

# Enrique Tajahuerce

## List of Publications by Year in descending order

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Version: 2024-02-01

190  
papers

4,761  
citations

136740

32  
h-index

98622

67  
g-index

194  
all docs

194  
docs citations

194  
times ranked

1891  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamics of Fractional Vortex Beams at Fraunhofer Diffraction Zone. <i>Photonics</i> , 2022, 9, 479.	0.9	1
2	Tunable telephoto: governable Fourier spectrum anamorphic scaling. <i>OSA Continuum</i> , 2021, 4, 815.	1.8	1
3	Multi-Physical Parameter Cross-Sectional Imaging of Quantitative Phase and Fluorescence by Integrated Multimodal Microscopy. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021, 27, 1-9.	1.9	5
4	Phase and amplitude reconstruction in single-pixel transmission microscopy: a comparison of Hadamard, cosine, and noiselet bases. <i>Applied Optics</i> , 2021, 60, 6935.	0.9	8
5	Giga-voxel multidimensional fluorescence imaging combining single-pixel detection and data fusion. <i>Optics Letters</i> , 2021, 46, 4312.	1.7	9
6	Roadmap on digital holography [Invited]. <i>Optics Express</i> , 2021, 29, 35078.	1.7	133
7	Single-pixel spatial frequency domain imaging with integrating detection. , 2021, , .		1
8	Imaging the optical properties of turbid media with single-pixel detection. , 2020, , .		1
9	Non-interferometric 3D fluorescence imaging for bio-applications. , 2020, , .		0
10	High-Sensitivity High-Speed Compressive Spectrometer for Raman Imaging. <i>ACS Photonics</i> , 2019, 6, 1409-1415.	3.2	16
11	Online reconstruction-free single-pixel image classification. <i>Image and Vision Computing</i> , 2019, 86, 28-37.	2.7	28
12	Three-dimensional fluorescence imaging using the transport of intensity equation. <i>Journal of Biomedical Optics</i> , 2019, 25, 1.	1.4	19
13	Single-pixel imaging of the retina through scattering media. <i>Biomedical Optics Express</i> , 2019, 10, 4159.	1.5	28
14	Single-pixel imaging with Fourier filtering: application to vision through scattering media. <i>Optics Letters</i> , 2019, 44, 679.	1.7	17
15	Imaging the optical properties of turbid media with single-pixel detection based on the Kubelka-Munk model. <i>Optics Letters</i> , 2019, 44, 4797.	1.7	6
16	Fast compressive Raman bio-imaging via matrix completion. <i>Optica</i> , 2019, 6, 341.	4.8	29
17	Alternative sampling functions for single-pixel imaging with a digital micromirror device. , 2019, , .		1
18	Single-Pixel Imaging Using Photodiodes. , 2018, , .		0

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19	Low-cost single-pixel 3D imaging by using an LED array. Optics Express, 2018, 26, 15623.	1.7	45
20	Phase imaging by spatial wavefront sampling. Optica, 2018, 5, 164.	4.8	50
21	Signal-to-noise ratio of single-pixel cameras based on photodiodes. Applied Optics, 2018, 57, B67.	0.9	18
22	Single-Pixel Imaging Using the Hadamard Transform. , 2018, , 193-198.		0
23	High sampling rate single-pixel digital holography system employing a DMD and phase-encoded patterns. Optics Express, 2018, 26, 20342.	1.7	31
24	Wavefront sensing by single-pixel imaging techniques. , 2018, , .		1
25	Quantitative phase imaging using a programmable wavefront sensor. , 2018, , .		0
26	Imaging through scattering media by Fourier filtering and single-pixel detection. , 2018, , .		2
27	Single-pixel imaging using balanced detection and a digital micromirror device. , 2018, , .		0
28	Vision through turbid media by Fourier filtering and single-pixel detection. , 2018, , .		0
29	Quantitative phase imaging by using a position sensitive detector. , 2018, , .		0
30	A single pixel camera video ophthalmoscope. , 2017, , .		0
31	Imaging through scattering media with single-pixel detection. , 2017, , .		0
32	Improving resolution in single-pixel microscopy by using Fourier ptychography. Proceedings of SPIE, 2017, , .	0.8	0
33	Imaging through scattering media by Fourier filtering with a single-pixel camera. , 2017, , .		1
34	Full-color stereoscopic single-pixel camera based on DMD technology. Proceedings of SPIE, 2017, , .	0.8	0
35	High-speed single-pixel digital holography. Proceedings of SPIE, 2017, , .	0.8	3
36	Microstructured light control with phase-only spatial light modulators: From calibration to phase and amplitude encoding. , 2017, , .		0

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37	High-speed single-pixel digital holography with a DMD. , 2017, , .		0
38	Single-pixel digital holography with phase-encoded illumination. Optics Express, 2017, 25, 4975.	1.7	80
39	Real-time acquisition of complex optical fields by binary amplitude modulation. Optics Letters, 2017, 42, 2030.	1.7	17
40	INTRODUCING MOBILE APPS IN PHYSICS LABS: DETERMINING MOMENTS OF INERTIA WITH A CELL PHONE. INTED Proceedings, 2017, , .	0.0	0
41	FLIPPING THE LAB SESSION: STUDENTS BUILDING THEIR OWN MAGNETIC DEVICES. , 2017, , .		0
42	Single pixel camera ophthalmoscope. Optica, 2016, 3, 1056.	4.8	66
43	Diffraction-Based Phase Calibration of Spatial Light Modulators With Binary Phase Fresnel Lenses. Journal of Display Technology, 2016, 12, 1027-1032.	1.3	25
44	3D Imaging with Single Pixel Detectors. , 2016, , .		0
45	Dual-mode optical microscope based on single-pixel imaging. Optics and Lasers in Engineering, 2016, 82, 87-94.	2.0	29
46	Imaging through scattering media by microstructured illumination. , 2016, , .		0
47	Computational imaging with a balanced detector. Scientific Reports, 2016, 6, 29181.	1.6	42
48	Roadmap on optical security. Journal of Optics (United Kingdom), 2016, 18, 083001.	1.0	338
49	Structured-light imaging through scattering. , 2016, , .		0
50	Use of balanced detection in single-pixel imaging. , 2016, , .		0
51	Improving the resolution in raster scanning microscopy using Fourier ptychography. , 2016, , .		0
52	High-resolution adaptive imaging with a single photodiode. Scientific Reports, 2015, 5, 14300.	1.6	49
53	Structured illumination enables image transmission through scattering media. Proceedings of SPIE, 2015, , .	0.8	1
54	Dual collection mode optical microscope with single-pixel detection. Proceedings of SPIE, 2015, , .	0.8	0

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55	Full-color stereoscopic imaging with a single-pixel photodetector. Journal of Display Technology, 2015, , 1-1.	1.3	10
56	Compressive holography with phase-structured illumination. , 2015, , .		0
57	Controlled multi-beam supercontinuum generation in fused silica by means of spatial light modulators. , 2015, , .		0
58	Resolution analysis in compressive multidimensional microscopy. Proceedings of SPIE, 2015, , .	0.8	0
59	Transillumination imaging through biological tissue by single-pixel detection. Proceedings of SPIE, 2015, , .	0.8	0
60	Compressive imaging in scattering media. Optics Express, 2015, 23, 14424.	1.7	127
61	Transillumination imaging through biological tissue by single-pixel detection. , 2015, , .		0
62	Learning to teach optics through experiments and demonstrations. , 2014, , .		0
63	Resolution analysis in computational imaging with patterned illumination and bucket detection. Optics Letters, 2014, 39, 3888.	1.7	22
64	Computational imaging with single-pixel detection: Applications in scattering media. , 2014, , .		0
65	Resolution analysis in computational imaging with patterned illumination and single-pixel detection. Proceedings of SPIE, 2014, , .	0.8	0
66	Image transmission through dynamic scattering media by single-pixel photodetection. Optics Express, 2014, 22, 16945.	1.7	170
67	Compressive single-pixel multispectral Stokes polarimeter. , 2014, , .		0
68	Valencian Network of Educational Innovation in Optics. Multidisciplinary Journal for Education, Social and Technological Sciences, 2014, 1, 153.	0.8	0
69	Single-pixel polarimetric imaging spectrometer by compressive sensing. Applied Physics B: Lasers and Optics, 2013, 113, 551-558.	1.1	87
70	Single-pixel hyperspectral imaging polarimeter for full stokes parameter measurement. , 2013, , .		1
71	Devilâ€™s vortex-lens arrays generating 3D optical vortex structures. Proceedings of SPIE, 2013, , .	0.8	0
72	Generation of programmable 3D optical vortex structures through devilâ€™s vortex-lens arrays. Applied Optics, 2013, 52, 5822.	0.9	19

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73	Diffractive digital lensless holographic microscopy with fine spectral tuning. Optics Letters, 2013, 38, 2107.	1.7	17
74	Femtosecond digital lensless holographic microscopy to image biological samples. Optics Letters, 2013, 38, 3205.	1.7	17
75	Photon Counting 3-D Object Recognition Using Digital Holography. IEEE Photonics Journal, 2013, 5, 6900309-6900309.	1.0	8
76	Compressive holography with a single-pixel detector. Optics Letters, 2013, 38, 2524.	1.7	136
77	Phase imaging via compressive sensing. , 2013, , .		1
78	Single-pixel spectropolarimetric imaging by compressive sensing. , 2013, , .		0
79	Single-pixel polarimetric imaging. Optics Letters, 2012, 37, 824.	1.7	63
80	Advanced imaging techniques by compressive sensing. , 2012, , .		0
81	Spatio-temporal control of ultra-short pulses by using diffractive optical elements. , 2012, , .		0
82	Free-Motion Beam Propagation Factor Measurement by Means of a Liquid Crystal Spatial Light Modulator. Journal of Display Technology, 2012, 8, 539-545.	1.3	7
83	Single-pixel digital ghost holography. Physical Review A, 2012, 86, .	1.0	90
84	Complete characterization the QDST pulse shaper by frequency-resolved optical gating. , 2011, , .		0
85	Free-motion beam propagation factor measurement by means of a liquid crystal SLM. , 2011, , .		0
86	Ghost holography. , 2011, , .		0
87	Single-shot color digital holography based on the fractional Talbot effect. Applied Optics, 2011, 50, B96.	2.1	37
88	OPCPA using beams shaped by diffractive optical elements. , 2011, , .		0
89	Metaadaptive optics. , 2011, , .		0
90	Optical encryption with compressive ghost imaging. , 2011, , .		6

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91	Dynamic wavefront sensing and correction with low-cost twisted nematic spatial light modulators. Journal of Physics: Conference Series, 2010, 206, 012018.	0.3	2
92	Parallel phase-shifting digital holography based on the fractional Talbot effect. Journal of Physics: Conference Series, 2010, 206, 012023.	0.3	0
93	Parallel Phase-Shifting Digital Holography Based on the Fractional Talbot Effect. , 2010, , 143-153.		0
94	Reconfigurable Shack-Hartmann sensor without moving elements. Optics Letters, 2010, 35, 1338.	1.7	13
95	Optical encryption based on computational ghost imaging. Optics Letters, 2010, 35, 2391.	1.7	424
96	Diffraction control of femtosecond pulses. , 2010, , .		0
97	Diffraction optics for high-resolution low-coherence digital holography. , 2010, , .		0
98	One-Shot Color Digital Holography Based on the Fractional Talbot Effect. , 2010, , .		0
99	Dynamic Wavefront Sensing and Correction with Low-Cost Twisted Nematic Spatial Light Modulators. , 2010, , 63-76.		1
100	Diffraction pulse-front tilt for low-coherence digital holography. , 2010, , .		0
101	Spatial-chirp compensation in dynamical holograms reconstructed with ultrafast lasers. Applied Physics Letters, 2009, 94, 011104.	1.5	19
102	Dynamic phase-shifting digital holography based on the fractional Talbot effect. , 2009, , .		0
103	Compact all-diffractive setup for spectral synthesis with non-uniform illumination. , 2009, , .		0
104	Phase calibration of spatial light modulators by means of Fresnel images. Journal of Optics, 2009, 11, 125405.	1.5	13
105	Poincaré-sphere representation of phase-twisted nematic liquid crystal spatial light modulators. Journal of Optics, 2009, 11, 085403.	1.5	5
106	Optical filters with fractal transmission spectra based on diffractive optics. Optics Letters, 2009, 34, 560.	1.7	15
107	Single-shot digital holography by use of the fractional Talbot effect. Optics Express, 2009, 17, 12900.	1.7	72
108	High-visibility interference fringes with femtosecond laser radiation. Optics Express, 2009, 17, 23016.	1.7	8

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109	Optical Filter Based on a Spatially Patterned Kinoform Diffractive Lens. IEEE Photonics Technology Letters, 2009, 21, 347-349.	1.3	9
110	Use of polar decomposition of Mueller matrices for optimizing the phase response of a liquid-crystal-on-silicon display. Optics Express, 2008, 16, 1965.	1.7	43
111	Spectral analysis of femtosecond pulse diffraction through binary diffractive optical elements: theory and experiment. Optics Express, 2008, 16, 2541.	1.7	15
112	Splitting And Focusing Of Femtosecond Light Beams With High Spatio-Temporal Resolution. AIP Conference Proceedings, 2007, , .	0.3	0
113	Efficient compensation of Zernike modes and eye aberration patterns using low-cost spatial light modulators. Journal of Biomedical Optics, 2007, 12, 014037.	1.4	8
114	Improved resolution synthetic aperture holographic imaging. Proceedings of SPIE, 2007, 6778, 77.	0.8	4
115	Optimization of the phase-modulation response of a TNLCD by means of a method based on Poincare sphere. , 2007, , .		0
116	Application of an optimized low-cost spatial light modulator for efficient compensation of eye aberration patterns. , 2007, , .		0
117	Dispersion-compensated beam-splitting of femtosecond light pulses: Wave optics analysis. Optics Express, 2007, 15, 278.	1.7	36
118	Measurement and compensation of optical aberrations using a single spatial light modulator. Optics Express, 2007, 15, 15287.	1.7	37
119	Poincaré Sphere Method for Optimizing the Phase Modulation Response of a Twisted Nematic Liquid Crystal Display. Journal of Display Technology, 2007, 3, 9-14.	1.3	16
120	Equivalent retarder-rotator approach to on-state twisted nematic liquid crystal displays. Journal of Applied Physics, 2006, 99, 113101.	1.1	26
121	Three-Dimensional Imaging and Processing Using Computational Holographic Imaging. Proceedings of the IEEE, 2006, 94, 636-653.	16.4	159
122	Phase-only modulation with a twisted nematic liquid crystal display by means of equi-azimuth polarization states. Optics Express, 2006, 14, 5607.	1.7	29
123	Integral Imaging Applied to the Digital Reconstruction and Recognition of 3D Scenes. , 2006, , 157-175.		0
124	3D Object Reconstruction and Recognition Techniques Based on Digital Holography. , 2006, , 1-23.		2
125	400â€” to 1000â€”nm imaging spectrometer based on acousto-optic tunable filters. Journal of Electronic Imaging, 2006, 15, 023001.	0.5	23
126	Nearly wavelength-independent systems for broadband security applications. , 2005, , .		0



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127	Equivalent retarder-rotator approach to twisted-nematic liquid crystal displays. , 2005, 5947, 266.		0
128	New developments in active and passive 3D image sensing, visualization, and processing. , 2005, 5986, 598601.		1
129	Passive and active optical sensing for three-dimensional image recognition. , 2005, 5816, 1.		0
130	Optoelectronic Information Encryption with Incoherent Light. Advanced Sciences and Technologies for Security Applications, 2005, , 95-112.	0.4	1
131	Applications of Digital Holography for Information Security. Advanced Sciences and Technologies for Security Applications, 2005, , 241-269.	0.4	2
132	Three-dimensional image encryption, transmission, and processing by using digital holography. , 2005, , .		0
133	Applications of short-coherence digital holography in microscopy. Applied Optics, 2005, 44, 3977.	2.1	64
134	Chromatic compensation in the near-field region: shape and size tunability. Applied Optics, 2005, 44, 6933.	2.1	0
135	Cell parameter determination of a twisted-nematic liquid crystal display by single-wavelength polarimetry. Journal of Applied Physics, 2005, 97, 043101.	1.1	41
136	400- to 1000-nm imaging spectrometer based on acousto-optic tunable filters. , 2004, 5570, 460.		2
137	<title>Broadband optical information security and encryption with achromatic systems</title>. , 2004, , .		1
138	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.	0.8	8
139	Comparison of passive ranging integral imaging and active imaging digital holography for three-dimensional object recognition. Applied Optics, 2004, 43, 452.	2.1	51
140	High-contrast white-light Lau fringes. Optics Letters, 2004, 29, 150.	1.7	4
141	Three-dimensional image sensing, encryption, compression, and transmission using digital holography. , 2004, 5611, 24.		0
142	Kinoform apodization by using of programmable diffractive optical elements. , 2004, , .		0
143	Short-coherence digital holography for the investigation of 3D microscopic samples. , 2004, 5457, 528.		0
144	Nearly wavelength-independent interference and diffraction patterns. , 2004, , .		0

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145	High-contrast Lau fringes with white light. , 2003, , .		1
146	<title>Three-dimensional imaging, compression, and reconstruction of digital holograms</title>. , 2003, , .		2
147	Wavelength-compensated Fourier and Fresnel transformers: a unified approach. Optics Letters, 2002, 27, 942.	1.7	10
148	Broadband space-variant Fresnel processor. Optics Letters, 2002, 27, 1926.	1.7	2
149	Compression of digital holograms for three-dimensional object reconstruction and recognition. Applied Optics, 2002, 41, 4124.	2.1	195
150	Hybrid (diffractive-refractive) optical processor for space-variant color pattern recognition. , 2002, , .		0
151	Achromatic fan-out diffractive system for white-light free-space optical interconnects. Journal of Modern Optics, 2001, 48, 831-845.	0.6	3
152	<title>Optical techniques for three-dimensional image recognition</title>. , 2001, , .		0
153	Optical security and encryption with totally incoherent light. Optics Letters, 2001, 26, 678.	1.7	55
154	Real-time three-dimensional object recognition with multiple perspectives imaging. Applied Optics, 2001, 40, 3318.	2.1	73
155	Shift-invariant three-dimensional object recognition by means of digital holography. Applied Optics, 2001, 40, 3877.	2.1	103
156	Distortion-tolerant three-dimensional object recognition with digital holography. Applied Optics, 2001, 40, 3887.	2.1	81
157	Scale-tunable optical correlation with natural light. Applied Optics, 2001, 40, 5911.	2.1	6
158	Three-dimensional image security. , 2001, , .		0
159	<title>Compression of digital holograms for three-dimensional object recognition</title>. , 2001, , .		9
160	<title>Distortion invariant 3D object recognition using digital holography</title>. , 2001, , .		1
161	Three-dimensional pattern recognition: algorithms and systems. , 2001, , .		1
162	<title>Three-dimensional object recognition and visualization using integral imaging</title>. , 2001, 4455, 23.		1

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163	Three-dimensional object recognition based on multiple-perspective imaging with microlens arrays. , 2001, , .		2
164	Dispersion-compensated broadband optical correlators. Proceedings of SPIE, 2001, , .	0.8	0
165	New approaches to 3D image recognition. Proceedings of SPIE, 2001, , .	0.8	0
166	<title>Three-dimensional image processing and recognition</title>. , 2000, , .		0
167	White-light optical implementation of the fractional Fourier transform with adjustable order control. Applied Optics, 2000, 39, 238.	2.1	9
168	Optoelectronic information encryption with phase-shifting interferometry. Applied Optics, 2000, 39, 2313.	2.1	199
169	Encrypting three-dimensional information with digital holography. Applied Optics, 2000, 39, 6595.	2.1	323
170	Three-dimensional object recognition by use of digital holography. Optics Letters, 2000, 25, 610.	1.7	401
171	<title>Three-dimensional image processing, recognition, and security</title>. , 2000, , .		0
172	Quasi-wavelength-independent broadband optical Fourier transformer. Optics Communications, 1999, 172, 153-160.	1.0	15
173	White-light array generation with a diffractive lenslet array. Journal of Modern Optics, 1999, 46, 49-63.	0.6	11
174	All-incoherent dispersion-compensated optical correlator. Optics Letters, 1999, 24, 1331.	1.7	25
175	<title>Wavelength-compensated broadband Fourier transformer</title>. , 1999, 3749, 562.		0
176	Hybrid (refractive+ diffractive) Fourier processor: a novel optical architecture for achromatic processing with broadband point-source illumination. Optics Communications, 1998, 151, 86-92.	1.0	25
177	White-light-modified Talbot array illuminator with a variable density of light spots. Applied Optics, 1998, 37, 4366.	2.1	5
178	Phase-change visualization in two-dimensional phase objects with a semiderivative real filter. Applied Optics, 1998, 37, 5472.	2.1	17
179	Achromatic Fourier transforming properties of a separated diffractive lens doublet: theory and experiment. Applied Optics, 1998, 37, 6164.	2.1	26
180	Phase-object fractional differentiation using Fourier plane filters. Journal of Optics, 1997, 6, 481-490.	0.5	13

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181	Fractional derivative Fourier plane filter for phase-change visualization. Applied Optics, 1997, 36, 7461.	2.1	27
182	Single-zone-plate achromatic Fresnel-transform setup: pattern tunability. Optics Communications, 1997, 136, 297-305.	1.0	22
183	<title>Achromatic Fourier processor: a novel optical architecture</title>. , 1996, 2730, 46.		0
184	Hybrid opticalâ€“digital method for local-displacement analysis by use of a phase-space representation. Applied Optics, 1995, 34, 4713.	2.1	4
185	White-light implementation of the Wigner-distribution function with an achromatic processor. Applied Optics, 1995, 34, 8209.	2.1	3
186	Real filter based on Mellin radial harmonics for scale-invariant pattern recognition. Applied Optics, 1994, 33, 3086.	2.1	4
187	Method for determining the proper expansion center and order for Mellin radial harmonic filters. Optics Communications, 1993, 103, 39-45.	1.0	13
188	Real And Positive Filter Based On Circular Harmonic Expansion. , 1989, , .		0
189	3D optoelectronic image processing and recognition. , 0, , .		0
190	Composite filters based on digital holograms for distortion-tolerant three-dimensional object recognition. , 0, , .		0