Michel Zamboni-Rached

List of Publications by Year
in descending order

57 papers	1,292 citations	304743 22 h-index	361022 35 g-index
65 all docs	65 docs citations	65 times ranked	426 citing authors

#	Article	IF	Citations
1	Stationary optical wave fields with arbitrary longitudinal shape by superposing equal frequency Bessel beams: Frozen Waves. Optics Express, 2004, 12, 4001.	3.4	153
2	Theory of â€œfrozen wavesâ€ modeling the shape of stationary wave fields. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 2465.	1.5	94
3	Frozen waves: experimental generation. Optics Letters, 2012, 37, 2034.	3.3	83
4	Diffraction-Attenuation resistant beams in absorbing media. Optics Express, 2006, 14, 1804.	3.4	78
5	Experimental demonstration of tunable refractometer based on orbital angular momentum of longitudinally structured light. Light: Science and Applications, 2018, 7, 40.	16.6	54
6	Modeling the spatial shape of nondiffracting beams: Experimental generation of Frozen Waves via holographic method. Optics Communications, 2014, 315, 374-380.	2.1	49
7	Experimental optical trapping with frozen waves. Optics Letters, 2020, 45, 2514.	3.3	46
8	Optical forces experienced by arbitrary-sized spherical scatterers from superpositions of equal-frequency Bessel beams. Journal of the Optical Society of America B: Optical Physics, 2015, 32, B37.	2.1	44
9	Controlling the topological charge of twisted light beams with propagation. Physical Review A, 2016, 93, .	2.5	44
10	Diffractionâ€"attenuation resistant beams: their higher-order versions and finite-aperture generations. Applied Optics, 2010, 49, 5861.	2.1	42
11	Analytical approach of ordinary frozen waves for optical trapping and micromanipulation. Applied Optics, 2015, 54, 2584.	1.8	40
12	Subluminal wave bullets: Exact localized subluminal solutions to the wave equations. Physical Review A, 2008, 77, .	2.5	39
13	Superluminal localized solutions to Maxwell equations propagating along a normal-sized waveguide. Physical Review E, 2001, 64, 066603.	2.1	32
14	Unidirectional decomposition method for obtaining exact localized wave solutions totally free of backward components. Physical Review A, 2009, 79, .	2.5	32
15	Chapter 4 Localized Waves: A Review. Advances in Imaging and Electron Physics, 2009, , 235-353.	0.2	32
16	Generating attenuation-resistant frozen waves in absorbing fluid. Optics Letters, 2016, 41, 3702.	3.3	32
17	Focused X-shaped pulses. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 1564.	1.5	30
18	Superluminal X-shaped beams propagating without distortion along a coaxial guide. Physical Review E, 2002, 66, 046617.	2.1	29

#	Article	IF	Citations
19	Structuring light under different polarization states within micrometer domains: exact analysis from the Maxwell equations. Optics Express, 2017, 25, 10051.	3.4	27
20	Superluminal localized solutions to Maxwell equations propagating along a waveguide: The finite-energy case. Physical Review E, 2003, 67, 036620.	2.1	26
21	Production of dynamic frozen waves: controlling shape, location (and speed) of diffraction-resistant beams. Optics Letters, 2015, 40, 5834.	3.3	26
22	Electromagnetic frozen waves with radial, azimuthal, linear, circular, and elliptical polarizations. Physical Review A, 2016, 94, .	2.5	24
23	Chirped optical X-shaped pulses in material media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 2455.	1.5	22
24	Analytical expressions for the longitudinal evolution of nondiffracting pulses truncated by finite apertures. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 2166.	1.5	19
25	Arbitrary Control of Polarization and Intensity Profiles of Diffraction-Attenuation-Resistant Beams along the Propagation Direction. Physical Review Applied, 2018, 9, .	3.8	18
26	Exact analytic solutions of Maxwellâ€™s equations describing propagating nonparaxial electromagnetic beams. Applied Optics, 2014, 53, 4524.	1.8	16
27	Frozen Waves following arbitrary spiral and snake-like trajectories in air. Applied Physics Letters, 2017, 110, .	3.3	16
28	Analytic description of Airy-type beams when truncated by finite apertures. Optics Express, 2012, 20, 19972.	3.4	14
29	Producing acoustic frozen waves: simulated experiments. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 2414-2425.	3.0	11
30	Optical reconstruction of non-diffracting beams via photorefractive holography. Applied Physics B: Lasers and Optics, 2017, 123, 1.	2.2	10
31	Soliton-like solutions to the ordinary SchrÃ¶dinger equation within standard quantum mechanics. Journal of Mathematical Physics, 2012, 53, .	1.1	9
32	Accelerating Airy beams in the presence of inhomogeneities. Optics Communications, 2016, 369, 56-64.	2.1	9
33	Carving beams of light. Optics Letters, 2021, 46, 1205.	3.3	9
34	Wavelength and topological charge management along the axis of propagation of multichromatic non-diffracting beams. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 1867.	2.1	9
35	Producing acoustic â€˜Frozen Wavesâ€™: Simulated experiments with diffraction/attenuation resistant beams in lossy media. Ultrasonics, 2014, 54, 1620-1630.	3.9	6
36	Propagation of time-truncated Airy-type pulses in media with quadratic and cubic dispersion. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 1791.	1.5	5

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37	Modeling of space-time focusing of localized nondiffracting pulses. Physical Review A, 2016, 94, .	2.5	5
38	Superluminal, luminal, and subluminal nondiffracting pulses applied to free-space optical systems: theoretical description. Applied Optics, 2016, 55, 1786.	2.1	5
39	Modeling the longitudinal intensity pattern of diffraction resistant beams in stratified media. Applied Optics, 2018, 57, 5643.	1.8	5
40	Transmission of spatial-shaped diffraction-resistant beams through stratified dielectric media: finite energy formulation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2018, 35, 2079.	1.5	4
41	Overcoming Diffraction in FSO Systems Using (GRIN) Axicons for Approximating the Longitudinal Intensity Profiles. Journal of Lightwave Technology, 2011, 29, 2527-2532.	4.6	3
42	Airy-type beams generated by finite apertures. , 2013, , .		3
43	Diffraction-resistant scalar beams generated by a parabolic reflector and a source of spherical waves. Applied Optics, 2015, 54, 5949.	2.1	3
44	Experimental demonstration of attenuation resistant frozen waves. , 2016, , .		3
45	Structured Light by Linking Diffraction-Resistant Spatially Shaped Beams. Physical Review Applied, 2018, 10, .	3.8	2
46	Non-diffracting beams resistant to attenuation in absorbing media. , 2011, , .		1
47	Arrays of frozen waves: Some theory and experiments. Optics Communications, 2021, 482, 126576.	2.1	1
48	Simple and analytical method for controlling the trajectory and branching of optical beams. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 448.	2.1	1
49	Experimental Demonstration of Attenuation-resistant Higher Order Frozen Waves. , 2016, , .		1
50	Propagation of finite energy Airy pulses in dispersive media. , 2015, , .		0
51	On the propagation of diffraction resistant beams of the Frozen Wave-type through two dielectric media. , 2015, , .		0
52	Shaping the longitudinal intensity pattern of Cartesian beams in lossless and lossy media. Journal of Optics (United Kingdom), 2017, 19, 095607.	2.2	0
53	Longitudinal patterning of twisted light beams. , 2016, , .		0
54	Self-healing optical beams with snake-like and spiral paths in free space. , 2016, , .		0

#	Article	IF	Citations
55	Experimental generation of attenuation-resistant Frozen Waves inside an absorbing medium. , 2016, , .		0
56	Arbitrary control of the polarization state and intensity of non-diffracting beams along their propagation direction. , 2018, , .		0
57	Modeling Micrometer Structured Non-Diffracting Beams in Absorbing Media. , 2021, , .		0