

# Stefanos Kollias

## List of Publications by Year in descending order

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Version: 2024-02-01

171  
papers

2,725  
citations

218677

26  
h-index

265206

42  
g-index

182  
all docs

182  
docs citations

182  
times ranked

2130  
citing authors

#	ARTICLE	IF	CITATIONS
1	Emotion recognition through facial expression analysis based on a neurofuzzy network. <i>Neural Networks</i> , 2005, 18, 423-435.	5.9	190
2	Estimation of behavioral user state based on eye gaze and head pose application in an e-learning environment. <i>Multimedia Tools and Applications</i> , 2009, 41, 469-493.	3.9	131
3	Dense saliency-based spatiotemporal feature points for action recognition. , 2009, , .		100
4	Deep neural architectures for prediction in healthcare. <i>Complex &amp; Intelligent Systems</i> , 2018, 4, 119-131.	6.5	88
5	Semantic Image Segmentation and Object Labeling. <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , 2007, 17, 298-312.	8.3	85
6	Parameterized Facial Expression Synthesis Based on MPEG-4. <i>Eurasip Journal on Advances in Signal Processing</i> , 2002, 2002, 1.	1.7	81
7	ViRaL: Visual Image Retrieval and Localization. <i>Multimedia Tools and Applications</i> , 2011, 51, 555-592.	3.9	60
8	An intelligent e-learning system based on learner profiling and learning resources adaptation. <i>Computers and Education</i> , 2008, 51, 224-238.	8.3	55
9	SOMM: Self organizing Markov map for gesture recognition. <i>Pattern Recognition Letters</i> , 2010, 31, 52-59.	4.2	46
10	Visual Focus of Attention in Non-calibrated Environments using Gaze Estimation. <i>International Journal of Computer Vision</i> , 2014, 107, 293-316.	15.6	43
11	MIA-COV19D: COVID-19 Detection through 3-D Chest CT Image Analysis. , 2021, , .		43
12	User and context adaptive neural networks for emotion recognition. <i>Neurocomputing</i> , 2008, 71, 2553-2562.	5.9	42
13	Exploring trace transform for robust human action recognition. <i>Pattern Recognition</i> , 2013, 46, 3238-3248.	8.1	42
14	Capsule Routing via Variational Bayes. <i>Proceedings of the AAAI Conference on Artificial Intelligence</i> , 2020, 34, 3749-3756.	4.9	39
15	A Deep Learning Approach to Anomaly Detection in Nuclear Reactors. , 2018, , .		38
16	Unified deep learning approach for prediction of Parkinson's disease. <i>IET Image Processing</i> , 2020, 14, 1980-1989.	2.5	37
17	Affine-invariant curve normalization for object shape representation, classification, and retrieval. <i>Machine Vision and Applications</i> , 2001, 13, 80-94.	2.7	35
18	Emotion Recognition and Synthesis Based on MPEG-4 FAPs. , 0, , 141-167.		35

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19	A natural head pose and eye gaze dataset. , 2009, , .		34
20	Modeling Naturalistic Affective States Via Facial, Vocal, and Bodily Expressions Recognition. , 2007, , 91-112.		33
21	Computer vision based fall detection by a convolutional neural network. , 2017, , .		32
22	A snake model for object tracking in natural sequences. Signal Processing: Image Communication, 2004, 19, 219-238.	3.2	31
23	Using Visual Context and Region Semantics for High-Level Concept Detection. IEEE Transactions on Multimedia, 2009, 11, 229-243.	7.2	31
24	Spatiotemporal saliency for video classification. Signal Processing: Image Communication, 2009, 24, 557-571.	3.2	30
25	A Scalable Test Suite for Continuous Dynamic Multiobjective Optimization. IEEE Transactions on Cybernetics, 2020, 50, 2814-2826.	9.5	30
26	Robust Feature Detection for Facial Expression Recognition. Eurasip Journal on Image and Video Processing, 2007, 2007, 1-22.	2.6	29
27	THETIS: Three Dimensional Tennis Shots a Human Action Dataset. , 2013, , .		29
28	Machine Learning for Neurodegenerative Disorder Diagnosis â€” Survey of Practices and Launch of Benchmark Dataset. International Journal on Artificial Intelligence Tools, 2018, 27, 1850011.	1.0	28
29	HUMAN4D: A Human-Centric Multimodal Dataset for Motions and Immersive Media. IEEE Access, 2020, 8, 176241-176262.	4.2	28
30	Intelligent initialization of resource allocating RBF networks. Neural Networks, 2005, 18, 117-122.	5.9	27
31	Towards modeling embodied conversational agent character profiles using appraisal theory predictions in expression synthesis. Applied Intelligence, 2009, 30, 58-64.	5.3	27
32	An autoencoder wavelet based deep neural network with attention mechanism for multi-step prediction of plant growth. Information Sciences, 2021, 560, 35-50.	6.9	27
33	Computationally efficient sup-t transitive closure for sparse fuzzy binary relations. Fuzzy Sets and Systems, 2006, 157, 341-372.	2.7	26
34	Spatiotemporal saliency for event detection and representation in the 3D wavelet domain. , 2007, , .		25
35	INTELLIGENT ONE-STOP-SHOP TRAVEL RECOMMENDATIONS USING AN ADAPTIVE NEURAL NETWORK AND CLUSTERING OF HISTORY. Information Technology and Tourism, 2003, 6, 181-193.	5.8	22
36	Predicting Parkinsonâ€™s Disease using Latent Information extracted from Deep Neural Networks. , 2019, , .		22

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37	Adaptive Reading Assistance for the Inclusion of Students with Dyslexia: The AGENT-DYSL Approach. , 2008, , .		21
38	Deep Bayesian Self-Training. Neural Computing and Applications, 2020, 32, 4275-4291.	5.6	21
39	Towards large-scale geometry indexing by feature selection. Computer Vision and Image Understanding, 2014, 120, 31-45.	4.7	19
40	Multimodal Emotion Recognition from Low-Level Cues. Cognitive Technologies, 2011, , 115-132.	0.8	19
41	An Instrumental Variable Approach to Minimum-Variance Seismic Deconvolution. IEEE Transactions on Geoscience and Remote Sensing, 1985, GE-23, 778-788.	6.3	18
42	Adaptive classification of textured images using linear prediction and neural networks. Signal Processing, 1994, 36, 209-232.	3.7	17
43	Multimedia Content Indexing and Retrieval Using an Object Ontology. , 2005, , 339-371.		17
44	Feature Extraction and Selection for Inferring User Engagement in an HCI Environment. Lecture Notes in Computer Science, 2009, , 22-29.	1.3	17
45	Fall detection using history triple features. , 2015, , .		16
46	DeepMoCap: Deep Optical Motion Capture Using Multiple Depth Sensors and Retro-Reflectors. Sensors, 2019, 19, 282.	3.8	16
47	Head pose estimation with one camera, in uncalibrated environments. , 2010, , .		15
48	Spatiotemporal Features for Action Recognition and Salient Event Detection. Cognitive Computation, 2011, 3, 167-184.	5.2	15
49	$\hat{\pm}$ -shapes for local feature detection. Pattern Recognition, 2016, 50, 56-73.	8.1	15
50	An End-to-End Deep Neural Architecture for Optical Character Verification and Recognition in Retail Food Packaging. , 2018, , .		15
51	The Importance of Eye Gaze and Head Pose to Estimating Levels of Attention. , 2011, , .		14
52	Design of a lifestyle recommender system for the elderly. , 2015, , .		14
53	A novel rule based machine translation scheme from Greek to Greek Sign Language: Production of different types of large corpora and Language Models evaluation. Computer Speech and Language, 2018, 51, 110-135.	4.3	14
54	Multi-source domain adaptation for quality control in retail food packaging. Computers in Industry, 2020, 123, 103293.	9.9	14

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55	DeMoCap: Low-Cost Marker-Based Motion Capture. International Journal of Computer Vision, 2021, 129, 3338-3366.	15.6	14
56	f-DLPs: Extending Description Logic Programs with Fuzzy Sets and Fuzzy Logic. IEEE International Conference on Fuzzy Systems, 2007, , .	0.0	13
57	Adaptation and contextualization of deep neural network models. , 2017, , .		13
58	A novel unified deep neural networks methodology for use by date recognition in retail food package image. Signal, Image and Video Processing, 2021, 15, 449-457.	2.7	13
59	Adding Multimedia to the SemanticWeb: Building and Applying an MPEG-7 Ontology. , 2005, , 75-106.		12
60	Hand trajectory based gesture recognition using self-organizing feature maps and markov models. , 2008, , .		12
61	Semantic Classification of Byzantine Icons. IEEE Intelligent Systems, 2009, 24, 35-43.	4.0	12
62	Social things - The SandS instantiation. , 2013, , .		12
63	An adaptable deep learning system for optical character verification in retail food packaging. , 2018, , .		12
64	A Neuro-fuzzy Approach to User Attention Recognition. Lecture Notes in Computer Science, 2008, , 927-936.	1.3	12
65	Semantic representation of multimedia content: Knowledge representation and semantic indexing. Multimedia Tools and Applications, 2008, 39, 293-327.	3.9	11
66	Tractable reasoning with vague knowledge using fuzzy $\mathcal{EL}^{++}$ . Journal of Intelligent Information Systems, 2012, 39, 399-440.	3.9	11
67	Investigating Context Awareness of Affective Computing Systems: A Critical Approach. Procedia Computer Science, 2014, 39, 91-98.	2.0	11
68	AI-Enabled Efficient and Safe Food Supply Chain. Electronics (Switzerland), 2021, 10, 1223.	3.1	11
69	A fast adaptive approach to the restoration of images degraded by noise. Signal Processing, 1990, 19, 151-162.	3.7	9
70	Reasoning with qualified cardinality restrictions in fuzzy Description Logics. , 2008, , .		9
71	MPEG-4 facial expression synthesis. Personal and Ubiquitous Computing, 2009, 13, 77-83.	2.8	9
72	The Globalâ€“Local transformation for noise resistant shape representation. Computer Vision and Image Understanding, 2011, 115, 1170-1186.	4.7	9

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73	Towards a Deep Unified Framework for Nuclear Reactor Perturbation Analysis. , 2018, , .		9
74	Semantic clustering of information systems' users with stochastic techniques. , 2007, , .		8
75	Multimedia Reasoning with f-SHIN. , 2007, , .		8
76	Dense saliency-based spatiotemporal feature points for action recognition. , 2009, , .		8
77	Knowledge-Based Multimedia Content Indexing and Retrieval. , 2005, , 299-338.		7
78	Mining User Queries with Markov Chains: Application to Online Image Retrieval. IEEE Transactions on Knowledge and Data Engineering, 2013, 25, 433-447.	5.7	7
79	3D cylindrical trace transform based feature extraction for effective human action classification. , 2017, , .		7
80	A Deep Learning Approach for Load Demand Forecasting of Power Systems. , 2018, , .		7
81	Multi-Task Learning for Predicting Parkinson's Disease Based on Medical Imaging Information. , 2018, , .		7
82	3D convolutional and recurrent neural networks for reactor perturbation unfolding and anomaly detection. EPJ Nuclear Sciences & Technologies, 2019, 5, 20.	0.7	7
83	Revisiting the medial axis for planar shape decomposition. Computer Vision and Image Understanding, 2019, 179, 66-78.	4.7	7
84	Adaptive On-Line Neural Network Retraining for Real Life Multimodal Emotion Recognition. Lecture Notes in Computer Science, 2006, , 81-92.	1.3	7
85	An Intelligent Scheme for Facial Expression Recognition. Lecture Notes in Computer Science, 2003, , 1109-1116.	1.3	7
86	Optimal wavelet filter banks for regularized restoration of noisy images. Circuits, Systems, and Signal Processing, 2000, 19, 99-119.	2.0	6
87	Robust validation of Visual Focus of Attention using adaptive fusion of head and eye gaze patterns. , 2011, , .		6
88	A Particle Swarm Optimization (PSO) Model for Scheduling Nonlinear Multimedia Services in Multicommodity Fat-Tree Cloud Networks. Communications in Computer and Information Science, 2013, , 257-268.	0.5	6
89	Combining guaranteed and spot markets in display advertising: Selling guaranteed page views with stochastic demand. European Journal of Operational Research, 2020, 280, 1144-1159.	5.7	6
90	Robust Feature Detection for Facial Expression Recognition. Eurasip Journal on Image and Video Processing, 2007, 2007, 029081.	2.6	6

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91	One-dimensional seismic inversion using adaptive deconvolution. <i>Signal Processing</i> , 1988, 14, 269-285.	3.7	5
92	PROBABILISTIC BOUNDARY-BASED CONTOUR TRACKING WITH SNAKES IN NATURAL CLUTTERED VIDEO SEQUENCES. <i>International Journal of Image and Graphics</i> , 2004, 04, 469-498.	1.5	5
93	TWO ALGORITHMS FOR FAST INCREMENTAL TRANSITIVE CLOSURE OF SPARSE FUZZY BINARY RELATIONS. <i>International Journal of Computational Methods</i> , 2007, 04, 1-13.	1.3	5
94	Face tracking and head pose estimation using convolutional neural networks. , 2010, , .		5
95	MPEG-4 Facial Expression Synthesis based on Appraisal Theory. , 2006, , 378-384.		5
96	Detecting Regions from Single Scale Edges. <i>Lecture Notes in Computer Science</i> , 2012, , 298-311.	1.3	5
97	MPEG-4 Authoring Tool Using Moving Object Segmentation and Tracking in Video Shots. <i>Eurasip Journal on Advances in Signal Processing</i> , 2003, 2003, 1.	1.7	4
98	Electronic Roads in Historical Documents: A Student Oriented Approach. <i>Education and Information Technologies</i> , 2004, 9, 271-289.	5.7	4
99	Automatic Extraction and Analysis of Visual Objects Information. , 2005, , 203-221.		4
100	Variance-based shape descriptors for determining the level of expertise of tennis players. , 2017, , .		4
101	Machine Learning for Predictive Modelling of Ambulance Calls. <i>Electronics (Switzerland)</i> , 2021, 10, 482.	3.1	4
102	An efficient multiresolution texture classification scheme using neural networks. <i>International Journal of Computer Mathematics</i> , 1998, 67, 155-168.	1.8	3
103	Higher-order spectral analysis in laser-Doppler flowmetry signal processing. <i>Technology and Health Care</i> , 1999, 7, 85-101.	1.2	3
104	E-learning and intelligent content adaptation: an integrated approach. <i>International Journal of Continuing Engineering Education and Life-Long Learning</i> , 2007, 17, 273.	0.2	3
105	Detecting human behavior emotional cues in Natural Interaction. , 2011, , .		3
106	Affine morphological shape stable boundary regions (SSBR) for image representation. , 2011, , .		3
107	Non parametric, self organizing, scalable modeling of spatiotemporal inputs: The sign language paradigm. <i>Neural Networks</i> , 2012, 36, 157-166.	5.9	3
108	Context-Aware User Modeling and Semantic Interoperability in Smart Home Environments. , 2013, , .		3

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109	Context in Affective Multiparty and Multimodal Interaction. , 2014, , .		3
110	A systemic approach to automatic metadata extraction from multimedia content. , 2016, , .		3
111	Investigating the Best Performing Task Conditions of a Multi-Tasking Learning Model in Healthcare Using Convolutional Neural Networks: Evidence from a Parkinson'S Disease Database. , 2018, , .		3
112	Applications of human action analysis and recognition on wireless network infrastructures: State of the art and real world challenges. , 2018, , .		3
113	Advanced Non-linear Generative Model with a Deep Classifier for Immunotherapy Outcome Prediction: A Bladder Cancer Case Study. Lecture Notes in Computer Science, 2021, , 227-242.	1.3	3
114	Automatic Thematic Categorization of Multimedia Documents using Ontological Information and Fuzzy Algebra. , 2006, , 247-274.		3
115	A study of neural network applications to signal processing. Lecture Notes in Computer Science, 1990, , 233-242.	1.3	3
116	Affective Natural Interaction Using EEG: Technologies, Applications and Future Directions. , 2017, , 397-420.		3
117	Machine learning for analysis of real nuclear plant data in the frequency domain. Annals of Nuclear Energy, 2022, 177, 109293.	1.8	3
118	Probabilistic Video-Based Gesture Recognition Using Self-organizing Feature Maps. Lecture Notes in Computer Science, 2007, , 261-270.	1.3	2
119	Intelligent content retrieval using a visual vocabulary and geometric constraints. , 2010, , .		2
120	Dithering-based Sampling and Weighted $\hat{I}_{\pm}$ -shapes for Local Feature Detection. IPSJ Transactions on Computer Vision and Applications, 2015, 7, 189-200.	4.4	2
121	Multimedia Reasoning with f-SHIN. , 2007, , .		2
122	Adaptive parameter estimation and deconvolution of seismic signals. Signal Processing, 1985, 8, 453-454.	3.7	1
123	Multimedia Indexing and Retrieval Using Natural Language, Speech and Image Processing Methods. , 2005, , 279-297.		1
124	Context-Based Video Retrieval for Life-Log Applications. , 2005, , 373-387.		1
125	Ontology Representation and Querying for Realizing Semantics-Driven Applications. , 2005, , 45-73.		1
126	Multimedia Content Description in MPEG-7 and MPEG-21. , 2005, , 1-43.		1



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127	Shape-stable region boundary extraction via affine morphological scale space (AMSS). , 2010, , .		1
128	User and home appliances pervasive interaction in a sensor driven smart home environment: The SandS approach. , 2015, , .		1
129	A Semantic Approach to Film Content Analysis and Retrieval. , 2016, , .		1
130	Identifying unintentional falls in action videos using the 3D Cylindrical Trace Transform. , 2017, , .		1
131	A Refined 3D Dataset for the Analysis of Player Actions in Exertion Games. , 2018, , .		1
132	A Compact Sequence Encoding Scheme for Online Human Activity Recognition in HRI Applications. Proceedings of the International Neural Networks Society, 2020, , 3-14.	0.6	1
133	Emotion Synthesis in Virtual Environments. , 2006, , 301-309.		1
134	Non-Verbal Feedback on User Interest Based on Gaze Direction and Head Pose. , 2007, , .		1
135	Semantic object watermark re-synchronization based on skeleton vertex corresponds. , 2010, , .		1
136	Intelligent and Adaptive Pervasive Future Internet: Smart Cities for the Citizens. Communications in Computer and Information Science, 2013, , 269-281.	0.5	1
137	Efficient Processing and Analysis of Images Using Neural Networks. , 1997, , 214-223.		1
138	From Conditional Random Field (CRF) to Rhetorical Structure Theory(RST): Incorporating Context Information in Sentiment Analysis. Lecture Notes in Computer Science, 2017, , 283-295.	1.3	1
139	Semantic Adaptation of Neural Network Classifiers in Image Segmentation. Lecture Notes in Computer Science, 2008, , 907-916.	1.3	1
140	Effects of image quality and quantity on building a competitive COVID-19 diagnosis model. , 2021, , .		1
141	Rule-Driven Object Tracking in Clutter and Partial Occlusion with Model-Based Snakes. Eurasip Journal on Advances in Signal Processing, 2004, 2004, 1.	1.7	0
142	Semantic Web Applications. , 2005, , 253-277.		0
143	A Fuzzy Knowledge-Based System for Multimedia Applications. , 2005, , 107-131.		0
144	Object-Based Video Indexing. , 2005, , 163-201.		0

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145	Mining the Semantics of Visual Concepts and Context. , 2005, , 223-235.		0
146	Machine Learning in Multimedia. , 2005, , 237-252.		0
147	Structure Identification in an Audiovisual Document. , 2005, , 133-161.		0
148	Confronting the Synchronization Problem of Semantic Region Under Geometric Attacks. , 2006, , .		0
149	salienshrink: Saliency-Based Wavelet Shrinkage. Proceedings International Conference on Image Processing, 2007, , .	0.0	0
150	A non-intrusive method for user focus of attention estimation in front of a computer monitor. , 2008, , .		0
151	Adaptive gesture recognition in Human Computer Interaction. , 2009, , .		0
152	Using a region and visual word approach towards semantic image retrieval. , 2010, , .		0
153	Visual analysis for semantic search in digital libraries. , 2013, , .		0
154	W&#x03B1;SH-ing visual repositories: Searching Europeana using local features. , 2013, , .		0
155	The Mecanex system for Multimedia Content Annotation. , 2016, , .		0
156	Preface from IEEE SSCI 2016 general chairs. , 2016, , .		0
157	Conference Report on 2016 IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2016) [Conference Reports]. IEEE Computational Intelligence Magazine, 2017, 12, 18-19.	3.2	0
158	HEAR?INFO: A Modern Mobile-Web Platform Addressed to Hard-of-Hearing Elderly Individuals. , 2017, , .		0
159	Context incorporation using context â€” aware language features. , 2017, , .		0
160	On the Beneficial Effect of Noise in Vertex Localization. International Journal of Computer Vision, 2018, 126, 111-139.	15.6	0
161	An Intermediate Expressionsâ€™ Generator System in the MPEG-4 Framework. Lecture Notes in Computer Science, 2006, , 129-136.	1.3	0
162	Player-Specific Conflict Handling Ontology. Lecture Notes in Computer Science, 2014, , 304-315.	1.3	0

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163	The rendering pipeline in the classroom. SIGCSE Bulletin, 1998, 30, 139-142.	0.1	0
164	Player-Specific Conflict Handling Ontology. International Journal of Serious Games, 0, , .	1.1	0
165	HCI and Natural Progression of Context-Related Questions. Lecture Notes in Computer Science, 2015, , 530-541.	1.3	0
166	Context-Aware User Modeling and Semantic Interoperability in Smart Home Environments. International Journal of Virtual Communities and Social Networking, 2015, 7, 17-50.	0.2	0
167	Fast Video Object Tracking using Affine Invariant Normalization. , 2006, , 549-556.		0
168	Adaptation of Connectionist Weighted Fuzzy Logic Programs with Kripke-Kleene Semantics. Lecture Notes in Computer Science, 2008, , 492-502.	1.3	0
169	Extracting geographical characteristics about COVID-19 evolution worldwide using machine learning. , 2021, , .		0
170	Automatic Thematic Categorization of Multimedia Documents using Ontological Information and Fuzzy Algebra. , 0, , 247-274.		0
171	Visualization in Deep Neural Network Training. International Journal on Artificial Intelligence Tools, 2022, 31, .	1.0	0