Yasuyuki Matsushita

List of Publications by Year
in descending order

149 papers	5,982 citations	257357 24 h-index	175177 52 g-index
154 all docs	154 docs citations	154 times ranked	4069 citing authors

#	Article	IF	Citations
1	Full-frame video stabilization with motion inpainting. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2006, 28, 1150-1163.	9.7	474
2	Traffic monitoring and accident detection at intersections. IEEE Transactions on Intelligent Transportation Systems, 2000, 1, 108-118.	4.7	415
3	Motion Detail Preserving Optical Flow Estimation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2012, 34, 1744-1757.	9.7	369
4	GMS: Grid-Based Motion Statistics for Fast, Ultra-Robust Feature Correspondence. , 2017, , .		353
5	RotationNet: Joint Object Categorization and Pose Estimation Using Multiviews from Unsupervised Viewpoints. , 2018, , .		280
6	Learning-by-Synthesis for Appearance-Based 3D Gaze Estimation. , 2014, , .		234
7	High-resolution hyperspectral imaging via matrix factorization. , 2011, , .		220
8	Smoothly varying affine stitching. , 2011, , .		191
9	Appearance-Based Gaze Estimation Using Visual Saliency. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 329-341.	9.7	149
10	A Holistic Approach to Cross-Channel Image Noise Modeling and Its Application to Image Denoising. , 2016, , .		141
11	Removing Non-Uniform Motion Blur from Images. , 2007, , .		115
12	Robust Photometric Stereo via Low-Rank Matrix Completion and Recovery. Lecture Notes in Computer Science, 2011, , 703-717.	1.0	113
13	Continuous 3D Label Stereo Matching Using Local Expansion Moves. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 2725-2739.	9.7	102
14	Robust photometric stereo using sparse regression. , 2012, , .		99
15	Illumination normalization with time-dependent intrinsic images for video surveillance. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2004, 26, 1336-1347.	9.7	98
16	Full-Frame Video Stabilization. , 0, , .		95
17	Self-calibrating photometric stereo. , 2010, , .		93
18	Bi-Polynomial Modeling of Low-Frequency Reflectances. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 1078-1091.	9.7	93

#	Article	IF	Citations
19	High-quality shape from multi-view stereo and shading under general illumination. , 2011, , .		92
20	Deep Photometric Stereo Network. , 2017, , .		88
21	Self-Calibrating Deep Photometric Stereo Networks. , 2019, , .		72
22	Camera calibration with lens distortion from low-rank textures. , 2011, , .		69
23	Consensus photometric stereo. , 2010, , .		68
24	Nonlinear Camera Response Functions and Image Deblurring: Theoretical Analysis and Practice. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 2498-2512.	9.7	68
25	A hand-held photometric stereo camera for 3-D modeling. , 2009, , .		67
26	Calibration-free gaze sensing using saliency maps. , 2010, , .		63
27	Fast Randomized Singular Value Thresholding for Low-Rank Optimization. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 376-391.	9.7	61
28	Graph Cut Based Continuous Stereo Matching Using Locally Shared Labels. , 2014, , .		59
29	Motion detail preserving optical flow estimation. , 2010, , .		57
30	Uncalibrated Photometric Stereo for Unknown Isotropic Reflectances. , 2013, , .		56
31	An Incremental Learning Method for Unconstrained Gaze Estimation. Lecture Notes in Computer Science, 2008, , 656-667.	1.0	53
32	Photometric Stereo Using Sparse Bayesian Regression for General Diffuse Surfaces. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 1816-1831.	9.7	51
33	Radiometric Calibration from Noise Distributions. , 2007, , .		49
34	Appearance-Based Gaze Estimation With Online Calibration From Mouse Operations. IEEE Transactions on Human-Machine Systems, 2015, 45, 750-760.	2.5	47
35	Fast randomized Singular Value Thresholding for Nuclear Norm Minimization. , 2015, , .		47
36	Estimating Intrinsic Images from Image Sequences with Biased Illumination. Lecture Notes in Computer Science, 2004, , 274-286.	1.0	46

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37	Learning to Minify Photometric Stereo. , 2019, , .		46
38	Image retargeting using importance diffusion. , 2009, , .		42
39	Radiometric Calibration by Rank Minimization. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 144-156.	9.7	41
40	Deep Photometric Stereo for Non-Lambertian Surfaces. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 129-142.	9.7	37
41	Noise suppression in low-light images through joint denoising and demosaicing. , 2011, , .		36
42	Robust Multiview Photometric Stereo Using Planar Mesh Parameterization. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 1591-1604.	9.7	36
43	Multiview Photometric Stereo Using Planar Mesh Parameterization. , 2013, , .		34
44	Multiview Rectification of Folded Documents. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 505-511.	9.7	34
45	Dynamic stills and clip trailers. Visual Computer, 2006, 22, 642-652.	2.5	32
46	Elevation Angle from Reflectance Monotonicity: Photometric Stereo for General Isotropic Reflectances. Lecture Notes in Computer Science, 2012, , 455-468.	1.0	29
47	Recovering Transparent Shape from Time-of-Flight Distortion. , 2016, , .		27
48	Interactive Shadow Removal from a Single Image Using Hierarchical Graph Cut. Lecture Notes in Computer Science, 2010, , 234-245.	1.0	27
49	Semi-Calibrated Photometric Stereo. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 42, 232-245.	9.7	25
50	An Intensity Similarity Measure in Low-Light Conditions. Lecture Notes in Computer Science, 2006, , 267-280.	1.0	25
51	Decorating Surfaces with Bidirectional Texture Functions. IEEE Transactions on Visualization and Computer Graphics, 2005, 11, 519-528.	2.9	24
52	Material Classification Using Frequency- and Depth-Dependent Time-of-Flight Distortion. , 2017, , .		24
53	Calibrating a Non-isotropic Near Point Light Source Using a Plane. , 2014, , .		23
54	From Intensity Profile to Surface Normal: Photometric Stereo for Unknown Light Sources and Isotropic Reflectances. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2015, 37, 1999-2012.	9.7	23

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55	Descattering of transmissive observation using Parallel High-Frequency Illumination. , 2013, , .		22
56	Estimating camera response functions using probabilistic intensity similarity. , 2008, , .		21
57	Photometric Stereo Using Internet Images. , 2014, , .		21
58	Uncalibrated Photometric Stereo Under Natural Illumination. , 2018, , .		21
59	Probabilistic Plant Modeling via Multi-view Image-to-Image Translation. , 2018, , .		21
60	RotationNet for Joint Object Categorization and Unsupervised Pose Estimation from Multi-View Images. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 269-283.	9.7	21
61	Depth from Refraction Using a Transparent Medium with Unknown Pose and Refractive Index. International Journal of Computer Vision, 2013, 102, 3-17.	10.9	20
62	What Is Learned in Deep Uncalibrated Photometric Stereo?. Lecture Notes in Computer Science, 2020, , 745-762.	1.0	20
63	Graph-based joint clustering of fixations and visual entities. ACM Transactions on Applied Perception, 2013, 10, 1-16.	1.2	19
64	Predicting location semantics combining active and passive sensing with environment-independent classifier. , 2016, , .		19
65	A Probabilistic Intensity Similarity Measure based on Noise Distributions. , 2007, , .		18
66	Efficient Large-Scale Point Cloud Registration Using Loop Closures. , 2015, , .		18
67	Multi-task Learning Using Multi-modal Encoder-Decoder Networks with Shared Skip Connections. , 2017, , .		18
68	Estimating demosaicing algorithms using image noise variance. , 2010, , .		16
69	Shape from Single Scattering for Translucent Objects. Lecture Notes in Computer Science, 2012, , 371-384.	1.0	16
70	Radiometric calibration by transform invariant low-rank structure. , 2011, , .		15
71	Photometric Stereo Under Non-uniform Light Intensities and Exposures. Lecture Notes in Computer Science, 2016, , 170-186.	1.0	15
72	Material Classification from Time-of-Flight Distortions. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2019, 41, 2906-2918.	9.7	14

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73	Device-free and privacy preserving indoor positioning using infrared retro-reflection imaging. , 2017, , .		13
74	Camera spectral sensitivity estimation from a single image under unknown illumination by using fluorescence. , 2012, , .		12
75	Aligning images in the wild. , 2012, , .		12
76	Recovering Inner Slices of Layered Translucent Objects by Multi-Frequency Illumination. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 746-757.	9.7	12
77	Surface Normal Deconvolution: Photometric Stereo for Optically Thick Translucent Objects. Lecture Notes in Computer Science, 2014, , 346-359.	1.0	12
78	Estimating Radiometric Response Functions from Image Noise Variance. Lecture Notes in Computer Science, 2008, , 623-637.	1.0	12
79	An improved belief propagation method for dynamic collage. Visual Computer, 2009, 25, 431-439.	2.5	11
80	Self-calibrating depth from refraction. , 2011, , .		11
81	Deep Near-Light Photometric Stereo forÂSpatially Varying Reflectances. Lecture Notes in Computer Science, 2020, , 137-152.	1.0	11
82	Radiometric calibration using temporal irradiance mixtures. , 2008, , .		10
83	Recovering inner slices of translucent objects by multi-frequency illumination. , 2015, , .		10
84	Deep Photometric Stereo Networks for Determining Surface Normal and Reflectances. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 114-128.	9.7	10
85	Bayesian Depth-from-Defocus with Shading Constraints. , 2013, , .		9
86	Photometric Stereo with Small Angular Variations. , 2015, , .		9
87	Photometric Stereo via Discrete Hypothesis-and-Test Search. , 2020, , .		9
88	Patch-Based Uncalibrated Photometric Stereo Under Natural Illumination. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 7809-7823.	9.7	9
89	Hemispherical Confocal Imaging Using Turtleback Reflector. Lecture Notes in Computer Science, 2011, , 336-349.	1.0	9
90	Lighting, Reflectance and Geometry Estimation from 360Â° Panoramic Stereo. , 2021, , .		9

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91	Normal Integration via Inverse Plane Fitting with Minimum Point-to-Plane Distance. , 2021, , .		9
92	Bayesian Depth-From-Defocus With Shading Constraints. IEEE Transactions on Image Processing, 2016, 25, 589-600.	6.0	8
93	Reducing the amount of out‐of‐core data access for GPU‐accelerated randomized SVD. Concurrency Computation Practice and Experience, 2020, 32, e5754.	1.4	8
94	Light Structure from Pin Motion: Geometric Point Light Source Calibration. International Journal of Computer Vision, 2020, 128, 1889-1912.	10.9	8
95	Interreflection Removal Using Fluorescence. Lecture Notes in Computer Science, 2014, , 203-217.	1.0	8
96	Nonlinear camera response functions and image deblurring. , 2012, , .		7
97	Stereoscopic Flash and No-Flash Photography for Shape and Albedo Recovery. , 2020, , .		7
98	Shape from Second-Bounce of Light Transport. Lecture Notes in Computer Science, 2010, , 280-293.	1.0	7
99	Photometric Stereo in the Wild. , 2015, , .		6
100	Dimensionality's Blessing: Clustering Images by Underlying Distribution. , 2018, , .		6
101	Superdifferential cuts for binary energies. , 2015, , .		5
102	Deep Learning for Multimodal Data Fusion. , 2019, , 9-39.		5
103	Eliminating Temporal Illumination Variations in Whisk-broom Hyperspectral Imaging. International Journal of Computer Vision, 2022, 130, 1310-1324.	10.9	5
104	Interactive video exploration using pose slices. , 2006, , .		4
105	Interactive Removal of Shadows from a Single Image Using Hierarchical Graph Cut. IPSJ Transactions on Computer Vision and Applications, 2010, 2, 235-252.	4.4	4
106	Robust Simultaneous 3D Registration via Rank Minimization. , 2012, , .		4
107	Radiometric Calibration for Internet Photo Collections. , 2017, , .		4
108	Ambiguity-Free Radiometric Calibration for Internet Photo Collections. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 42, 1670-1684.	9.7	4

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109	Surface Reconstruction in Photometric Stereo with Calibration Error. , 2011, , .		3
110	Guest Editorial: 3D Imaging, Processing and Modelling. International Journal of Computer Vision, 2013, 102, 1-2.	10.9	3
111	Numerical shape-from-shading revisited. IPSJ Transactions on Computer Vision and Applications, 2018, 10, .	4.4	3
112	Shell Theory: A Statistical Model of Reality. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 6438-6453.	9.7	3
113	Light Structure from Pin Motion: Simple and Accurate Point Light Calibration for Physics-Based Modeling. Lecture Notes in Computer Science, 2018, , 3-19.	1.0	3
114	An occlusion-robust tracking algorithm based on a spatiotemporal Markov random field model. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 537 To		
115	Illumination brush. , 2006, , .		2
116	Hemispherical Confocal Imaging. IPSJ Transactions on Computer Vision and Applications, 2011, 3, 222-235.	4.4	2
117	A biquadratic reflectance model for radiometric image analysis. , 2012, , .		2
118	Efficient Multiview Stereo by Random-Search and Propagation. , 2014, , .		2
119	Multispectral Photometric Stereo for Spatially-Varying Spectral Reflectances: A well posed problem?. , 2021, , .		2
120	Symmetric-light Photometric Stereo. , 2022, , .		2
121	LIGHTING AND SHADOW INTERPOLATION USING INTRINSIC LUMIGRAPHS. International Journal of Image and Graphics, 2004, 04, 585-604.	1.2	1
122	Metric structure from motion by indoor localization using Wi-Fi channel state information. , 2017, , .		1
123	Decomposition of reflection and scattering by multiple-weighted measurements. IPSJ Transactions on Computer Vision and Applications, 2018, 10, .	4.4	1
124	Descriptor-Free Multi-view Region Matching for Instance-Wise 3D Reconstruction. Lecture Notes in Computer Science, 2021, , 581-599.	1.0	1
125	Statistical Analysis of Global Motion Chains. Lecture Notes in Computer Science, 2008, , 692-705.	1.0	1
126	Shape from Shading. , 2020, , 1-4.		1

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127	Shape-coded ArUco: Fiducial Marker for Bridging 2D and 3D Modalities. , 2022, , .		1
128	Efficient Colorization of Large-Scale Point Cloud Using Multi-pass Z-Ordering. , 2014, , .		0
129	Continuous Symmetric Stereo with Adaptive Outlier Handling. , 2015, , .		0
130	Guest Editorial: Vision and Computational Photography and Graphics. Computer Vision and Image Understanding, 2018, 168, 1-2.	3.0	0
131	Gaze-guided Image Classification for Reflecting Perceptual Class Ambiguity. , 2018, , .		0
132	Radiometric Calibration. , 2021, , 1036-1038.		0
133	Radiometric Response Function. , 2021, , 1038-1041.		0
134	Shape from Shading. , 2021, , 1144-1148.		0
135	Fast General Norm Approximation via Iteratively Reweighted Least Squares. Lecture Notes in Computer Science, 2017, , 207-221.	1.0	0
136	Shape-Conditioned Image Generation by Learning Latent Appearance Representation from Unpaired Data. Lecture Notes in Computer Science, 2019, , 438-453.	1.0	0
137	Other Shape Reconstruction Techniques. Advances in Computer Vision and Pattern Recognition, 2020, , 157-181.	0.9	0
138	Block Randomized Singular Value Decomposition on GPUs. IEICE Transactions on Information and Systems, 2020, E103.D, 1949-1959.	0.4	0
139	Photometry. Advances in Computer Vision and Pattern Recognition, 2020, , 3-29.	0.9	0
140	Biomedical Application. Advances in Computer Vision and Pattern Recognition, 2020, , 241-262.	0.9	0
141	Sensor. Advances in Computer Vision and Pattern Recognition, 2020, , 63-87.	0.9	0
142	Radiometric Response Function. , 2020, , 1-3.		0
143	Radiometric Calibration. , 2020, , 1-3.		0
144	Photometric Stereo. Advances in Computer Vision and Pattern Recognition, 2020, , 107-123.	0.9	0

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145	Visualization/AR/VR/MR Systems. Advances in Computer Vision and Pattern Recognition, 2020, , 213-239.	0.9	0
146	Structured Light. Advances in Computer Vision and Pattern Recognition, 2020, , 125-155.	0.9	0
147	An Analysis of Sketched IRLS for Accelerated Sparse Residual Regression. Lecture Notes in Computer Science, 2020, , 609-626.	1.0	0
148	Robot Vision, Autonomous Vehicles, and Human Robot Interaction. Advances in Computer Vision and Pattern Recognition, 2020, , 289-303.	0.9	0
149	Shape and Albedo Recovery by Your Phone using Stereoscopic Flash and No-Flash Photography. International Journal of Computer Vision, 0, , 1.	10.9	0