Karol Myszkowski

List of Publications by Year
in descending order

133	4,263	159358	149479
papers	citations	30 h-index	56 g-index

137	137	137	1907
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Adaptive Logarithmic Mapping For Displaying High Contrast Scenes. Computer Graphics Forum, 2003, 22, 419-426.	1.8	566
2	A perceptual framework for contrast processing of high dynamic range images. ACM Transactions on Applied Perception, 2006, 3, 286-308.	1.2	238
3	Dynamic range independent image quality assessment. ACM Transactions on Graphics, 2008, 27, 1-10.	4.9	175
4	Predicting visible differences in high dynamic range images: model and its calibration. , 2005, , .		143
5	Apparent Greyscale: A Simple and Fast Conversion to Perceptually Accurate Images and Video. Computer Graphics Forum, 2008, 27, 193-200.	1.8	135
6	Wide Field Of View Varifocal Near-Eye Display Using See-Through Deformable Membrane Mirrors. IEEE Transactions on Visualization and Computer Graphics, 2017, 23, 1322-1331.	2.9	126
7	Perception-motivated high dynamic range video encoding. ACM Transactions on Graphics, 2004, 23, 733-741.	4.9	115
8	Backward compatible high dynamic range MPEG video compression. ACM Transactions on Graphics, 2006, 25, 713-723.	4.9	113
9	Perceptual evaluation of tone mapping operators with real-world scenes. , 2005, 5666, 192.		99
10	Towards a Quality Metric for Dense Light Fields. , 2017, , .		80
11	A perceptual model for disparity. ACM Transactions on Graphics, 2011, 30, 1-10.	4.9	79
12	Perception-guided global illumination solution for animation rendering. , 2001, , .		77
13	Lightness Perception in Tone Reproduction for High Dynamic Range Images. Computer Graphics Forum, 2005, 24, 635-645.	1.8	67
14	Saccade landing position prediction for gaze-contingent rendering. ACM Transactions on Graphics, 2017, 36, 1-12.	4.9	67
15	Rendering Pearlescent Appearance Based On Paint-Composition Modelling. Computer Graphics Forum, 2001, 20, 227-238.	1.8	63
16	Backward compatible high dynamic range MPEG video compression. , 2006, , .		61
17	High Dynamic Range Imaging and Low Dynamic Range Expansion for Generating HDR Content. Computer Graphics Forum, 2009, 28, 2343-2367.	1.8	60
18	An intuitive control space for material appearance. ACM Transactions on Graphics, 2016, 35, 1-12.	4.9	58

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19	The Visible Differences Predictor: applications to global illumination problems. Eurographics, 1998, , 223-236.	0.4	56
20	Fast collision detection between complex solids using rasterizing graphics hardware. Visual Computer, 1995, 11, 497-511.	2.5	54
21	Luminance-contrast-aware foveated rendering. ACM Transactions on Graphics, 2019, 38, 1-14.	4.9	52
22	Using the visual differences predictor to improve performance of progressive global illumination computation. ACM Transactions on Graphics, 2000, 19, 122-161.	4.9	51
23	A luminance-contrast-aware disparity model and applications. ACM Transactions on Graphics, 2012, 31, 1-10.	4.9	51
24	Analysis of Reproducing Real-World Appearance on Displays of Varying Dynamic Range. Computer Graphics Forum, 2006, 25, 415-426.	1.8	50
25	Perceptual effects in real-time tone mapping. , 2005, , .		47
26	Spatio-temporal upsampling on the GPU. , 2010, , .		43
27	Beyond Tone Mapping: Enhanced Depiction of Tone Mapped HDR Images. Computer Graphics Forum, 2006, 25, 427-438.	1.8	42
28	Perception-driven Accelerated Rendering. Computer Graphics Forum, 2017, 36, 611-643.	1.8	42
29	3D unsharp masking for scene coherent enhancement. ACM Transactions on Graphics, 2008, 27, 1-8.	4.9	41
30	Dynamic range independent image quality assessment. , 2008, , .		40
31	Temporal Glare: Realâ€Time Dynamic Simulation of the Scattering in the Human Eye. Computer Graphics Forum, 2009, 28, 183-192.	1.8	40
32	Lossy compression of high dynamic range images and video. , 2006, 6057, 311.		39
33	Video quality assessment for computer graphics applications. ACM Transactions on Graphics, 2010, 29, 1-12.	4.9	39
34	New measurements reveal weaknesses of image quality metrics in evaluating graphics artifacts. ACM Transactions on Graphics, 2012, 31, 1-10.	4.9	39
35	NoRM: Noâ€Reference Image Quality Metric for Realistic Image Synthesis. Computer Graphics Forum, 2012, 31, 545-554.	1.8	39
36	Reverse engineering approach to appearance-based design of metallic and pearlescent paints. Visual Computer, 2004, 20, 586-600.	2.5	38

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37	Perceptuallyâ€motivated Realâ€time Temporal Upsampling of 3D Content for Highâ€refreshâ€rate Displays. Computer Graphics Forum, 2010, 29, 713-722.	1.8	37
38	Perception-motivated high dynamic range video encoding. , 2004, , .		36
39	Scattering-aware texture reproduction for 3D printing. ACM Transactions on Graphics, 2017, 36, 1-15.	4.9	34
40	Geometry-aware scattering compensation for 3D printing. ACM Transactions on Graphics, 2019, 38, 1-14.	4.9	32
41	A perceptual model for disparity. , 2011, , .		31
42	Perceptually Guided Corrective Splatting. Computer Graphics Forum, 2001, 20, 142-153.	1.8	30
43	Global Illumination using Photon Ray Splatting. Computer Graphics Forum, 2007, 26, 503-513.	1.8	30
44	Validation proposal for global illumination and rendering techniques. Computers and Graphics, 2001, 25, 511-518.	1.4	28
45	Apparent display resolution enhancement for moving images. ACM Transactions on Graphics, 2010, 29, 1-8.	4.9	28
46	State of the Art in Global Illumination for Interactive Applications and High-quality Animations. Computer Graphics Forum, 2003, 22, 55-77.	1.8	27
47	Importance sampling for video environment maps. , 2005, , .		27
48	Learning to Predict Localized Distortions in Rendered Images. Computer Graphics Forum, 2013, 32, 401-410.	1.8	27
49	Contrast Restoration by Adaptive Countershading. Computer Graphics Forum, 2007, 26, 581-590.	1.8	26
50	GazeStereo3D. ACM Transactions on Graphics, 2016, 35, 1-13.	4.9	25
51	High Dynamic Range Video. Synthesis Lectures on Computer Graphics and Animation, 2008, 2, 1-158.	0.1	25
52	Multidimensional image retargeting. , 2011, , .		24
53	Dataset and Metrics for Predicting Local Visible Differences. ACM Transactions on Graphics, 2018, 37, 1-14.	4.9	24
54	Scalable Remote Rendering with Depth and Motionâ€flow Augmented Streaming. Computer Graphics Forum, 2011, 30, 415-424.	1.8	23

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55	Motion parallax in stereo 3D. ACM Transactions on Graphics, 2016, 35, 1-12.	4.9	23
56	Bidirectional Texture Function Compression Based on Multiâ€Level Vector Quantization. Computer Graphics Forum, 2010, 29, 175-190.	1.8	22
57	Efficient Multiâ€image Correspondences for Onâ€line Light Field Video Processing. Computer Graphics Forum, 2016, 35, 401-410.	1.8	21
58	Perception-based global illumination, rendering, and animation techniques. , 2002, , .		19
59	A model of local adaptation. ACM Transactions on Graphics, 2015, 34, 1-13.	4.9	19
60	Perception-based fast rendering and antialiasing of walkthrough sequences. IEEE Transactions on Visualization and Computer Graphics, 2000, 6, 360-379.	2.9	18
61	Optimizing Disparity for Motion in Depth. Computer Graphics Forum, 2013, 32, 143-152.	1.8	18
62	Motion Aware Exposure Bracketing for HDR Video. Computer Graphics Forum, 2015, 34, 119-130.	1.8	18
63	Highlight microdisparity for improved gloss depiction. ACM Transactions on Graphics, 2012, 31, 1-5.	4.9	17
64	Modeling and optimizing eye vergence response to stereoscopic cuts. ACM Transactions on Graphics, 2014, 33, 1-8.	4.9	17
65	Texture Mapping as an Alternative for Meshing During Walkthrough Animation. , 1995, , 389-400.		17
66	Fast collision detection between complex solids using rasterizing graphics hardware. Visual Computer, 1995, 11, 497-511.	2.5	17
67	Apparent stereo: the Cornsweet illusion can enhance perceived depth. , 2012, , .		16
68	A CAVE system for interactive modeling of global illumination in car interior. , 2004, , .		15
69	Lighting Reconstruction Using Fast and Adaptive Density Estimation Techniques. Eurographics, 1997, , 251-262.	0.4	15
70	Temporally Coherent Irradiance Caching for High Quality Animation Rendering. Computer Graphics Forum, 2005, 24, 401-412.	1.8	13
71	High Dynamic Range Image and Video Compression - Fidelity Matching Human Visual Performance. Proceedings International Conference on Image Processing, 2007, , .	0.0	13
72	Design of a tone mapping operator for high-dynamic range images based upon psychophysical evaluation and preference mapping. , 2003, , .		12

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73	Computational model of lightness perception in high dynamic range imaging. , 2006, 6057, 65.		12
74	3D Material Style Transfer. Computer Graphics Forum, 2012, 31, 431-438.	1.8	12
75	Perceptual depth compression for stereo applications. Computer Graphics Forum, 2014, 33, 195-204.	1.8	12
76	Attention guided MPEG compression for computer animations. , 2003, , .		11
77	Render2MPEG: A Perception-based Framework Towards Integrating Rendering and Video Compression. Computer Graphics Forum, 2008, 27, 183-192.	1.8	11
78	Perceptual model for adaptive local shading and refresh rate. ACM Transactions on Graphics, 2021, 40, 1-18.	4.9	11
79	Modeling Luminance Perception at Absolute Threshold. Computer Graphics Forum, 2015, 34, 155-164.	1.8	10
80	Depth from HDR. , 2014, , .		9
81	A Perception-driven Hybrid Decomposition for Multi-layer Accommodative Displays. IEEE Transactions on Visualization and Computer Graphics, 2019, 25, 1940-1950.	2.9	9
82	Exploiting temporal coherence in global illumination. , 2004, , .		8
83	Anisotropic Radiance-Cache Splatting for Efficiently Computing High-Quality Global Illumination with Lightcuts. Computer Graphics Forum, 2009, 28, 259-268.	1.8	8
84	Predicting Display Visibility Under Dynamically Changing Lighting Conditions. Computer Graphics Forum, 2009, 28, 173-182.	1.8	7
85	Apparent display resolution enhancement for moving images. , 2010, , .		7
86	Manipulating refractive and reflective binocular disparity. Computer Graphics Forum, 2014, 33, 53-62.	1.8	7
87	Emulating displays with continuously varying frame rates. ACM Transactions on Graphics, 2016, 35, 1-11.	4.9	7
88	Perceptually-informed accelerated rendering of high quality walkthrough sequences. Eurographics, 1999, , 5-18.	0.4	7
89	Lightness perception inspired tone mapping. , 2004, , .		6
90	Exploiting temporal coherence in final gathering for dynamic scenes. , 0, , .		6

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91	Neural Acceleration of Scatteringâ€Aware Color 3D Printing. Computer Graphics Forum, 2021, 40, 205-219.	1.8	6
92	Imperceptible manipulation of lateral camera motion for improved virtual reality applications. ACM Transactions on Graphics, 2020, 39, 1-14.	4.9	6
93	A case study towards validation of global illumination algorithms: progressive hierarchical radiosity with clustering. Visual Computer, 2000, 16, 271-288.	2.5	5
94	Spatio-temporal photon density estimation using bilateral filtering. , 0, , .		5
95	Interactive global illumination in dynamic participating media using selective photon tracing. , 2005, , .		5
96	A perceptual evaluation of 3D unsharp masking. , 2009, , .		5
97	Contrast prescription for multiscale image editing. Visual Computer, 2010, 26, 739-748.	2.5	5
98	On evaluation of video quality metrics: an HDR dataset for computer graphics applications. Proceedings of SPIE, 2011, , .	0.8	5
99	Selecting texture resolution using a taskâ€specific visibility metric. Computer Graphics Forum, 2019, 38, 685-696.	1.8	5
100	Video quality assessment for computer graphics applications. , 2010, , .		5
101	Perceptual Error Optimization for Monte Carlo Rendering. ACM Transactions on Graphics, 2022, 41, 1-17.	4.9	5
102	Learning HDR video reconstruction for dual-exposure sensors with temporally-alternating exposures. Computers and Graphics, 2022, 105, 57-72.	1.4	5
103	Visually significant edges. ACM Transactions on Applied Perception, 2010, 7, 1-15.	1.2	4
104	Stereo Day-for-Night. ACM Transactions on Applied Perception, 2014, 11, 1-17.	1.2	4
105	Purkinje Images: Conveying Different Content for Different Luminance Adaptations in a Single Image. Computer Graphics Forum, 2015, 34, 116-126.	1.8	4
106	HDR Tone Mapping. , 2007, , 147-178.		4
107	Articulation simulation for an intelligent dental care system. Displays, 1994, 15, 181-188.	2.0	3
108	Perceptuallyâ€motivated Stereoscopic Film Grain. Computer Graphics Forum, 2014, 33, 349-358.	1.8	3

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109	Perception-Inspired High Dynamic Range Video Coding and Compression. The Frontiers Collection, 2016, , 211-220.	0.1	3
110	Perceptual Real-Time 2D-to-3D Conversion Using Cue Fusion. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 2037-2050.	2.9	3
111	Stimulating the Human Visual System Beyond Real World Performance in Future Augmented Reality Displays. , 2020, , .		3
112	Modelling of Human Jaw Motion in Sliding Contact. Computer Animation and Virtual Worlds, 1997, 8, 147-163.	0.9	2
113	Visual maladaptation in contrast domain. Proceedings of SPIE, 2010, , .	0.8	2
114	What makes 2D-to-3D stereo conversion perceptually plausible?. , 2015, , .		2
115	An efficient cluster-based hierarchical progressive radiosity algorithm. Lecture Notes in Computer Science, 1995, , 292-303.	1.0	2
116	Transformation-aware perceptual image metric. Journal of Electronic Imaging, 2016, 25, 053014.	0.5	2
117	Validating global illumination algorithms and software. , 1997, , .		2
118	A progressive global illumination solution considering perceptual factors. , 1998, , .		1
119	Perception-based contrast enhancement model for complex images in high dynamic range. , 2008, , .		1
120	Improving perception of binocular stereo motion on 3D display devices. Proceedings of SPIE, 2014, , .	0.8	1
121	A transformation-aware perceptual image metric. Proceedings of SPIE, 2015, , .	0.8	1
122	Quality Assessment and Perception in Computer Graphics. IEEE Computer Graphics and Applications, 2016, 36, 21-22.	1.0	1
123	Learning to Predict Imageâ€based Rendering Artifacts with Respect to a Hidden Reference Image. Computer Graphics Forum, 2019, 38, 579-589.	1.8	1
124	Robust and practical measurement of volume transport parameters in solid photo-polymer materials for 3D printing. Optics Express, 2021, 29, 7568.	1.7	1
125	Learning a selfâ€supervised tone mapping operator via feature contrast masking loss. Computer Graphics Forum, 2022, 41, 71-84.	1.8	1
126	<title>Visualization and analysis of occlusion for human jaws using a "functionally generated path"</title>. , 1996, , .		0

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127	<title>Using animation quality metric to improve efficiency of global illumination computation for dynamic environments</title>. , 2002, 4662, 187.		0
128	Perceptual uniformity of contrast scaling in complex images. , 2007, , .		0
129	Selected problems of high dynamic range video compression and GPU-based contrast domain tone mapping. , 2010, , .		0
130	Intuitive editing of material appearance. , 2016, , .		0
131	Perception-Driven Global Illumination and Rendering Computation. , 2002, , 267-288.		0
132	Stereo day-for-night. , 2014, , .		0
133	Virtual Revisiting of Architectural Masterpieces and the Problem of Lighting Simulation. , 1998, , 175-191.		0