

Radu Horaud

List of Publications by Year in descending order

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164
papers

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94381

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110317

64
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173
all docs

173
docs citations

173
times ranked

4308
citing authors

#	ARTICLE	IF	CITATIONS
1	Hand-Eye Calibration. International Journal of Robotics Research, 1995, 14, 195-210.	5.8	430
2	An analytic solution for the perspective 4-point problem. Computer Vision, Graphics, and Image Processing, 1989, 47, 33-44.	1.1	292
3	Surface feature detection and description with applications to mesh matching. , 2009, , .		282
4	Simultaneous robot-world and hand-eye calibration. IEEE Transactions on Automation Science and Engineering, 1998, 14, 617-622.	2.4	223
5	An overview of depth cameras and range scanners based on time-of-flight technologies. Machine Vision and Applications, 2016, 27, 1005-1020.	1.7	190
6	Skeletal Quads: Human Action Recognition Using Joint Quadruples. , 2014, , .		187
7	Rigid and Articulated Point Registration with Expectation Conditional Maximization. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2011, 33, 587-602.	9.7	170
8	A Comprehensive Analysis of Deep Regression. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 42, 2065-2081.	9.7	148
9	New Methods for Matching 3-D Objects with Single Perspective Views. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1987, PAMI-9, 401-412.	9.7	132
10	Object pose from 2-D to 3-D point and line correspondences. International Journal of Computer Vision, 1995, 15, 225-243.	10.9	129
11	Figure-ground discrimination: a combinatorial optimization approach. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1993, 15, 899-914.	9.7	124
12	How to Train Your Deep Multi-Object Tracker. , 2020, , .		120
13	Articulated shape matching using Laplacian eigenfunctions and unsupervised point registration. , 2008, , .		116
14	Object Pose: The Link between Weak Perspective, Paraperspective, and Full Perspective. International Journal of Computer Vision, 1997, 22, 173-189.	10.9	115
15	Time-of-Flight Cameras. SpringerBriefs in Computer Science, 2013, , .	0.2	111
16	Visually guided object grasping. IEEE Transactions on Automation Science and Engineering, 1998, 14, 525-532.	2.4	107
17	Keypoints and Local Descriptors of Scalar Functions on 2D Manifolds. International Journal of Computer Vision, 2012, 100, 78-98.	10.9	96
18	Joint Alignment of Multiple Point Sets with Batch and Incremental Expectation-Maximization. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 1397-1410.	9.7	93

#	ARTICLE	IF	CITATIONS
19	Fullsubnet: A Full-Band and Sub-Band Fusion Model for Real-Time Single-Channel Speech Enhancement. , 2021, , .		88
20	EM Algorithms for Weighted-Data Clustering with Application to Audio-Visual Scene Analysis. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 2402-2415.	9.7	86
21	Visual Servoing from Lines. International Journal of Robotics Research, 2002, 21, 679-699.	5.8	83
22	Iterative Pose Computation from Line Correspondences. Computer Vision and Image Understanding, 1999, 73, 137-144.	3.0	74
23	TransforMesh : A Topology-Adaptive Mesh-Based Approach to Surface Evolution. , 2007, , 166-175.		66
24	A Geometric Approach to Sound Source Localization from Time-Delay Estimates. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, 22, 1082-1095.	4.0	64
25	Audio-Visual Speaker Diarization Based on Spatiotemporal Bayesian Fusion. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 1086-1099.	9.7	64
26	Finding geometric and relational structures in an image. Lecture Notes in Computer Science, 1990, , 374-384.	1.0	63
27	Robust Head-Pose Estimation Based on Partially-Latent Mixture of Linear Regressions. IEEE Transactions on Image Processing, 2017, 26, 1428-1440.	6.0	62
28	On the geometric interpretation of image contours. Artificial Intelligence, 1988, 37, 333-353.	3.9	61
29	Scene flow estimation by growing correspondence seeds. , 2011, , .		59
30	Acoustic Space Learning for Sound-Source Separation and Localization on Binaural Manifolds. International Journal of Neural Systems, 2015, 25, 1440003.	3.2	58
31	On single-scanline camera calibration. IEEE Transactions on Automation Science and Engineering, 1993, 9, 71-75.	2.4	53
32	Head pose estimation via probabilistic high-dimensional regression. , 2015, , .		52
33	A VARIANCE MODELING FRAMEWORK BASED ON VARIATIONAL AUTOENCODERS FOR SPEECH ENHANCEMENT. , 2018, , .		49
34	Tracking Gaze and Visual Focus of Attention of People Involved in Social Interaction. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 2711-2724.	9.7	47
35	Image matching with scale adjustment. Computer Vision and Image Understanding, 2004, 93, 175-194.	3.0	45
36	Hand Motion from 3D Point Trajectories and a Smooth Surface Model. Lecture Notes in Computer Science, 2004, , 495-507.	1.0	45

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37	A Generative Model for the Joint Registration of Multiple Point Sets. Lecture Notes in Computer Science, 2014, , 109-122.	1.0	44
38	Continuous Action Recognition Based on Sequence Alignment. International Journal of Computer Vision, 2015, 112, 90-114.	10.9	43
39	Polyhedral object recognition by indexing. Pattern Recognition, 1995, 28, 1855-1870.	5.1	42
40	Camera cooperation for achieving visual attention. Machine Vision and Applications, 2006, 16, 1-2.	1.7	42
41	Human Motion Tracking with a Kinematic Parameterization of Extremal Contours. International Journal of Computer Vision, 2008, 79, 247-269.	10.9	42
42	High-resolution depth maps based on TOF-stereo fusion. , 2012, , .		42
43	Co-Localization of Audio Sources in Images Using Binaural Features and Locally-Linear Regression. IEEE/ACM Transactions on Audio Speech and Language Processing, 2015, 23, 718-731.	4.0	42
44	Estimation of the Direct-Path Relative Transfer Function for Supervised Sound-Source Localization. IEEE/ACM Transactions on Audio Speech and Language Processing, 2016, 24, 2171-2186.	4.0	42
45	Topologically-robust 3D shape matching based on diffusion geometry and seed growing. , 2011, , .		41
46	Semi-supervised Multichannel Speech Enhancement with Variational Autoencoders and Non-negative Matrix Factorization. , 2019, , .		41
47	Human Motion Tracking by Registering an Articulated Surface to 3D Points and Normals. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2009, 31, 158-163.	9.7	39
48	A Variational EM Algorithm for the Separation of Time-Varying Convolutional Audio Mixtures. IEEE/ACM Transactions on Audio Speech and Language Processing, 2016, 24, 1408-1423.	4.0	39
49	A Recurrent Variational Autoencoder for Speech Enhancement. , 2020, , .		39
50	Audio-Visual Speech Enhancement Using Conditional Variational Auto-Encoders. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 1788-1800.	4.0	39
51	Topology-Adaptive Mesh Deformation for Surface Evolution, Morphing, and Multiview Reconstruction. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2011, 33, 823-837.	9.7	38
52	Deep Mixture of Linear Inverse Regressions Applied to Head-Pose Estimation. , 2017, , .		36
53	Tracking Multiple Persons Based on a Variational Bayesian Model. Lecture Notes in Computer Science, 2016, , 52-67.	1.0	35
54	Visual Servoing/Tracking Using Central Catadioptric Images. , 2003, , 245-254.		34

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55	Temporal Surface Tracking Using Mesh Evolution. Lecture Notes in Computer Science, 2008, , 30-43.	1.0	34
56	Motion Panoramas. Computer Animation and Virtual Worlds, 2004, 15, 501-517.	0.7	33
57	An on-line variational Bayesian model for multi-person tracking from cluttered scenes. Computer Vision and Image Understanding, 2016, 153, 64-76.	3.0	33
58	Multiple-Speaker Localization Based on Direct-Path Features and Likelihood Maximization With Spatial Sparsity Regularization. IEEE/ACM Transactions on Audio Speech and Language Processing, 2017, 25, 1997-2012.	4.0	33
59	Neural network based reinforcement learning for audio-visual gaze control in human-robot interaction. Pattern Recognition Letters, 2019, 118, 61-71.	2.6	33
60	Fusion of Range and Stereo Data for High-Resolution Scene-Modeling. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2015, 37, 2178-2192.	9.7	29
61	Online Localization and Tracking of Multiple Moving Speakers in Reverberant Environments. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 88-103.	7.3	29
62	Cyclopean geometry of binocular vision. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 2357.	0.8	28
63	Vision-guided robot hearing. International Journal of Robotics Research, 2015, 34, 437-456.	5.8	28
64	High-dimensional regression with gaussian mixtures and partially-latent response variables. Statistics and Computing, 2015, 25, 893-911.	0.8	28
65	The cocktail party robot. , 2012, , .		27
66	RAVEL: an annotated corpus for training robots with audiovisual abilities. Journal on Multimodal User Interfaces, 2013, 7, 79-91.	2.0	27
67	Multichannel Speech Enhancement Based On Time-Frequency Masking Using Subband Long Short-Term Memory. , 2019, , .		27
68	Variational Bayesian Inference for Audio-Visual Tracking of Multiple Speakers. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 1761-1776.	9.7	27
69	Inexact Matching of Large and Sparse Graphs Using Laplacian Eigenvectors. Lecture Notes in Computer Science, 2009, , 144-153.	1.0	27
70	Speech Enhancement with Variational Autoencoders and Alpha-stable Distributions. , 2019, , .		23
71	Multiple-Camera Tracking of Rigid Objects. International Journal of Robotics Research, 2002, 21, 97-113.	5.8	22
72	2D sound-source localization on the binaural manifold. , 2012, , .		22

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73	Continuous Gesture Recognition from Articulated Poses. Lecture Notes in Computer Science, 2015, , 595-607.	1.0	22
74	Conjugate Mixture Models for Clustering Multimodal Data. Neural Computation, 2011, 23, 517-557.	1.3	21
75	Finding the Collineation between Two Projective Reconstructions. Computer Vision and Image Understanding, 1999, 75, 260-268.	3.0	20
76	Active-speaker detection and localization with microphones and cameras embedded into a robotic head. , 2013, , .		20
77	Estimation of relative transfer function in the presence of stationary noise based on segmental power spectral density matrix subtraction. , 2015, , .		20
78	Variational EM for binaural sound-source separation and localization. , 2013, , .		19
79	Tracking the Active Speaker Based on a Joint Audio-Visual Observation Model. , 2015, , .		19
80	Motionâ€Egomotion Discrimination and Motion Segmentation from Image-Pair Streams. Computer Vision and Image Understanding, 2000, 78, 53-68.	3.0	18
81	Sound-event recognition with a companion humanoid. , 2012, , .		18
82	Automatic detection of calibration grids in time-of-flight images. Computer Vision and Image Understanding, 2014, 121, 108-118.	3.0	18
83	Robust Factorization Methods Using a Gaussian/Uniform Mixture Model. International Journal of Computer Vision, 2009, 81, 240-258.	10.9	17
84	Finding audio-visual events in informal social gatherings. , 2011, , .		16
85	Projective alignment of range and parallax data. , 2011, , .		16
86	Sound representation and classification benchmark for domestic robots. , 2014, , .		16
87	Tracking Multiple Audio Sources With the von Mises Distribution and Variational EM. IEEE Signal Processing Letters, 2019, 26, 798-802.	2.1	16
88	Cross-calibration of time-of-flight and colour cameras. Computer Vision and Image Understanding, 2015, 134, 105-115.	3.0	15
89	Exploiting the Complementarity of Audio and Visual Data in Multi-speaker Tracking. , 2017, , .		15
90	Multichannel Speech Separation and Enhancement Using the Convolutional Transfer Function. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 645-659.	4.0	15

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91	Reverberant sound localization with a robot head based on direct-path relative transfer function. , 2016, , .		14
92	Extended Gaze Following: Detecting Objects in Videos Beyond the Camera Field of View. , 2019, , .		14
93	A variational EM algorithm for the separation of moving sound sources. , 2015, , .		13
94	Audio source separation based on convolutive transfer function and frequency-domain lasso optimization. , 2017, , .		13
95	Non-stationary noise power spectral density estimation based on regional statistics. , 2016, , .		12
96	Plane-extraction from depth-data using a Gaussian mixture regression model. Pattern Recognition Letters, 2018, 110, 44-50.	2.6	12
97	The CAVA corpus. , 2008, , .		12
98	Multiple Camera Calibration Using Robust Perspective Factorization. , 2006, , .		11
99	Articulated Shape Matching Using Locally Linear Embedding and Orthogonal Alignment. , 2007, , .		11
100	Tracking a varying number of people with a visually-controlled robotic head. , 2017, , .		11
101	Audio-Visual Speech-Turn Detection and Tracking. Lecture Notes in Computer Science, 2015, , 143-151.	1.0	11
102	Articulated Shape Matching by Robust Alignment of Embedded Representations. , 2007, , .		10
103	Audio-visual speaker localization via weighted clustering. , 2014, , .		10
104	Microphone array signal processing for robot audition. , 2017, , .		10
105	An em algorithm for audio source separation based on the convolutive transfer function. , 2017, , .		10
106	DeepGUM: Learning Deep Robust Regression with a Gaussian-Uniform Mixture Model. Lecture Notes in Computer Science, 2018, , 205-221.	1.0	10
107	Cyclorotation Models for Eyes and Cameras. IEEE Transactions on Systems, Man, and Cybernetics, 2010, 40, 151-161.	5.5	9
108	Accounting for Room Acoustics in Audio-Visual Multi-Speaker Tracking. , 2018, , .		9

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109	Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 1365-1377.	4.0	9
110	Audio-Noise Power Spectral Density Estimation Using Long Short-Term Memory. IEEE Signal Processing Letters, 2019, 26, 918-922.	2.1	8
111	Online multimodal speaker detection for humanoid robots. , 2012, , .		7
112	Action Recognition Robust to Background Clutter by Using Stereo Vision. Lecture Notes in Computer Science, 2012, , 332-341.	1.0	7
113	Local relative transfer function for sound source localization. , 2015, , .		7
114	Hyper-Spectral Image Analysis With Partially Latent Regression and Spatial Markov Dependencies. IEEE Journal on Selected Topics in Signal Processing, 2015, 9, 1037-1048.	7.3	7
115	Simultaneous estimation of gaze direction and visual focus of attention for multi-person-to-robot interaction. , 2016, , .		7
116	Voice activity detection based on statistical likelihood ratio with adaptive thresholding. , 2016, , .		7
117	Switching Linear Inverse-Regression Model for Tracking Head Pose. , 2017, , .		7
118	Integrating grasp planning and visual servoing for automatic grasping. , 1997, , 71-82.		6
119	Real-time visuomotor update of an active binocular head. Autonomous Robots, 2013, 34, 35-45.	3.2	6
120	An inverse-gamma source variance prior with factorized parameterization for audio source separation. , 2016, , .		6
121	Audio-visual tracking by density approximation in a sequential Bayesian filtering framework. , 2017, , .		6
122	An EM algorithm for joint source separation and diarisation of multichannel convolutive speech mixtures. , 2017, , .		6
123	Deep Reinforcement Learning for Audio-Visual Gaze Control. , 2018, , .		6
124	Multichannel Identification and Nonnegative Equalization for Dereverberation and Noise Reduction Based on Convolutional Transfer Function. IEEE/ACM Transactions on Audio Speech and Language Processing, 2018, 26, 1755-1768.	4.0	6
125	Detection and localization of 3d audio-visual objects using unsupervised clustering. , 2008, , .		6
126	A Differential Model of the Complex Cell. Neural Computation, 2011, 23, 2324-2357.	1.3	5

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127	Exploiting the intermittency of speech for joint separation and diarization. , 2017, , .		5
128	Learning Visual Voice Activity Detection with an Automatically Annotated Dataset. , 2021, , .		5
129	Patterns of Binocular Disparity for a Fixating Observer. , 2007, , 308-317.		5
130	Coherent Laplacian 3-D protrusion segmentation. , 2008, , .		4
131	Alignment of binocular-binaural data using a moving audio-visual target. , 2013, , .		4
132	A Distributed Architecture for Interacting with NAO. , 2015, , .		4
133	Expectationâ€™maximisation for speech source separation using convolutive transfer function. CAAI Transactions on Intelligence Technology, 2019, 4, 47-53.	3.4	4
134	Tracking with the Kinematics of Extremal Contours. Lecture Notes in Computer Science, 2006, , 664-673.	1.0	4
135	Calibration of Time-of-Flight Cameras. SpringerBriefs in Computer Science, 2013, , 45-58.	0.2	4
136	Audio-Visual Variational Fusion for Multi-Person Tracking with Robots. , 2019, , .		4
137	Stability of lagrangian duality for nonconvex quadratic programming. Solution methods and applications in computer vision. ESAIM: Mathematical Modelling and Numerical Analysis, 1997, 31, 57-90.	0.8	3
138	Articulated-Body Tracking Through Anisotropic Edge Detection. Lecture Notes in Computer Science, 2007, , 86-99.	1.0	3
139	Online Localization of Multiple Moving Speakers in Reverberant Environments. , 2018, , .		3
140	Variational Inference and Learning of Piecewise Linear Dynamical Systems. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 3753-3764.	7.2	3
141	Introduction to the special volume on computer vision. Artificial Intelligence, 1995, 78, 1-3.	3.9	2
142	Image interpolation for virtual sports scenarios. Machine Vision and Applications, 2005, 16, 236-245.	1.7	2
143	From Video Matching to Video Grounding. , 2013, , .		2
144	Characterization of Time-of-Flight Data. SpringerBriefs in Computer Science, 2013, , 1-28.	0.2	2

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145	Recognition of Group Activities in Videos Based on Single-and Two-Person Descriptors. , 2017, , .		2
146	Multisource Mint Using Convolute Transfer Function. , 2018, , .		2
147	An Unsupervised Framework for Action Recognition Using Actemes. Lecture Notes in Computer Science, 2011, , 592-605.	1.0	2
148	Robust Face Frontalization For Visual Speech Recognition. , 2021, , .		2
149	Robust Spectral 3D-Bodypart Segmentation Along Time. , 2007, , 196-211.		1
150	Cooperative disparity and object boundary estimation. , 2008, , .		1
151	Audio-visual robot command recognition. , 2012, , .		1
152	Visual Servoing Using Projective Kinematics. , 2000, , 97-104.		1
153	The Impact of Removing Head Movements on Audio-Visual Speech Enhancement. , 2022, , .		1
154	Smooth curve extraction by mean field annealing. Annals of Mathematics and Artificial Intelligence, 1995, 13, 281-300.	0.9	0
155	<title>Terminal air-to-ground missile guidance by infrared seeker</title>. , 1997, , .		0
156	Selection of Marr Prize and Honourable Mentions at ICCV'01. International Journal of Computer Vision, 2002, 48, 7-8.	10.9	0
157	Special Issue on Visual Analysis of Human Movement. International Journal of Robotics Research, 2003, 22, 357-357.	5.8	0
158	Disparity and normal estimation through alternating maximization. , 2010, , .		0
159	Scale-space representation of scalar functions on 2D manifolds. , 2011, , .		0
160	The geometry of sound-source localization using non-coplanar microphone arrays. , 2013, , .		0
161	Benchmarking methods for audio-visual recognition using tiny training sets. , 2013, , .		0
162	Robust Temporally Coherent Laplacian Protrusion Segmentation of 3D Articulated Bodies. International Journal of Computer Vision, 2015, 112, 43-70.	10.9	0

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163	Guest Editorial: Language in Vision. Computer Vision and Image Understanding, 2017, 163, 1-2.	3.0	0
164	A Mixed Time-of-Flight and Stereoscopic Camera System. SpringerBriefs in Computer Science, 2013, , 77-96.	0.2	0