Terry Caelli

List of Publications by Year in descending order

177 papers	4,146 citations	109321 35 h-index	144013 57 g-index
185 all docs	185 docs citations	185 times ranked	2555 citing authors

#	ARTICLE	IF	CITATIONS
1	On perceptual analyzers underlying visual texture discrimination: Part I. Biological Cybernetics, 1978, 28, 167-175.	1.3	160
2	An eigenspace projection clustering method for inexact graph matching. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2004, 26, 515-519.	13.9	160
3	On the classification of image regions by colour, texture and shape. Pattern Recognition, 1993, 26, 461-470.	8.1	137
4	On perceptual analyzers underlying visual texture discrimination: Part II. Biological Cybernetics, 1978, 29, 201-214.	1.3	129
5	Discrimination of lianas and trees with leaf-level hyperspectral data. Remote Sensing of Environment, 2004, 90, 353-372.	11.0	128
6	Monitoring and Analysis of Respiratory Patterns Using Microwave Doppler Radar. IEEE Journal of Translational Engineering in Health and Medicine, 2014, 2, 1-12.	3.7	119
7	Three processing characteristics of visual texture segmentation. Spatial Vision, 1985, 1, 19-30.	1.4	115
8	Ecological fingerprinting of ecosystem succession: Estimating secondary tropical dry forest structure and diversity using imaging spectroscopy. Remote Sensing of Environment, 2007, 108, 82-96.	11.0	110
9	Hyperspectral discrimination of tropical dry forest lianas and trees: Comparative data reduction approaches at the leaf and canopy levels. Remote Sensing of Environment, 2007, 109, 406-415.	11.0	110
10	Subjective Lorentz transformations and the perception of motion*. Journal of the Optical Society of America, 1978, 68, 402.	1.2	108
11	Graphical Models and Point Pattern Matching. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2006, 28, 1646-1663.	13.9	104
12	Discrimination thresholds in the two-dimensional spatial frequency domain. Vision Research, 1983, 23, 129-133.	1.4	90
13	Real-Time Discriminative Background Subtraction. IEEE Transactions on Image Processing, 2011, 20, 1401-1414.	9.8	86
14	Analysis of movements and behavior of caribou (Rangifer tarandus) using hidden Markov models. Ecological Modelling, 2004, 173, 259-270.	2.5	82
15	On the Limits of Fourier Decompositions in Visual Texture Perception. Perception, 1979, 8, 69-73.	1.2	78
16	A General Correspondence Approach to Apparent Motion. Perception, 1993, 22, 185-192.	1.2	70
17	Prediction of wolf (Canis lupus) kill-sites using hidden Markov models. Ecological Modelling, 2006, 197, 237-246.	2.5	64
18	Road tracking in aerial images based on human–computer interaction and Bayesian filtering. ISPRS Journal of Photogrammetry and Remote Sensing, 2006, 61, 108-124.	11.1	63

#	ARTICLE	IF	CITATIONS
19	Probabilistic analysis of human supervised learning and classification. Vision Research, 1994, 34, 669-687.	1.4	58
20	On the detection of Gabor signals and discrimination of Gabor textures. Vision Research, 1985, 25, 671-684.	1.4	56
21	Estimating leaf area index from satellite imagery using Bayesian networks. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 1866-1873.	6.3	54
22	Variations on the evidence-based object recognition theme. Pattern Recognition, 1994, 27, 185-204.	8.1	51
23	Psychophysical evidence for global feature processing in visual texture discrimination. Journal of the Optical Society of America, 1979, 69, 675.	1.2	50
24	The Application of Remote Sensing for Detecting Mass Graves: An Experimental Animal Case Study from Costa Rica*. Journal of Forensic Sciences, 2009, 54, 159-166.	1.6	50
25	On the minimum number of templates required for shift, rotation and size invariant pattern recognition. Pattern Recognition, 1988, 21, 205-216.	8.1	48
26	Parsing scale-space and spatial stability analysis. Computer Vision, Graphics, and Image Processing, 1988, 42, 192-205.	1.0	47
27	On discriminating visual textures and images. Perception & Psychophysics, 1982, 31, 149-159.	2.3	45
28	Inverting an Illumination Model from Range and Intensity Maps. CVGIP Image Understanding, 1994, 59, 183-201.	1.3	44
29	Using Twitter to learn about the autism community. Social Network Analysis and Mining, 2015, 5, 1.	2.8	44
30	Estimating the Parameters of an Illumination Model Using Photometric Stereo. Graphical Models, 1995, 57, 365-388.	1.3	43
31	Image Encoding, Labeling, and Reconstruction from Differential Geometry. Graphical Models, 1993, 55, 428-446.	0.6	42
32	Systematic review of virtual speech therapists for speech disorders. Computer Speech and Language, 2016, 37, 98-128.	4.3	42
33	Learning structural descriptions of patterns: A new technique for conditional clustering and rule generation. Pattern Recognition, 1994, 27, 689-697.	8.1	40
34	Machine Learning and Image Interpretation. , 1997, , .		40
35	Visual sensitivity to two-dimensional spatial phase. Journal of the Optical Society of America, 1982, 72, 1375.	1.2	39
36	On the discrimination of compound Gabor signals and textures. Vision Research, 1988, 28, 279-291.	1.4	39

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37	Object recognition and image understanding: Theories of Everything?. Spatial Vision, 2000, 13, 129-135.	1.4	39
38	Evidence-Based Pattern Classification: A Structural Approach to Human Perceptual Learning and Generalization. Journal of Mathematical Psychology, 1997, 41, 244-259.	1.8	38
39	Rulegraphs for graph matching in pattern recognition. Pattern Recognition, 1994, 27, 1231-1247.	8.1	37
40	Development of configural 3D object recognition. Behavioural Brain Research, 2004, 149, 107-111.	2.2	36
41	Constant curvature Riemannian scaling. Journal of Mathematical Psychology, 1978, 17, 89-109.	1.8	35
42	On the detection of signals embedded in natural scenes. Perception & Psychophysics, 1986, 39, 87-95.	2.3	35
43	On Information Resolution of Radar Systems. IEEE Transactions on Aerospace and Electronic Systems, 2012, 48, 3084-3102.	4.7	35
44	3D Mapping of Surface Temperature Using Thermal Stereo. , 2006, , .		32
45	Data-mining twitter and the autism spectrum disorder: A Pilot study. , 2014, , .		32
46	Machine learning paradigms for pattern recognition and image understanding. Spatial Vision, 1996, 10, 87-103.	1.4	30
47	CONTRAST SENSITIVITY IN DIABETICS WITH RETINOPATHY AND CATARACT. Australian Journal of Ophthalmology, 1982, 10, 173-178.	0.1	30
48	INEXACT GRAPH MATCHING USING EIGEN-SUBSPACE PROJECTION CLUSTERING. International Journal of Pattern Recognition and Artificial Intelligence, 2004, 18, 329-354.	1.2	29
49	Implications of spatial summation models for processes of contour perception: a geometric perspective. Vision Research, 1978, 18, 723-734.	1.4	27
50	Robust thermal camera calibration and 3D mapping of object surface temperatures. , 2006, , .		27
51	Graphical models for graph matching: Approximate models and optimal algorithms. Pattern Recognition Letters, 2005, 26, 339-346.	4.2	25
52	The discrimination of structure in vectorgraphs: Local and global effects. Perception & Psychophysics, 1982, 32, 314-326.	2.3	24
53	The Waggon-Wheel Effect. Perception, 1984, 13, 237-237.	1.2	24
54	Towards a decision support system for health promotion in nursing. Journal of Advanced Nursing, 2003, 43, 170-180.	3.3	24

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55	Visual pattern recognition in humans. Biological Cybernetics, 1987, 57, 233-240.	1.3	23
56	On Automatic Absorption Detection for Imaging Spectroscopy: A Comparative Study. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 3827-3844.	6.3	23
57	Frequency, Phase, and Colour Coding in Apparent Motion. Perception, 1979, 8, 59-68.	1.2	22
58	Interpolation in the visual system. Vision Research, 1976, 16, 1055-1060.	1.4	21
59	Theory of spatiochromatic image encoding and feature extraction. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 1744.	1.5	21
60	On Difficulties in Localizing Ambulance Sirens. Human Factors, 1980, 22, 719-724.	3.5	20
61	Invariant pattern recognition using multiple filter image representations. Computer Vision, Graphics, and Image Processing, 1989, 45, 251-262.	1.0	20
62	Entropy-based representation of image information. Pattern Recognition Letters, 2002, 23, 1391-1398.	4.2	20
63	Intensity, Spatial Frequency, and Temporal Frequency Determinants of Apparent Motion: Korte Revisited. Perception, 1981, 10, 183-189.	1.2	19
64	Optimal Nonlinear Estimation for Localization of Wireless Sensor Networks. IEEE Transactions on Signal Processing, 2011, 59, 5674-5685.	5.3	19
65	Orientation-position coding and invariance characteristics of pattern discrimination. Perception & Psychophysics, 1984, 36, 159-168.	2.3	18
66	Invariance Signatures: Characterizing Contours by Their Departures from Invariance. Computer Vision and Image Understanding, 2000, 77, 284-316.	4.7	18
67	Is perceived length affected by interactions between orientation detectors?. Vision Research, 1977, 17, 837-841.	1.4	17
68	Bayesian stereo matching. Computer Vision and Image Understanding, 2007, 106, 85-96.	4.7	17
69	Efficient subgraph matching using topological node feature constraints. Pattern Recognition, 2015, 48, 317-330.	8.1	17
70	Frequency, Phase, and Colour Coding in Apparent Motion: 2. Perception, 1979, 8, 595-602.	1.2	16
71	Some task and signal dependent rules for spatial vision. Spatial Vision, 1987, 2, 295-315.	1.4	16
72	Region-Based Coding of Color Images Using Karhunenâ€"Loeve Transform. Graphical Models, 1997, 59, 27-38.	1.3	16

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73	Energy processing and coding factors in texture discrimination and image processing. Perception & Psychophysics, 1983, 34, 349-355.	2.3	15
74	What is Perceived When Two Images are Combined?. Perception, 1985, 14, 41-48.	1.2	15
75	An improved rule generation method for evidence-based classification systems. Pattern Recognition, 1993, 26, 733-740.	8.1	15
76	Tracking and Localizing Moving Targets in the Presence of Phase Measurement Ambiguities. IEEE Transactions on Signal Processing, 2011, 59, 3514-3525.	5.3	15
77	Probing the spatial frequency spectrum for orientation sensitivity in stochastic textures. Vision Research, 1983, 23, 39-45.	1.4	14
78	Recognition of Vector Patterns under Transformations: Local and Global Determinants. Quarterly Journal of Experimental Psychology Section A: Human Experimental Psychology, 1985, 37, 1-23.	2.3	14
79	Fast edge-only matching techniques for robot pattern recognition. Computer Vision, Graphics, and Image Processing, 1987, 39, 131-143.	1.0	14
80	A model-based neural network for edge characterization. Pattern Recognition, 2000, 33, 427-444.	8.1	13
81	Using Coupled Hidden Markov Models to Model Suspect Interactions in Digital Forensic Analysis. , 2006, , .		13
82	Using gabor filters to measure the physical parameters of lines. Pattern Recognition, 1996, 29, 615-625.	8.1	12
83	Learning spatio-temporal relational structures. Applied Artificial Intelligence, 2001, 15, 707-722.	3.2	12
84	Component optimization for image understanding: a Bayesian approach. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2006, 28, 684-693.	13.9	12
85	Multi-kinect skeleton fusion for physical rehabilitation monitoring. , 2014, 2014, 5060-3.		12
86	On the efficient two-dimensional energy coding characteristics of spatial vision. Vision Research, 1983, 23, 1053-1055.	1.4	11
87	A concurrent, hierarchical approach to symbolic dynamic scene interpretation. Pattern Recognition, 1996, 29, 1891-1903.	8.1	11
88	SHAPE TRACKING AND PRODUCTION USING HIDDEN MARKOV MODELS. International Journal of Pattern Recognition and Artificial Intelligence, 2001, 15, 197-221.	1.2	11
89	A Syntactic Two-Component Encoding Model for the Trajectories of Human Actions. IEEE Journal of Biomedical and Health Informatics, 2014, 18, 1903-1914.	6.3	10
90	An Optimal Probabilistic Graphical Model for Point Set Matching. Lecture Notes in Computer Science, 2004, , 162-170.	1.3	10

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91	Coding images in the frequency domain: Filter design and energy processing characteristics of the human visual system. IEEE Transactions on Systems, Man, and Cybernetics, 1983, SMC-13, 1018-1021.	0.9	9
92	Learning to Recognize 3D Objects using Sparse Depth and Intensity Information. International Journal of Pattern Recognition and Artificial Intelligence, 1997, 11, 909-931.	1.2	9
93	Doppler radar in respiratory monitoring: Detection and analysis. , 2013, , .		9
94	On Learning the Shape of Complex Actions. Lecture Notes in Computer Science, 2001, , 24-39.	1.3	9
95	Texture classification and segmentation algorithms in man and machines. Spatial Vision, 1993, 7, 277-292.	1.4	8
96	Generalization of form in visual pattern classification. Spatial Vision, 1996, 10, 59-85.	1.4	8
97	An Online Discriminative Approach to Background Subtraction. , 2006, , .		8
98	A Unified Framework for Strengthening Topological Node Features and Its Application to Subgraph Isomorphism Detection. Lecture Notes in Computer Science, 2013, , 11-20.	1.3	8
99	On the perception of some geometric properties of rotating three dimensional objects. Biological Cybernetics, 1979, 33, 29-37.	1.3	7
100	The detection of phase shifts in two-dimensional images. Perception & Psychophysics, 1985, 37, 536-542.	2.3	7
101	Cross-correlation model for pattern acuity. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1986, 3, 1948.	1.5	7
102	Is pattern masking predicted by the cross-correlation between signal and mask?. Vision Research, 1987, 27, 1319-1326.	1.4	7
103	Diagnostic tools for evaluating and updating hidden Markov models. Pattern Recognition, 2004, 37, 1325-1337.	8.1	7
104	Functional range of movement of the hand: Declination angles to reachable space. , 2014, 2014, 6230-3.		7
105	On the limits of perceptual complementarity in the kinetic depth effect. Perception & Psychophysics, 1982, 31, 437-445.	2.3	6
106	Recognition-by-parts: a computational approach to human learning and generalization of shapes. Biological Cybernetics, 1996, 74, 521-535.	1.3	6
107	Learning Task-Specific Object Recognition and Scene Understanding. Computer Vision and Image Understanding, 2000, 80, 315-348.	4.7	6
108	Visual phase resolution for gray-scale textures. Perception & Psychophysics, 1988, 43, 319-325.	2.3	5

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109	3D Shape Matching and Inspection Using Geometric Features and Relational Learning. Computer Vision and Image Understanding, 1998, 72, 340-350.	4.7	5
110	A relational learning method for pattern and object recognition. Image and Vision Computing, 1999, 17, 391-401.	4.5	5
111	Primitive-based 3D structure inference from a single 2D image for insect modeling: Towards an electronic field guide for insect identification. , 2010, , .		5
112	Cite—Scene Understanding and Object Recognition. , 1997, , 119-187.		5
113	On the extraction and alignment of image edges. Spatial Vision, 1986, 1, 205-217.	1.4	4
114	Application of partial modeling techniques for texture segmentation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 2924.	1.5	4
115	Interactively Matching Hand-Drawings Using Induction. Computer Vision and Image Understanding, 1999, 73, 391-403.	4.7	4
116	Action trajectory reconstruction from inertial sensor measurements. , 2012, , .		4
117	Further applications of Doppler radar for non-contact respiratory assessment. , 2013, 2013, 3833-6.		4
118	Individualized arrhythmia detection with ECG signals from wearable devices. , 2014, , .		4
119	Computer-Based Rehabilitation for Developing Speech and Language in Hearing-Impaired Children: A Systematic Review. Deafness and Education International, 2015, 17, 111-119.	1.3	4
120	On the spatio-temporal determinants of some motion effects. Acta Psychologica, 1981, 48, 175-185.	1.5	3
121	On the Number of Intensity Levels Discriminated in Textures. Perception, 1984, 13, 21-31.	1.2	3
122	Localization of signals in images. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1987, 4, 2274.	1.5	3
123	A sequential adaptive recursive filter for image restoration. Computer Vision, Graphics, and Image Processing, 1988, 44, 332-349.	1.0	3
124	The Role of Machine Learning in Building Image Interpretation Systems. International Journal of Pattern Recognition and Artificial Intelligence, 1997, 11, 143-168.	1.2	3
125	Bayesian Contrast Measures and Clutter Distribution Determinants of Human Target Detection. IEEE Transactions on Image Processing, 2017, 26, 1115-1126.	9.8	3
126	Frequency and orientation interactions in the mccollough effect: Interchannel effects?. Australian Journal of Psychology, 1977, 29, 185-193.	2.8	2

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127	On generating spatial configurations with identical interpoint distance distributions. Lecture Notes in Mathematics, 1980, , 69-75.	0.2	2
128	Digital image-processing techniques for the display of images and modeling of visual perception. Behavior Research Methods, 1986, 18, 493-506.	1.3	2
129	Cite â€" A trainable image annotation system. Pattern Recognition Letters, 1997, 18, 1247-1252.	4.2	2
130	Neural computations of algebraic and geometrical structures. Neural Networks, 1998, 11, 699-707.	5.9	2
131	Colour Adjustment and Specular Removal for Non-uniform Shape from Shading. , 2010, , .		2
132	A novel bio-kinematic encoder for human exercise representation and decomposition - Part 2: Robustness and optimisation. , 2013, , .		2
133	Matching non-aligned objects using a relational string-graph. , 2013, , .		2
134	Non-contact measurement of respiratory function and deduction of tidal volume. , 2014, 2014, 594-7.		2
135	Analytics for awareness in maritime surveillance: from data to tactical insight. Journal of Defense Modeling and Simulation, 2019, 16, 207-215.	1.7	2
136	The Situation Awareness Window: a Hidden Markov Model for analyzing Maritime Surveillance missions. Journal of Defense Modeling and Simulation, 2021, 18, 207-215.	1.7	2
137	Complex Images and Complex Filters: A Unified Model for Encoding and Matching Shape and Colour. Lecture Notes in Computer Science, 2001, , 323-332.	1.3	2
138	Parametric Manifold of an Object under Different Viewing Directions. Lecture Notes in Computer Science, 2012, , 186-199.	1.3	2
139	Does Welding Affect Visual Acuities or Color Sensitivity?. Human Factors, 1982, 24, 115-119.	3.5	1
140	Energy processing characteristics of spatial vision: The spectral characteristics of perceptive fields. Australian Journal of Psychology, 1984, 36, 1-19.	2.8	1
141	On the detection of signals in non-white noise. Spatial Vision, 1987, 2, 1-12.	1.4	1
142	Computational approaches to human pattern recognition. Spatial Vision, 1994, 8, 57-76.	1.4	1
143	Learning relational structures: Applications in computer vision. Applied Intelligence, 1994, 4, 257-268.	5.3	1
144	Extracting Common Subtrees from Decision Trees. International Journal of Pattern Recognition and Artificial Intelligence, 1998, 12, 867-879.	1.2	1

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145	Learning paradigms for image interpretation. Spatial Vision, 2000, 13, 305-314.	1.4	1
146	Structural and view-specific representations for the categorization of three-dimensional objects. Vision Research, 2008, 48, 2501-2508.	1.4	1
147	High-Order Circular Derivative Pattern for Image Representation and Recognition. , 2010, , .		1
148	Target tracking and localization with ambiguous phase measurements of sensor networks. , 2011, , .		1
149	mDBN. , 2013, , .		1
150	A novel bio-kinematic encoder for human exercise representation and decomposition - Part 1: Indexing and modelling. , 2013, , .		1
151	Delaunay-supported edges for image graphs. , 2015, , .		1
152	Knowledge Transfer in Semi-automatic Image Interpretation. Lecture Notes in Computer Science, 2007, , 1028-1034.	1.3	1
153	Learning Complex Action Patterns with CRGST. Lecture Notes in Computer Science, 2001, , 282-291.	1.3	1
154	HIDDEN MARKOV MODELS FOR SPATIO-TEMPORAL PATTERN RECOGNITION. , 2005, , 25-40.		1
155	Spatial Vision. , 1981, , 103-146.		1
156	Learning how to find patterns or objects in complex scenes. Lecture Notes in Computer Science, 1995, , 287-292.	1.3	1
157	On Learning spatio-temporal relational structures in two different domains. Lecture Notes in Computer Science, 1997, , 551-558.	1.3	1
158	THE ROLE OF MACHINE LEARNING IN BUILDING IMAGE INTERPRETATION SYSTEMS. Series in Machine Perception and Artificial Intelligence, 1997, , 143-168.	0.1	1
159	A response to Yellott and Ahumada's review of â€œvisual perception: Theory and practiceâ€•by Terry Caelli. Journal of Mathematical Psychology, 1982, 25, 185.	1.8	0
160	Universal coding and network structures for vision: Is Grossberg correct?. Behavioral and Brain Sciences, 1983, 6, 660.	0.7	0
161	Integrating numerical and syntactic learning models for pattern recognition. Lecture Notes in Computer Science, 1998, , 94-111.	1.3	0
162	Approximating the Problem, not the Solution: An Alternative View of Point Set Matching. Lecture Notes in Computer Science, 2005, , 233-242.	1.3	0

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163	Approximating the problem, not the solution: An alternative view of point set matching. Pattern Recognition, 2006, 39, 552-561.	8.1	0
164	Multiple emitter localization using range only measurements considering geometrical constraints. , 2012, , .		0
165	An Automatic On-Site Fire Ant Screening System. , 2012, , .		0
166	Circular Error Probables for Moving Targets: The Dynamic Error Probable. Journal of Guidance, Control, and Dynamics, 2016, 39, 1690-1693.	2.8	0
167	Parallel Techniques for Rule-Based Scene Interpretation. Lecture Notes in Computer Science, 2000, , 318-326.	1.3	0
168	On the Learning of Complex Movement Sequences. Lecture Notes in Computer Science, 2001, , 463-472.	1.3	0
169	A Simple WordNet-Ontology Based Email Retrieval System for Digital Forensics. Lecture Notes in Computer Science, 2008, , 217-228.	1.3	0
170	The Perception of Motion. , 1981, , 147-171.		0
171	Introduction to Geometric Structures. , 1981, , 71-100.		0
172	Introduction: Languages, Processes, and Perception. , 1981, , 1-5.		0
173	ASPECTS OF INVARIANT PATTERN AND OBJECT RECOGNITION. , 1992, , 234-247.		0
174	Adaptive curvature-based topography for learning symbolic descriptions of terrain maps. Lecture Notes in Computer Science, 1997, , 282-289.	1.3	0
175	Inducing complex spatial descriptions in two dimensional scenes. Lecture Notes in Computer Science, 1998, , 123-132.	1.3	0
176	The CLARET algorithm. Lecture Notes in Computer Science, 1998, , 407-408.	1.3	0
177	Recognition-by-parts: a computational approach to human learning and generalization of shapes. Biological Cybernetics, 1996, 74, 521-535.	1.3	0