs with Turing instabilities. Calcolo, 2018, 55, 1.	1.1	1
58	A Semi-Automatic Numerical Algorithm for Turing Patterns Formation in a Reaction-Diffusion Model. IEEE Access, 2018, 6, 4720-4724.	4.2	6
59	Performance Evaluation of GPU-Accelerated Spatial Interpolation Using Radial Basis Functions for Building Explicit Surfaces. International Journal of Parallel Programming, 2018, 46, 963-991.	1.5	13
60	Parallel Implementation of a Machine Learning Algorithm on GPU. International Journal of Parallel Programming, 2018, 46, 923-942.	1.5	4
61	An application of the one-factor HullWhite model in an IoT financial scenario. Sustainable Cities and Society, 2018, 38, 18-20.	10.4	11
62	Guest Editorial for Programming Models and Algorithms for Data Analysis in HPC Systems. International Journal of Parallel Programming, 2018, 46, 505-507.	1.5	0
63	Parallel Approaches for Data Mining in the Internet of Things Realm. International Journal of Parallel Programming, 2018, 46, 807-811.	1.5	5
64	MeshCleaner: A Generic and Straightforward Algorithm for Cleaning Finite Element Meshes. International Journal of Parallel Programming, 2018, 46, 565-583.	1.5	5
65	Implications of deep learning for the automation of design patterns organization. Journal of Parallel and Distributed Computing, 2018, 117, 256-266.	4.1	39
66	Reproducing dynamics related to an Internet of Things framework: A numerical and statistical approach. Journal of Parallel and Distributed Computing, 2018, 118, 359-368.	4.1	10
67	On GPUâ€“CUDA as preprocessing of fuzzy-rough data reduction by means of singular value decomposition. Soft Computing, 2018, 22, 1525-1532.	3.6	9
68	Harnessing sliding-window execution semantics for parallel stream processing. Journal of Parallel and Distributed Computing, 2018, 116, 74-88.	4.1	10
69	A GPU parallel optimised blockwise NLM algorithm in a distributed computing system. International Journal of High Performance Computing and Networking, 2018, 11, 304.	0.4	1
70	A (multi) GPU iterative reconstruction algorithm based on Hessian penalty term for sparse MRI. International Journal of Grid and Utility Computing, 2018, 9, 139.	0.2	6
71	Traditional and Deep Learning Approaches to Information and Influence Propagation in Social Networks. , 2018, , .		3
72	Data-Driven Approaches to Predict States in a Food Technology Case Study. , 2018, , .		2

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73	Social network data analysis and mining applications for the Internet of Data. Concurrency Computation Practice and Experience, 2018, 30, e4527.	2.2	7
74	An inverse Bayesian scheme for the denoising of ECG signals. Journal of Network and Computer Applications, 2018, 115, 48-58.	9.1	7
75	A Parallel Implementation of the Hestenes-Jacobi-One-Sides Method Using GPU-CUDA. , 2018, , .		1
76	Accelerating multiâ€dimensional interpolation using moving leastâ€squares on the GPU. Concurrency Computation Practice and Experience, 2018, 30, e4904.	2.2	7
77	Self and social network behaviours of users in cultural spaces. International Journal of Computational Science and Engineering, 2018, 16, 265.	0.5	0
78	A (multi) GPU iterative reconstruction algorithm based on Hessian penalty term for sparse MRI. International Journal of Grid and Utility Computing, 2018, 9, 139.	0.2	0
79	Reconstruction of implicit curves and surfaces via RBF interpolation. Applied Numerical Mathematics, 2017, 116, 157-171.	2.1	48
80	IoT-based collaborative reputation system for associating visitors and artworks in a cultural scenario. Expert Systems With Applications, 2017, 79, 101-111.	7.6	80
81	Enabling multimedia aware vertical handover Management in Internet of Things based heterogeneous wireless networks. Multimedia Tools and Applications, 2017, 76, 25919-25941.	3.9	32
82	A computational scheme to predict dynamics in IoT systems by using particle filter. Concurrency Computation Practice and Experience, 2017, 29, e4101.	2.2	13
83	A parallel PDE-based numerical algorithm for computing the Optical Flow in hybrid systems. Journal of Computational Science, 2017, 22, 228-236.	2.9	8
84	On the Longitudinal Dispersion in Conservative Transport Through Heterogeneous Porous Formations at Finite Peclet Numbers. Water Resources Research, 2017, 53, 8614-8625.	4.2	7
85	Modification of TV-ROF denoising model based on Split Bregman iterations. Applied Mathematics and Computation, 2017, 315, 453-467.	2.2	9
86	Analysis of a data-flow in a financial IoT system. Procedia Computer Science, 2017, 113, 508-512.	2.0	5
87	Remarks on a computational estimator for the barrier option pricing in an IoT scenario. Procedia Computer Science, 2017, 113, 513-518.	2.0	6
88	Numerical Effects of the Gaussian Recursive Filters in Solving Linear Systems in the 3Dvar Case Study. Numerical Mathematics, 2017, 10, 520-540.	1.3	10
89	GPU Profiling of Singular Value Decomposition in OLPCA Method for Image Denoising. Lecture Notes on Data Engineering and Communications Technologies, 2017, , 707-716.	0.7	2
90	Some remarks on the numerical solution of parabolic partial differential equations. AIP Conference Proceedings, 2017, , .	0.4	0

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91	Visitor Assistant Tools Based on Machine Learning Approaches in Cultural Heritage Contexts. , 2017, , .		0
92	IoT application for the estimation of option price. International Journal of Internet Technology and Secured Transactions, 2017, 7, 21.	0.4	0
93	Data mining techniques for vestibular data classification. International Journal of Internet Technology and Secured Transactions, 2017, 7, 51.	0.4	2
94	Remarks on a financial inverse problem by means of Monte Carlo Methods. Journal of Physics: Conference Series, 2017, 904, 012012.	0.4	2
95	Numerical approaches to model perturbation fire in turing pattern formations. AIP Conference Proceedings, 2017, , .	0.4	1
96	Handling Uncertainty in Clustering Art-Exhibition Visiting Styles. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2017, , 54-63.	0.3	0
97	Preface to the special session Numerical and computational methods in data analysis and classification. AIP Conference Proceedings, 2016, , .	0.4	0
98	Local principal component analysis overcomplete method: A GPU parallel implementation combining shared and global memories. , 2016, , .		3
99	Numerical Remarks on the Estimation of the Option Price. , 2016, , .		2
100	A GPU-Parallel Algorithm for ECG Signal Denoising Based on the NLM Method. , 2016, , .		14
101	Applying Mining Techniques to Analyze Vestibular Data. Procedia Computer Science, 2016, 98, 467-472.	2.0	4
102	A Numerical Approach for Assigning a Reputation to Users of an IoT Framework. Procedia Computer Science, 2016, 98, 455-460.	2.0	0
103	A GPU parallel implementation of the Local Principal Component Analysis overcomplete method for DW image denoising. , 2016, , .		14
104	A novel Split Bregman algorithm for MRI denoising task in an e-Health system. , 2016, , .		3
105	Mimic Visiting Styles by Using a Statistical Approach in a Cultural Event Case Study. Procedia Computer Science, 2016, 98, 449-454.	2.0	6
106	A Stochastic Method for Financial IoT Data. Procedia Computer Science, 2016, 98, 491-496.	2.0	7
107	Some error bounds for K-iterated Gaussian recursive filters. AIP Conference Proceedings, 2016, , .	0.4	2
108	Track and Workshop Program Chair Messages. , 2016, , .		0

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109	Collaborative reputation systems in a cultural heritage scenario. AIP Conference Proceedings, 2016, , .	0.4	0
110	Computational issues in linear multistep method particle filtering. AIP Conference Proceedings, 2016, , .	0.4	2
111	A second order derivative scheme based on Bregman algorithm class. AIP Conference Proceedings, 2016, , .	0.4	3
112	A revised scheme for real time ECG Signal denoising based on recursive filtering. Biomedical Signal Processing and Control, 2016, 27, 134-144.	5.7	56
113	Classify Visitor Behaviours in a Cultural Heritage Exhibition. Communications in Computer and Information Science, 2016, , 17-28.	0.5	6
114	Influence of Some Parameters on Visiting Style Classification in a Cultural Heritage Case Study. Smart Innovation, Systems and Technologies, 2016, , 567-576.	0.6	7
115	A GPU Algorithm in a Distributed Computing System for 3D MRI Denoising. , 2015, , .		11
116	A Cultural Heritage Case Study of Visitor Experiences Shared on a Social Network. , 2015, , .		28
117	Visiting Styles in an Art Exhibition Supported by a Digital Fruition System. , 2015, , .		16
118	A framework for ECG denoising for mobile devices. , 2015, , .		7
119	A revised scheme to compute horizontal covariances in an oceanographic 3D-VAR assimilation system. Journal of Computational Physics, 2015, 284, 631-647.	3.8	28
120	Parallel Tools for Simulating the Depolarization Block on a Neural Model. Procedia Computer Science, 2015, 51, 745-754.	2.0	1
121	Toward a Multi-level Parallel Framework on GPU Cluster with PetSC-CUDA for PDE-based Optical Flow Computation. Procedia Computer Science, 2015, 51, 170-179.	2.0	16
122	A Novel O (n) Numerical Scheme for ECG Signal Denoising. Procedia Computer Science, 2015, 51, 775-784.	2.0	28
123	Piecewise Hermite interpolation via barycentric coordinates. Ricerche Di Matematica, 2015, 64, 303-319.	1.0	21
124	Validation Approaches for a Biological Model Generation Describing Visitor Behaviours in a Cultural Heritage Scenario. Communications in Computer and Information Science, 2015, , 154-168.	0.5	5
125	Visitor Dynamics in a Cultural Heritage Scenario. , 2015, , .		13
126	A Mathematical Formulation for Estimating Age Levels in the Carolina Curriculum. , 2015, , .		0

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127	A Biologically Inspired Model for Analyzing Behaviours in Social Network Community and Cultural Heritage Scenario. , 2014, , .		6
128	A class of piecewise interpolating functions based on barycentric coordinates. Ricerche Di Matematica, 2014, 63, 87-102.	1.0	16
129	3D Data Denoising via Nonlocal Means Filter by Using Parallel GPU Strategies. Computational and Mathematical Methods in Medicine, 2014, 2014, 1-14.	1.3	38
130	Effects of increasing CREB-dependent transcription on the storage and recall processes in a hippocampal CA1 microcircuit. Hippocampus, 2014, 24, 165-177.	1.9	30
131	A Clustering-based Approach for a Finest Biological Model Generation Describing Visitor Behaviours in a Cultural Heritage Scenario. , 2014, , .		6
132	A New Approach to the Quadrature Rules with Gaussian Weights and Nodes. Applied Mathematics and Information Sciences, 2014, 8, 2095-2102.	0.5	0
133	A Regularized MRI Image Reconstruction based on Hessian Penalty Term on CPU/GPU Systems. Procedia Computer Science, 2013, 18, 2643-2646.	2.0	43
134	Mobile learning for clinical practice guidelines implementation. , 2013, , .		0
135	A Performance Evaluation of A Parallel Biological Network Microcircuit in Neuron. International Journal of Distributed and Parallel Systems, 2013, 4, 15-31.	0.3	4
136	Some numerical enhancements in a data assimilation scheme. , 2013, , .		3
137	A social network framework for the Carolina software. , 2012, , .		2
138	An inverse preconditioner for a free surface ocean circulation model. , 2012, , .		2
139	Slide Test Maker An Educational Software Tool for Test Composition. Lecture Notes in Computer Science, 2012, , 249-257.	1.3	0
140	A CUBLAS-CUDA Implementation of PCG Method of an Ocean Circulation Model. , 2011, , .		3
141	On best constants in Hardy inequalities with a remainder term. Nonlinear Analysis: Theory, Methods & Applications, 2011, 74, 5784-5792.	1.1	2
142	The “INNOVAMBIENTE” Project: An Interdisciplinary Approach Integrating Natural Science, Mathematics and Computer Science. , 2009, , .		0
143	A numerical approach to nonlinear two-point boundary value problems for ODEs. Computers and Mathematics With Applications, 2008, 55, 2476-2489.	2.7	36
144	An adaptive threshold algorithm for detection of pulse radar signals. , 2008, , .		1

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145	A Modification of Weeksâ€™ Method for Numerical Inversion of the Laplace Transform in the Real Case Based on Automatic Differentiation. Lecture Notes in Computational Science and Engineering, 2008, , 45-54.	0.3	4
146	Numerical regularization of a real inversion formula based on the Laplace transform's eigenfunction expansion of the inverse function. Inverse Problems, 2007, 23, 713-731.	2.0	20
147	Computation of the inverse Laplace transform based on a collocation method which uses only real values. Journal of Computational and Applied Mathematics, 2007, 198, 98-115.	2.0	29
148	Error analysis of a Collocation method for numerically inverting a Laplace transform in case of real samples. Journal of Computational and Applied Mathematics, 2007, 210, 149-158.	2.0	7
149	A K-iterated scheme for the first-order Gaussian recursive filter with boundary conditions. , 0, , .		9
150	A novel triangle-based method for scattered data interpolation. Applied Mathematical Sciences, 0, 8, 6717-6724.	0.1	13
151	An error estimate of Gaussian Recursive Filter in 3Dvar problem. , 0, , .		6
152	An interdisciplinary laboratory in mathematics and music. Applied Mathematical Sciences, 0, 8, 6709-6716.	0.1	0