

Antonis A Argyros

List of Publications by Year in descending order

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169
papers

4,715
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279487

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all docs

171
docs citations

171
times ranked

3389
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review on Deep Learning Techniques for Video Prediction. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 2806-2826.	9.7	88
2	Detecting Object States vs Detecting Objects: A New Dataset and a Quantitative Experimental Study. , 2022, , .		0
3	Exploitation of Noisy Automatic Data Annotation and Its Application to Hand Posture Classification. , 2022, , .		0
4	Segregational Soft Dynamic Time Warping and Its Application to Action Prediction. , 2022, , .		4
5	Multimodal Narratives for the Presentation of Silk Heritage in the Museum. Heritage, 2022, 5, 461-488.	0.9	9
6	Exploiting the Nature of Repetitive Actions for Their Effective and Efficient Recognition. Frontiers in Computer Science, 2022, 4, .	1.7	1
7	Museum Guidance in Sign Language: the SignGuide project. , 2022, , .		6
8	Retinal image registration as a tool for supporting clinical applications. Computer Methods and Programs in Biomedicine, 2021, 199, 105900.	2.6	3
9	Occlusion-tolerant and personalized 3D human pose estimation in RGB images. , 2021, , .		10
10	Extracting Action Hierarchies from Action Labels and their Use in Deep Action Recognition. , 2021, , .		1
11	Toward Augmented Reality in Museums: Evaluation of Design Choices for 3D Object Pose Estimation. Frontiers in Virtual Reality, 2021, 2, .	2.5	3
12	FaceGuard: A Wearable System To Avoid Face Touching. Frontiers in Robotics and AI, 2021, 8, 612392.	2.0	20
13	Efficient Cooperation of Heterogeneous Robotic Agents: A Decentralized Framework. IEEE Robotics and Automation Magazine, 2021, 28, 74-87.	2.2	4
14	Towards Improved and Interpretable Action Quality Assessment with Self-Supervised Alignment. , 2021, , .		5
15	Multi-GPU SNN Simulation with Static Load Balancing. , 2021, , .		2
16	H-GAN: the power of GANs in your Hands. , 2021, , .		1
17	Adaptive heterogeneous multi-robot collaboration from formal task specifications. Robotics and Autonomous Systems, 2021, 145, 103866.	3.0	5
18	Action Prediction During Human-Object Interaction Based on DTW and Early Fusion of Human and Object Representations. Lecture Notes in Computer Science, 2021, , 169-179.	1.0	2

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19	Even Faster SNN Simulation with Lazy+Event-driven Plasticity and Shared Atomics. , 2021, , .		1
20	Single-shot 3D hand pose estimation using radial basis function networks trained on synthetic data. Pattern Analysis and Applications, 2020, 23, 415-428.	3.1	5
21	Region-based Fitting of Overlapping Ellipses and its application to cells segmentation. Image and Vision Computing, 2020, 93, 103810.	2.7	31
22	Faster and Simpler SNN Simulation with Work Queues. , 2020, , .		5
23	Learning to Infer the Depth Map of a Hand from its Color Image. , 2020, , .		0
24	Improving Deep Learning Approaches for Human Activity Recognition based on Natural Language Processing of Action Labels. , 2020, , .		7
25	3D Hand Tracking in the Presence of Excessive Motion Blur. IEEE Transactions on Visualization and Computer Graphics, 2020, 26, 1891-1901.	2.9	11
26	REMPE: Registration of Retinal Images Through Eye Modelling and Pose Estimation. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 3362-3373.	3.9	18
27	The MuseLearn Platform: Personalized Content for Museum Visitors Assisted by Vision-Based Recognition and 3D Pose Estimation of Exhibits. IFIP Advances in Information and Communication Technology, 2020, , 439-451.	0.5	8
28	Results of Field Trials with a Mobile Service Robot for Older Adults in 16 Private Households. ACM Transactions on Human-Robot Interaction, 2020, 9, 1-27.	3.2	30
29	Unsupervised Domain Adaptation for Person Re-Identification with Few and Unlabeled Target Data. Lecture Notes in Computer Science, 2020, , 357-373.	1.0	0
30	Towards a visual Sign Language dataset for home care services. , 2020, , .		1
31	Robust 3D Human Pose Estimation Guided by Filtered Subsets of Body Keypoints. , 2019, , .		3
32	Accurate Hand Keypoint Localization on Mobile Devices. , 2019, , .		13
33	HANDS18: Methods, Techniques and Applications for Hand Observation. Lecture Notes in Computer Science, 2019, , 302-312.	1.0	0
34	Patch-Based Reconstruction of a Textureless Deformable 3D Surface from a Single RGB Image. , 2019, , .		6
35	Retinal image preprocessing, enhancement, and registration. , 2019, , 59-77.		7
36	Vision Based Horizon Detection for UAV Navigation. Mechanisms and Machine Science, 2019, , 181-189.	0.3	2

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37	3D Hand Tracking by Employing Probabilistic Principal Component Analysis to Model Action Priors. Lecture Notes in Computer Science, 2019, , 531-541.	1.0	0
38	A Two-Stage Approach for Commonality-Based Temporal Localization of Periodic Motions. Lecture Notes in Computer Science, 2019, , 366-375.	1.0	0
39	Novelty Detection for Person Re-identification in an Open World. , 2019, , .		0
40	A graph-based approach for detecting common actions in motion capture data and videos. Pattern Recognition, 2018, 79, 1-11.	5.1	22
41	Hand-Object Contact Force Estimation from Markerless Visual Tracking. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 2883-2896.	9.7	45
42	Filling the Joints: Completion and Recovery of Incomplete 3D Human Poses. Technologies, 2018, 6, 97.	3.0	2
43	Unsupervised Detection of Periodic Segments in Videos. , 2018, , .		17
44	Distributed Real-Time Generative 3D Hand Tracking using Edge GPGPU Acceleration. , 2018, , .		1
45	Depth-Based 3D Hand Pose Estimation: From Current Achievements to Future Goals. , 2018, , .		144
46	Cell Segmentation Via Region-Based Ellipse Fitting. , 2018, , .		13
47	Hobbit: Providing Fall Detection and Prevention for the Elderly in the Real World. Journal of Robotics, 2018, 2018, 1-20.	0.6	33
48	Using a Single RGB Frame for Real Time 3D Hand Pose Estimation in the Wild. , 2018, , .		137
49	A Hybrid Method for 3D Pose Estimation of Personalized Human Body Models. , 2018, , .		3
50	A Comparative Study of Matrix Completion and Recovery Techniques for Human Pose Estimation. , 2018, , .		2
51	The HealthSign Project. , 2018, , .		1
52	Joint 3D Tracking of a Deformable Object in Interaction with a Hand. Lecture Notes in Computer Science, 2018, , 504-520.	1.0	26
53	Evaluating Method Design Options for Action Classification based on Bags of Visual Words. , 2018, , .		2
54	Retinal image registration under the assumption of a spherical eye. Computerized Medical Imaging and Graphics, 2017, 55, 95-105.	3.5	30

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55	An experimental evaluation of the accuracy of keypoints-based retinal image registration. , 2017, 2017, 377-381.		16
56	Markerless 3D Human Pose Estimation and Tracking based on RGBD Cameras. , 2017, , .		20
57	A Framework for Online Segmentation and Classification of Modeled Actions Performed in the Context of Unmodeled Ones. IEEE Transactions on Circuits and Systems for Video Technology, 2017, 27, 2578-2590.	5.6	1
58	Temporal Action Co-Segmentation in 3D Motion Capture Data and Videos. , 2017, , .		16
59	Back to RGB: 3D Tracking of Hands and Hand-Object Interactions Based on Short-Baseline Stereo. , 2017, , .		39
60	Generative 3D Hand Tracking with Spatially Constrained Pose Sampling. , 2017, , .		10
61	Synergy-Driven Performance Enhancement of Vision-Based 3D Hand Pose Reconstruction. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2017, , 328-336.	0.2	0
62	Retinal image registration through simultaneous camera pose and eye shape estimation. , 2016, 2016, 3247-3251.		19
63	Tracking Deformable Surfaces That Undergo Topological Changes Using an RGB-D Camera. , 2016, , .		10
64	Efficient 3D Hand Tracking in Articulation Subspaces for the Manipulation of Virtual Objects. , 2016, , .		4
65	Parameter-free modelling of 2D shapes with ellipses. Pattern Recognition, 2016, 53, 259-275.	5.1	34
66	Hobbit, a care robot supporting independent living at home: First prototype and lessons learned. Robotics and Autonomous Systems, 2016, 75, 60-78.	3.0	239
67	A Generative Approach to Tracking Hands and Their Interaction with Objects. Advances in Intelligent Systems and Computing, 2016, , 19-28.	0.5	5
68	A Robot-based Application for Physical Exercise Training. , 2016, , .		3
69	Towards the Automatic Definition of the Objective Function for Model-Based 3D Hand Tracking. Advances in Intelligent Systems and Computing, 2016, , 353-363.	0.5	1
70	Scalable and Efficient Big Data Analytics - The LeanBigData Approach. , 2016, , .		0
71	Localizing Periodicity in Time Series and Videos. , 2016, , .		2
72	Retinal image registration based on keypoint correspondences, spherical eye modeling and camera pose estimation. , 2015, 2015, 5650-4.		18

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73	Hierarchical particle filtering for 3D hand tracking. , 2015, , .		22
74	Towards force sensing from vision: Observing hand-object interactions to infer manipulation forces. , 2015, , .		11
75	Tracking the articulated motion of the human body with two RGBD cameras. Machine Vision and Applications, 2015, 26, 41-54.	1.7	21
76	Navigation assistance and guidance of older adults across complex public spaces: the DALi Approach. Intelligent Service Robotics, 2015, 8, 77-92.	1.6	58
77	Vision-Based SLAM and Moving Objects Tracking for the Perceptual Support of a Smart Walker Platform. Lecture Notes in Computer Science, 2015, , 407-423.	1.0	8
78	3D Tracking of Human Hands in Interaction with Unknown Objects. , 2015, , .		27
79	Boosting the Performance of Model-based 3D Tracking by Employing Low Level Motion Cues. , 2015, , .		1
80	Hybrid One-Shot 3D Hand Pose Estimation by Exploiting Uncertainties. , 2015, , .		15
81	Model-based 3D Hand Tracking with on-line Shape Adaptation. , 2015, , .		17
82	Temporal Segmentation and Seamless Stitching of Motion Patterns for Synthesizing Novel Animations of Periodic Dances. , 2014, , .		0
83	Scalable 3D Tracking of Multiple Interacting Objects. , 2014, , .		68
84	Evolutionary Quasi-Random Search for Hand Articulations Tracking. , 2014, , .		35
85	Shape from interaction. Machine Vision and Applications, 2014, 25, 1077-1087.	1.7	6
86	Gesture Recognition Supporting the Interaction of Humans with Socially Assistive Robots. Lecture Notes in Computer Science, 2014, , 793-804.	1.0	10
87	Segmentation and classification of modeled actions in the context of unmodeled ones. , 2014, , .		0
88	Tracking Hand Articulations: Relying on 3D Visual Hulls Versus Relying on Multiple 2D Cues. , 2013, , .		5
89	Physically Plausible 3D Scene Tracking: The Single Actor Hypothesis. , 2013, , .		44
90	Multicamera tracking of multiple humans based on colored visual hulls. , 2013, , .		5

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91	Multicamera human detection and tracking supporting natural interaction with large-scale displays. Machine Vision and Applications, 2013, 24, 319-336.	1.7	19
92	Integrating tracking with fine object segmentation. Image and Vision Computing, 2013, 31, 771-785.	2.7	20
93	Predicting human intention in visual observations of hand/object interactions. , 2013, , .		34
94	Developing visual competencies for socially assistive robots. , 2013, , .		6
95	ChaLearn multi-modal gesture recognition 2013. , 2013, , .		38
96	Language for learning complex human-object interactions. , 2013, , .		8
97	A Prototypical Interactive Exhibition for the Archaeological Museum of Thessaloniki. International Journal of Heritage in the Digital Era, 2013, 2, 75-99.	0.5	7
98	Dimensionality Reduction for Efficient Single Frame Hand Pose Estimation. Lecture Notes in Computer Science, 2013, , 143-152.	1.0	4
99	Foreground Detection with a Moving RGBD Camera. Lecture Notes in Computer Science, 2013, , 216-227.	1.0	2
100	Beat Synchronous Dance Animation Based on Visual Analysis of Human Motion and Audio Analysis of Music Tempo. Lecture Notes in Computer Science, 2013, , 118-127.	1.0	6
101	Head pose estimation on depth data based on Particle Swarm Optimization. , 2012, , .		62
102	Tracking the articulated motion of two strongly interacting hands. , 2012, , .		163
103	Efficient Scale and Rotation Invariant Object Detection Based on HOGs and Evolutionary Optimization Techniques. Lecture Notes in Computer Science, 2012, , 220-229.	1.0	9
104	Macedonia from Fragments to Pixels: A Permanent Exhibition of Interactive Systems at the Archaeological Museum of Thessaloniki. Lecture Notes in Computer Science, 2012, , 602-609.	1.0	7
105	From Multiple Views to Textured 3D Meshes: A GPU-Powered Approach. Lecture Notes in Computer Science, 2012, , 384-397.	1.0	4
106	Full DOF tracking of a hand interacting with an object by modeling occlusions and physical constraints. , 2011, , .		199
107	Scale invariant and deformation tolerant partial shape matching. Image and Vision Computing, 2011, 29, 459-469.	2.7	30
108	Unsupervised learning of background modeling parameters in multicamera systems. Computer Vision and Image Understanding, 2011, 115, 105-116.	3.0	7

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109	Markerless and Efficient 26-DOF Hand Pose Recovery. Lecture Notes in Computer Science, 2011, , 744-757.	1.0	60
110	Design and Development of Four Prototype Interactive Edutainment Exhibits for Museums. Lecture Notes in Computer Science, 2011, , 173-182.	1.0	11
111	Efficient model-based 3D tracking of hand articulations using Kinect. , 2011, , .		588
112	Binding Computer Vision to Physics Based Simulation: The Case Study of a Bouncing Ball. , 2011, , .		7
113	Multiple objects tracking in the presence of long-term occlusions. Computer Vision and Image Understanding, 2010, 114, 835-846.	3.0	52
114	Horizon matching for localizing unordered panoramic images. Computer Vision and Image Understanding, 2010, 114, 274-285.	3.0	6
115	PaperView. , 2010, , .		12
116	A Platform for Monitoring Aspects of Human Presence in Real-Time. Lecture Notes in Computer Science, 2010, , 584-595.	1.0	4
117	Object Tracking and Segmentation in a Closed Loop. Lecture Notes in Computer Science, 2010, , 405-416.	1.0	8
118	Visual homing for undulatory robotic locomotion. , 2009, , .		1
119	Integrated vision system for the semantic interpretation of activities where a person handles objects. Computer Vision and Image Understanding, 2009, 113, 682-692.	3.0	7
120	SBA. ACM Transactions on Mathematical Software, 2009, 36, 1-30.	1.6	588
121	Vision-Based Hand Gesture Recognition for Human-Computer Interaction. Human Factors and Ergonomics, 2009, , 1-30.	0.0	74
122	Propagation of Pixel Hypotheses for Multiple Objects Tracking. Lecture Notes in Computer Science, 2009, , 140-149.	1.0	11
123	Deformable 2D Shape Matching Based on Shape Contexts and Dynamic Programming. Lecture Notes in Computer Science, 2009, , 460-469.	1.0	3
124	A HIMI model for collaborative multi-touch multimedia education. , 2009, , .		2
125	3D head pose estimation from multiple distant views. , 2009, , .		15
126	Learning temporal structure for task based control. Image and Vision Computing, 2008, 26, 39-52.	2.7	2

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127	Lumen detection for capsule endoscopy. , 2008, , .		20
128	Dynamic time warping for binocular hand tracking and reconstruction. , 2008, , .		8
129	Shading models for illumination and reflectance invariant shape detectors. , 2008, , .		4
130	Tracking of Human Hands and Faces through Probabilistic Fusion of Multiple Visual Cues. , 2008, , 33-42.		20
131	Localizing Unordered Panoramic Images Using the Levenshtein Distance. , 2007, , .		1
132	Binocular Hand Tracking and Reconstruction Based on 2D Shape Matching. , 2006, , .		24
133	Improved Design for Vision-Based Incident Detection in Transportation Systems Using Real-Time View Transformations. Journal of Transportation Engineering, 2006, 132, 837-844.	0.9	3
134	Chaining Planar Homographies for Fast and Reliable 3D Plane Tracking. , 2006, , .		1
135	Vision-Based Interpretation of Hand Gestures for Remote Control of a Computer Mouse. Lecture Notes in Computer Science, 2006, , 40-51.	1.0	89
136	Exploiting Panoramic Vision for Bearing-Only Robot Homing. , 2006, , 229-251.		8
137	Robust and efficient event detection for the monitoring of automated processes. , 2006, , .		1
138	Tourbot and webfair web-operated mobile robots for tele-presence in populated exhibitions. IEEE Robotics and Automation Magazine, 2005, 12, 77-89.	2.2	50
139	Efficient, causal camera tracking in unprepared environments. Computer Vision and Image Understanding, 2005, 99, 259-290.	3.0	26
140	Robot Homing by Exploiting Panoramic Vision. Autonomous Robots, 2005, 19, 7-25.	3.2	89
141	Is Levenberg-Marquardt the most efficient optimization algorithm for implementing bundle adjustment?. , 2005, , .		143
142	Fast trifocal tensor estimation using virtual parallax. , 2005, , .		7
143	INTRODUCTION TO THE SPECIAL THEME. Information Technology and Tourism, 2005, 7, 181-182.	3.4	0
144	Biomimetic centering behavior. IEEE Robotics and Automation Magazine, 2004, 11, 21-68.	2.2	42

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145	Real-Time Tracking of Multiple Skin-Colored Objects with a Possibly Moving Camera. Lecture Notes in Computer Science, 2004, , 368-379.	1.0	131
146	Three-dimensional tracking of multiple skin-colored regions by a moving stereoscopic system. Applied Optics, 2004, 43, 366.	2.1	11
147	A graph-based approach to corner matching using mutual information as a local similarity measure. , 2004, , .		6
148	Angle-based methods for mobile robot navigation: reaching the entire plane. , 2004, , .		35
149	Tele-Presence in Populated Exhibitions Through Web-Operated Mobile Robots. Autonomous Robots, 2003, 15, 299-316.	3.2	13
150	Fusion of laser and visual data for robot motion planning and collision avoidance. Machine Vision and Applications, 2003, 15, 92-100.	1.7	59
151	Feature transfer and matching in disparate stereo views through the use of plane homographies. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2003, 25, 271-276.	9.7	15
152	Semi-autonomous Navigation of a Robotic Wheelchair. Journal of Intelligent and Robotic Systems: Theory and Applications, 2002, 34, 315-329.	2.0	37
153	Detecting Planes In An Uncalibrated Image Pair. , 2002, , .		30
154	Experiences from the use of a robotic avatar in a museum setting. , 2001, , .		10
155	Robust Regression for the Detection of Independent 3D Motion by a Binocular Observer. Real Time Imaging, 1998, 4, 125-141.	1.6	5
156	Independent 3D Motion Detection through Robust Regression in Depth Layers. , 1996, , .		10
157	Image-based personal communication using an innovative space-variant CMOS sensor. , 0, , .		2
158	Qualitative detection of 3D motion discontinuities. , 0, , .		15
159	Navigational support for robotic wheelchair platforms: an approach that combines vision and range sensors. , 0, , .		10
160	Independent 3D motion detection based on depth elimination in normal flow fields. , 0, , .		14
161	Independent 3D motion detection using residual parallax normal flow fields. , 0, , .		16
162	Combining central and peripheral vision for reactive robot navigation. , 0, , .		14

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163	Using geometric constraints for matching disparate stereo views of 3D scenes containing planes. , 0, , .		11
164	Robot homing based on corner tracking in a sequence of panoramic images. , 0, , .		27
165	Fast positioning of limited-visibility guards for the inspection of 2D workspaces. , 0, , .		24
166	Fusion of range and visual data for the extraction of scene structure information. , 0, , .		9
167	Vision-based camera motion recovery for augmented reality. , 0, , .		6
168	Camera Matchmoving in Unprepared, Unknown Environments. , 0, , .		2
169	Tracking Multiple Colored Blobs with a Moving Camera. , 0, , .		6