Salvatore Vitabile

List of Publications by Year
in descending order

132 papers	3,021 citations	236612 25 h-index	197535 49 g-index
137 all docs	137 docs citations	137 times ranked	3560 citing authors

#	Article	IF	Citations
1	Visceral Adiposity Index. Diabetes Care, 2010, 33, 920-922.	4.3	1,062
2	USE-Net: Incorporating Squeeze-and-Excitation blocks into U-Net for prostate zonal segmentation of multi-institutional MRI datasets. Neurocomputing, 2019, 365, 31-43.	3.5	185
3	Two-days ahead prediction of daily maximum concentrations of SO2, O3, PM10, NO2, CO in the urban area of Palermo, Italy. Atmospheric Environment, 2007, 41, 2967-2995.	1.9	100
4	A Frequency-based Approach for Features Fusion in Fingerprint and Iris Multimodal Biometric Identification Systems. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2010, 40, 384-395.	3.3	95
5	Road signs recognition using a dynamic pixel aggregation technique in the HSV color space. , 0, , .		63
6	Recent advances of HCI in decision-making tasks for optimized clinical workflows and precision medicine. Journal of Biomedical Informatics, 2020, 108, 103479.	2.5	56
7	Automated Prostate Gland Segmentation Based on an Unsupervised Fuzzy C-Means Clustering Technique Using Multispectral T1w and T2w MR Imaging. Information (Switzerland), 2017, 8, 49.	1.7	48
8	A semi-automatic approach for epicardial adipose tissue segmentation and quantification on cardiac CT scans. Computers in Biology and Medicine, 2019, 114, 103424.	3.9	47
9	A novel framework for MR image segmentation and quantification by using MedGA. Computer Methods and Programs in Biomedicine, 2019, 176, 159-172.	2.6	43
10	NeXt for neuroâ€radiosurgery: A fully automatic approach for necrosis extraction in brain tumor MRI using an unsupervised machine learning technique. International Journal of Imaging Systems and Technology, 2018, 28, 21-37.	2.7	41
11	A fully automatic approach for multimodal PET and MR image segmentation in gamma knife treatment planning. Computer Methods and Programs in Biomedicine, 2017, 144, 77-96.	2.6	39
12	Combining split-and-merge and multi-seed region growing algorithms for uterine fibroid segmentation in MRgFUS treatments. Medical and Biological Engineering and Computing, 2016, 54, 1071-1084.	1.6	38
13	Gamma Knife treatment planning: MR brain tumor segmentation and volume measurement based on unsupervised Fuzzy C-Means clustering. International Journal of Imaging Systems and Technology, 2015, 25, 213-225.	2.7	36
14	An enhanced random walk algorithm for delineation of head and neck cancers in PET studies. Medical and Biological Engineering and Computing, 2017, 55, 897-908.	1.6	35
15	Medical Data Processing and Analysis for Remote Health and Activities Monitoring. Lecture Notes in Computer Science, 2019, , 186-220.	1.0	34
16	Automatic Volumetric Liver Segmentation Using Texture Based Region Growing. , 2010, , .		33
17	ConformalALU: A Conformal Geometric Algebra Coprocessor for Medical Image Processing. IEEE Transactions on Computers, 2015, 64, 955-970.	2.4	32
18	GTVcut for neuro-radiosurgery treatment planning: an MRI brain cancer seeded image segmentation method based on a cellular automata model. Natural Computing, 2018, 17, 521-536.	1.8	32

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19	Quantification of epicardial adipose tissue in coronary calcium score and CT coronary angiography image data sets: comparison of attenuation values, thickness and volumes. British Journal of Radiology, 2016, 89, 20150773.	1.0	31
20	A Survey on Nature-Inspired Medical Image Analysis: A Step Further in Biomedical Data Integration. Fundamenta Informaticae, 2019, 171, 345-365.	0.3	31
21	An embedded, FPGA-based computer graphics coprocessor with native geometric algebra support. The Integration VLSI Journal, 2009, 42, 346-355.	1.3	30
22	A fully automatic 2D segmentation method for uterine fibroid in MRgFUS treatment evaluation. Computers in Biology and Medicine, 2015, 62, 277-292.	3.9	30
23	A Novel Bio-Inspired Approach for High-Performance Management in Service-Oriented Networks. IEEE Transactions on Emerging Topics in Computing, 2021, 9, 1709-1722.	3.2	30
24	A neural network based automatic road signs recognizer. , 0, , .		28
25	A text based indexing system for mammographic image retrieval and classification. Future Generation Computer Systems, 2014, 37, 243-251.	4.9	28
26	An extended JADE-S based framework for developing secure Multi-Agent Systems. Computer Standards and Interfaces, 2009, 31, 913-930.	3.8	27
27	Unsupervised tissue classification of brain MR images for voxel-based morphometry analysis. International Journal of Imaging Systems and Technology, 2016, 26, 136-150.	2.7	25
28	A fully automatic method for biological target volume segmentation of brain metastases. International Journal of Imaging Systems and Technology, 2016, 26, 29-37.	2.7	25
29	A Sliced Coprocessor for Native Clifford Algebra Operations. , 2007, , .		24
30	Bright Pupil Detection in an Embedded, Real-Time Drowsiness Monitoring System. , 2010, , .		24
31	Fingerprint Classification Based on Deep Learning Approaches: Experimental Findings and Comparisons. Symmetry, 2021, 13, 750.	1.1	24
32	A real-time non-intrusive FPGA-based drowsiness detection system. Journal of Ambient Intelligence and Humanized Computing, 2011, 2, 251-262.	3.3	23
33	A framework for data-driven adaptive GUI generation based on DICOM. Journal of Biomedical Informatics, 2018, 88, 37-52.	2.5	22
34	Introducing Pseudo-Singularity Points for Efficient Fingerprints Classification and Recognition. , 2010, , .		20
35	Human-to-human interfaces: emerging trends and challenges. International Journal of Space-Based and Situated Computing, 2011, 1, 3.	0.2	20
36	Embedded access points for trusted data and resources access in HPC systems. Journal of Supercomputing, 2011, 55, 4-27.	2.4	20

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37	CNN-Based Prostate Zonal Segmentation on T2-Weighted MR Images: AÂCross-Dataset Study. Smart Innovation, Systems and Technologies, 2020, , 269-280.	0.5	20
38	Fuzzy Fusion in Multimodal Biometric Systems. , 2007, , 108-115.		19
39	A Multimodal Technique for an Embedded Fingerprint Recognizer in Mobile Payment Systems. Mobile Information Systems, 2009, 5, 105-124.	0.4	19
40	Three hours ahead prevision of SO2 pollutant concentration using an Elman neural based forecaster. Building and Environment, 2008, 43, 304-314.	3.0	18
41	A Novel Embedded Fingerprints Authentication System Based on Singularity Points. , 2008, , .		17
42	A Bio-Inspired Cognitive Agent for Autonomous Urban Vehicles Routing Optimization. IEEE Transactions on Cognitive and Developmental Systems, 2017, 9, 5-15.	2.6	17
43	Efficient MLP Digital Implementation on FPGA. , 0, , .		15
44	METABOLIC NETWORKS ROBUSTNESS: THEORY, SIMULATIONS AND RESULTS. Journal of Interconnection Networks, 2011, 12, 221-240.	0.6	15
45	Design and Implementation of an Embedded Coprocessor with Native Support for 5D, Quadruple-Based Clifford Algebra. IEEE Transactions on Computers, 2013, 62, 2366-2381.	2.4	15
46	A Graph-Based Method for PET Image Segmentation in Radiotherapy Planning: A Pilot Study. Lecture Notes in Computer Science, 2013, , 711-720.	1.0	12
47	CliffoSor: A Parallel Embedded Architecture for Geometric Algebra and Computer Graphics. , 0, , .		11
48	An ontology-based retrieval system for mammographic reports. , 2015, , .		11
49	An Intelligent Sensor for Fingerprint Recognition. Lecture Notes in Computer Science, 2005, , 27-36.	1.0	11
50	A Kernel Support Vector Machine Based Technique for Crohnâ€™s Disease Classification in Human Patients. Advances in Intelligent Systems and Computing, 2018, , 262-273.	0.5	11
51	Fixed-Size Quadruples for a New, Hardware-Oriented Representation of the 4D Clifford Algebra. Advances in Applied Clifford Algebras, 2011, 21, 315-340.	0.5	10
52	Semi-Automatic Volumetric Segmentation of the Upper Airways in Patients with Pierre Robin Sequence. Neuroradiology Journal, 2014, 27, 487-494.	0.6	10
53	Image Processing Chain for Digital Still Cameras Based on the SIMPil Architecture. , 0, , .		9
54	Novel Human-to-Human Interactions from the Evolution of HCI. , 2011, , .		9

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55	Fingerprint Traits and RSA Algorithm Fusion Technique. , 2012, , .		9
56	Clifford Algebra Based Edge Detector for Color Images. , 2012, , .		9
57	A real-time network architecture for biometric data delivery in Ambient Intelligence. Journal of Ambient Intelligence and Humanized Computing, 2013, 4, 303-321.	3.3	9
58	Semi-automatic Brain Lesion Segmentation in Gamma Knife Treatments Using an Unsupervised Fuzzy C-Means Clustering Technique. Smart Innovation, Systems and Technologies, 2016, , 15-26.	0.5	9
59	Design Space Exploration of Parallel Embedded Architectures for Native Clifford Algebra Operations. IEEE Design and Test of Computers, 2012, 29, 60-69.	1.4	8
60	A Semi-automatic Multi-seed Region-Growing Approach for Uterine Fibroids Segmentation in MRgFUS Treatment. , 2013, , .		8
61	An Advanced Technique for User Identification Using Partial Fingerprint. , 2013, , .		8
62	Fully Automatic Multispectral MR Image Segmentation of Prostate Gland Based on the Fuzzy C-Means Clustering Algorithm. Smart Innovation, Systems and Technologies, 2018, , 23-37.	0.5	8
63	Metabolic Response Assessment in Non-Small Cell Lung Cancer Patients after Platinum-Based Therapy: A Preliminary Analysis. Current Medical Imaging, 2015, 11, 218-227.	0.4	8
64	A multimodal retina–iris biometric system using the Levenshtein distance for spatial feature comparison. IET Biometrics, 2021, 10, 44-64.	1.6	8
65	Multi-layer perceptron mapping on a SIMD architecture. , 0, , .		7
66	An Embedded Real-Time Lane-Keeper for Automatic Vehicle Driving. , 2008, , .		7
67	Smart wireless sensor networks and biometric authentication for real time traffic light junctions management. International Journal of Intelligent Information and Database Systems, 2013, 7, 454.	0.3	7
68	A Novel Technique for Fingerprint Classification Based on Fuzzy C-Means and Naive Bayes Classifier. , 2014, , .		7
69	GAPPCO: An Easy to Configure Geometric Algebra Coprocessor Based on GAPP Programs. Advances in Applied Clifford Algebras, 2017, 27, 2115-2132.	0.5	7
70	BIAM: a new bio-inspired analysis methodology for digital ecosystems based on a scale-free architecture. Soft Computing, 2019, 23, 1133-1150.	2.1	7
71	Automatic Multi-seed Detection for MR Breast Image Segmentation. Lecture Notes in Computer Science, 2017, , 706-717.	1.0	7
72	A Novel Solution Based on Scale Invariant Feature Transform Descriptors and Deep Learning for the Detection of Suspicious Regions in Mammogram Images. Journal of Medical Signals and Sensors, 2020, 10, 158-173.	0.5	7

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73	Towards Human Cell Simulation. Lecture Notes in Computer Science, 2019, , 221-249.	1.0	6
74	An Automatic Method for Metabolic Evaluation of Gamma Knife Treatments. Lecture Notes in Computer Science, 2015, , 579-589.	1.0	6
75	MLP Neural Network Implementation on a SIMD Architecture. Lecture Notes in Computer Science, 2002, , 99-106.	1.0	6
76	Fingerprint Image Enhancement Using Directional Morphological Filter. , 2005, , .		5
77	A Self-Contained Biometric Sensor for Ubiquitous Authentication. , 2007, , .		5
78	A Novel Iris Recognition System based on Micro-Features. , 2007, , .		5
79	An FPGA Implementation of a Quadruple-Based Multiplier for 4D Clifford Algebra. , 2008, , .		5
80	A Specialized Architecture for Color Image Edge Detection Based on Clifford Algebra. , 2013, , .		5
81	Biometric sensors rapid prototyping on field-programmable gate arrays. Knowledge Engineering Review, 2015, 30, 201-219.	2.1	5
82	A Concurrent Neural Classifier for HTML Documents Retrieval. Lecture Notes in Computer Science, 2003, , 210-217.	1.0	5
83	Efficient rapid prototyping of image and video processing algorithms. , 2004, , .		4
84	GUI Usability in Medical Imaging. , 2009, , .		4
85	BioAnalysis: A Framework for Structural and Functional Robustness Analysis of Metabolic Networks. , 2010, , .		4
86	An edge-driven 3D region-growing approach for upper airway morphology and volume evaluation in patients with Pierre Robin sequence. International Journal of Adaptive and Innovative Systems, 2015, 2, 232.	0.1	4
87	Neuro-Radiosurgery Treatments: MRI Brain Tumor Seeded Image Segmentation Based on a Cellular Automata Model. Lecture Notes in Computer Science, 2016, , 323-333.	1.0	4
88	Embedded Coprocessors for Native Execution of Geometric Algebra Operations. Advances in Applied Clifford Algebras, 2017, 27, 559-580.	0.5	4
89	Feature Dimensionality Reduction for Mammographic Report Classification. Computer Communications and Networks, 2016, , 311-337.	0.8	4
90	A vision agent for mobile robot navigation in time-variable environments. , 0, , .		3

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91	An Embedded Module for Iris Micro-Characteristics Extraction. , 2009, , .		3
92	Bayesian network based classification of mammography structured reports. , 2013, , .		3
93	A Novel Approach for Faulty Sensor Detection and Data Correction in Wireless Sensor Network. , 2013, , .		3
94	Design and Implementation of an Efficient Fingerprint Features Extractor. , 2014, , .		3
95	Referenceless thermometry using radial basis function interpolation. , 2014, , .		3
96	Fingerprint Quality Evaluation in a Novel Embedded Authentication System for Mobile Users. Mobile Information Systems, 2015, 2015, 1-13.	0.4	3
97	Energy Efficiency Evaluation of Dynamic Partial Reconfiguration in Field Programmable Gate Arrays: An Experimental Case Study. Energies, 2018, 11, 739.	1.6	3
98	Fast Fingerprints Classification Only Using the Directional Image. , 2007, , 34-41.		3
99	An Embedded Real-Time Automatic Lane-Keeping System. , 2007, , 647-654.		3
100	Evaluation of a Support Vector Machine Based Method for Crohnâ€™s Disease Classification. Smart Innovation, Systems and Technologies, 2020, , 313-327.	0.5	3
101	Radial Basis Function Interpolation for Referenceless Thermometry Enhancement. Smart Innovation, Systems and Technologies, 2015, , 195-206.	0.5	3
102	Daily peak temperature forecasting with Elman neural networks. , 0, , .		2
103	Fingerprint Registration Using Specialized Genetic Algorithms. , 2005, , .		2
104	A Novel Web Service for Mammography Images Indexing. , 2013, , .		2
105	A Novel Expert System for Non-invasive Liver Iron Overload Estimation in Thalassemic Patients. , 2014, , .		2
106	A novel numerical meshless approach for electric potential estimation in transcranial stimulation. AIP Conference Proceedings, 2015, , .	0.3	2
107	An Empirical Set of Metrics for Embedded Systems Testing. IEEE Design and Test, 2018, 35, 45-53.	1.1	2
108	Bio-inspired security analysis for IoT scenarios. International Journal of Embedded Systems, 2020, 13, 221.	0.2	2

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109	A Computational Study on Temperature Variations in MRgFUS Treatments Using PRF Thermometry Techniques and Optical Probes. Journal of Imaging, 2021, 7, 63.	1.7	2
110	Neural Classification of HEP Experimental Data. , 2005, , 149-155.		2
111	A neural multi-agent based system for smart HTML pages retrieval. , 2003, , .		1
112	Embedded Knowledge-Based Speech Detectors for Real-Time Recognition Tasks. , 0, , .		1
113	A User-Friendly Interface for Fingerprint Recognition Systems Based on Natural Language Processing. , 2009, , .		1
114	A Programmable Networked Processing Node for 3D Brain Vessels Reconstruction. , 2011, , .		1
115	A Dual-Core Coprocessor with Native 4D Clifford Algebra Support. , 2012, , .		1
116	HCI for biomedical decision-making: From diagnosis to therapy. Journal of Biomedical Informatics, 2020, 111, 103593.	2.5	1
117	Geometric Calculus Applications to Medical Imaging: Status and Perspectives. SEMA SIMAI Springer Series, 2021, , 31-46.	0.4	1
118	An Unsupervised Method for Suspicious Regions Detection in Mammogram Images. , 2015, , .		1
119	Efficient FPGA Implementation of a Knowledge-Based Automatic Speech Classifier. Lecture Notes in Computer Science, 2005, , 198-209.	1.0	1
120	Fingerprint and Iris Based Authentication in Inter-cooperative Emerging e-Infrastructures. Studies in Computational Intelligence, 2013, , 433-462.	0.7	1
121	Computer-Assisted Approaches for Uterine Fibroid Segmentation in MRgFUS Treatments: Quantitative Evaluation and Clinical Feasibility Analysis. Smart Innovation, Systems and Technologies, 2019, , 229-241.	0.5	1
122	A MAS security framework implementing reputation based policies and owners access control. , 2006, , .		0
123	Morphological Enhancement and Triangular Matching for Fingerprint Recognition. , 2008, , 143-147.		0
124	Multislice human organ extraction based on GVF. , 2008, 2008, 3087-90.		0
125	Multimodal and Agent-Based Human–Computer Interaction in Cultural Heritage Applications: an Overview. Springer Optimization and Its Applications, 2010, , 225-245.	0.6	0
126	A New Embedded Coprocessor for Clifford Algebra Based Software Intensive Systems. , 2011, , .		0

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127	Biologically Inspired Hardware: Status and Perspectives (Invited Talk). , 2012, , .		0
128	Accelerating Clifford Algebra Operations Using GPUs and an OpenCL Code Generator. , 2015, , .		0
129	A Bio-inspired Approach to Attack Graphs Analysis. Lecture Notes in Computer Science, 2018, , 63-76.	1.0	0
130	Hourly Forecasting of SO2 Pollutant Concentration Using an Elman Neural Network. Lecture Notes in Computer Science, 2006, , 65-69.	1.0	0
131	Multi-platform Agent Systems with Dynamic Reputation Policy Management. Lecture Notes in Computer Science, 2011, , 426-431.	1.0	0
132	Bio-inspired security analysis for IoT scenarios. International Journal of Embedded Systems, 2020, 13, 221.	0.2	0