

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	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
2	Visual Servoing in Autoencoder Latent Space. IEEE Robotics and Automation Letters, 2022, 7, 3234-3241.	3.3	8
3	Binary Graph Descriptor for Robust Relocalization on Heterogeneous Data. IEEE Robotics and Automation Letters, 2022, 7, 2008-2015.	3.3	0
4	TwistSLAM: Constrained SLAM in Dynamic Environment. IEEE Robotics and Automation Letters, 2022, 7, 6846-6853.	3.3	12
5	A Plane-based Approach for Indoor Point Clouds Registration. , 2021, , .		11
6	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
7	TT-SLAM: Dense Monocular SLAM for Planar Environments. , 2021, , .		3
8	Siame-se(3): regression in se(3) for end-to-end visual servoing. , 2021, , .		6
9	Visual Tracking of Deforming Objects Using Physics-based Models. , 2021, , .		0
10	Plane-based Accurate Registration of Real-world Point Clouds. , 2021, , .		2
11	Direct Visual Servoing in the Frequency Domain. IEEE Robotics and Automation Letters, 2020, 5, 620-627.	3.3	14
12	Using Constraint Propagation for Cooperative UAV Localization from Vision and Ranging. Studies in Systems, Decision and Control, 2020, , 133-138.	0.8	1
13	Cooperative Localization of Drones by using Interval Methods. Acta Cybernetica, 2020, 24, 557-572.	0.5	2
14	Visual Tracking. , 2020, , 1-14.		0
15	Relative Pose Estimation and Planar Reconstruction via Superpixel-Driven Multiple Homographies. , 2020, , .		3
16	Subspace-Based Direct Visual Servoing. IEEE Robotics and Automation Letters, 2019, 4, 2699-2706.	3.3	20
17	Character navigation in dynamic environments based on optical flow. Computer Graphics Forum, 2019, 38, 181-192.	1.8	18
18	RGB-D Tracking of Complex Shapes Using Coarse Object Models. , 2019, , .		0

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19	Tracking of Non-Rigid Objects using RGB-D Camera. , 2019, , .		6
20	Attracted by light: vision-based steering virtual characters among dark and light obstacles. , 2019, , .		4
21	Virtual shadows for real humans in a CAVE. , 2018, , .		4
22	Estimation of Position and Intensity of Dynamic Light Sources Using Cast Shadows on Textured Real Surfaces. , 2018, , .		7
23	A modular framework for model-based visual tracking using edge, texture and depth features. , 2018, , .		20
24	Interval-Based Cooperative Uavs Pose Domain Characterization from Images and Ranges. , 2018, , .		2
25	Probeless and Realistic Mixed Reality Application in Presence of Dynamic Light Sources. , 2018, , .		0
26	Optimized Contrast Enhancements to Improve Robustness of Visual Tracking in a SLAM Relocalisation Context. , 2018, , .		1
27	Training Deep Neural Networks for Visual Servoing. , 2018, , .		87
28	MoSART: Mobile Spatial Augmented Reality for 3D Interaction With Tangible Objects. <i>Frontiers in Robotics and AI</i> , 2018, 5, 93.	2.0	14
29	Multiple Layers of Contrasted Images for Robust Feature-Based Visual Tracking. , 2018, , .		1
30	Histograms-Based Visual Servoing. <i>IEEE Robotics and Automation Letters</i> , 2017, 2, 80-87.	3.3	34
31	Increasing optical tracking workspace of VR applications using controlled cameras. , 2017, , .		9
32	Real-time target tracking of soft tissues in 3D ultrasound images based on robust visual information and mechanical simulation. <i>Medical Image Analysis</i> , 2017, 35, 582-598.	7.0	25
33	Visual servoing through mirror reflection. , 2017, , .		5
34	Visual servoing from lines using a planar catadioptric system. , 2017, , .		0
35	Image-based UAV localization using interval methods. , 2017, , .		5
36	An optical tracking system based on hybrid stereo/single-view registration and controlled cameras. , 2017, , .		0

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37	[POSTER] Illumination Estimation Using Cast Shadows for Realistic Augmented Reality Applications. , 2017, , .		11
38	Particle filter-based direct visual servoing. , 2016, , .		8
39	Three-dimensional visual tracking and pose estimation in Scanning Electron Microscopes. , 2016, , .		7
40	Reflectance and Illumination Estimation for Realistic Augmentations of Real Scenes. , 2016, , .		15
41	Enjoy 360° vision with the FlyVIZ. , 2016, , .		1
42	Depth-assisted rectification for real-time object detection and pose estimation. Machine Vision and Applications, 2016, 27, 193-219.	1.7	11
43	Pose Estimation for Augmented Reality: A Hands-On Survey. IEEE Transactions on Visualization and Computer Graphics, 2016, 22, 2633-2651.	2.9	414
44	Hybrid automatic visual servoing scheme using defocus information for 6-DoF micropositioning. , 2015, , .		1
45	Closed-Loop Autofocus Scheme for Scanning Electron Microscope. MATEC Web of Conferences, 2015, 32, 05003.	0.1	3
46	Special Issue on Robot Vision. International Journal of Robotics Research, 2015, 34, 399-401.	5.8	2
47	Direct visual servoing based on multiple intensity histograms. , 2015, , .		10
48	Scanning Electron Microscope Calibration Using a Multi-Image Non-Linear Minimization Process. International Journal of Optomechatronics, 2015, 9, 151-169.	3.3	9
49	3D object pose detection using foreground/background segmentation. , 2015, , .		6
50	3-D Model-Based Tracking for UAV Indoor Localization. IEEE Transactions on Cybernetics, 2015, 45, 869-879.	6.2	51
51	Visual Servoing-based Registration of Multimodal Images. , 2015, , .		1
52	Mapping and re-localization for mobile augmented reality. , 2014, , .		9
53	Dense non-rigid visual tracking with a robust similarity function. , 2014, , .		1
54	Calibration of scanning electron microscope using a multi-image non-linear minimization process. , 2014, , .		14

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55	6-DoF automatic micropositioning using photometric information. , 2014, , .		3
56	Combining complementary edge, keypoint and color features in model-based tracking for highly dynamic scenes. , 2014, , .		18
57	A Dense and Direct Approach to Visual Servoing Using Depth Maps. IEEE Transactions on Robotics, 2014, 30, 1242-1249.	7.3	34
58	Decoupled mapping and localization for Augmented Reality on a mobile phone. , 2014, , .		4
59	Stereoscopic rendering of virtual environments with wide Field-of-Views up to 360° , 2014, , .		10
60	Vision-based absolute localization for unmanned aerial vehicles. , 2014, , .		52
61	Direct model based visual tracking and pose estimation using mutual information. Image and Vision Computing, 2014, 32, 54-63.	2.7	55
62	Photometric visual servoing for omnidirectional cameras. Autonomous Robots, 2013, 35, 177-193.	3.2	28
63	Using mutual information for appearance-based visual path following. Robotics and Autonomous Systems, 2013, 61, 259-270.	3.0	19
64	Augmenting markerless complex 3D objects by combining geometrical and color edge information. , 2013, , .		10
65	A robust model-based tracker combining geometrical and color edge information. , 2013, , .		22
66	Photometric moments: New promising candidates for visual servoing. , 2013, , .		14
67	Camera localization using mutual information-based multiplane tracking. , 2013, , .		4
68	Navigating in virtual environments with 360° omnidirectional rendering. , 2013, , .		9
69	FlyVIZ. , 2012, , .		44
70	Tracking complex targets for space rendezvous and debris removal applications. , 2012, , .		33
71	Direct 3D servoing using dense depth maps. , 2012, , .		9
72	Omnidirectional Visual Servoing using the Normalized Mutual Information. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 102-107.	0.4	0

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73	A Direct Visual Servoing Scheme for Automatic Nanopositioning. IEEE/ASME Transactions on Mechatronics, 2012, 17, 728-736.	3.7	38
74	Visual servoing using the sum of conditional variance. , 2012, , .		9
75	3D model based tracking for omnidirectional vision: A new spherical approach. Robotics and Autonomous Systems, 2012, 60, 1056-1068.	3.0	13
76	Second-Order Optimization of Mutual Information for Real-Time Image Registration. IEEE Transactions on Image Processing, 2012, 21, 4190-4203.	6.0	66
77	Texture-less planar object detection and pose estimation using Depth-Assisted Rectification of Contours. , 2012, , .		2
78	Bayesian and Robust Bayesian analysis under a general class of balanced loss functions. Statistical Papers, 2012, 53, 51-60.	0.7	36
79	Deformable random dot markers. , 2011, , .		16
80	Toward augmenting everything: Detecting and tracking geometrical features on planar objects. , 2011, , .		14
81	Chasing a moving target from a flying UAV. , 2011, , .		47
82	Photometric Visual Servoing. IEEE Transactions on Robotics, 2011, 27, 828-834.	7.3	144
83	Mutual Information-Based Visual Servoing. IEEE Transactions on Robotics, 2011, 27, 958-969.	7.3	98
84	Video mosaicing using a mutual information-based motion estimation process. , 2011, , .		8
85	Highly precise micropositioning task using a direct visual servoing scheme. , 2011, , .		4
86	Vision-based space autonomous rendezvous: A case study. , 2011, , .		35
87	Tracking planes in omnidirectional stereovision. , 2011, , .		9
88	Design and evaluation of methods to prevent frame cancellation in real-time stereoscopic rendering. , 2011, , .		1
89	A new information theoretic approach for appearance-based navigation of non-holonomic vehicle. , 2011, , .		8
90	Chasing a moving target from a flying UAV. , 2011, , .		57

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91	Vision-based space autonomous rendezvous: A case study. , 2011, , .		14
92	CAD Model-based Tracking and 3D Visual-based Control for MEMS Microassembly. International Journal of Robotics Research, 2010, 29, 1416-1434.	5.8	76
93	Improving monocular plane-based SLAM with inertial measures. , 2010, , .		15
94	3D model-based tracking for UAV position control. , 2010, , .		28
95	Omnidirectional photometric visual servoing. , 2010, , .		3
96	Using image gradient as a visual feature for visual servoing. , 2010, , .		20
97	Accurate real-time tracking using mutual information. , 2010, , .		49
98	Autofocusing-based visual servoing: Application to MEMS micromanipulation. , 2010, , .		0
99	Single viewpoint stereoscopic sensor calibration. , 2010, , .		3
100	Improving mutual information-based visual servoing. , 2010, , .		7
101	Using multiple hypothesis in model-based tracking. , 2010, , .		25
102	A day at the museum: An augmented fine-art exhibit. , 2010, , .		12
103	Luminance: A New Visual Feature for Visual Servoing. Lecture Notes in Control and Information Sciences, 2010, , 71-90.	0.6	6
104	Real-time vision-based microassembly of 3D MEMS. , 2009, , .		12
105	A combination of particle filtering and deterministic approaches for multiple kernel tracking. , 2009, , .		3
106	Colorimetry-based visual servoing. , 2009, , .		7
107	3D model based pose estimation for omnidirectional stereovision. , 2009, , .		9
108	Microassembly of complex and solid 3D MEMS by 3D vision-based control. , 2009, , .		9

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109	Stereo Tracking and Servoing for Space Applications. <i>Advanced Robotics</i> , 2009, 23, 579-599.	1.1	3
110	Entropy-based visual servoing. , 2009, , .		27
111	Optimal detection and tracking of feature points using mutual information. , 2009, , .		3
112	Estimating a bounded parameter for symmetric distributions. <i>Annals of the Institute of Statistical Mathematics</i> , 2009, 61, 215-234.	0.5	3
113	Prediction of k-records from a general class of distributions under balanced type loss functions. <i>Metrika</i> , 2009, 70, 19-33.	0.5	29
114	Bayes estimation based on -record data from a general class of distributions under balanced type loss functions. <i>Journal of Statistical Planning and Inference</i> , 2009, 139, 1180-1189.	0.4	56
115	Photometry-based visual servoing using light reflexion models. , 2009, , .		3
116	Visual servoing set free from image processing. , 2008, , .		60
117	Hybrid tracking approach using optical flow and pose estimation. , 2008, , .		10
118	Active rough shape estimation of unknown objects. , 2008, , .		29
119	Modeling complex luminance variations for target tracking. , 2008, , .		9
120	Visual planes-based simultaneous localization and model refinement for augmented reality. , 2008, , .		7
121	Real-time keypoints matching: application to visual servoing. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , 2007, , .	0.0	18
122	One Click Focus with Eye-in-hand/Eye-to-hand Cooperation. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , 2007, , .	0.0	23
123	Intuitive human interaction with an arm robot for severely handicapped people - A One Click Approach. , 2007, , .		23
124	Real-time Hybrid Tracking using Edge and Texture Information. <i>International Journal of Robotics Research</i> , 2007, 26, 689-713.	5.8	41
125	Robust stereo tracking for space applications. , 2007, , .		7
126	Control Camera and Light Source Positions using Image Gradient Information. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , 2007, , .	0.0	21

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127	Fitting 3D Models on Central Catadioptric Images. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	7
128	Kinematic sets for real-time robust articulated object tracking. Image and Vision Computing, 2007, 25, 374-391.	2.7	17
129	Hybrid tracking algorithms for planar and non-planar structures subject to illumination changes. , 2006, , .		24
130	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
131	Statistically robust 2-D visual servoing. , 2006, 22, 415-420.		36
132	On estimation with weighted balanced-type loss function. Statistics and Probability Letters, 2006, 76, 773-780.	0.4	46
133	Experiments with robust estimation techniques in real-time robot vision. , 2006, , .		29
134	Feature tracking for visual servoing purposes. Robotics and Autonomous Systems, 2005, 52, 53-70.	3.0	101
135	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
136	Efficient model-based tracking for robot vision. Advanced Robotics, 2005, 19, 1097-1113.	1.1	10
137	Real time planar structure tracking for visual servoing: a contour and texture approach. , 2005, , .		17
138	A model free hybrid algorithm for real time tracking. , 2005, , .		1
139	Model-free augmented reality by virtual visual servoing. , 2004, , .		9
140	Complex Articulated Object Tracking. Lecture Notes in Computer Science, 2004, , 189-201.	1.0	5
141	Controlling an Uninstrumented Manipulator By Visual Servoing. International Journal of Robotics Research, 2002, 21, 635-647.	5.8	20
142	Virtual Visual Servoing: a framework for real-time augmented reality. Computer Graphics Forum, 2002, 21, 289-297.	1.8	86
143	Controlling a camera in a virtual environment. Visual Computer, 2002, 18, 1-19.	2.5	25
144	Virtual Visual Servoing: a framework for real-time augmented reality. Computer Graphics Forum, 2002, 21, 289-298.	1.8	15

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145	A 2D to 3D model-based approach to real-time visual tracking. Image and Vision Computing, 2001, 19, 941-955.	2.7	83
146	An Autonomous Active Vision System for Complete and Accurate 3D Scene Reconstruction. International Journal of Computer Vision, 1999, 32, 171-194.	10.9	12
147	Active vision for complete scene reconstruction and exploration. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1999, 21, 65-72.	9.7	40
148	Specifying and Verifying Active Vision-Based Robotic Systems with the SIGNAL Environment. International Journal of Robotics Research, 1998, 17, 418-432.	5.8	6
149	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
150	A Bayes nets-based prediction/verification scheme for active visual reconstruction. Lecture Notes in Computer Science, 1997, , 648-655.	1.0	0
151	Avoiding robot joint limits and kinematic singularities in visual servoing. , 1996, , .		10
152	The sequencing of data flow tasks in SIGNAL: application to active vision in robotics. , 0, , .		4
153	Eye-in-hand/eye-to-hand cooperation for visual servoing. , 0, , .		106
154	Controlling an uninstrumented ROV manipulator by visual servoing. , 0, , .		2
155	Controlling the manipulator of an underwater ROV using a coarse calibrated pan/tilt camera. , 0, , .		4
156	Motion-based obstacle detection and tracking for car driving assistance. , 0, , .		39
157	A real-time tracker for markerless augmented reality. , 0, , .		72
158	Object-Based Visual 3D Tracking of Articulated Objects via Kinematic Sets. , 0, , .		8
159	Robust Real-Time Visual Tracking: Comparison, Theoretical Analysis and Performance Evaluation. , 0, , .		20
160	Real-time 3D model-based tracking: combining edge and texture information. , 0, , .		23