

Enrique Tajahuerce

List of Publications by Year in descending order

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190
papers

4,761
citations

136950

32
h-index

98798

67
g-index

194
all docs

194
docs citations

194
times ranked

1891
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical encryption based on computational ghost imaging. <i>Optics Letters</i> , 2010, 35, 2391.	3.3	424
2	Three-dimensional object recognition by use of digital holography. <i>Optics Letters</i> , 2000, 25, 610.	3.3	401
3	Roadmap on optical security. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 083001.	2.2	338
4	Encrypting three-dimensional information with digital holography. <i>Applied Optics</i> , 2000, 39, 6595.	2.1	323
5	Optoelectronic information encryption with phase-shifting interferometry. <i>Applied Optics</i> , 2000, 39, 2313.	2.1	199
6	Compression of digital holograms for three-dimensional object reconstruction and recognition. <i>Applied Optics</i> , 2002, 41, 4124.	2.1	195
7	Image transmission through dynamic scattering media by single-pixel photodetection. <i>Optics Express</i> , 2014, 22, 16945.	3.4	170
8	Three-Dimensional Imaging and Processing Using Computational Holographic Imaging. <i>Proceedings of the IEEE</i> , 2006, 94, 636-653.	21.3	159
9	Compressive holography with a single-pixel detector. <i>Optics Letters</i> , 2013, 38, 2524.	3.3	136
10	Roadmap on digital holography [Invited]. <i>Optics Express</i> , 2021, 29, 35078.	3.4	133
11	Compressive imaging in scattering media. <i>Optics Express</i> , 2015, 23, 14424.	3.4	127
12	Shift-invariant three-dimensional object recognition by means of digital holography. <i>Applied Optics</i> , 2001, 40, 3877.	2.1	103
13	Single-pixel digital ghost holography. <i>Physical Review A</i> , 2012, 86, .	2.5	90
14	Single-pixel polarimetric imaging spectrometer by compressive sensing. <i>Applied Physics B: Lasers and Optics</i> , 2013, 113, 551-558.	2.2	87
15	Distortion-tolerant three-dimensional object recognition with digital holography. <i>Applied Optics</i> , 2001, 40, 3887.	2.1	81
16	Single-pixel digital holography with phase-encoded illumination. <i>Optics Express</i> , 2017, 25, 4975.	3.4	80
17	Real-time three-dimensional object recognition with multiple perspectives imaging. <i>Applied Optics</i> , 2001, 40, 3318.	2.1	73
18	Single-shot digital holography by use of the fractional Talbot effect. <i>Optics Express</i> , 2009, 17, 12900.	3.4	72

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19	Single pixel camera ophthalmoscope. <i>Optica</i> , 2016, 3, 1056.	9.3	66
20	Applications of short-coherence digital holography in microscopy. <i>Applied Optics</i> , 2005, 44, 3977.	2.1	64
21	Single-pixel polarimetric imaging. <i>Optics Letters</i> , 2012, 37, 824.	3.3	63
22	Optical security and encryption with totally incoherent light. <i>Optics Letters</i> , 2001, 26, 678.	3.3	55
23	Comparison of passive ranging integral imaging and active imaging digital holography for three-dimensional object recognition. <i>Applied Optics</i> , 2004, 43, 452.	2.1	51
24	Phase imaging by spatial wavefront sampling. <i>Optica</i> , 2018, 5, 164.	9.3	50
25	High-resolution adaptive imaging with a single photodiode. <i>Scientific Reports</i> , 2015, 5, 14300.	3.3	49
26	Low-cost single-pixel 3D imaging by using an LED array. <i>Optics Express</i> , 2018, 26, 15623.	3.4	45
27	Use of polar decomposition of Mueller matrices for optimizing the phase response of a liquid-crystal-on-silicon display. <i>Optics Express</i> , 2008, 16, 1965.	3.4	43
28	Computational imaging with a balanced detector. <i>Scientific Reports</i> , 2016, 6, 29181.	3.3	42
29	Cell parameter determination of a twisted-nematic liquid crystal display by single-wavelength polarimetry. <i>Journal of Applied Physics</i> , 2005, 97, 043101.	2.5	41
30	Measurement and compensation of optical aberrations using a single spatial light modulator. <i>Optics Express</i> , 2007, 15, 15287.	3.4	37
31	Single-shot color digital holography based on the fractional Talbot effect. <i>Applied Optics</i> , 2011, 50, B96.	2.1	37
32	Dispersion-compensated beam-splitting of femtosecond light pulses: Wave optics analysis. <i>Optics Express</i> , 2007, 15, 278.	3.4	36
33	High sampling rate single-pixel digital holography system employing a DMD and phase-encoded patterns. <i>Optics Express</i> , 2018, 26, 20342.	3.4	31
34	Phase-only modulation with a twisted nematic liquid crystal display by means of equi-azimuth polarization states. <i>Optics Express</i> , 2006, 14, 5607.	3.4	29
35	Dual-mode optical microscope based on single-pixel imaging. <i>Optics and Lasers in Engineering</i> , 2016, 82, 87-94.	3.8	29
36	Fast compressive Raman bio-imaging via matrix completion. <i>Optica</i> , 2019, 6, 341.	9.3	29

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37	Online reconstruction-free single-pixel image classification. <i>Image and Vision Computing</i> , 2019, 86, 28-37.	4.5	28
38	Single-pixel imaging of the retina through scattering media. <i>Biomedical Optics Express</i> , 2019, 10, 4159.	2.9	28
39	Fractional derivative Fourier plane filter for phase-change visualization. <i>Applied Optics</i> , 1997, 36, 7461.	2.1	27
40	Achromatic Fourier transforming properties of a separated diffractive lens doublet: theory and experiment. <i>Applied Optics</i> , 1998, 37, 6164.	2.1	26
41	Equivalent retarder-rotator approach to on-state twisted nematic liquid crystal displays. <i>Journal of Applied Physics</i> , 2006, 99, 113101.	2.5	26
42	Hybrid (refractive+diffraction) Fourier processor: a novel optical architecture for achromatic processing with broadband point-source illumination. <i>Optics Communications</i> , 1998, 151, 86-92.	2.1	25
43	All-incoherent dispersion-compensated optical correlator. <i>Optics Letters</i> , 1999, 24, 1331.	3.3	25
44	Diffraction-Based Phase Calibration of Spatial Light Modulators With Binary Phase Fresnel Lenses. <i>Journal of Display Technology</i> , 2016, 12, 1027-1032.	1.2	25
45	400+ to 1000+ nm imaging spectrometer based on acousto-optic tunable filters. <i>Journal of Electronic Imaging</i> , 2006, 15, 023001.	0.9	23
46	Single-zone-plate achromatic Fresnel-transform setup: pattern tunability. <i>Optics Communications</i> , 1997, 136, 297-305.	2.1	22
47	Resolution analysis in computational imaging with patterned illumination and bucket detection. <i>Optics Letters</i> , 2014, 39, 3888.	3.3	22
48	Spatial-chirp compensation in dynamical holograms reconstructed with ultrafast lasers. <i>Applied Physics Letters</i> , 2009, 94, 011104.	3.3	19
49	Generation of programmable 3D optical vortex structures through devil's vortex-lens arrays. <i>Applied Optics</i> , 2013, 52, 5822.	1.8	19
50	Three-dimensional fluorescence imaging using the transport of intensity equation. <i>Journal of Biomedical Optics</i> , 2019, 25, 1.	2.6	19
51	Signal-to-noise ratio of single-pixel cameras based on photodiodes. <i>Applied Optics</i> , 2018, 57, B67.	1.8	18
52	Phase-change visualization in two-dimensional phase objects with a semiderivative real filter. <i>Applied Optics</i> , 1998, 37, 5472.	2.1	17
53	Diffractive digital lensless holographic microscopy with fine spectral tuning. <i>Optics Letters</i> , 2013, 38, 2107.	3.3	17
54	Femtosecond digital lensless holographic microscopy to image biological samples. <i>Optics Letters</i> , 2013, 38, 3205.	3.3	17

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55	Real-time acquisition of complex optical fields by binary amplitude modulation. Optics Letters, 2017, 42, 2030.	3.3	17
56	Single-pixel imaging with Fourier filtering: application to vision through scattering media. Optics Letters, 2019, 44, 679.	3.3	17
57	Poincaré Sphere Method for Optimizing the Phase Modulation Response of a Twisted Nematic Liquid Crystal Display. Journal of Display Technology, 2007, 3, 9-14.	1.2	16
58	High-Sensitivity High-Speed Compressive Spectrometer for Raman Imaging. ACS Photonics, 2019, 6, 1409-1415.	6.6	16
59	Quasi-wavelength-independent broadband optical Fourier transformer. Optics Communications, 1999, 172, 153-160.	2.1	15
60	Spectral analysis of femtosecond pulse diffraction through binary diffractive optical elements: theory and experiment. Optics Express, 2008, 16, 2541.	3.4	15
61	Optical filters with fractal transmission spectra based on diffractive optics. Optics Letters, 2009, 34, 560.	3.3	15
62	Method for determining the proper expansion center and order for Mellin radial harmonic filters. Optics Communications, 1993, 103, 39-45.	2.1	13
63	Phase-object fractional differentiation using Fourier plane filters. Journal of Optics, 1997, 6, 481-490.	0.5	13
64	Phase calibration of spatial light modulators by means of Fresnel images. Journal of Optics, 2009, 11, 125405.	1.5	13
65	Reconfigurable Shack-Hartmann sensor without moving elements. Optics Letters, 2010, 35, 1338.	3.3	13
66	White-light array generation with a diffractive lenslet array. Journal of Modern Optics, 1999, 46, 49-63.	1.3	11
67	Wavelength-compensated Fourier and Fresnel transformers: a unified approach. Optics Letters, 2002, 27, 942.	3.3	10
68	Full-color stereoscopic imaging with a single-pixel photodetector. Journal of Display Technology, 2015, 1-1.	1.2	10
69	White-light optical implementation of the fractional Fourier transform with adjustable order control. Applied Optics, 2000, 39, 238.	2.1	9
70	<title>Compression of digital holograms for three-dimensional object recognition</title>. , 2001, , .		9
71	Optical Filter Based on a Spatially Patterned Kinoform Diffractive Lens. IEEE Photonics Technology Letters, 2009, 21, 347-349.	2.5	9
72	Giga-voxel multidimensional fluorescence imaging combining single-pixel detection and data fusion. Optics Letters, 2021, 46, 4312.	3.3	9

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73	Chromatic compensation of broadband light diffraction: ABCD-matrix approach. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 1875.	1.5	8
74	Efficient compensation of Zernike modes and eye aberration patterns using low-cost spatial light modulators. Journal of Biomedical Optics, 2007, 12, 014037.	2.6	8
75	High-visibility interference fringes with femtosecond laser radiation. Optics Express, 2009, 17, 23016.	3.4	8
76	Photon Counting 3-D Object Recognition Using Digital Holography. IEEE Photonics Journal, 2013, 5, 6900309-6900309.	2.0	8
77	Phase and amplitude reconstruction in single-pixel transmission microscopy: a comparison of Hadamard, cosine, and noiselet bases. Applied Optics, 2021, 60, 6935.	1.8	8
78	Free-Motion Beam Propagation Factor Measurement by Means of a Liquid Crystal Spatial Light Modulator. Journal of Display Technology, 2012, 8, 539-545.	1.2	7
79	Scale-tunable optical correlation with natural light. Applied Optics, 2001, 40, 5911.	2.1	6
80	Optical encryption with compressive ghost imaging. , 2011, , .		6
81	Imaging the optical properties of turbid media with single-pixel detection based on the Kubelka-Munk model. Optics Letters, 2019, 44, 4797.	3.3	6
82	White-light-modified Talbot array illuminator with a variable density of light spots. Applied Optics, 1998, 37, 4366.	2.1	5
83	Poincaré-sphere representation of phase-mostly twisted nematic liquid crystal spatial light modulators. Journal of Optics, 2009, 11, 085403.	1.5	5
84	Multi-Physical Parameter Cross-Sectional Imaging of Quantitative Phase and Fluorescence by Integrated Multimodal Microscopy. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-9.	2.9	5
85	Real filter based on Mellin radial harmonics for scale-invariant pattern recognition. Applied Optics, 1994, 33, 3086.	2.1	4
86	Hybrid optical-digital method for local-displacement analysis by use of a phase-space representation. Applied Optics, 1995, 34, 4713.	2.1	4
87	High-contrast white-light Lau fringes. Optics Letters, 2004, 29, 150.	3.3	4
88	Improved resolution synthetic aperture holographic imaging. Proceedings of SPIE, 2007, 6778, 77.	0.8	4
89	White-light implementation of the Wigner-distribution function with an achromatic processor. Applied Optics, 1995, 34, 8209.	2.1	3
90	Achromatic fan-out diffractive system for white-light free-space optical interconnects. Journal of Modern Optics, 2001, 48, 831-845.	1.3	3

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91	High-speed single-pixel digital holography. Proceedings of SPIE, 2017, , .	0.8	3
92	Broadband space-variant Fresnel processor. Optics Letters, 2002, 27, 1926.	3.3	2
93	<title>Three-dimensional imaging, compression, and reconstruction of digital holograms</title> . , 2003, , .		2
94	400- to 1000-nm imaging spectrometer based on acousto-optic tunable filters. , 2004, 5570, 460.		2
95	Applications of Digital Holography for Information Security. Advanced Sciences and Technologies for Security Applications, 2005, , 241-269.	0.5	2
96	3D Object Reconstruction and Recognition Techniques Based on Digital Holography. , 2006, , 1-23.		2
97	Dynamic wavefront sensing and correction with low-cost twisted nematic spatial light modulators. Journal of Physics: Conference Series, 2010, 206, 012018.	0.4	2
98	Three-dimensional object recognition based on multiple-perspective imaging with microlens arrays. , 2001, , .		2
99	Imaging through scattering media by Fourier filtering and single-pixel detection. , 2018, , .		2
100	<title>Distortion invariant 3D object recognition using digital holography</title> . , 2001, , .		1
101	Three-dimensional pattern recognition: algorithms and systems. , 2001, , .		1
102	<title>Three-dimensional object recognition and visualization using integral imaging</title> . , 2001, 4455, 23.		1
103	High-contrast Lau fringes with white light. , 2003, , .		1
104	<title>Broadband optical information security and encryption with achromatic systems</title> . , 2004, , .		1
105	New developments in active and passive 3D image sensing, visualization, and processing. , 2005, 5986, 598601.		1
106	Optoelectronic Information Encryption with Incoherent Light. Advanced Sciences and Technologies for Security Applications, 2005, , 95-112.	0.5	1
107	Single-pixel hyperspectral imaging polarimeter for full stokes parameter measurement. , 2013, , .		1
108	Phase imaging via compressive sensing. , 2013, , .		1

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109	Structured illumination enables image transmission through scattering media. Proceedings of SPIE, 2015, , .	0.8	1
110	Imaging through scattering media by Fourier filtering with a single-pixel camera. , 2017, , .		1
111	Wavefront sensing by single-pixel imaging techniques. , 2018, , .		1
112	Tunable telephoto: governable Fourier spectrum anamorphic scaling. OSA Continuum, 2021, 4, 815.	1.8	1
113	Dynamic Wavefront Sensing and Correction with Low-Cost Twisted Nematic Spatial Light Modulators. , 2010, , 63-76.		1
114	Alternative sampling functions for single-pixel imaging with a digital micromirror device. , 2019, , .		1
115	Imaging the optical properties of turbid media with single-pixel detection. , 2020, , .		1
116	Single-pixel spatial frequency domain imaging with integrating detection. , 2021, , .		1
117	Dynamics of Fractional Vortex Beams at Fraunhofer Diffraction Zone. Photonics, 2022, 9, 479.	2.0	1
118	Real And Positive Filter Based On Circular Harmonic Expansion. , 1989, , .		0
119	<title>Achromatic Fourier processor: a novel optical architecture</title>. , 1996, 2730, 46.		0
120	<title>Wavelength-compensated broadband Fourier transformer</title>. , 1999, 3749, 562.		0
121	<title>Three-dimensional image processing and recognition</title>. , 2000, , .		0
122	3D optoelectronic image processing and recognition. , 0, , .		0
123	<title>Optical techniques for three-dimensional image recognition</title>. , 2001, , .		0
124	Composite filters based on digital holograms for distortion-tolerant three-dimensional object recognition. , 0, , .		0
125	Three-dimensional image security. , 2001, , .		0
126	Three-dimensional image sensing, encryption, compression, and transmission using digital holography. , 2004, 5611, 24.		0

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127	Kinoform apodization by using of programmable diffractive optical elements. , 2004, , .		0
128	Short-coherence digital holography for the investigation of 3D microscopic samples. , 2004, 5457, 528.		0
129	Nearly wavelength-independent interference and diffraction patterns. , 2004, , .		0
130	Nearly wavelength-independent systems for broadband security applications. , 2005, , .		0
131	Equivalent retarder-rotator approach to twisted-nematic liquid crystal displays. , 2005, 5947, 266.		0
132	Passive and active optical sensing for three-dimensional image recognition. , 2005, 5816, 1.		0
133	Three-dimensional image encryption, transmission, and processing by using digital holography. , 2005, , .		0
134	Chromatic compensation in the near-field region: shape and size tunability. Applied Optics, 2005, 44, 6933.	2.1	0
135	Integral Imaging Applied to the Digital Reconstruction and Recognition of 3D Scenes. , 2006, , 157-175.		0
136	Splitting And Focusing Of Femtosecond Light Beams With High Spatio-Temporal Resolution. AIP Conference Proceedings, 2007, , .	0.4	0
137	Optimization of the phase-modulation response of a TNLCD by means of a method based on Poincare sphere. , 2007, , .		0
138	Application of an optimized low-cost spatial light modulator for efficient compensation of eye aberration patterns. , 2007, , .		0
139	Dynamic phase-shifting digital holography based on the fractional Talbot effectf. , 2009, , .		0
140	Compact all-diffractive setup for spectral synthesis with non-uniform illumination. , 2009, , .		0
141	Parallel phase-shifting digital holography based on the fractional Talbot effect. Journal of Physics: Conference Series, 2010, 206, 012023.	0.4	0
142	Parallel Phase-Shifting Digital Holography Based on the Fractional Talbot Effect. , 2010, , 143-153.		0
143	Diffractive control of femtosecond pulses. , 2010, , .		0
144	Diffractive optics for high-resolution low-coherence digital holography. , 2010, , .		0

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145	Complete characterization the QDST pulse shaper by frequency-resolved optical gating. , 2011, , .		0
146	Free-motion beam propagation factor measurement by means of a liquid crystal SLM. , 2011, , .		0
147	Ghost holography. , 2011, , .		0
148	OPCPA using beams shaped by diffractive optical elements. , 2011, , .		0
149	Metaadaptive optics. , 2011, , .		0
150	Advanced imaging techniques by compressive sensing. , 2012, , .		0
151	Spatio-temporal control of ultra-short pulses by using diffractive optical elements. , 2012, , .		0
152	Devilâ€™s vortex-lens arrays generating 3D optical vortex structures. Proceedings of SPIE, 2013, , .	0.8	0
153	Learning to teach optics through experiments and demonstrations. , 2014, , .		0
154	Computational imaging with single-pixel detection: Applications in scattering media. , 2014, , .		0
155	Resolution analysis in computational imaging with patterned illumination and single-pixel detection. Proceedings of SPIE, 2014, , .	0.8	0
156	Dual collection mode optical microscope with single-pixel detection. Proceedings of SPIE, 2015, , .	0.8	0
157	Compressive holography with phase-structured illumination. , 2015, , .		0
158	Controlled multi-beam supercontinuum generation in fused silica by means of spatial light modulators. , 2015, , .		0
159	Resolution analysis in compressive multidimensional microscopy. Proceedings of SPIE, 2015, , .	0.8	0
160	Transillumination imaging through biological tissue by single-pixel detection. Proceedings of SPIE, 2015, , .	0.8	0
161	3D Imaging with Single Pixel Detectors. , 2016, , .		0
162	Imaging through scattering media by microstructured illumination. , 2016, , .		0

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163	Structured-light imaging through scattering. , 2016, , .		0
164	A single pixel camera video ophthalmoscope. , 2017, , .		0
165	Imaging through scattering media with single-pixel detection. , 2017, , .		0
166	Improving resolution in single-pixel microscopy by using Fourier ptychography. Proceedings of SPIE, 2017, , .	0.8	0
167	Full-color stereoscopic single-pixel camera based on DMD technology. Proceedings of SPIE, 2017, , .	0.8	0
168	Microstructured light control with phase-only spatial light modulators: From calibration to phase and amplitude encoding. , 2017, , .		0
169	High-speed single-pixel digital holography with a DMD. , 2017, , .		0
170	Single-Pixel Imaging Using Photodiodes. , 2018, , .		0
171	Single-Pixel Imaging Using the Hadamard Transform. , 2018, , 193-198.		0
172	<title>Three-dimensional image processing, recognition, and security</title>. , 2000, , .		0
173	Dispersion-compensated broadband optical correlators. Proceedings of SPIE, 2001, , .	0.8	0
174	New approaches to 3D image recognition. Proceedings of SPIE, 2001, , .	0.8	0
175	Hybrid (diffractive-refractive) optical processor for space-variant color pattern recognition. , 2002, , .		0
176	One-Shot Color Digital Holography Based on the Fractional Talbot Effect. , 2010, , .		0
177	Diffractive pulse-front tilt for low-coherence digital holography. , 2010, , .		0
178	Single-pixel spectropolarimetric imaging by compressive sensing. , 2013, , .		0
179	Compressive single-pixel multispectral Stokes polarimeter. , 2014, , .		0
180	Valencian Network of Educational Innovation in Optics. Multidisciplinary Journal for Education, Social and Technological Sciences, 2014, 1, 153.	1.6	0

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181	Transillumination imaging through biological tissue by single-pixel detection. , 2015, , .		0
182	Use of balanced detection in single-pixel imaging. , 2016, , .		0
183	Improving the resolution in raster scanning microscopy using Fourier ptychography. , 2016, , .		0
184	INTRODUCING MOBILE APPS IN PHYSICS LABS: DETERMINING MOMENTS OF INERTIA WITH A CELL PHONE. INTED Proceedings, 2017, , .	0.0	0
185	FLIPPING THE LAB SESSION: STUDENTS BUILDING THEIR OWN MAGNETIC DEVICES. , 2017, , .		0
186	Quantitative phase imaging using a programmable wavefront sensor. , 2018, , .		0
187	Single-pixel imaging using balanced detection and a digital micromirror device. , 2018, , .		0
188	Vision through turbid media by Fourier filtering and single-pixel detection. , 2018, , .		0
189	Quantitative phase imaging by using a position sensitive detector. , 2018, , .		0
190	Non-interferometric 3D fluorescence imaging for bio-applications. , 2020, , .		0