

# Javier Portilla

## List of Publications by Year in descending order

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58  
papers

4,240  
citations

840119

11  
h-index

794141

19  
g-index

58  
all docs

58  
docs citations

58  
times ranked

2757  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deterministic Feature Decoupling by Surfing Invariance Manifolds. , 2020, , .		1
2	Computational estimation of point-spread-function field in axially symmetric optical systems. Journal of Modern Optics, 2020, 67, 1563-1570.	0.6	0
3	Controlled Feature Adjustment for Image Processing and Synthesis. , 2020, , .		1
4	Nonconvex Bayesian Restoration of Blurred Foreground Images. , 2019, , .		1
5	Efficient PSF field estimation, tracing few rays, in axially symmetric optical systems. , 2019, , .		0
6	Efficient characterization of phase space mapping in axially symmetric optical systems. Journal of Optics (United Kingdom), 2018, 20, 015603.	1.0	2
7	Nested Normalizations for Decoupling Global Features. , 2018, , .		2
8	Hybrid digital-optical imaging design for reducing surface asphericity cost while keeping high performance. , 2018, , .		2
9	Spectral pre-adaptation for two-step arbitrary-shape-support image restoration. , 2017, , .		1
10	Comparing optical to digital metrics: What is the optimal defocus in a rotationally symmetric system?. , 2017, , .		0
11	Simulating real-world scenes viewed through ophthalmic lenses. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 1301.	0.8	6
12	Avoiding tracing too many rays for characterizing an axially symmetric optical system. , 2017, , .		0
13	The relationship between dioptric power and magnification in progressive addition lenses. Ophthalmic and Physiological Optics, 2016, 36, 421-427.	1.0	28
14	Dispersion kernels for water wave simulation. ACM Transactions on Graphics, 2016, 35, 1-10.	4.9	14
15	Maximum likelihood interpolation for aliasing-aware image restoration. , 2016, , .		4
16	Quantum-computation-inspired reverse analysis texture synthesis. , 2015, , .		1
17	Geometrical interpretation of dioptric blurring and magnification in ophthalmic lenses. Optics Express, 2015, 23, 13185.	1.7	29
18	Efficient and Robust Image Restoration Using Multiple-Feature L2-Relaxed Sparse Analysis Priors. IEEE Transactions on Image Processing, 2015, 24, 5046-5059.	6.0	28

#	ARTICLE	IF	CITATIONS
19	Maximum likelihood extension for non-circulant deconvolution. , 2014, , .		5
20	Wavefront reconstruction from tangential and sagittal curvature. Applied Optics, 2014, 53, 8268.	2.1	1
21	Multiple One-Dimensional Search (MODS) algorithm for fast optimization of laser-matter interaction by phase-only fs-laser pulse shaping. Applied Physics B: Lasers and Optics, 2014, 116, 747-753.	1.1	1
22	Optimization of ultra-fast interactions using laser pulse temporal shaping controlled by a deterministic algorithm. Applied Physics A: Materials Science and Processing, 2014, 114, 477-484.	1.1	7
23	Advanced statistical tools for enhanced quality digital imaging with realistic capture models. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	1
24	Accuracy of geometric point spread function estimation using the ray-counting method. , 2012, , .		5
25	Efficient shift-variant image restoration using deformable filtering (Part I). Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.0	14
26	Efficient shift-variant image restoration using deformable filtering (Part II): PSF field estimation. Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.0	5
27	Efficient joint poisson-gauss restoration using multi-frame L2-relaxed-L0 analysis-based sparsity. , 2011, , .		12
28	Condy: Ultra-fast high performance restoration using multi-frame L2-relaxed-L0 sparsity and constrained dynamic heuristics. , 2011, , .		2
29	Image restoration through l0 analysis-based sparse optimization in tight frames. , 2009, , .		57
30	Image denoising using mixtures of Gaussian scale mixtures. , 2008, , .		23
31	Non-convex sparse optimization through deterministic annealing and applications. , 2008, , .		13
32	Image Restoration Using Space-Variant Gaussian Scale Mixtures in Overcomplete Pyramids. IEEE Transactions on Image Processing, 2008, 17, 27-41.	6.0	100
33	Low-cost wavefront coding using coma and a denoising-based deconvolution. , 2007, , .		5
34	Image restoration using adaptive Gaussian scale mixtures in overcomplete pyramids. Proceedings of SPIE, 2007, , .	0.8	2
35	L0-based sparse approximation: two alternative methods and some applications. , 2007, , .		26
36	Deblurring-by-Denoising using Spatially Adaptive Gaussian Scale Mixtures in Overcomplete Pyramids. , 2006, , .		16

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37	L0-Norm-Based Sparse Representation Through Alternate Projections. , 2006, , .		31
38	Simulated intensified images. , 2005, 5987, 128.		2
39	Low-complexity linear demosaicing using joint spatial-chromatic image statistics. , 2005, , .		13
40	Two-level adaptive denoising using Gaussian scale mixtures in overcomplete oriented pyramids. , 2005, , .		20
41	Image restoration using Gaussian scale mixtures in overcomplete oriented pyramids. , 2005, , .		2
42	Image De-Quantizing via Enforcing Sparseness in Overcomplete Representations. Lecture Notes in Computer Science, 2005, , 411-418.	1.0	0
43	<title>Parametric PSF estimation via sparseness maximization in the wavelet domain</title>. , 2004, , .		7
44	Image denoising using scale mixtures of gaussians in the wavelet domain. IEEE Transactions on Image Processing, 2003, 12, 1338-1351.	6.0	1,836
45	A Parametric Texture Model Based on Joint Statistics of Complex Wavelet Coefficients. International Journal of Computer Vision, 2000, 40, 49-70.	10.9	1,375
46	Image denoising using a local Gaussian scale mixture model in the wavelet domain. , 2000, 4119, 363.		43
47	Independent component analysis of textures. , 1999, , .		36
48	Duality of log-polar image representations in the space and spatial-frequency domains. IEEE Transactions on Signal Processing, 1999, 47, 2469-2479.	3.2	16
49	Efficient spatial-domain implementation of a multiscale image representation based on Gabor functions. Journal of Electronic Imaging, 1998, 7, 166.	0.5	112
50	<title>Duality between foveatization and multiscale local spectrum estimation</title>. , 1998, , .		3
51	Automatic computation of the area irradiated by ultrashort laser pulses in Sb materials through texture segmentation of TEM images. Ultramicroscopy, 1996, 66, 101-115.	0.8	7
52	Texture synthesis by analysis method based on a multiscale early vision model. Optical Engineering, 1996, 35, 2403.	0.5	45
53	Optimizing parametric deformable kernels: space-variant filtering and scaling-rotation invariance. , 0, , .		1
54	Texture characterization via joint statistics of wavelet coefficient magnitudes. , 0, , .		107

#	ARTICLE	IF	CITATIONS
55	Image denoising via adjustment of wavelet coefficient magnitude correlation. , 0, , .		23
56	Adaptive Wiener denoising using a Gaussian scale mixture model in the wavelet domain. , 0, , .		79
57	Image restoration using Gaussian scale mixtures in the wavelet domain. , 0, , .		32
58	Full blind denoising through noise covariance estimation using gaussian scale mixtures in the wavelet domain. , 0, , .		35