

# Zhou Wang

## List of Publications by Year in descending order

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190  
papers

55,764  
citations

46918

47  
h-index

31759

101  
g-index

196  
all docs

196  
docs citations

196  
times ranked

28367  
citing authors

#	ARTICLE	IF	CITATIONS
1	Learning-Based Quality Assessment for Image Super-Resolution. IEEE Transactions on Multimedia, 2022, 24, 3570-3581.	5.2	12
2	Hierarchical Semantic Risk Minimization for Large-Scale Classification. IEEE Transactions on Cybernetics, 2022, 52, 9546-9558.	6.2	11
3	Understanding Bandingâ€™ Perceptual Modeling and Machine Learning Approaches for Banding Detection. Smpte Motion Imaging Journal, 2022, 131, 35-41.	0.2	1
4	A Bayesian Quality-of-Experience Model for Adaptive Streaming Videos. ACM Transactions on Multimedia Computing, Communications and Applications, 2022, 18, 1-24.	3.0	4
5	Capturing Banding in Images: Database Construction and Objective Assessment. , 2021, , .		7
6	Real Versus Fake 4k - Authentic Resolution Assessment. , 2021, , .		2
7	Quantifying Visual Image Quality: A Bayesian View. Annual Review of Vision Science, 2021, 7, 437-464.	2.3	12
8	Blind Image Quality Assessment Using a Deep Bilinear Convolutional Neural Network. IEEE Transactions on Circuits and Systems for Video Technology, 2020, 30, 36-47.	5.6	360
9	Perceptual Evaluation for Multi-Exposure Image Fusion of Dynamic Scenes. IEEE Transactions on Image Processing, 2020, 29, 1127-1138.	6.0	29
10	Deep Guided Learning for Fast Multi-Exposure Image Fusion. IEEE Transactions on Image Processing, 2020, 29, 2808-2819.	6.0	96
11	Modeling Generalized Rate-Distortion Functions. IEEE Transactions on Image Processing, 2020, 29, 7331-7344.	6.0	1
12	Perceptual Colour Difference Uniformity in High Dynamic Range and Wide Colour Gamut. , 2020, , .		0
13	Characterizing Generalized Rate-Distortion Performance of Video Coding: An Eigen Analysis Approach. IEEE Transactions on Image Processing, 2020, 29, 6180-6193.	6.0	2
14	PEA265: Perceptual Assessment of Video Compression Artifacts. IEEE Transactions on Circuits and Systems for Video Technology, 2020, 30, 3898-3910.	5.6	14
15	FocusLiteNN: High Efficiency Focus Quality Assessment for Digital Pathology. Lecture Notes in Computer Science, 2020, , 403-413.	1.0	9
16	4K or Not? - Automatic Image Resolution Assessment. Lecture Notes in Computer Science, 2020, , 61-65.	1.0	1
17	AVC, HEVC, VP9, AVS2 or AV1? â€™ A Comparative Study of State-of-the-Art Video Encoders on 4K Videos. Lecture Notes in Computer Science, 2019, , 162-173.	1.0	16
18	Blind Quality Assessment of Multiply Distorted Images Using Deep Neural Networks. Lecture Notes in Computer Science, 2019, , 89-101.	1.0	4

#	ARTICLE	IF	CITATIONS
19	Perceptual Quality Assessment of UHD-HDR-WCG Videos. , 2019, , .		11
20	A Comprehensive Performance Evaluation of Image Quality Assessment Algorithms. IEEE Access, 2019, 7, 140030-140070.	2.6	75
21	Perceptual Quality Assessment of 3d Point Clouds. , 2019, , .		36
22	Perceptually Inspired Normalized Conditional Compression Distance. , 2019, , .		0
23	Perceptual Quality Assessment of Medical Images. , 2019, , 588-596.		7
24	Multi-Exposure Image Fusion by Optimizing A Structural Similarity Index. IEEE Transactions on Computational Imaging, 2018, 4, 60-72.	2.6	135
25	End-to-End Blind Image Quality Assessment Using Deep Neural Networks. IEEE Transactions on Image Processing, 2018, 27, 1202-1213.	6.0	369
26	A Quality-of-Experience Database for Adaptive Video Streaming. IEEE Transactions on Broadcasting, 2018, 64, 474-487.	2.5	89
27	Objective Quality Assessment and Perceptual Compression of Screen Content Images. IEEE Computer Graphics and Applications, 2018, 38, 47-58.	1.0	62
28	Information Distance based Photoshop Metric. , 2018, , .		0
29	Spherical Structural Similarity Index for Objective Omnidirectional Video Quality Assessment. , 2018, , .		53
30	Geometric Transformation Invariant Image Quality Assessment Using Convolutional Neural Networks. , 2018, , .		8
31	Temporal Motion Smoothness and the Impact of Frame Rate Variation on Video Quality. , 2018, , .		8
32	End-to-End Blind Quality Assessment of Compressed Videos Using Deep Neural Networks. , 2018, , .		66
33	Quality-of-Experience for Adaptive Streaming Videos: An Expectation Confirmation Theory Motivated Approach. IEEE Transactions on Image Processing, 2018, 27, 6135-6146.	6.0	27
34	Deep Blur Mapping: Exploiting High-Level Semantics by Deep Neural Networks. IEEE Transactions on Image Processing, 2018, 27, 5155-5166.	6.0	35
35	Optimizing Image Quality. , 2018, , 15-41.		4
36	Structural and Information Theoretic Approaches to Image Quality Assessment. , 2018, , 473-500.		0

#	ARTICLE	IF	CITATIONS
37	SSIM-Motivated Two-Pass VBR Coding for HEVC. IEEE Transactions on Circuits and Systems for Video Technology, 2017, 27, 2189-2203.	5.6	27
38	Asymmetrically Compressed Stereoscopic 3D Videos: Quality Assessment and Rate-Distortion Performance Evaluation. IEEE Transactions on Image Processing, 2017, 26, 1330-1343.	6.0	38
39	Robust Multi-Exposure Image Fusion: A Structural Patch Decomposition Approach. IEEE Transactions on Image Processing, 2017, 26, 2519-2532.	6.0	250
40	Waterloo Exploration Database: New Challenges for Image Quality Assessment Models. IEEE Transactions on Image Processing, 2017, 26, 1004-1016.	6.0	411
41	dipIQ: Blind Image Quality Assessment by Learning-to-Rank Discriminable Image Pairs. IEEE Transactions on Image Processing, 2017, 26, 3951-3964.	6.0	241
42	Perceptual Depth Quality in Distorted Stereoscopic Images. IEEE Transactions on Image Processing, 2017, 26, 1202-1215.	6.0	25
43	Unified Blind Quality Assessment of Compressed Natural, Graphic, and Screen Content Images. IEEE Transactions on Image Processing, 2017, 26, 5462-5474.	6.0	185
44	A Quality-of-Experience Index for Streaming Video. IEEE Journal on Selected Topics in Signal Processing, 2017, 11, 154-166.	7.3	125
45	Perceptual quality assessment of HDR deghosting algorithms. , 2017, , .		6
46	Perceptual aliasing factors and the impact of frame rate on video quality. , 2017, , .		13
47	Quality assessment of multi-view-plus-depth images. , 2017, , .		8
48	Quality assessment of images undergoing multiple distortion stages. , 2017, , .		4
49	Quality-of-Experience of Adaptive Video Streaming. , 2017, , .		21
50	Blind Quality Prediction of Stereoscopic 3D Images. IS&T International Symposium on Electronic Imaging, 2017, 29, 70-76.	0.3	2
51	Structural Similarity Based Image Quality Assessment. , 2017, , 225-242.		20
52	Foveated Image and Video Coding. , 2017, , 431-458.		8
53	Objective Image Quality Assessment: Facing The Real-World Challenges. IS&T International Symposium on Electronic Imaging, 2016, 28, 1-6.	0.3	13
54	Group MAD Competition? A New Methodology to Compare Objective Image Quality Models. , 2016, , .		56

#	ARTICLE	IF	CITATIONS
55	Objective quality assessment of tone-mapped videos. , 2016, , .		7
56	Quality-of-experience prediction for streaming video. , 2016, , .		10
57	Quality-of-experience of streaming video: Interactions between presentation quality and playback stalling. , 2016, , .		22
58	The Application of Visual Saliency Models in Objective Image Quality Assessment: A Statistical Evaluation. IEEE Transactions on Neural Networks and Learning Systems, 2016, 27, 1266-1278.	7.2	100
59	On SSIM-bit rate comparison of HEVC encoders. , 2015, , .		1
60	High Dynamic Range Image Compression by Optimizing Tone Mapped Image Quality Index. IEEE Transactions on Image Processing, 2015, 24, 3086-3097.	6.0	108
61	Objective video presentation QoE predictor for smart adaptive video streaming. Proceedings of SPIE, 2015, , .	0.8	5
62	Perceptual quality assessment of high frame rate video. , 2015, , .		17
63	Perceptual evaluation of single image dehazing algorithms. , 2015, , .		88
64	Depth perception of distorted stereoscopic images. , 2015, , .		5
65	Data rate and dynamic range compression of medical images: Which one goes first?. , 2015, , .		0
66	A highly efficient method for blind image quality assessment. , 2015, , .		96
67	Multi-exposure image fusion: A patch-wise approach. , 2015, , .		67
68	Quality prediction of asymmetrically compressed stereoscopic videos. , 2015, , .		10
69	SSIM-inspired two-pass rate control for High Efficiency Video Coding. , 2015, , .		13
70	Perceptual screen content image quality assessment and compression. , 2015, , .		18
71	Quality Prediction of Asymmetrically Distorted Stereoscopic 3D Images. IEEE Transactions on Image Processing, 2015, 24, 3400-3414.	6.0	134
72	Perceptual Quality Assessment for Multi-Exposure Image Fusion. IEEE Transactions on Image Processing, 2015, 24, 3345-3356.	6.0	594

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73	Objective Quality Assessment for Multiexposure Multifocus Image Fusion. IEEE Transactions on Image Processing, 2015, 24, 2712-2724.	6.0	32
74	SSIM-Based Coarse-Grain Scalable Video Coding. IEEE Transactions on Broadcasting, 2015, 61, 210-221.	2.5	19
75	Display device-adapted video quality-of-experience assessment. Proceedings of SPIE, 2015, , .	0.8	24
76	Surface Reconstruction in Gradient-Field Domain Using Compressed Sensing. IEEE Transactions on Image Processing, 2015, 24, 1628-1638.	6.0	8
77	Objective Quality Assessment for Color-to-Gray Image Conversion. IEEE Transactions on Image Processing, 2015, 24, 4673-4685.	6.0	64
78	A Patch-Structure Representation Method for Quality Assessment of Contrast Changed Images. IEEE Signal Processing Letters, 2015, 22, 2387-2390.	2.1	281
79	Objective Quality Assessment of Interpolated Natural Images. IEEE Transactions on Image Processing, 2015, 24, 4651-4663.	6.0	31
80	Quality prediction of asymmetrically distorted stereoscopic images from single views. , 2014, , .		32
81	Perceptual evaluation of multi-exposure image fusion algorithms. , 2014, , .		6
82	The quest for 'diagnostically lossless' medical image compression: a comparative study of objective quality metrics for compressed medical images. Proceedings of SPIE, 2014, , .	0.8	11
83	Subjective quality assessment of Screen Content Images. , 2014, , .		25
84	No-Reference Quality Assessment of Contrast-Distorted Images Based on Natural Scene Statistics. IEEE Signal Processing Letters, 2014, , 1-1.	2.1	70
85	The impact of video-quality-level switching on user quality of experience in dynamic adaptive streaming over HTTP. Eurasip Journal on Wireless Communications and Networking, 2014, 2014, .	1.5	39
86	Characterizing perceptual artifacts in compressed video streams. Proceedings of SPIE, 2014, , .	0.8	21
87	Multi-operator retargeting based on perceptual structural similarity. , 2014, , .		1
88	High dynamic range image tone mapping by optimizing tone mapped image quality index. , 2014, , .		15
89	Adaptive windowing for optimal visualization of medical images based on normalized information distance. , 2014, , .		2
90	Objective Quality Assessment for Image Retargeting Based on Structural Similarity. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2014, 4, 95-105.	2.7	105

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91	Some "Weberized" <sup>2</sup> -Based Methods of Signal/Image Approximation. Lecture Notes in Computer Science, 2014, , 20-29.	1.0	4
92	Image classification based on complex wavelet structural similarity. Signal Processing: Image Communication, 2013, 28, 984-992.	1.8	24
93	Special issue on human vision and information theory. Signal, Image and Video Processing, 2013, 7, 389-390.	1.7	11
94	Image distortion analysis based on normalized perceptual information distance. Signal, Image and Video Processing, 2013, 7, 403-410.	1.7	16
95	Perceptual Video Coding Based on SSIM-Inspired Divisive Normalization. IEEE Transactions on Image Processing, 2013, 22, 1418-1429.	6.0	116
96	Video saliency incorporating spatiotemporal cues and uncertainty weighting. , 2013, , .		21
97	Image Sharpness Assessment Based on Local Phase Coherence. IEEE Transactions on Image Processing, 2013, 22, 2798-2810.	6.0	274
98	Objective Quality Assessment of Tone-Mapped Images. IEEE Transactions on Image Processing, 2013, 22, 657-667.	6.0	477
99	On the use of SSIM in HEVC. , 2013, , .		15
100	Perceptual evaluation of image denoising algorithms. , 2013, , .		5
101	Perceptual experience of time-varying video quality. , 2013, , .		13
102	High dynamic range image tone mapping by maximizing a structural fidelity measure. , 2013, , .		8
103	3D-SSIM for video quality assessment. , 2012, , .		16
104	Gradient-based surface reconstruction using compressed sensing. , 2012, , .		8
105	Objective quality assessment for image super-resolution: A natural scene statistics approach. , 2012, , .		17
106	The impact of skull bone intensity on the quality of compressed CT neuro images. Proceedings of SPIE, 2012, , .	0.8	2
107	SSIM-Inspired Perceptual Video Coding for HEVC. , 2012, , .		30
108	SSIM-Motivated Rate-Distortion Optimization for Video Coding. IEEE Transactions on Circuits and Systems for Video Technology, 2012, 22, 516-529.	5.6	174

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109	Geodesics of the Structural Similarity index. Applied Mathematics Letters, 2012, 25, 1921-1925.	1.5	8
110	Reduced-Reference Image Quality Assessment by Structural Similarity Estimation. IEEE Transactions on Image Processing, 2012, 21, 3378-3389.	6.0	212
111	Image Deblurring Using Derivative Compressed Sensing for Optical Imaging Application. IEEE Transactions on Image Processing, 2012, 21, 3139-3149.	6.0	37
112	Polyview Fusion: A Strategy to Enhance Video-Denoising Algorithms. IEEE Transactions on Image Processing, 2012, 21, 2324-2328.	6.0	8
113	On the Mathematical Properties of the Structural Similarity Index. IEEE Transactions on Image Processing, 2012, 21, 1488-1499.	6.0	310
114	SSIM-inspired image restoration using sparse representation. Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.0	54
115	Adaptive Windowing for Optimal Visualization of Medical Images Based on a Structural Fidelity Measure. Lecture Notes in Computer Science, 2012, , 321-330.	1.0	6
116	Applications of Objective Image Quality Assessment Methods [Applications Corner]. IEEE Signal Processing Magazine, 2011, 28, 137-142.	4.6	128
117	CW-SSIM based image classification. , 2011, , .		26
118	Rate-SSIM optimization for video coding. , 2011, , .		19
119	SSIM-inspired image denoising using sparse representations. , 2011, , .		18
120	SSIM-based non-local means image denoising. , 2011, , .		37
121	Reduced- and No-Reference Image Quality Assessment. IEEE Signal Processing Magazine, 2011, 28, 29-40.	4.6	227
122	Information Content Weighting for Perceptual Image Quality Assessment. IEEE Transactions on Image Processing, 2011, 20, 1185-1198.	6.0	973
123	PERCEPTUAL NORMALIZED INFORMATION DISTANCE FOR IMAGE DISTORTION ANALYSIS BASED ON KOLMOGOROV COMPLEXITY. , 2011, , .		0
124	SSIM-inspired divisive normalization for perceptual video coding. , 2011, , .		14
125	A Class of Image Metrics Based on the Structural Similarity Quality Index. Lecture Notes in Computer Science, 2011, , 100-110.	1.0	18
126	Structural Similarity-Based Affine Approximation and Self-similarity of Images Revisited. Lecture Notes in Computer Science, 2011, , 264-275.	1.0	10



#	ARTICLE	IF	CITATIONS
127	Enhancing Video Denoising Algorithms by Fusion from Multiple Views. Lecture Notes in Computer Science, 2011, , 1-10.	1.0	0
128	Perceptual quality assessment of color images using adaptive signal representation. Proceedings of SPIE, 2010, , .	0.8	26
129	A Bayesian approach for the alignment of high-resolution NMR spectra. Annals of Operations Research, 2010, 174, 19-32.	2.6	9
130	CW-SSIM kernel based random forest for image classification. , 2010, , .		3
131	Quality-aware video based on robust embedding of intra- and inter-frame reduced-reference features. , 2010, , .		4
132	Objective assessment of tone mapping algorithms. , 2010, , .		20
133	Reduced-reference SSIM estimation. , 2010, , .		22
134	Generic image similarity based on Kolmogorov complexity. , 2010, , .		18
135	Structural Similarity-Based Approximation of Signals and Images Using Orthogonal Bases. Lecture Notes in Computer Science, 2010, , 11-22.	1.0	21
136	Temporal motion smoothness measurement for reduced-reference video quality assessment. , 2010, , .		18
137	No-reference image sharpness assessment based on local phase coherence measurement. , 2010, , .		89
138	Video Denoising Based on a Spatiotemporal Gaussian Scale Mixture Model. IEEE Transactions on Circuits and Systems for Video Technology, 2010, 20, 1032-1040.	5.6	80
139	Quantifying color image distortions based on adaptive spatio-chromatic signal decompositions. , 2009, , .		14
140	Image Quality Assessment. , 2009, , 553-595.		24
141	Reduced-Reference Image Quality Assessment Using Divisive Normalization-Based Image Representation. IEEE Journal on Selected Topics in Signal Processing, 2009, 3, 202-211.	7.3	280
142	Complex Wavelet Structural Similarity: A New Image Similarity Index. IEEE Transactions on Image Processing, 2009, 18, 2385-2401.	6.0	475
143	Mean squared error: Love it or leave it? A new look at Signal Fidelity Measures. IEEE Signal Processing Magazine, 2009, 26, 98-117.	4.6	2,096
144	Multi-sensor image registration based-on local phase coherence. , 2009, , .		6

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145	The Use of Residuals in Image Denoising. Lecture Notes in Computer Science, 2009, , 1-12.	1.0	20
146	General-purpose reduced-reference image quality assessment based on perceptually and statistically motivated image representation. , 2008, , .		6
147	Contextually adaptive signal representation using conditional principal component analysis. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	1
148	Video denoising using a spatiotemporal statistical model of wavelet coefficients. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	6
149	Maximum differentiation (MAD) competition: A methodology for comparing computational models of perceptual quantities. Journal of Vision, 2008, 8, 8-8.	0.1	93
150	Quality-Aware Video. , 2007, , .		9
151	Video Quality Assessment by Incorporating a Motion Perception Model. , 2007, , .		11
152	Video quality assessment using a statistical model of human visual speed perception. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, B61.	0.8	167
153	Palmprint Verification using Complex Wavelet Transform. , 2007, , .		31
154	Perceptual Image Coding Based on a Maximum of Minimal Structural Similarity Criterion. , 2007, , .		32
155	Facial Range Image Matching Using the ComplexWavelet Structural Similarity Metric. Proceedings IEEE Workshop on Applications of Computer Vision, 2007, , .	0.0	10
156	Automatic Alignment of High-Resolution NMR Spectra Using a Bayesian Estimation Approach. , 2006, , .		0
157	Modern Image Quality Assessment. Synthesis Lectures on Image, Video, and Multimedia Processing, 2006, 2, 1-156.	0.9	472
158	Quality-aware images. IEEE Transactions on Image Processing, 2006, 15, 1680-1689.	6.0	241
159	Measuring Intra- and Inter-Observer Agreement in Identifying and Localizing Structures in Medical Images. , 2006, , .		23
160	Spatial Pooling Strategies for Perceptual Image Quality Assessment. , 2006, , .		147
161	An adaptive linear system framework for image distortion analysis. , 2005, , .		14
162	Reduced-reference image quality assessment using a wavelet-domain natural image statistic model. , 2005, , .		274

#	ARTICLE	IF	CITATIONS
163	Structural Approaches to Image Quality Assessment. , 2005, , 961-974.		51
164	Foveated Image and Video Coding. Signal Processing and Communications, 2005, , 423-457.	0.2	19
165	Stimulus synthesis for efficient evaluation and refinement of perceptual image quality metrics. , 2004, , .		28
166	Video quality assessment based on structural distortion measurement. Signal Processing: Image Communication, 2004, 19, 121-132.	1.8	798
167	Image Quality Assessment: From Error Visibility to Structural Similarity. IEEE Transactions on Image Processing, 2004, 13, 600-612.	6.0	34,925
168	Foveation scalable video coding with automatic fixation selection. IEEE Transactions on Image Processing, 2003, 12, 243-254.	6.0	164
169	Foveated multipoint videoconferencing at low bit rates. , 2002, , .		2
170	<title>Human-visual-system-based scalable video coding and communications</title>. , 2002, 4925, 219.		0
171	Image information restoration based on long-range correlation. IEEE Transactions on Circuits and Systems for Video Technology, 2002, 12, 331-341.	5.6	66
172	Why is image quality assessment so difficult?. , 2002, , .		473
173	Bitplane-by-bitplane shift (BbBShift) - A suggestion for JPEG2000 region of interest image coding. IEEE Signal Processing Letters, 2002, 9, 160-162.	2.1	62
174	A universal image quality index. IEEE Signal Processing Letters, 2002, 9, 81-84.	2.1	4,638
175	Why is image quality assessment so difficult?. , 2002, , .		7
176	Foveated multipoint videoconferencing at low bit rates. , 2002, , .		1
177	Embedded foveation image coding. IEEE Transactions on Image Processing, 2001, 10, 1397-1410.	6.0	171
178	Adaptive frame prediction for foveation scalable video coding. , 2001, , .		2
179	<title>Foveated wavelet image quality index</title>. , 2001, , .		24
180	A novel approach for reduction of blocking effects in low-bit-rate image compression. IEEE Transactions on Communications, 1998, 46, 732-734.	4.9	12

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181	Restoration of impulse noise corrupted images using long-range correlation. IEEE Signal Processing Letters, 1998, 5, 4-7.	2.1	69
182	Best neighborhood matching: an information loss restoration technique for block-based image coding systems. IEEE Transactions on Image Processing, 1998, 7, 1056-1061.	6.0	114
183	Blind measurement of blocking artifacts in images. , 0, , .		226
184	Rate scalable video coding using a foveation-based human visual system model. , 0, , .		6
185	Video quality assessment using structural distortion measurement. , 0, , .		59
186	Full-reference video quality assessment considering structural distortion and no-reference quality evaluation of MPEG video. , 0, , .		13
187	No-reference perceptual quality assessment of JPEG compressed images. , 0, , .		467
188	Generalized bitplane-by-bitplane shift method for JPEG2000 ROI coding. , 0, , .		23
189	Translation Insensitive Image Similarity in Complex Wavelet Domain. , 0, , .		108
190	Image quality assessment: from error visibility to structural similarity. , 0, .		1