

# David Artigas

## List of Publications by Year in descending order

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92  
papers

2,387  
citations

201674

27  
h-index

214800

47  
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92  
all docs

92  
docs citations

92  
times ranked

2086  
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of Dyakonov Surface Waves. <i>Physical Review Letters</i> , 2009, 102, 043903.	7.8	152
2	Dyakonov Surface Waves: A Review. <i>Electromagnetics</i> , 2008, 28, 126-145.	0.7	149
3	Anisotropy-induced photonic bound states in the continuum. <i>Nature Photonics</i> , 2017, 11, 232-236.	31.4	138
4	Dyakonov Surface Waves in Photonic Metamaterials. <i>Physical Review Letters</i> , 2005, 94, 013901.	7.8	130
5	Measurement and correction of in vivo sample aberrations employing a nonlinear guide-star in two-photon excited fluorescence microscopy. <i>Biomedical Optics Express</i> , 2011, 2, 3135.	2.9	115
6	In vivo, pixel-resolution mapping of thick filaments' orientation in nonfibrillar muscle using polarization-sensitive second harmonic generation microscopy. <i>Journal of Biomedical Optics</i> , 2009, 14, 014001.	2.6	88
7	Ultrashort pulse characterisation with SHG collinear-FROG. <i>Optics Express</i> , 2004, 12, 1169.	3.4	87
8	Lossless directional guiding of light in dielectric nanosheets using Dyakonov surface waves. <i>Nature Nanotechnology</i> , 2014, 9, 419-424.	31.5	86
9	Image formation by linear and nonlinear digital scanned light-sheet fluorescence microscopy with Gaussian and Bessel beam profiles. <i>Biomedical Optics Express</i> , 2012, 3, 1492.	2.9	83
10	Decoupled illumination detection in light sheet microscopy for fast volumetric imaging. <i>Optica</i> , 2015, 2, 702.	9.3	83
11	A simple scanless two-photon fluorescence microscope using selective plane illumination. <i>Optics Express</i> , 2010, 18, 8491.	3.4	72
12	Compact ultrafast semiconductor disk laser: targeting GFP based nonlinear applications in living organisms. <i>Biomedical Optics Express</i> , 2011, 2, 739.	2.9	67
13	Quantitative discrimination between endogenous SHG sources in mammalian tissue, based on their polarization response. <i>Optics Express</i> , 2009, 17, 10168.	3.4	58
14	Fast image analysis in polarization SHG microscopy. <i>Optics Express</i> , 2010, 18, 17209.	3.4	54
15	Practical dyakonons. <i>Optics Letters</i> , 2012, 37, 4311.	3.3	54
16	Estimation of the effective orientation of the SHG source in primary cortical neurons. <i>Optics Express</i> , 2009, 17, 14418.	3.4	52
17	Asymmetrical splitting of higher-order optical solitons induced by quintic nonlinearity. <i>Optics Communications</i> , 1997, 143, 322-328.	2.1	49
18	Effect of molecular organization on the image histograms of polarization SHG microscopy. <i>Biomedical Optics Express</i> , 2012, 3, 2681.	2.9	43

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19	Measurement of electric field by interferometric spectral trace observation. <i>Optics Letters</i> , 2005, 30, 1063.	3.3	38
20	Optical Dyakonov surface waves at magnetic interfaces. <i>Optics Letters</i> , 2005, 30, 3075.	3.3	35
21	Estimating the helical pitch angle of amylopectin in starch using polarization second harmonic generation microscopy. <i>Journal of Optics (United Kingdom)</i> , 2010, 12, 084007.	2.2	34
22	Quantitative Imaging of Microtubule Alteration as an Early Marker of Axonal Degeneration after Ischemia in Neurons. <i>Biophysical Journal</i> , 2013, 104, 968-975.	0.5	34
23	Fast monitoring of in-vivo conformational changes in myosin using single scan polarization-SHG microscopy. <i>Biomedical Optics Express</i> , 2014, 5, 4362.	2.9	33
24	Starch-based second-harmonic-generated collinear frequency-resolved optical gating pulse characterization at the focal plane of a high-numerical-aperture lens. <i>Optics Letters</i> , 2004, 29, 2282.	3.3	31
25	Efficient femtosecond optical parametric oscillators based on aperiodically poled nonlinear crystals. <i>Optics Letters</i> , 2002, 27, 851.	3.3	30
26	Signalling effect of NIR pulsed lasers on axonal growth. <i>Journal of Neuroscience Methods</i> , 2010, 186, 196-201.	2.5	28
27	Soliton content with quadratic nonlinearities. <i>Optics Communications</i> , 1999, 164, 153-159.	2.1	27
28	Third-harmonic generation for the study of <i>Caenorhabditis elegans</i> embryogenesis. <i>Journal of Biomedical Optics</i> , 2010, 15, 1.	2.6	27
29	Topological properties of bound states in the continuum in geometries with broken anisotropy symmetry. <i>Physical Review A</i> , 2018, 98, .	2.5	27
30	Femtosecond second-harmonic pulse compression in aperiodically poled lithium niobate: a systematic comparison of experiment and theory. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2001, 18, 1212.	2.1	25
31	Continuous-wave self-pumped optical parametric oscillator based on Yb <sup>3+</sup> -doped bulk periodically poled LiNbO <sub>3</sub> (MgO). <i>Applied Physics Letters</i> , 2001, 79, 293-295.	3.3	23
32	Enhanced localization of Dyakonov-like surface waves in left-handed materials. <i>Physical Review B</i> , 2006, 74, .	3.2	23
33	Starch-based backwards SHG for in situ MEFISTO pulse characterization in multiphoton microscopy. <i>Journal of Microscopy</i> , 2008, 230, 70-75.	1.8	22
34	Low-threshold, high-repetition-frequency femtosecond optical parametric oscillator based on chirped-pulse frequency conversion. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003, 20, 1309.	2.1	21
35	Generation of multicolor spatial solitons with pulsed light. <i>Optics Communications</i> , 2001, 192, 347-355.	2.1	20
36	Idler-resonant femtosecond tandem optical parametric oscillator tuning from 21 $\mu$ m to 42 $\mu$ m. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2004, 21, 1551.	2.1	20

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37	Lost writing uncovered by laser two-photon fluorescence provides a terminus post quem for Roman colonization of Hispania Citerior. <i>Journal of Archaeological Science</i> , 2007, 34, 1594-1600.	2.4	20
38	Low-threshold femtosecond optical parametric oscillator based on chirped-pulse frequency conversion. <i>Optics Letters</i> , 2003, 28, 543.	3.3	19
39	Simultaneous analytical characterisation of two ultrashort laser pulses using spectrally resolved interferometric correlations. <i>Optics Express</i> , 2006, 14, 4538.	3.4	19
40	Coupling plasmons and dyakonons. <i>Optics Letters</i> , 2012, 37, 1983.	3.3	16
41	Angular control of anisotropy-induced bound states in the continuum. <i>Optics Letters</i> , 2019, 44, 5362.	3.3	16
42	Pulse compression and gain enhancement in a degenerate optical parametric amplifier based on aperiodically poled crystals. <i>Optics Letters</i> , 2002, 27, 442.	3.3	15
43	Two-photon fluorescence imaging with 30 fs laser system tunable around 1 micron. <i>Optics Express</i> , 2014, 22, 16456.	3.4	15
44	Sub-diffraction discrimination with polarization-resolved two-photon excited fluorescence microscopy. <i>Optica</i> , 2017, 4, 911.	9.3	15
45	Efficiency of quadratic soliton generation. <i>Optics Letters</i> , 2001, 26, 1277.	3.3	14
46	Dyakonov surface wave resonant transmission. <i>Optics Express</i> , 2011, 19, 6339.	3.4	14
47	Dynamic behaviour in a nonlinear directional coupler with feedback. <i>Journal of Modern Optics</i> , 1997, 44, 1207-1216.	1.3	11
48	Dynamics of quadratic soliton excitation. <i>Optics Communications</i> , 1999, 162, 347-356.	2.1	11
49	Quadratic solitons: existence versus excitation. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2002, 8, 497-505.	2.9	11
50	Dispersion-managed cnoidal pulse trains. <i>Physical Review E</i> , 2003, 68, 026613.	2.1	11
51	Periodically switched nonlinear structures for frequency conversion: theory and experimental demonstration. <i>IEEE Journal of Quantum Electronics</i> , 2004, 40, 1122-1130.	1.9	11
52	Decrease in laser ablation threshold for epithelial tissue microsurgery in a living <i>Drosophila</i> embryo during dorsal closure. <i>Journal of Microscopy</i> , 2008, 232, 362-368.	1.8	10
53	STED imaging performance estimation by means of Fourier transform analysis. <i>Biomedical Optics Express</i> , 2017, 8, 2472.	2.9	9
54	Phase space description of nonlinear directional couplers. <i>IEEE Journal of Quantum Electronics</i> , 1994, 30, 1587-1595.	1.9	8

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55	Supermode analysis of the three-waveguide nonlinear directional coupler: the critical power. Optics Communications, 1996, 131, 53-60.	2.1	8
56	Polarization conversion spectroscopy of hybrid modes. Optics Letters, 2009, 34, 3911.	3.3	8
57	Dyakonov Surface Waves. Optics and Photonics News, 2009, 20, 25.	0.5	7
58	Unidirectional guided resonances in anisotropic waveguides. Optics Letters, 2021, 46, 2545.	3.3	7
59	Transition from Dirac points to exceptional points in anisotropic waveguides. Physical Review Research, 2019, 1, .	3.6	7
60	High idler conversion in femtosecond optical parametric oscillators. Optics Communications, 2002, 210, 113-120.	2.1	6
61	Starch granules as a probe for the polarization at the sample plane of a high resolution multiphoton microscope. , 2008, , .		6
62	Conformal transformation of Dyakonov surface waves into bound states of cylindrical metamaterials. Physical Review B, 2019, 100, .	3.2	6
63	Slow light mediated by mode topological transitions in hyperbolic waveguides. Optics Letters, 2021, 46, 58.	3.3	5
64	Surface bound states in the continuum in Dyakonov structures. Physical Review B, 2022, 105, .	3.2	5
65	Influence of distant femtosecond laser pulses on growth cone filopodia. Cytotechnology, 2008, 58, 103-111.	1.6	4
66	Nonlinear resonant conversion of modes in optical waveguides. Optics Communications, 1995, 118, 28-34.	2.1	3
67	Polarization dependant in vivo second harmonic generation imaging of Caenorhabditis elegans vulval, pharynx, and body wall muscles. , 2008, , .		3
68	59: Ultrastructural analysis of myocardiocyte sarcomeric changes in relation with cardiac dysfunction in human fetuses with intrauterine growth restriction. American Journal of Obstetrics and Gynecology, 2011, 204, S34.	1.3	3
69	Nonlinear microscopy pulse optimization at the sample plane using second-harmonic generation from starch. , 2004, 5463, 56.		2
70	Three-dimensional polarization second harmonic generation (3D-PSHG) imaging: the effect of the tilted-off the plane SHG active structures. , 2011, , .		2
71	Polarization second harmonic generation (PSHG) imaging of neurons: estimating the effective orientation of the SHG source in axons. Proceedings of SPIE, 2010, , .	0.8	1
72	Practical optical quality assessment and correction of a nonlinear microscope. Proceedings of SPIE, 2010, , .	0.8	1

#	ARTICLE	IF	CITATIONS
73	<title>Effects of saturation and asymmetrical distribution of nonlinearity on nonlinear directional couplers</title>. , 1994, , .		0
74	Ultra-short pulses to signal neuronal growth cone machinery. , 2007, , .		0
75	Two-photon fluorescence imaging and femtosecond laser microsurgery to study drosophila dorsal closure. Proceedings of SPIE, 2008, , .	0.8	0
76	Optical extraction of the helical pitch angle of amylopectin in starch. Proceedings of SPIE, 2010, , .	0.8	0
77	Assessing structural characteristics of axons in cortical neurons using polarization sensitive SHG. Proceedings of SPIE, 2010, , .	0.8	0
78	Imaging amylopectin's order in starch using 3-dimensional polarization SHG. , 2011, , .		0
79	Portable semiconductor disk laser for in vivo tissue monitoring: a platform for the development of clinical applications. Proceedings of SPIE, 2011, , .	0.8	0
80	Open-loop wavefront sensing scheme for specimen aberrations correction in two-photon excited fluorescence microscopy. Proceedings of SPIE, 2011, , .	0.8	0
81	Compact ultrafast semiconductor disk laser for nonlinear imaging in living organisms. , 2011, , .		0
82	In-vivo third-harmonic generation microscopy at 1550nm three-dimensional long-term time-lapse studies in living C. elegans embryos. Proceedings of SPIE, 2011, , .	0.8	0
83	Depth aberrations characterization in linear and nonlinear microscopy schemes using a shack-Hartmann wavefront sensor. , 2012, , .		0
84	Two-photon fluorescence imaging with 30 fs laser system tunable around 1 micron. , 2013, , .		0
85	Light sheet microscopy for visualiasing fast biological dynamics in 3D. , 2016, , .		0
86	Bound states in the continuum in anisotropic structures. , 2017, , .		0
87	Existence Loci of Bound States in the Continuum in the Parameter Space of Anisotropic Planar Structures. , 2019, , .		0
88	Waveguide Stopped Light Mediated by Mode Transitions. , 2019, , .		0
89	Bound States in the Continuum and Unidirectional Guided Resonances in Anisotropic Structures with Multiple Radiation Channels. , 2021, , .		0
90	Soliton content with quadratic nonlinearities. , 2001, , .		0

#	ARTICLE	IF	CITATIONS
91	Light Sheet Microscopy with Wavefront Coding for Fast Volumetric Imaging of Biological Samples. , 2016, , .		0
92	Nonlinear imaging applications of high-power lasers: figures of merit. , 2018, , 377-408.		0