Emanuele Trucco, Frsa, Fiapr, Fbmva, Fa

List of Publications by Year
in descending order

127 papers	4,033 citations	172457 29 h-index	144013 57 g-index
134 all docs	134 docs citations	134 times ranked	4058 citing authors

#	Article	IF	Citations
1	A compact algorithm for rectification of stereo pairs. Machine Vision and Applications, 2000, 12, 16-22.	2.7	574
2	FABC: Retinal Vessel Segmentation Using AdaBoost. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 1267-1274.	3.2	299
3	Using machine learning approaches for multi-omics data analysis: A review. Biotechnology Advances, 2021, 49, 107739.	11.7	277
4	Machine learning of neuroimaging for assisted diagnosis of cognitive impairment and dementia: A systematic review. Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring, 2018, 10, 519-535.	2.4	162
5	Validating Retinal Fundus Image Analysis Algorithms: Issues and a Proposal. , 2013, 54, 3546.		142
6	Self-Tuning Underwater Image Restoration. IEEE Journal of Oceanic Engineering, 2006, 31, 511-519.	3.8	132
7	Retinal vessel segmentation using multiwavelet kernels and multiscale hierarchical decomposition. Pattern Recognition, 2013, 46, 2117-2133.	8.1	128
8	Video Tracking: A Concise Survey. IEEE Journal of Oceanic Engineering, 2006, 31, 520-529.	3.8	110
9	Leveraging Multiscale Hessian-Based Enhancement With a Novel Exudate Inpainting Technique for Retinal Vessel Segmentation. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 1129-1138.	6.3	105
10	Robust motion and correspondence of noisy 3-D point sets with missing data. Pattern Recognition Letters, 1999, 20, 889-898.	4.2	104
11	Markerless human articulated tracking using hierarchical particle swarm optimisation. Image and Vision Computing, 2010, 28, 1530-1547.	4.5	92
12	Experiments in curvature-based segmentation of range data. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1995, 17, 177-182.	13.9	91
13	A review of machine learning methods for retinal blood vessel segmentation and artery/vein classification. Medical Image Analysis, 2021, 68, 101905.	11.6	86
14	Model-based planning of optimal sensor placements for inspection. IEEE Transactions on Automation Science and Engineering, 1997, 13, 182-194.	2.3	84
15	Automating progress measurement of construction projects. Automation in Construction, 2009, 18, 294-301.	9.8	83
16	The application of retinal fundus camera imaging in dementia: A systematic review. Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring, 2017, 6, 91-107.	2.4	83
17	SYMMETRIC STEREO WITH MULTIPLE WINDOWING. International Journal of Pattern Recognition and Artificial Intelligence, 2000, 14, 1053-1066.	1.2	68
18	Three-Dimensional Image Processing in the Future of Immersive Media. IEEE Transactions on Circuits and Systems for Video Technology, 2004, 14, 288-303.	8.3	58

#	Article	IF	Citations
19	Towards Standardization of Quantitative Retinal Vascular Parameters: Comparison of SIVA and VAMPIRE Measurements in the Lothian Birth Cohort 1936. Translational Vision Science and Technology, 2018, 7, 12.	2.2	55
20	A fully automated tortuosity quantification system with application to corneal nerve fibres in confocal microscopy images. Medical Image Analysis, 2016, 32, 216-232.	11.6	54
21	Retinal microvasculature and cerebral small vessel disease in the Lothian Birth Cohort 1936 and Mild Stroke Study. Scientific Reports, 2019, 9, 6320.	3.3	49
22	Automated detection of age-related macular degeneration in color fundus photography: a systematic review. Survey of Ophthalmology, 2019, 64, 498-511.	4.0	48
23	Accurate estimation of retinal vessel width using bagged decision trees and an extended multiresolution Hermite model. Medical Image Analysis, 2013, 17, 1164-1180.	11.6	46
24	Retinal imaging in Alzheimer's disease. Journal of Neurology, Neurosurgery and Psychiatry, 2021, 92, 983-994.	1.9	46
25	Lateral thinking – Interocular symmetry and asymmetry in neurovascular patterning, in health and disease. Progress in Retinal and Eye Research, 2017, 59, 131-157.	15.5	44
26	Blood vessel segmentation and width estimation in ultra-wide field scanning laser ophthalmoscopy. Biomedical Optics Express, 2014, 5, 4329.	2.9	43
27	Gland segmentation in colon histology images using hand-crafted features and convolutional neural networks. , 2016, , .		38
28	Accelerating Convolutional Sparse Coding for Curvilinear Structures Segmentation by Refining SCIRD-TS Filter Banks. IEEE Transactions on Medical Imaging, 2016, 35, 2381-2392.	8.9	37
29	Structure Prediction for Gland Segmentation With Hand-Crafted and Deep Convolutional Features. IEEE Transactions on Medical Imaging, 2018, 37, 210-221.	8.9	36
30	Human Body Pose Estimation with Particle Swarm Optimisation. Evolutionary Computation, 2008, 16, 509-528.	3.0	32
31	Automatic fovea location in retinal images using anatomical priors and vessel density. Pattern Recognition Letters, 2013, 34, 1152-1158.	4.2	31
32	The Accuracy and Reliability of Crowdsource Annotations of Digital Retinal Images. Translational Vision Science and Technology, 2016, 5, 6.	2.2	29
33	Thickness dependent tortuosity estimation for retinal blood vessels. , 2006, 2006, 4675-8.		26
34	A trainable system for grading fish from images. Applied Artificial Intelligence, 2001, 15, 735-745.	3.2	25
35	Retinal microvascular network geometry and cognitive abilities in community-dwelling older people: The Lothian Birth Cohort 1936 study. British Journal of Ophthalmology, 2017, 101, 993-998.	3.9	25
36	A Graph Cut Approach to Artery/Vein Classification in Ultra-Widefield Scanning Laser Ophthalmoscopy. IEEE Transactions on Medical Imaging, 2018, 37, 516-526.	8.9	24

#	ARTICLE	IF	CITATIONS
37	Effective features for artery-vein classification in digital fundus images. , 2012, , .		23
38	Automatic Generation of Synthetic Retinal Fundus Images: Vascular Network. Procedia Computer Science, 2016, 90, 54-60.	2.0	23
39	Novel Genetic Locus Influencing Retinal Venular Tortuosity Is Also Associated With Risk of Coronary Artery Disease. Arteriosclerosis, Thrombosis, and Vascular Biology, 2019, 39, 2542-2552.	2.4	23
40	Accuracy of Automated Computer-Aided Diagnosis for Stroke Imaging: A Critical Evaluation of Current Evidence. Stroke, 2022, 53, 2393-2403.	2.0	22
41	Scale and Curvature Invariant Ridge Detector for Tortuous and Fragmented Structures. Lecture Notes in Computer Science, 2015, , 588-595.	1.3	21
42	Retinal microvascular parameters are not associated with reduced renal function in a study of individuals with type 2 diabetes. Scientific Reports, 2018, 8, 3931.	3.3	21
43	A multimodal approach to cardiovascular risk stratification in patients with type 2 diabetes incorporating retinal, genomic and clinical features. Scientific Reports, 2019, 9, 3591.	3.3	21
44	Retinal asymmetry in multiple sclerosis. Brain, 2021, 144, 224-235.	7.6	20
45	Improving SIFT-based Descriptors Stability to Rotations. , 2010, , .		18
46	Automatic normal-abnormal video frame classification for colonoscopy. , 2013, , .		17
47	Low-Rank Prior in Single Patches for Nonpointwise Impulse Noise Removal. IEEE Transactions on Image Processing, 2015, 24, 1485-1496.	9.8	17
48	Image analysis for object detection in millimetre-wave images. , 2004, , .		16
49	Quantitative assessment of the conjunctival microcirculation using a smartphone and slit-lamp biomicroscope. Microvascular Research, 2019, 126, 103907.	2.5	16
50	Subcategory Classifiers for Multiple-Instance Learning and Its Application to Retinal Nerve Fiber Layer Visibility Classification. IEEE Transactions on Medical Imaging, 2017, 36, 1140-1150.	8.9	15
51	A Comparative Study on Feature Selection for Retinal Vessel Segmentation Using FABC. Lecture Notes in Computer Science, 2009, , 655-662.	1.3	15
52	Robust iris location in close-up images of the eye. Pattern Analysis and Applications, 2005, 8, 247-255.	4.6	14
53	Investigating the Relationship Between Type 2 Diabetes and Dementia Using Electronic Medical Records in the GoDARTS Bioresource. Diabetes Care, 2019, 42, 1973-1980.	8.6	14
54	Assessment of the conjunctival microcirculation for patients presenting with acute myocardial infarction compared to healthy controls. Scientific Reports, 2021, 11, 7660.	3.3	14

#	Article	IF	Citations
55	Evaluation of coronary artery disease as a risk factor for reticular pseudodrusen. British Journal of Ophthalmology, 2018, 102, 483-489.	3.9	13
56	Dynamic 3D shape of the plantar surface of the foot using coded structured light: a technical report. Journal of Foot and Ankle Research, 2014, 7, 5.	1.9	12
57	Two-Dimensional Plane for Multi-Scale Quantification of Corneal Subbasal Nerve Tortuosity. , 2016, 57, 1132.		11
58	Prediction of Major Adverse Cardiovascular Events From Retinal, Clinical, and Genomic Data in Individuals With Type 2 Diabetes: A Population Cohort Study. Diabetes Care, 2022, 45, 710-716.	8.6	11
59	Max-Min Central Vein Detection in Retinal Fundus Images. , 2006, , .		10
60	Robust optic disc location via combination of weak detectors. , 2008, 2008, 3542-5.		10
61	Retinal Vessel Phenotype in Patients with Nonarteritic Anterior Ischemic Optic Neuropathy. American Journal of Ophthalmology, 2019, 208, 178-184.	3.3	10
62	Association between hypertension and retinal vascular features in ultra-widefield fundus imaging. Open Heart, 2020, 7, e001124.	2.3	10
63	Multiresolution localization and segmentation of the optical disc in fundus images using inpainted background and vessel information. , 2011, , .		9
64	Automatic Generation of Synthetic Retinal Fundus Images: Vascular Network. Lecture Notes in Computer Science, 2016, , 167-176.	1.3	9
65	Contextual optic disc location in retinal fundus images. Journal of Modern Optics, 2010, 57, 136-144.	1.3	8
66	Extended Gaussian-Filtered Local Binary Patterns for Colonoscopy Image Classification. , 2013, , .		8
67	Charting-based subspace learning for video-based human action classification. Machine Vision and Applications, 2014, 25, 119-132.	2.7	8
68	Retinal microvascular features and cognitive change in the Lothianâ€Birth Cohort 1936. Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring, 2019, 11, 500-509.	2.4	8
69	Using orthogonal locality preserving projections to find dominant features for classifying retinal blood vessels. Multimedia Tools and Applications, 2019, 78, 12783-12803.	3.9	8
70	Inter-Cluster Features for Medical Image Classification. Lecture Notes in Computer Science, 2014, 17, 345-352.	1.3	8
71	Fundamentals of Multiple-View Geometry. , 2006, , 91-113.		7
72	Deformable registration of retinal fluorescein angiogram sequences using vasculature structures. , 2010, 2010, 4383-6.		7

#	Article	IF	Citations
73	Investigation of associations between retinal microvascular parameters and albuminuria in UK Biobank: a cross-sectional case-control study. BMC Nephrology, 2021, 22, 72.	1.8	7
74	On the quantitative effects of compression of retinal fundus images on morphometric vascular measurements in VAMPIRE. Computer Methods and Programs in Biomedicine, 2021, 202, 105969.	4.7	7
75	Tortuosity classification of corneal nerves images using a multiple-scale-multiple-window approach. , 0, , .		7
76	Comparing Measurements of Vascular Diameter Using Adaptative Optics Imaging and Conventional Fundus Imaging. Diagnostics, 2022, 12, 705.	2.6	7
77	When are Simple LS Estimators Enough? An Empirical Study of LS, TLS, and GTLS. International Journal of Computer Vision, 2006, 68, 203-216.	15.6	6
78	Spline-based refinement of vessel contours in fundus retinal images for width estimation. , 2013, , .		6
79	Local structure prediction for gland segmentation. , 2016, , .		6
80	Towards Standardization of Retinal Vascular Measurements: On the Effect of Image Centering. Lecture Notes in Computer Science, 2018, , 294-302.	1.3	6
81	Quantitative measurements of enlarged perivascular spaces in the brain are associated with retinal microvascular parameters in older community-dwelling subjects. Cerebral Circulation - Cognition and Behavior, 2020, 1, 100002.	0.9	6
82	On Clinical Agreement on the Visibility and Extent of Anatomical Layers in Digital Gonio Photographs. Translational Vision Science and Technology, 2021, 10, 1.	2.2	6
83	A novel algorithm for cardiovascular screening using conjunctival microcirculatory parameters and blood biomarkers. Scientific Reports, 2022, 12, 6545.	3.3	6
84	Visibility scripts for active feature-based inspection. Pattern Recognition Letters, 1994, 15, 1151-1164.	4.2	5
85	Learning discriminative local features from image-level labelled data for colonoscopy image classification. , 2015, , .		5
86	Boosting Hand-Crafted Features for Curvilinear Structure Segmentation by Learning Context Filters. Lecture Notes in Computer Science, 2015, , 596-603.	1.3	5
87	Sub-category Classifiers for Multiple-instance Learning and Its Application to Retinal Nerve Fiber Layer Visibility Classification. Lecture Notes in Computer Science, 2016, , 308-316.	1.3	5
88	Part segmentation of slice data using regularity. Signal Processing, 1993, 32, 73-90.	3.7	4
89	Geometric Invariance in Computer Vision. AI Communications, 1995, 8, 193-194.	1.2	4
90	A dynamic 3D foot reconstruction system. , 2011, 2011, 599-602.		4

#	Article	IF	Citations
91	Single-Patch Low-Rank Prior for Non-pointwise Impulse Noise Removal. , 2013, , .		4
92	Semantic segmentation of gonio-photographs via adaptive ROI localisation and uncertainty estimation. BMJ Open Ophthalmology, 2021, 6, e000898.	1.6	4
93	Inferring convex subparts from slice data. Pattern Recognition Letters, 1991, 12, 707-715.	4.2	3
94	Computer and Robot Vision. AI Communications, 1995, 8, 50-51.	1.2	3
95	Multiple view human articulated tracking using charting and particle swarm optimisation. , 2010, , .		3
96	Combining efficient hand-crafted features with learned filters for fast and accurate corneal nerve fibre centreline detection. , 2015, 2015, 5655-8.		3
97	A Face Authentication Scheme Based on Affine-SIFT (ASIFT) and Structural Similarity (SSIM). Lecture Notes in Computer Science, 2012, , 25-32.	1.3	3
98	A Deep Learning Approach for Semantic Segmentation of Gonioscopic Images to Support Glaucoma Categorization. Communications in Computer and Information Science, 2020, , 373-386.	0.5	3
99	Understanding scene descriptions by integrating different sources of knowledge. International Journal of Man-Machine Studies, 1992, 37, 47-81.	0.7	2
100	Millimetre-Wave Personnel Scanners for Automated Weapon Detection. Lecture Notes in Computer Science, 2005, , 48-57.	1.3	2
101	Video-Specific SVMs for Colonoscopy Image Classification. Lecture Notes in Computer Science, 2014, , 11-21.	1.3	2
102	Retinal Biomarkers Discovery for Cerebral Small Vessel Disease in an Older Population. Communications in Computer and Information Science, 2020, , 400-409.	0.5	2
103	2D alpha-shapes to quantify retinal microvasculature morphology and their application to proliferative diabetic retinopathy characterisation in fundus photographs. Scientific Reports, 2021, 11, 22814.	3.3	2
104	Investigating post-processing of scanning laser ophthalmoscope images for unsupervised retinal blood vessel detection. , 2013, , .		1
105	Towards a multi-site international public dataset for the validation of retinal image analysis software. , 2013, 2013, 7152-5.		1
106	Hierarchical mix-pooling and its applications to biomedical image classification. , 2016, , .		1
107	Retinal Biomarker Discovery for Dementia in an Elderly Diabetic Population. Lecture Notes in Computer Science, 2017, , 150-158.	1.3	1
108	Changes in retinal vascular diameters in senior and geriatric cats in association with variation in systemic blood pressure. Journal of Feline Medicine and Surgery, 2021, 23, 1129-1139.	1.6	1

#	Article	IF	Citations
109	Are Cardiovascular Risk Scores from Genome and Retinal Image Complementary? A Deep Learning Investigation in a Diabetic Cohort. Lecture Notes in Computer Science, 2021, , 109-118.	1.3	1
110	Robust Selective Classification of Skin Lesions with Asymmetric Costs. Lecture Notes in Computer Science, 2021, , 112-121.	1.3	1
111	Thickness dependent tortuosity estimation for retinal blood vessels. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	1
112	HAUSDORFF ICONIC MATCHING WITH APPLICATION TO EYE TRACKING IN VIDEOCONFERENCING. , 2003, , .		1
113	Reasoning About Iconic Data In Artificial Vision. , 1986, , .		0
114	SCIA'91: Scandinavian Conference on Image Analysis. AI Communications, 1991, 4, 157-158.	1.2	0
115	Active Vision. AI Communications, 1993, 6, 242-244.	1.2	0
116	<title>Measurement errors in polarization-based 3D vision systems</title>. , 1997, , .		0
117	Appearance-based target recognition and classification in infrared imagery. , 2005, , .		0
118	Example-Based Simulation of Time-Gated Laser Sequences from a Single Video Image. , 2006, , .		0
119	ACM multimedia 2010 workshop on 3D video processing. , 2010, , .		0
120	GroBa: Growing balloons for calibre measurement on stenotic lumens. , 2012, , .		0
121	Objects, Actions, Places. International Journal of Computer Vision, 2014, 106, 235-236.	15.6	0
122	Robust Correspondenceless 3-D Iris Location for Immersive Environments. Lecture Notes in Computer Science, 2005, , 123-130.	1.3	0
123	Markerless Human Motion Capture Using Hierarchical Particle Swarm Optimisation. Communications in Computer and Information Science, 2010, , 343-356.	0.5	0
124	From Slice Data to Suggestive Parts. , 1992, , 289-300.		0
125	Sensor planning techniques and active visual inspection. Lecture Notes in Computer Science, 1995, , 300-306.	1.3	0
126	Comparison of Automatic Vessel Segmentation Techniques for Whole Body Magnetic Resonance Angiography with Limited Ground Truth Data. Communications in Computer and Information Science, 2017, , 144-155.	0.5	0

#	ARTICLE	IF	CITATIONS
127	Extended Multi-resolution Local Patterns - A Discriminative Feature Learning Approach for Colonoscopy Image Classification. Lecture Notes in Computer Science, 2017, , 48-58.	1.3	0