

João Pedro Barreto

List of Publications by Year in descending order

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Version: 2024-02-01

76
papers

1,566
citations

566801

15
h-index

454577

30
g-index

81
all docs

81
docs citations

81
times ranked

1147
citing authors

#	ARTICLE	IF	CITATIONS
1	A Minimal Solution for the Extrinsic Calibration of a Camera and a Laser-Range-finder. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2012, 34, 2097-2107.	9.7	140
2	Geometric properties of central catadioptric line images and their application in calibration. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2005, 27, 1327-1333.	9.7	139
3	A unifying geometric representation for central projection systems. Computer Vision and Image Understanding, 2006, 103, 208-217.	3.0	77
4	Fundamental matrix for cameras with radial distortion. , 2005, , .		75
5	A New Solution for Camera Calibration and Real-Time Image Distortion Correction in Medical Endoscopy – Initial Technical Evaluation. IEEE Transactions on Biomedical Engineering, 2012, 59, 634-644.	2.5	75
6	sRD-SIFT: Keypoint Detection and Matching in Images With Radial Distortion. IEEE Transactions on Robotics, 2012, 28, 752-760.	7.3	74
7	Calibration of Central Catadioptric Cameras Using a DLT-Like Approach. International Journal of Computer Vision, 2011, 93, 101-114.	10.9	57
8	Geometric Properties of Central Catadioptric Line Images. Lecture Notes in Computer Science, 2002, , 237-251.	1.0	47
9	Automatic Camera Calibration Applied to Medical Endoscopy. , 2009, , .		43
10	A Global Approach for the Detection of Vanishing Points and Mutually Orthogonal Vanishing Directions. , 2013, , .		40
11	Fast and Accurate Calibration of a Kinect Sensor. , 2013, , .		39
12	Theory and Practice of Structure-From-Motion Using Affine Correspondences. , 2016, , .		38
13	Robust hand-eye calibration for computer aided medical endoscopy. , 2010, , .		36
14	Hand gesture recognition using color and depth images enhanced with hand angular pose data. , 2012, , .		34
15	Visual Servoing/Tracking Using Central Catadioptric Images. , 2003, , 245-254.		34
16	Camera Pose Estimation Using Images of Planar Mirror Reflections. Lecture Notes in Computer Science, 2010, , 382-395.	1.0	34
17	Using 2 point+normal sets for fast registration of point clouds with small overlap. , 2017, , .		32
18	Fitting conics to paracatadioptric projections of lines. Computer Vision and Image Understanding, 2006, 101, 151-165.	3.0	30

#	ARTICLE	IF	CITATIONS
19	Unsupervised Intrinsic Calibration from a Single Frame Using a Plumb-Line Approach. , 2013, , .		30
20	Plane-based Odometry using an RGB-D Camera. , 2013, , .		30
21	Unsupervised Vanishing Point Detection and Camera Calibration from a Single Manhattan Image with Radial Distortion. , 2017, , .		27
22	Deep segmentation leverages geometric pose estimation in computer-aided total knee arthroplasty. Healthcare Technology Letters, 2019, 6, 226-230.	1.9	25
23	Plane-based calibration of central catadioptric cameras. , 2009, , .		24
24	Direct Least Square Fitting of Paracatadioptric Line Images. , 2003, , .		21
25	On-line sequential extreme learning machine based on recursive partial least squares. Journal of Process Control, 2015, 27, 15-21.	1.7	20
26	Hand-eye and radial distortion calibration for rigid endoscopes. International Journal of Medical Robotics and Computer Assisted Surgery, 2013, 9, 441-454.	1.2	17
27	General Imaging Geometry for Central Catadioptric Cameras. Lecture Notes in Computer Science, 2008, , 609-622.	1.0	17
28	Depth range accuracy for plenoptic cameras. Computer Vision and Image Understanding, 2018, 168, 104-117.	3.0	16
29	Automatic Camera Calibration Using Multiple Sets of Pairwise Correspondences. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 791-803.	9.7	16
30	Active Stereo Tracking of $N \leq 3$ Targets Using Line Scan Cameras. IEEE Transactions on Robotics, 2010, 26, 442-457.	7.3	15
31	Perspective shape from shading for wide-FOV near-lighting endoscopes. Neurocomputing, 2015, 150, 136-146.	3.5	15
32	Video-based computer navigation in knee arthroscopy for patient-specific ACL reconstruction. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 1529-1539.	1.7	15
33	Feature detection and matching in images with radial distortion. , 2010, , .		13
34	Non Parametric Distortion Correction in Endoscopic Medical Images. , 2007, , .		12
35	Piecewise-Planar StereoScan: Structure and Motion from Plane Primitives. Lecture Notes in Computer Science, 2014, , 48-63.	1.0	12
36	Near-LSPA performance at MSA complexity. , 2013, , .		11

#	ARTICLE	IF	CITATIONS
37	SymStereo: Stereo Matching using Induced Symmetry. International Journal of Computer Vision, 2014, 109, 187-208.	10.9	11
38	\$\$pi \$\$Match: Monocular vSLAM and Piecewise Planar Reconstruction Using Fast Plane Correspondences. Lecture Notes in Computer Science, 2016, , 380-395.	1.0	11
39	Extrinsic calibration of multi-modal sensor arrangements with non-overlapping field-of-view. Machine Vision and Applications, 2017, 28, 141-155.	1.7	10
40	A General Framework for the Selection of World Coordinate Systems in Perspective and Catadioptric Imaging Applications. International Journal of Computer Vision, 2004, 57, 23-47.	10.9	8
41	Automatic Clustering Using a Genetic Algorithm with New Solution Encoding and Operators. Lecture Notes in Computer Science, 2014, , 92-103.	1.0	8
42	Can stereo vision replace a Laser Rangefinder?. , 2012, , .		7
43	Single-image estimation of the camera response function in near-lighting. , 2015, , .		7
44	Piecewise-Planar StereoScan: Sequential Structure and Motion Using Plane Primitives. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 1918-1931.	9.7	7
45	Structure from plenoptic imaging. , 2017, , .		6
46	Parallel refinement of slanted 3D reconstruction using dense stereo induced from symmetry. Journal of Real-Time Image Processing, 2019, 16, 1037-1055.	2.2	6
47	Standard Plenoptic Cameras Mapping to Camera Arrays and Calibration Based on DLT. IEEE Transactions on Circuits and Systems for Video Technology, 2020, 30, 4090-4099.	5.6	6
48	Visual Odometry in Stereo Endoscopy by Using PEaRL to Handle Partial Scene Deformation. Lecture Notes in Computer Science, 2014, , 33-40.	1.0	6
49	Plane Surface Detection and Reconstruction using Induced Stereo Symmetry. , 2011, , .		6
50	Stereo estimation of depth along virtual cut planes. , 2011, , .		5
51	Localization in indoor environments by querying omnidirectional visual maps using perspective images. , 2012, , .		5
52	Real-time HD image distortion correction in heterogeneous parallel computing systems using efficient memory access patterns. Journal of Real-Time Image Processing, 2016, 11, 83-91.	2.2	5
53	Piecewise-planar reconstruction using two views. Image and Vision Computing, 2016, 46, 47-63.	2.7	5
54	Towards markerless computer-aided surgery combining deep segmentation and geometric pose estimation: application in total knee arthroplasty. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2021, 9, 271-278.	1.3	5

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55	Semi-dense Piecewise Planar Stereo Reconstruction Using SymStereo and PEARL. , 2012, , .		4
56	Using the GPU for fast symmetry-based dense stereo matching in high resolution images. , 2014, , .		4
57	Video-Based Computer Aided Arthroscopy for Patient Specific Reconstruction of the Anterior Cruciate Ligament. Lecture Notes in Computer Science, 2018, , 125-133.	1.0	4
58	Tracking Feature Points in Uncalibrated Images with Radial Distortion. Lecture Notes in Computer Science, 2012, , 1-14.	1.0	4
59	Towards a minimal solution for the relative pose between axial cameras. , 2013, , .		4
60	Active stereo tracking of multiple free-moving targets. , 2009, , .		3
61	Adaptive and hybrid genetic approaches for estimating the camera motion from image point correspondences. , 2011, , .		3
62	Continuous Zoom Calibration by Tracking Salient Points in Endoscopic Video. Lecture Notes in Computer Science, 2014, 17, 456-463.	1.0	3
63	Efficient Stereo Matching Using Histogram Aggregation with Multiple Slant Hypotheses. Lecture Notes in Computer Science, 2013, , 1-10.	1.0	3
64	A Minimal Solution for Camera Calibration Using Independent Pairwise Correspondences. Lecture Notes in Computer Science, 2012, , 724-737.	1.0	2
65	Minimal Solution for Computing Pairs of Lines in Non-central Cameras. Lecture Notes in Computer Science, 2015, , 585-597.	1.0	2
66	Accurate Reconstruction of Oriented 3D Points Using Affine Correspondences. Lecture Notes in Computer Science, 2020, , 545-560.	1.0	2
67	ArthroNav: Computer assisted navigation system for orthopedic surgery using endoscopic images. , 2011, , .		1
68	Erratum to "A New Solution for Camera Calibration and Real-Time Image Distortion Correction in Medical Endoscopy" Initial Technical Evaluation. IEEE Transactions on Biomedical Engineering, 2012, 59, 2095-2095.	2.5	1
69	Distributed dense stereo matching for 3D reconstruction using parallel-based processing advantages. , 2015, , .		1
70	Automatic landmark detection in distal femur from surgical video footage. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 0, , 1-9.	1.3	1
71	Photometric camera characterization from a single image with invariance to light intensity and vignetting. Computer Vision and Image Understanding, 2020, 192, 102887.	3.0	0
72	GPU-accelerated uncapacitated facility location and semi-dense SymStereo pipelines for piecewise-planar-based 3D reconstruction. Journal of Real-Time Image Processing, 2021, 18, 445-461.	2.2	0

#	ARTICLE	IF	CITATIONS
73	Perspective Shape from Shading for Wide-FOV Near-Lighting Endoscopes. Lecture Notes in Computer Science, 2013, , 21-30.	1.0	0
74	Corneal Nerve Morphometry for Diabetic Peripheral Neuropathy Assessment. IFMBE Proceedings, 2014, , 296-299.	0.2	0
75	Influence of Positive Instances on Multiple Instance Support Vector Machines. Advances in Intelligent Systems and Computing, 2016, , 259-271.	0.5	0
76	Active stereo tracking of multiple free-moving targets. , 2009, , .		0