Keita Takahashi

List of Publications by Year
in descending order

101 papers	566 citations	840776 11 h-index	794594 19 g-index
101 all docs	101 docs citations	101 times ranked	290 citing authors

#	Article	IF	Citations
1	TransCAIP: A Live 3D TV System Using a Camera Array and an Integral Photography Display with Interactive Control of Viewing Parameters. IEEE Transactions on Visualization and Computer Graphics, 2009, 15, 841-852.	4.4	55
2	Learning to Capture Light Fields Through a Coded Aperture Camera. Lecture Notes in Computer Science, 2018, , 431-448.	1.3	43
3	From Focal Stack to Tensor Light-Field Display. IEEE Transactions on Image Processing, 2018, 27, 4571-4584.	9.8	39
4	Layered light-field rendering with focus measurement. Signal Processing: Image Communication, 2006, 21, 519-530.	3.2	35
5	Real-Time All-in-Focus Video-Based Rendering Using A Network Camera Array. , 2008, , .		26
6	Displaying Real-World Light Fields With Stacked Multiplicative Layers: Requirement and Data Conversion for Input Multiview Images. Journal of Display Technology, 2016, 12, 1290-1300.	1.2	24
7	Theoretical Analysis of View Interpolation With Inaccurate Depth Information. IEEE Transactions on Image Processing, 2012, 21, 718-732.	9.8	18
8	[Paper] A 3-D Display Pipeline: Capture, Factorize, and Display the Light Field of a Real 3-D Scene. ITE Transactions on Media Technology and Applications, 2017, 5, 88-95.	0.5	14
9	Adversarial Patch Attacks on Monocular Depth Estimation Networks. IEEE Access, 2020, 8, 179094-179104.	4.2	14
10	Comparison of Layer Operations and Optimization Methods for Light Field Display. IEEE Access, 2020, 8, 38767-38775.	4.2	13
11	Super-Resolved Free-Viewpoint Image Synthesis Based on View-Dependent Depth Estimation. IPSJ Transactions on Computer Vision and Applications, 2012, 4, 134-148.	4.4	12
12	A practical implementation of free viewpoint video system for soccer games. Proceedings of SPIE, 2015, , .	0.8	12
13	View synthesis using superpixel based inpainting capable of occlusion handling and hole filling. , 2015, , .		11
14	Scalable Light Field Coding Using Weighted Binary Images. , 2018, , .		11
15	Acquiring Dynamic Light Fields Through Coded Aperture Camera. Lecture Notes in Computer Science, 2020, , 368-385.	1.3	11
16	Sheared EPI Analysis for Disparity Estimation from Light Fields. IEICE Transactions on Information and Systems, 2017, E100.D, 1984-1993.	0.7	10
17	Unified environment-adaptive control of accompanying robots using artificial potential field. , 2013, , .		9
18	Facial Expression Recognition Based on Facial Region Segmentation and Modal Value Approach. IEICE Transactions on Information and Systems, 2014, E97.D, 928-935.	0.7	9

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19	Free-viewpoint image synthesis using superpixel segmentation. APSIPA Transactions on Signal and Information Processing, 2017, 6, .	3.3	9
20	Movement Control of Accompanying Robot Based on Artificial Potential Field Adapted to Dynamic Environments. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2015, 192, 25-35.	0.4	8
21	PCA-coded aperture for light field photography. , 2017, , .		8
22	Denoising multi-view images by soft thresholding: A short-time DFT approach. Signal Processing: Image Communication, 2022, 105, 116710.	3.2	8
23	Reconstruction of compressively sampled light fields using a weighted 4D-DCT basis. , 2015, , .		7
24	From focal stacks to tensor display: A method for light field visualization without multi-view images. , 2017, , .		7
25	A 3-D Display Pipeline from Coded-Aperture Camera to Tensor Light-Field Display Through CNN. , 2019, , .		7
26	[Paper] Compressed Sensing of Ray Space for Free Viewpoint Image (FVI) Generation. ITE Transactions on Media Technology and Applications, 2014, 2, 23-32.	0.5	6
27	Extracting multi-view images from multi-focused plenoptic camera. , 2019, , .		6
28	Focus measurement and all in-focus image synthesis for light-field rendering. Systems and Computers in Japan, 2006, 37, 1-12.	0.2	5
29	Theoretical model and optimal prefilter for view interpolation. , 2008, , .		5
30	Adaptive integral photography imaging with variable-focus lens array. , 2008, , .		5
31	Design and Implementation of a Real-Time Video-Based Rendering System Using a Network Camera Array. IEICE Transactions on Information and Systems, 2009, E92-D, 1442-1452.	0.7	5
32	Stereo Image Retargeting with Shift-Map. IEICE Transactions on Information and Systems, 2011, E94-D, 1345-1348.	0.7	5
33	How Should we Handle 4D Light Fields with CNNS?. , 2018, , .		5
34	Super-resolved free-viewpoint image synthesis combined with sparse-representation-based super-resolution. , 2013, , .		4
35	Joint estimation of high resolution images and depth maps from light field cameras. , 2014, , .		4
36	Data conversion from multi-view cameras to layered light field display for aliasing-free 3D visualization. , 2015, , .		4

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37	Weighted 4D-DCT Basis for Compressively Sampled Light Fields. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2016, E99.A, 1655-1664.	0.3	4
38	Good group sparsity prior for light field interpolation. , 2017, , .		4
39	Free viewpoint video generation system using visual hull. , 2018, , .		4
40	Factorized Modulation For Singleshot Lightfield Acquisition. , 2021, , .		4
41	Rate-distortion performance of multi-view image coding with subsampling of viewpoints. , 2008, , .		3
42	A study on memorability and shoulder-surfing robustness of graphical password using DWT-based image blending. , 2010, , .		3
43	Overcomplete compressed sensing of ray space for generating free viewpoint images. , 2013, , .		3
44	Estimating the life of stationary lithium-ion batteries in use through charge and discharge testing. , 2014, , .		3
45	Disparity estimation from light fields using sheared EPI analysis. , 2016, , .		3
46	Physically-Correct Light-Field Factorization for Perspective Images. IEICE Transactions on Information and Systems, 2017, E100.D, 2052-2055.	0.7	3
47	Fast and Robust Disparity Estimation for Noisy Light Fields. , 2018, , .		3
48	LF-TSP: Traveling salesman problem for HEVC-based light-field coding. , 2019, , .		3
49	Simultaneous Attack on CNN-Based Monocular Depth Estimation and Optical Flow Estimation. IEICE Transactions on Information and Systems, 2021, E104.D, 785-788.	0.7	3
50	A comprehensive framework for visual quality assessment of light field tensor displays. IS&T International Symposium on Electronic Imaging, 2019, 31, 310-1-310-7.	0.4	3
51	Multi-view image coding using disparity-compensated and weighted binary patterns. , 2019, , .		3
52	View-dependent scalable coding of light fields using ROI-based techniques. , 2006, , .		2
53	Performance analysis on multi-view coding with depth map distortion. , 2010, , .		2
54	A structural similarity assessment for generating hybrid images. , 2011, , .		2

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55	Super-resolution with Adaptive Pixel Weighting Scheme and Its Application to Super-resolved Free-Viewpoint Image Synthesis. , 2013, , .		2
56	Super-resolution image synthesis using the physical pixel arrangementofalight field camera. , 2015, , .		2
57	Rank analysis of a light field for dual-layer 3D displays. , 2015, , .		2
58	Designing Coded Aperture Camera Based on PCA and NMF for Light Field Acquisition. IEICE Transactions on Information and Systems, 2018, E101.D, 2190-2200.	0.7	2
59	Light Field Coding Using Weighted Binary Images. IEICE Transactions on Information and Systems, 2019, E102.D, 2110-2119.	0.7	2
60	Spatial Domain Definition of Focus Measurement Method for Light Field Rendering and Its Application for Images Captured with Unstructured Array of Cameras. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2005, 59, 1478-1482.	0.1	2
61	Theory of Optimal View Interpolation with Depth Inaccuracy. Lecture Notes in Computer Science, 2010, , 340-353.	1.3	2
62	Image Segmentation using Dual Distribution Matching. , 2012, , .		2
63	Reconstruction of Compressively Sampled Ray Space by Statistically Weighted Model. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2014, E97.A, 2064-2073.	0.3	2
64	All in-focus light field live with thousands of lenslets. , 2005, , .		1
65	How does Subsampling of Multi-View Images Affect the Rate-Distortion Performance?. Proceedings International Conference on Image Processing, 2007, , .	0.0	1
66	Foreground segmentation with single reference frame using iterative likelihood estimation and graph-cut. , 2008, , .		1
67	Joint rendering and segmentation of free-viewpoint images. , 2009, , .		1
68	Super-resolution plane sweeping for free-viewpoint image synthesis. , 2011, , .		1
69	View interpolation sensitive to pixel positions. , 2013, , .		1
70	Development of free-viewpoint image synthesis system using time varying projection and spacetime stereo. , 2014, , .		1
71	Reconstruction of compressively sampled ray space by using DCT basis and statistically weighted L1 norm optimization. Proceedings of SPIE, 2014, , .	0.8	1
72	Robust Mapping for Mobile Robot Based on Immobile Area Grid Map Considering Potential Moving Objects. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2015, 192, 30-43.	0.4	1

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73	Free-viewpoint video synthesis from mixed resolution multi-view images and low resolution depth maps. , 2015, , .		1
74	3D Imaging System using Multi-focus Plenoptic Camera and Tensor Display. , 2018, , .		1
75	Simulating a stacked-layer light-field display using orthographic/perspective view models. , 2018, , .		1
76	Learning to synthesize dense focal stack and all-in-focus image from sparse focal stack. , 2021, , .		1
77	[Paper] Disparity Compensation Framework for Light-Field Coding Using Weighted Binary Patterns. ITE Transactions on Media Technology and Applications, 2020, 8, 40-48.	0.5	1
78	Super-Resolved Free-Viewpoint Image Synthesis Using Semi-global Depth Estimation and Depth-Reliability-Based Regularization. Lecture Notes in Computer Science, 2011, , 22-35.	1.3	1
79	[Paper] Real-Time Free-Viewpoint Image Synthesis System Using Time Varying Projection. ITE Transactions on Media Technology and Applications, 2014, 2, 370-377.	0.5	1
80	Using high-resolution binary layers and a low-resolution multibit backlight for a layered light-field display. Optical Engineering, 2018, 57, 1.	1.0	1
81	Generating arbitrarily focused images from sparse focal stack through light field reconstruction. , 2019, , .		1
82	Unsupervised disparity estimation from light field using plug-and-play weighted warping loss. Signal Processing: Image Communication, 2022, 107, 116764.	3.2	1
83	A Theory of Aliasing Separation for Light Field Data. , 2006, , .		0
84	Nitride Trapping Memory Technology to Realize Flash-Embedded SoC of 65nm and Beyond. , 2007, , .		0
85	Direction-adaptive hierarchical decomposition for image coding. , 2010, , .		0
86	Joint Rendering and Segmentation of Free-Viewpoint Video. Eurasip Journal on Image and Video Processing, 2010, 2010, 1-10.	2.6	0
87	Theoretical analysis on interframe predictive coding with subpixel displacement accuracy &#x2014; An exhaustive approach. , 2012, , .		0
88	Superpixel-based 3D warping using view plus depth data from multiple viewpoints. Proceedings of SPIE, 2014, , .	0.8	0
89	Least MSE Regression for View Synthesis. , 2014, , .		0
90	Acquisition and processing of Ray-Space/Light Field data. , 2015, , .		0

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91	Joint directional-positional multiplexing for light field acquisition by Kronecker compressed sensing. , 2015, , .		0
92	High-Quality Multi-View Image Extraction from a Light Field Camera Considering Its Physical Pixel Arrangement. IEICE Transactions on Information and Systems, 2019, E102.D, 702-714.	0.7	0
93	[Paper] CFA Handling and Quality Analysis for Compressive Light Field Camera. ITE Transactions on Media Technology and Applications, 2021, 9, 25-32.	0.5	0
94	[Paper] HEVC-based Light-field Coding using Basis Images and Frame Reordering. ITE Transactions on Media Technology and Applications, 2021, 9, 86-94.	0.5	0
95	Comparing pixel predictors for lossless image coding. , 2021, , .		0
96	Binary and Rotational Coded-Aperture Imaging for Dynamic Light Fields. IEICE Transactions on Information and Systems, 2021, E104.D, 1395-1398.	0.7	0
97	Estimation of Dense Displacement by Scale Invariant Polynomial Expansion of Heterogeneous Multi-View Images. IEICE Transactions on Information and Systems, 2017, E100.D, 2048-2051.	0.7	0
98	Separating information for space-time hybrid code. , 2019, , .		0
99	Rendering-dependent compression and quality evaluation for light field contents. , 2019, , .		0
100	Fast and Robust Disparity Estimation from Noisy Light Fields Using 1-D Slanted Filters. IEICE Transactions on Information and Systems, 2019, E102.D, 2101-2109.	0.7	0
101	Good Group Sparsity Prior for Light Field Interpolation. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2020, E103.A, 346-355.	0.3	0