Marcelo BertalmÃ-o

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2885325/publications.pdf

Version: 2024-02-01

132	7,315	279798	118850
papers	citations	23	62
		h-index	g-index

133	133	133	3645
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Contrast sensitivity functions in autoencoders. Journal of Vision, 2022, 22, 8.	0.3	8
2	On the synthesis of visual illusions using deep generative models. Journal of Vision, 2022, 22, 2.	0.3	2
3	Cortical-Inspired Wilsonâ€“Cowan-Type Equations for Orientation-Dependent Contrast Perception Modelling. Journal of Mathematical Imaging and Vision, 2021, 63, 263-281.	1.3	8
4	Vision models fine-tuned by cinema professionals for High Dynamic Range imaging in movies. Multimedia Tools and Applications, 2021, 80, 2537-2563.	3.9	3
5	Vision Models for Wide Color Gamut Imaging in Cinema. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 1777-1790.	13.9	12
6	A Study of Objective Quality Metrics for HLG-Based HDR/WCG Image Coding. Smpte Motion Imaging Journal, 2021, 130, 53-65.	0.2	1
7	Matching visual induction effects on screens of different size. Journal of Vision, 2021, 21, 10.	0.3	0
8	Photorealistic style transfer for video. Signal Processing: Image Communication, 2021, 95, 116240.	3.2	4
9	Inpainting. , 2021, , 670-687.		0
10	A fast image dehazing method that does not introduce color artifacts. Journal of Real-Time Image Processing, 2020, 17, 607-622.	3.5	20
11	Vision models for gamut mapping in cinema. , 2020, , 185-213.		0
12	Vision models for tone mapping in cinema. , 2020, , 215-246.		0
13	The biological basis of vision: LGN, visual cortex and L+NL models. , 2020, , 47-63.		0
14	Adaptation and efficient coding. , 2020, , 65-93.		2
15	Brightness perception and encoding curves. , 2020, , 95-129.		7
16	Histogram equalisation and vision models. , 2020, , 157-184.		0
17	Extensions and applications. , 2020, , 247-293.		3
18	Open problems: an argument for new vision models rather than new algorithms. , 2020, , 295-300.		0

#	Article	IF	Citations
19	Evidence for the intrinsically nonlinear nature of receptive fields in vision. Scientific Reports, 2020, 10, 16277.	3.3	14
20	Color illusions also deceive CNNs for low-level vision tasks: Analysis and implications. Vision Research, 2020, 176, 156-174.	1.4	20
21	Visual Information flow in Wilson-Cowan networks. Journal of Neurophysiology, 2020, 123, 2249-2268.	1.8	9
22	Visual illusions via neural dynamics: Wilsonâ€“Cowan-type models and the efficient representation principle. Journal of Neurophysiology, 2020, 123, 1606-1618.	1.8	16
23	Color Matching Images With Unknown Non-Linear Encodings. IEEE Transactions on Image Processing, 2020, 29, 4435-4444.	9.8	9
24	Retinal Noise Emulation: A Novel Artistic Tool for Cinema That Also Improves Compression Efficiency. IEEE Access, 2020, 8, 67263-67276.	4.2	0
25	Physical-based optimization for non-physical image dehazing methods. Optics Express, 2020, 28, 9327.	3.4	11
26	A Connection Between Image Processing and Artificial Neural Networks Layers Through a Geometric Model of Visual Perception. Lecture Notes in Computer Science, 2019, , 459-471.	1.3	1
27	A Cortical-Inspired Model for Orientation-Dependent Contrast Perception: A Link with Wilson-Cowan Equations. Lecture Notes in Computer Science, 2019, , 472-484.	1.3	8
28	Practical Use Suggests a Re-evaluation of HDR Objective Quality Metrics. , 2019, , .		6
29	Issues with Common Assumptions about the Camera Pipeline and Their Impact in HDR Imaging from Multiple Exposures. SIAM Journal on Imaging Sciences, 2019, 12, 1627-1642.	2.2	3
30	A reevaluation of Whittle (1986, 1992) reveals the link between detection thresholds, discrimination thresholds, and brightness perception. Journal of Vision, 2019, 19, 16.	0.3	9
31	Statistics of natural images as a function of dynamic range. Journal of Vision, 2019, 19, 13.	0.3	7
32	In Praise of Artifice Reloaded: Caution With Natural Image Databases in Modeling Vision. Frontiers in Neuroscience, 2019, 13, 8.	2.8	9
33	Convolutional Neural Networks Can Be Deceived by Visual Illusions. , 2019, , .		13
34	Physically Plausible Dehazing for Non-physical Dehazing Algorithms. Lecture Notes in Computer Science, 2019, , 233-244.	1.3	0
35	A Geometric Model of Brightness Perception and Its Application to Color Images Correction. Journal of Mathematical Imaging and Vision, 2018, 60, 849-881.	1.3	7
36	Angular-Based Preprocessing for Image Denoising. IEEE Signal Processing Letters, 2018, 25, 219-223.	3.6	8

#	Article	IF	Citations
37	In-camera, Photorealistic Style Transfer for On-set Automatic Grading. , 2018, , .		0
38	PERFORMANCE EVALUATION OF OBJECTIVE QUALITY METRICS ON HLG-BASED HDR IMAGE CODING. , 2018, , .		3
39	Derivatives and inverse of cascaded linear+nonlinear neural models. PLoS ONE, 2018, 13, e0201326.	2.5	21
40	On the Duality Between Retinex and Image Dehazing. , 2018, , .		80
41	Photorealistic Style Transfer for Cinema Shoots. , 2018, , .		2
42	Three Approaches to Improve Denoising Results that Do Not Involve Developing New Denoising Methods. Advances in Computer Vision and Pattern Recognition, 2018, , 295-329.	1.3	0
43	Spatial gamut mapping among non-inclusive gamuts. Journal of Visual Communication and Image Representation, 2018, 54, 204-212.	2.8	5
44	Variational Methods for Gamut Mapping in Cinema and Television. Mathematics and Visualization, 2018, , 67-100.	0.6	0
45	Gamut Extension for Cinema. IEEE Transactions on Image Processing, 2017, 26, 1595-1606.	9.8	15
46	Analysis of retinal and cortical components of Retinex algorithms. Journal of Electronic Imaging, 2017, 26, 031208.	0.9	10
47	Special Section Guest Editorial: Retinex at 50. Journal of Electronic Imaging, 2017, 26, 031201.	0.9	2
48	Color-matching Shots from Different Cameras Having Unknown Gamma or Logarithmic Encoding Curves. , 2017, , .		2
49	Automatic, Fast and Perceptually Accurate Gamut Mapping Based on Vision Science Models. , 2017, , .		1
50	The Wilson-Cowan model describes Contrast Response and Subjective Distortion. Journal of Vision, 2017, 17, 657.	0.3	5
51	High quality video in high dynamic range scenes from interlaced dual-ISO footage. IS&T International Symposium on Electronic Imaging, 2016, 2016, 1-7.	0.4	5
52	Optimized Tone Curve for In-Camera Image Processing. IS&T International Symposium on Electronic Imaging, 2016, 28, 1-7.	0.4	11
53	System gamma as a function of image- and monitor-dynamic range. Journal of Vision, 2016, 16, 4.	0.3	13
54	The influence of lightness, and the crispening effect on the perceived contrast of textured images. IS&T International Symposium on Electronic Imaging, 2016, 2016, 1-5.	0.4	1

#	Article	IF	Citations
55	Local denoising applied to RAW images may outperform non-local patch-based methods applied to the camera output. IS&T International Symposium on Electronic Imaging, 2016, 28, 1-8.	0.4	5
56	Local denoising based on curvature smoothing can visually outperform non-local methods on photographs with actual noise. , 2016, , .		3
57	Log-encoding estimation for color stabilization of cinematic footage. , 2016, , .		5
58	Automatic, Viewing-Condition Dependent Contrast Grading based on Perceptual Models. , 2016, , .		1
59	Perceptually-based Gamut Extension Algorithm for Emerging Wide Color Gamut Display and Projection Technologies. , 2016, , .		2
60	Fusion-based Variational Image Dehazing. IEEE Signal Processing Letters, 2016, , 1-1.	3.6	45
61	A Decomposition Framework for Image Denoising Algorithms. IEEE Transactions on Image Processing, 2016, 25, 388-399.	9.8	70
62	Retinal Processing Optimizes Contrast Coding. Journal of Vision, 2016, 16, 1151.	0.3	7
63	Retinal Lateral Inhibition Provides the Biological Basis of Long-Range Spatial Induction. PLoS ONE, 2016, 11, e0168963.	2.5	24
64	Brightness Assimilation Predicted Already at Retinal Level Due to the Effect of Wide Receptive-fields of Inhibitory Feedback Cells. Journal of Vision, 2016, 16, 44.	0.3	1
65	A tone mapping operator based on neural and psychophysical models of visual perception. Proceedings of SPIE, 2015, , .	0.8	5
66	Gamut extension for cinema: psychophysical evaluation of the state of the art and a new algorithm. , 2015, , .		2
67	Simultaneous Blind Gamma Estimation. IEEE Signal Processing Letters, 2015, 22, 1316-1320.	3.6	11
68	Enhanced Variational Image Dehazing. SIAM Journal on Imaging Sciences, 2015, 8, 1519-1546.	2.2	84
69	A Variational Framework for Single Image Dehazing. Lecture Notes in Computer Science, 2015, , 259-270.	1.3	6
70	Investigating the Effect of Lateral Inhibition in the Retinal Circuitry on Lightness Contrast and Assimilation: A Model Study. Journal of Vision, 2015, 15, 633.	0.3	3
71	A class of nonlocal variational problems on a vector bundle for color image local contrast reduction/enhancement. Geometry Imaging and Computing, 2015, 2, 187-236.	0.8	2
72	Perceptual Dynamic Range for In-Camera Image Processing. , 2015, , .		3

#	Article	IF	Citations
73	The intrinsic error of exposure fusion for HDR imaging, and a way to reduce it. , 2015, , .		0
74	Duality Principle for Image Regularization and Perceptual Color Correction Models. Lecture Notes in Computer Science, 2015, , 449-460.	1.3	0
75	From image processing to computational neuroscience: a neural model based on histogram equalization. Frontiers in Computational Neuroscience, 2014, 8, 71.	2.1	16
76	On Covariant Derivatives and Their Applications to Image Regularization. SIAM Journal on Imaging Sciences, 2014, 7, 2393-2422.	2.2	13
77	A Nonlocal Variational Formulation for the Improvement of Tone Mapped Images. SIAM Journal on Imaging Sciences, 2014, 7, 2340-2363.	2.2	4
78	Spectral Sharpening of Color Sensors: Diagonal Color Constancy and Beyond. Sensors, 2014, 14, 3965-3985.	3.8	13
79	Perceptual Color Characterization of Cameras. Sensors, 2014, 14, 23205-23229.	3.8	24
80	Gamut Mapping in Cinematography Through Perceptually-Based Contrast Modification. IEEE Journal on Selected Topics in Signal Processing, 2014, 8, 490-503.	10.8	24
81	A Variational Method for the Optimization of Tone Mapping Operators. Lecture Notes in Computer Science, 2014, , 505-516.	1.3	1
82	Denoising an Image by Denoising Its Curvature Image. SIAM Journal on Imaging Sciences, 2014, 7, 187-211.	2.2	25
83	Color Stabilization Along Time and Across Shots of the Same Scene, for One or Several Cameras of Unknown Specifications. IEEE Transactions on Image Processing, 2014, 23, 4564-4575.	9.8	26
84	Inpainting. , 2014, , 401-416.		8
85	Gamut Mapping through Perceptually-Based Contrast Reduction. Lecture Notes in Computer Science, 2014, , 1-11.	1.3	2
86	Modeling lightness induction with Wilson-Cowan equations. Journal of Vision, 2014, 14, 56-56.	0.3	2
87	Denoising an Image by Denoising Its Components in a Moving Frame. Lecture Notes in Computer Science, 2014, , 375-383.	1.3	3
88	Harmonic Flow for Histogram Matching. Lecture Notes in Computer Science, 2014, , 145-156.	1.3	0
89	A model of color constancy and efficient coding can predict lightness induction. Journal of Vision, 2014, 14, 84-84.	0.3	0
90	The Perceived Quality of Undistorted Natural Images. Journal of Vision, 2014, 14, 82-82.	0.3	0

#	Article	IF	Citations
91	The potential effect of the electrical coupling among horizontal cells on enhancing local contrast signals in the parasol retinal pathway. Journal of Vision, 2014, 14, 60-60.	0.3	1
92	Is there a preference for linearity when viewing natural images?. Journal of Vision, 2014, 14, 58-58.	0.3	0
93	Variational Approach for the Fusion of Exposure Bracketed Pairs. IEEE Transactions on Image Processing, 2013, 22, 712-723.	9.8	30
94	A Contrario Selection of Optimal Partitions for Image Segmentation. SIAM Journal on Imaging Sciences, 2013, 6, 1274-1317.	2.2	14
95	Color matching for stereoscopic cinema. , 2013, , .		2
96	Generalized Gradient on Vector Bundle â€“ Application to Image Denoising. Lecture Notes in Computer Science, 2013, , 12-23.	1.3	5
97	An Analysis of Visual Adaptation and Contrast Perception for Tone Mapping. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2011, 33, 2002-2012.	13.9	90
98	A Comprehensive Framework for Image Inpainting. IEEE Transactions on Image Processing, 2010, 19, 2634-2645.	9.8	214
99	A contrario hierarchical image segmentation. , 2009, , .		15
100	Implementing the Retinex algorithm with Wilsonâ€“Cowan equations. Journal of Physiology (Paris), 2009, 103, 69-72.	2.1	38
101	Issues About Retinex Theory and Contrast Enhancement. International Journal of Computer Vision, 2009, 83, 101-119.	15.6	151
102	Fusion of Bracketing Pictures. , 2009, , .		2
103	Geometry-Based Demosaicking. IEEE Transactions on Image Processing, 2009, 18, 665-670.	9.8	22
104	A Multi-Modal Approach to Perceptual Tone Mapping. , 2009, , .		1
105	A Perceptually Inspired Variational Framework for Color Enhancement. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2009, 31, 458-474.	13.9	118
106	Movie Denoising by Average of Warped Lines. IEEE Transactions on Image Processing, 2007, 16, 2333-2347.	9.8	23
107	An Inpainting- Based Deinterlacing Method. IEEE Transactions on Image Processing, 2007, 16, 2476-2491.	9.8	31
108	Perceptual Color Correction Through Variational Techniques. IEEE Transactions on Image Processing, 2007, 16, 1058-1072.	9.8	145

#	Article	IF	Citations
109	Video Inpainting Under Constrained Camera Motion. IEEE Transactions on Image Processing, 2007, 16, 545-553.	9.8	197
110	Strong-continuation, contrast-invariant inpainting with a third-order optimal PDE. IEEE Transactions on Image Processing, 2006, 15, 1934-1938.	9.8	68
111	Visual Acuity in Day for Night. International Journal of Computer Vision, 2006, 69, 109-117.	15.6	17
112	Region Based Segmentation Using the Tree of Shapes. , 2006, , .		14
113	PDE-Based Image and Surface Inpainting. , 2006, , 33-61.		9
114	Contrast invariant inpainting with a 3rd order, optimal PDE. , 2005, , .		3
115	An active regions approach for the segmentation of 3D biological tissue. , 2005, , .		2
116	Video inpainting of occluding and occluded objects. , 2005, , .		82
117	TV Based Image Restoration with Local Constraints. Journal of Scientific Computing, 2003, 19, 95-122.	2.3	73
118	Simultaneous structure and texture image inpainting. IEEE Transactions on Image Processing, 2003, 12, 882-889.	9.8	790
119	Structure and texture filling-in of missing image blocks in wireless transmission and compression applications. IEEE Transactions on Image Processing, 2003, 12, 296-303.	9.8	182
120	Filling-in by joint interpolation of vector fields and gray levels. IEEE Transactions on Image Processing, 2001, 10, 1200-1211.	9.8	723
121	Variational Problems and Partial Differential Equations on Implicit Surfaces. Journal of Computational Physics, 2001, 174, 759-780.	3.8	288
122	Morphing active contours. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2000, 22, 733-737.	13.9	80
123	Image inpainting. , 2000, , .		2,377
124	Region tracking on level-sets methods. IEEE Transactions on Medical Imaging, 1999, 18, 448-451.	8.9	27
125	<title>Image enhancement for a low-cost TEM acquisition system</title>. , 1998, , .		0
126	<title>Neuro3D: an interactive 3D reconstruction system of serial sections using automatic registration</title>. , 1998, 3261, 117.		4

#	Article	IF	Citations
127	Variational problems and PDEs on implicit surfaces. , 0, , .		8
128	Navier-stokes, fluid dynamics, and image and video inpainting. , 0, , .		525
129	Structure and texture filling-in of missing image blocks in wireless transmission and compression. , 0, , .		9
130	Inpainting surface holes. , 0, , .		56
131	Real-time, accurate depth of field using anisotropic diffusion and programmable graphics cards. , 0, , .		18
132	Image Processing for Cinema. , 0, , .		25