

Eric Marchand

List of Publications by Year in descending order

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Version: 2024-02-01

160
papers

4,181
citations

279487

23
h-index

182168

51
g-index

161
all docs

161
docs citations

161
times ranked

2617
citing authors

#	ARTICLE	IF	CITATIONS
1	Pose Estimation for Augmented Reality: A Hands-On Survey. IEEE Transactions on Visualization and Computer Graphics, 2016, 22, 2633-2651.	2.9	414
2	ViSP for visual servoing: a generic software platform with a wide class of robot control skills. IEEE Robotics and Automation Magazine, 2005, 12, 40-52.	2.2	393
3	Real-time markerless tracking for augmented reality: the virtual visual servoing framework. IEEE Transactions on Visualization and Computer Graphics, 2006, 12, 615-628.	2.9	349
4	Photometric Visual Servoing. IEEE Transactions on Robotics, 2011, 27, 828-834.	7.3	144
5	Eye-in-hand/eye-to-hand cooperation for visual servoing. , 0, , .		106
6	Feature tracking for visual servoing purposes. Robotics and Autonomous Systems, 2005, 52, 53-70.	3.0	101
7	Mutual Information-Based Visual Servoing. IEEE Transactions on Robotics, 2011, 27, 958-969.	7.3	98
8	Training Deep Neural Networks for Visual Servoing. , 2018, , .		87
9	Virtual Visual Servoing: a framework for real-time augmented reality. Computer Graphics Forum, 2002, 21, 289-297.	1.8	86
10	A 2Dâ€“3D model-based approach to real-time visual tracking. Image and Vision Computing, 2001, 19, 941-955.	2.7	83
11	CAD Model-based Tracking and 3D Visual-based Control for MEMS Microassembly. International Journal of Robotics Research, 2010, 29, 1416-1434.	5.8	76
12	A real-time tracker for markerless augmented reality. , 0, , .		72
13	Second-Order Optimization of Mutual Information for Real-Time Image Registration. IEEE Transactions on Image Processing, 2012, 21, 4190-4203.	6.0	66
14	Visual servoing set free from image processing. , 2008, , .		60
15	Chasing a moving target from a flying UAV. , 2011, , .		57
16	Bayes estimation based on -record data from a general class of distributions under balanced type loss functions. Journal of Statistical Planning and Inference, 2009, 139, 1180-1189.	0.4	56
17	Direct model based visual tracking and pose estimation using mutual information. Image and Vision Computing, 2014, 32, 54-63.	2.7	55
18	Vision-based absolute localization for unmanned aerial vehicles. , 2014, , .		52

#	ARTICLE	IF	CITATIONS
19	3-D Model-Based Tracking for UAV Indoor Localization. IEEE Transactions on Cybernetics, 2015, 45, 869-879.	6.2	51
20	Accurate real-time tracking using mutual information. , 2010, , .		49
21	Chasing a moving target from a flying UAV. , 2011, , .		47
22	On estimation with weighted balanced-type loss function. Statistics and Probability Letters, 2006, 76, 773-780.	0.4	46
23	FlyVIZ. , 2012, , .		44
24	Real-time Hybrid Tracking using Edge and Texture Information. International Journal of Robotics Research, 2007, 26, 689-713.	5.8	41
25	Active vision for complete scene reconstruction and exploration. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1999, 21, 65-72.	9.7	40
26	Motion-based obstacle detection and tracking for car driving assistance. , 0, , .		39
27	A Direct Visual Servoing Scheme for Automatic Nanopositioning. IEEE/ASME Transactions on Mechatronics, 2012, 17, 728-736.	3.7	38
28	Statistically robust 2-D visual servoing. , 2006, 22, 415-420.		36
29	Bayesian and Robust Bayesian analysis under a general class of balanced loss functions. Statistical Papers, 2012, 53, 51-60.	0.7	36
30	Vision-based space autonomous rendezvous: A case study. , 2011, , .		35
31	A Dense and Direct Approach to Visual Servoing Using Depth Maps. IEEE Transactions on Robotics, 2014, 30, 1242-1249.	7.3	34
32	Histograms-Based Visual Servoing. IEEE Robotics and Automation Letters, 2017, 2, 80-87.	3.3	34
33	Tracking complex targets for space rendezvous and debris removal applications. , 2012, , .		33
34	Experiments with robust estimation techniques in real-time robot vision. , 2006, , .		29
35	Active rough shape estimation of unknown objects. , 2008, , .		29
36	Prediction of k-records from a general class of distributions under balanced type loss functions. Metrika, 2009, 70, 19-33.	0.5	29

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37	3D model-based tracking for UAV position control. , 2010, , .		28
38	Photometric visual servoing for omnidirectional cameras. Autonomous Robots, 2013, 35, 177-193.	3.2	28
39	Entropy-based visual servoing. , 2009, , .		27
40	Controlling a camera in a virtual environment. Visual Computer, 2002, 18, 1-19.	2.5	25
41	Using multiple hypothesis in model-based tracking. , 2010, , .		25
42	Real-time target tracking of soft tissues in 3D ultrasound images based on robust visual information and mechanical simulation. Medical Image Analysis, 2017, 35, 582-598.	7.0	25
43	Hybrid tracking algorithms for planar and non-planar structures subject to illumination changes. , 2006, , .		24
44	Real-time 3D model-based tracking: combining edge and texture information. , 0, , .		23
45	One Click Focus with Eye-in-hand/Eye-to-hand Cooperation. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	23
46	Intuitive human interaction with an arm robot for severely handicapped people - A One Click Approach. , 2007, , .		23
47	A robust model-based tracker combining geometrical and color edge information. , 2013, , .		22
48	Control Camera and Light Source Positions using Image Gradient Information. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	21
49	Controlling an Uninstrumented Manipulator By Visual Servoing. International Journal of Robotics Research, 2002, 21, 635-647.	5.8	20
50	Robust Real-Time Visual Tracking: Comparison, Theoretical Analysis and Performance Evaluation. , 0, , .		20
51	Using image gradient as a visual feature for visual servoing. , 2010, , .		20
52	A modular framework for model-based visual tracking using edge, texture and depth features. , 2018, , .		20
53	Subspace-Based Direct Visual Servoing. IEEE Robotics and Automation Letters, 2019, 4, 2699-2706.	3.3	20
54	Using mutual information for appearance-based visual path following. Robotics and Autonomous Systems, 2013, 61, 259-270.	3.0	19

#	ARTICLE	IF	CITATIONS
55	Real-time keypoints matching: application to visual servoing. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	18
56	Combining complementary edge, keypoint and color features in model-based tracking for highly dynamic scenes. , 2014, , .		18
57	Character navigation in dynamic environments based on optical flow. Computer Graphics Forum, 2019, 38, 181-192.	1.8	18
58	Real time planar structure tracking for visual servoing: a contour and texture approach. , 2005, , .		17
59	Kinematic sets for real-time robust articulated object tracking. Image and Vision Computing, 2007, 25, 374-391.	2.7	17
60	Deformable random dot markers. , 2011, , .		16
61	Improving monocular plane-based SLAM with inertial measures. , 2010, , .		15
62	Reflectance and Illumination Estimation for Realistic Augmentations of Real Scenes. , 2016, , .		15
63	Virtual Visual Servoing: a framework for real-time augmented reality. Computer Graphics Forum, 2002, 21, 289-298.	1.8	15
64	Toward augmenting everything: Detecting and tracking geometrical features on planar objects. , 2011, , .		14
65	Photometric moments: New promising candidates for visual servoing. , 2013, , .		14
66	Calibration of scanning electron microscope using a multi-image non-linear minimization process. , 2014, , .		14
67	MoSART: Mobile Spatial Augmented Reality for 3D Interaction With Tangible Objects. Frontiers in Robotics and AI, 2018, 5, 93.	2.0	14
68	Direct Visual Servoing in the Frequency Domain. IEEE Robotics and Automation Letters, 2020, 5, 620-627.	3.3	14
69	Vision-based space autonomous rendezvous: A case study. , 2011, , .		14
70	3D model based tracking for omnidirectional vision: A new spherical approach. Robotics and Autonomous Systems, 2012, 60, 1056-1068.	3.0	13
71	An Autonomous Active Vision System for Complete and Accurate 3D Scene Reconstruction. International Journal of Computer Vision, 1999, 32, 171-194.	10.9	12
72	Real-time vision-based microassembly of 3D MEMS. , 2009, , .		12

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73	A day at the museum: An augmented fine-art exhibit. , 2010, , .		12
74	TwistSLAM: Constrained SLAM in Dynamic Environment. IEEE Robotics and Automation Letters, 2022, 7, 6846-6853.	3.3	12
75	Depth-assisted rectification for real-time object detection and pose estimation. Machine Vision and Applications, 2016, 27, 193-219.	1.7	11
76	[POSTER] Illumination Estimation Using Cast Shadows for Realistic Augmented Reality Applications. , 2017, , .		11
77	A Plane-based Approach for Indoor Point Clouds Registration. , 2021, , .		11
78	Avoiding robot joint limits and kinematic singularities in visual servoing. , 1996, , .		10
79	Efficient model-based tracking for robot vision. Advanced Robotics, 2005, 19, 1097-1113.	1.1	10
80	Hybrid tracking approach using optical flow and pose estimation. , 2008, , .		10
81	Augmenting markerless complex 3D objects by combining geometrical and color edge information. , 2013, , .		10
82	Stereoscopic rendering of virtual environments with wide Field-of-Views up to 360°. , 2014, , .		10
83	Direct visual servoing based on multiple intensity histograms. , 2015, , .		10
84	Model-free augmented reality by virtual visual servoing. , 2004, , .		9
85	Modeling complex luminance variations for target tracking. , 2008, , .		9
86	3D model based pose estimation for omnidirectional stereovision. , 2009, , .		9
87	Microassembly of complex and solid 3D MEMS by 3D vision-based control. , 2009, , .		9
88	Tracking planes in omnidirectional stereovision. , 2011, , .		9
89	Direct 3D servoing using dense depth maps. , 2012, , .		9
90	Visual servoing using the sum of conditional variance. , 2012, , .		9

#	ARTICLE	IF	CITATIONS
91	Navigating in virtual environments with 360° omnidirectional rendering. , 2013, , .		9
92	Mapping and re-localization for mobile augmented reality. , 2014, , .		9
93	Scanning Electron Microscope Calibration Using a Multi-Image Non-Linear Minimization Process. International Journal of Optomechatronics, 2015, 9, 151-169.	3.3	9
94	Increasing optical tracking workspace of VR applications using controlled cameras. , 2017, , .		9
95	Detecting Specular Reflections and Cast Shadows to Estimate Reflectance and Illumination of Dynamic Indoor Scenes. IEEE Transactions on Visualization and Computer Graphics, 2022, 28, 1249-1260.	2.9	9
96	Object-Based Visual 3D Tracking of Articulated Objects via Kinematic Sets. , 0, , .		8
97	Video mosaicing using a mutual information-based motion estimation process. , 2011, , .		8
98	A new information theoretic approach for appearance-based navigation of non-holonomic vehicle. , 2011, , .		8
99	Particle filter-based direct visual servoing. , 2016, , .		8
100	Visual Servoing in Autoencoder Latent Space. IEEE Robotics and Automation Letters, 2022, 7, 3234-3241.	3.3	8
101	Robust stereo tracking for space applications. , 2007, , .		7
102	Fitting 3D Models on Central Catadioptric Images. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	7
103	Visual planes-based simultaneous localization and model refinement for augmented reality. , 2008, , .		7
104	Colorimetry-based visual servoing. , 2009, , .		7
105	Improving mutual information-based visual servoing. , 2010, , .		7
106	Three-dimensional visual tracking and pose estimation in Scanning Electron Microscopes. , 2016, , .		7
107	Estimation of Position and Intensity of Dynamic Light Sources Using Cast Shadows on Textured Real Surfaces. , 2018, , .		7
108	L6DNet: Light 6 DoF Network for Robust and Precise Object Pose Estimation With Small Datasets. IEEE Robotics and Automation Letters, 2021, 6, 2914-2921.	3.3	7

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109	Specifying and Verifying Active Vision-Based Robotic Systems with the SIGNAL Environment. International Journal of Robotics Research, 1998, 17, 418-432.	5.8	6
110	3D object pose detection using foreground/background segmentation. , 2015, , .		6
111	Tracking of Non-Rigid Objects using RGB-D Camera. , 2019, , .		6
112	Luminance: A New Visual Feature for Visual Servoing. Lecture Notes in Control and Information Sciences, 2010, , 71-90.	0.6	6
113	Siame-se(3): regression in se(3) for end-to-end visual servoing. , 2021, , .		6
114	From data-flow task to multitasking: applying the synchronous approach to active vision in robotics. IEEE Transactions on Control Systems Technology, 1997, 5, 200-216.	3.2	5
115	Visual servoing through mirror reflection. , 2017, , .		5
116	Image-based UAV localization using interval methods. , 2017, , .		5
117	Complex Articulated Object Tracking. Lecture Notes in Computer Science, 2004, , 189-201.	1.0	5
118	The sequencing of data flow tasks in SIGNAL: application to active vision in robotics. , 0, , .		4
119	Controlling the manipulator of an underwater ROV using a coarse calibrated pan/tilt camera. , 0, , .		4
120	Highly precise micropositioning task using a direct visual servoing scheme. , 2011, , .		4
121	Camera localization using mutual information-based multiplane tracking. , 2013, , .		4
122	Decoupled mapping and localization for Augmented Reality on a mobile phone. , 2014, , .		4
123	Virtual shadows for real humans in a CAVE. , 2018, , .		4
124	Attracted by light: vision-based steering virtual characters among dark and light obstacles. , 2019, , .		4
125	A combination of particle filtering and deterministic approaches for multiple kernel tracking. , 2009, , .		3
126	Stereo Tracking and Servoing for Space Applications. Advanced Robotics, 2009, 23, 579-599.	1.1	3

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127	Optimal detection and tracking of feature points using mutual information. , 2009, , .		3
128	Estimating a bounded parameter for symmetric distributions. Annals of the Institute of Statistical Mathematics, 2009, 61, 215-234.	0.5	3
129	Photometry-based visual servoing using light reflexion models. , 2009, , .		3
130	Omnidirectional photometric visual servoing. , 2010, , .		3
131	Single viewpoint stereoscopic sensor calibration. , 2010, , .		3
132	6-DoF automatic micropositioning using photometric information. , 2014, , .		3
133	Closed-Loop Autofocus Scheme for Scanning Electron Microscope. MATEC Web of Conferences, 2015, 32, 05003.	0.1	3
134	TT-SLAM: Dense Monocular SLAM for Planar Environments. , 2021, , .		3
135	Relative Pose Estimation and Planar Reconstruction via Superpixel-Driven Multiple Homographies. , 2020, , .		3
136	Controlling an uninstrumented ROV manipulator by visual servoing. , 0, , .		2
137	Texture-less planar object detection and pose estimation using Depth-Assisted Rectification of Contours. , 2012, , .		2
138	Special Issue on Robot Vision. International Journal of Robotics Research, 2015, 34, 399-401.	5.8	2
139	Interval-Based Cooperative Uavs Pose Domain Characterization from Images and Ranges. , 2018, , .		2
140	Cooperative Localization of Drones by using Interval Methods. Acta Cybernetica, 2020, 24, 557-572.	0.5	2
141	Plane-based Accurate Registration of Real-world Point Clouds. , 2021, , .		2
142	A model free hybrid algorithm for real time tracking. , 2005, , .		1
143	Design and evaluation of methods to prevent frame cancellation in real-time stereoscopic rendering. , 2011, , .		1
144	Dense non-rigid visual tracking with a robust similarity function. , 2014, , .		1

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145	Hybrid automatic visual servoing scheme using defocus information for 6-DoF micropositioning. , 2015, , .		1
146	Enjoy 360° vision with the FlyVIZ. , 2016, , .		1
147	Optimized Contrast Enhancements to Improve Robustness of Visual Tracking in a SLAM Relocalisation Context. , 2018, , .		1
148	Multiple Layers of Contrasted Images for Robust Feature-Based Visual Tracking. , 2018, , .		1
149	Using Constraint Propagation for Cooperative UAV Localization from Vision and Ranging. Studies in Systems, Decision and Control, 2020, , 133-138.	0.8	1
150	Visual Servoing-based Registration of Multimodal Images. , 2015, , .		1
151	Autofocusing-based visual servoing: Application to MEMS micromanipulation. , 2010, , .		0
152	Omnidirectional Visual Servoing using the Normalized Mutual Information. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 102-107.	0.4	0
153	Visual servoing from lines using a planar catadioptric system. , 2017, , .		0
154	An optical tracking system based on hybrid stereo/single-view registration and controlled cameras. , 2017, , .		0
155	Probeless and Realistic Mixed Reality Application in Presence of Dynamic Light Sources. , 2018, , .		0
156	RGB-D Tracking of Complex Shapes Using Coarse Object Models. , 2019, , .		0
157	Visual Tracking of Deforming Objects Using Physics-based Models. , 2021, , .		0
158	A Bayes nets-based prediction/verification scheme for active visual reconstruction. Lecture Notes in Computer Science, 1997, , 648-655.	1.0	0
159	Visual Tracking. , 2020, , 1-14.		0
160	Binary Graph Descriptor for Robust Relocalization on Heterogeneous Data. IEEE Robotics and Automation Letters, 2022, 7, 2008-2015.	3.3	0