

# Abdelmajid Belafhal

## List of Publications by Year in descending order

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137  
papers

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279487

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395343

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152  
all docs

152  
docs citations

152  
times ranked

502  
citing authors

#	ARTICLE	IF	CITATIONS
1	Circular cosine-hyperbolic-Gaussian beam and its paraxial propagation properties in free space. Optics Communications, 2022, 502, 127400.	1.0	6
2	Simple Analytical Expression of the Voigt Profile. Quantum Reports, 2022, 4, 36-46.	0.6	0
3	Propagation of vortex Hermite-cosh-Gaussian beams in a gradient-index medium. Optical and Quantum Electronics, 2022, 54, 1.	1.5	8
4	Production of good quality holograms by the THz pulsed vortex beams. Optical and Quantum Electronics, 2022, 54, 1.	1.5	2
5	Evolution properties of vortex beams through strongly nonlocal nonlinear media. Chinese Journal of Physics, 2022, 77, 1419-1430.	2.0	3
6	Beam propagation factor of Hollow higher-order Cosh-Gaussian beams. Optical and Quantum Electronics, 2022, 54, 1.	1.5	14
7	Propagation properties of vortex cosine-hyperbolic-Gaussian beams through oceanic turbulence. Optical and Quantum Electronics, 2022, 54, 1.	1.5	20
8	Comparative analysis of some Schell-model beams propagating through turbulent atmosphere. Optical and Quantum Electronics, 2022, 54, 1.	1.5	18
9	Integral transforms involving orthogonal polynomials and its application in diffraction of cylindrical Waves. Computational and Applied Mathematics, 2022, 41, 1.	1.0	4
10	Propagation of the Laguerre-Gaussian correlated Shell-model beams through a turbulent jet engine exhaust. Optical and Quantum Electronics, 2022, 54, 1.	1.5	9
11	Propagation of the kurtosis parameter of Hollow higher-order Cosh Gaussian beams through paraxial optical ABCD system. Optical and Quantum Electronics, 2022, 54, 1.	1.5	11
12	Hermiteâ€“Gaussian beams in the generalized Lorenzâ€“Mie theory through finiteâ€“series Laguerreâ€“Gaussian beam shape coefficients. Journal of the Optical Society of America B: Optical Physics, 2022, 39, 1027.	0.9	7
13	Propagation of Bessel-Gaussian Shell-model beam through a jet engine exhaust turbulence. Optical and Quantum Electronics, 2022, 54, 1.	1.5	7
14	Propagation of vortex cosine-hyperbolic-Gaussian beams in uniaxial crystals orthogonal to the optical axis. Optical and Quantum Electronics, 2022, 54, .	1.5	4
15	Focusing properties and focal shift of partially coherent vortex cosine-hyperbolic-Gaussian beams. Journal of Modern Optics, 2022, 69, 779-790.	0.6	5
16	Introduction and propagation properties of circular lorentz-bessel-gaussian beams. Optical and Quantum Electronics, 2022, 54, .	1.5	1
17	Partially coherent laser beams propagating in jet engine exhaust induced turbulence. Optical and Quantum Electronics, 2022, 54, .	1.5	9
18	Effects of turbulent atmosphere on the spectral density of Bessel-modulated Gaussian Schell-model beams. Optical and Quantum Electronics, 2022, 54, .	1.5	9

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19	Generation and Propagation Analysis of the Superposition of Humbert-Gaussian Beams. Optical and Quantum Electronics, 2022, 54, .	1.5	2
20	An advanced method for evaluating Lommel integral and its application in marine environment. Journal of Computational and Applied Mathematics, 2022, 416, 114600.	1.1	1
21	Propagation of hollow sinh-Gaussian beams in strongly nonlocal nonlinear media. Optics Communications, 2021, 478, 126400.	1.0	5
22	Diffraction of generalized Humbert-Gaussian beams by a helical axicon. Optical and Quantum Electronics, 2021, 53, 1.	1.5	6
23	Introduction of the vortex Hermite-Cosh-Gaussian beam and the analysis of its intensity pattern upon propagation. Optical and Quantum Electronics, 2021, 53, 1.	1.5	11
24	Optical Fourier transform of pseudo-nondiffracting beams. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 258, 107357.	1.1	5
25	Propagation properties of Hollow higher-order cosh-Gaussian beams in quadratic index medium and Fractional Fourier transform. Optical and Quantum Electronics, 2021, 53, 1.	1.5	19
26	Optical trapping of particles by radiation forces of doughnut laser beams in the Rayleigh regime. Optical and Quantum Electronics, 2021, 53, 1.	1.5	2
27	Effect of the turbulent biological tissues on the propagation properties of Coherent Laguerre-Gaussian beams. Optical and Quantum Electronics, 2021, 53, 1.	1.5	17
28	Propagation properties of vortex cosine-hyperbolic-Gaussian beams in strongly nonlocal nonlinear media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 265, 107554.	1.1	16
29	Evaluation of integral transforms using special functions with applications to biological tissues. Computational and Applied Mathematics, 2021, 40, 1.	1.0	23
30	Paraxial propagation and focusing of higher-order cosh-Gaussian beams. Journal of Modern Optics, 2021, 68, 742-752.	0.6	5
31	Propagation of vortex cosine-hyperbolic-Gaussian beams in atmospheric turbulence. Optical and Quantum Electronics, 2021, 53, 1.	1.5	34
32	Focusing properties and focal shift of a vortex cosine-hyperbolic Gaussian beam. Optical and Quantum Electronics, 2021, 53, 1.	1.5	15
33	Analysis of the modulation depth of some femtosecond laser pulses in holographic interferometry. Optical and Quantum Electronics, 2021, 53, 1.	1.5	2
34	Parametric characterization of vortex cosine-hyperbolic-Gaussian beams. Results in Optics, 2021, 5, 100120.	0.9	11
35	On the rotation repetitions of Mathieu beams angular spectrum in frequency space. Optik, 2021, 247, 168040.	1.4	1
36	Effects of turbulent atmosphere on the propagation properties of vortex Hermite-cosine-hyperbolic-Gaussian beams. Optical and Quantum Electronics, 2021, 53, 1.	1.5	16

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37	An integral transform and its application in the propagation of Lorentz-Gaussian beams. Communications in Mathematics, 2021, 29, 483-491.	0.3	6
38	Fractional Fourier transforms of vortex Hermite-cosh-Gaussian beams. Results in Optics, 2021, 5, 100165.	0.9	11
39	Behavior of the central intensity of generalized humbert-gaussian beams against the atmospheric turbulence. Optical and Quantum Electronics, 2021, 53, 1.	1.5	26
40	Partially coherent vortex cosh-Gaussian beam and its paraxial propagation. Optical and Quantum Electronics, 2021, 53, 1.	1.5	12
41	On the beam shape coefficients of fundamental nondiffracting beams. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 241, 106750.	1.1	10
42	Transformation of higher-order cosh-Gaussian beams into an Airy-related beams by an optical airy transform system. Optical and Quantum Electronics, 2020, 52, 1.	1.5	17
43	An Integral Transform Involving the Product Of Bessel Functions and Whittaker Function and Its Application. International Journal of Applied and Computational Mathematics, 2020, 6, 1.	0.9	7
44	Evolution of the partially coherent Generalized Flattened Hermite-Cosh-Gaussian beam through a turbulent atmosphere. Optical and Quantum Electronics, 2020, 52, 1.	1.5	26
45	Propagation properties of a novel generalized flattened Hermite-cosh-Gaussian light beam. Optical and Quantum Electronics, 2020, 52, 1.	1.5	4
46	Diffraction characteristics of Hermite-Cosh-Gaussian beams through an Airy Transform Optical System. Journal of Modern Optics, 2020, 67, 771-781.	0.6	10
47	Introduction of a new vortex cosine-hyperbolic-Gaussian beam and the study of its propagation properties in fractional Fourier transform optical system. Optical and Quantum Electronics, 2020, 52, 1.	1.5	35
48	Propagation analysis of some doughnut lasers beams through a paraxial ABCD optical system. Optical and Quantum Electronics, 2020, 52, 1.	1.5	10
49	Investigation on Airy transform of Four-Petal Gaussian beams. Optical and Quantum Electronics, 2020, 52, 1.	1.5	10
50	Intensity characteristics of double-half inverse Gaussian hollow beams through turbulent atmosphere. Optical and Quantum Electronics, 2020, 52, 1.	1.5	17
51	Integral transforms involving the product of Humbert and Bessel functions and its application. AIMS Mathematics, 2020, 5, 1260-1274.	0.7	5
52	Transformation of a generalized Bessel "Laguerre" Gaussian beam by a paraxial ABCD optical system. Optical and Quantum Electronics, 2019, 51, 1.	1.5	12
53	Propagation characteristics of dark and antidark Gaussian beams in turbulent atmosphere. Optical and Quantum Electronics, 2019, 51, 1.	1.5	25
54	Generation of spiraling Bessel beams from dark/antidark Gaussian beams diffracted by a curved fork-shaped hologram. Optical and Quantum Electronics, 2019, 51, 1.	1.5	5

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55	Propagation properties of finite cosh-Airy beams through an Airy Transform Optical System. Optical and Quantum Electronics, 2019, 51, 1.	1.5	11
56	Production of Airy-related beams by an Airy transform optical system. Optical and Quantum Electronics, 2019, 51, 1.	1.5	9
57	Self-focusing of pseudo-nondiffracting laser beams with circular symmetry in collisional plasma under two ramp density profiles. Optical and Quantum Electronics, 2019, 51, 1.	1.5	0
58	Evolution of the beam-width parameter of zeroth-order Bessel-Gaussian beams in collisional plasma with density ripple. Optical and Quantum Electronics, 2019, 51, 1.	1.5	2
59	Transformation of double-half inverse Gaussian hollow beams into superposition of finite Airy beams using an optical Airy transform. Optical and Quantum Electronics, 2019, 51, 1.	1.5	27
60	Analytical study of flat-topped beam characterization using the thermal lens method in sample liquids. Optik, 2018, 166, 323-337.	1.4	6
61	Scattering of Lommel beams by homogenous spherical particle in generalized Lorenz-Mie theory. Optical and Quantum Electronics, 2018, 50, 1.	1.5	5
62	Fractional Fourier transform of double-half inverse Gaussian hollow beams. Optical and Quantum Electronics, 2018, 50, 1.	1.5	12
63	Generation of ultra-long pure magnetization needle and multiple spots by phase modulated doughnut Gaussian beam. Optics and Laser Technology, 2018, 102, 40-46.	2.2	15
64	Effect of light absorption and temperature on self-focusing of finite Airy-Gaussian beams in a plasma with relativistic and ponderomotive regime. Optical and Quantum Electronics, 2018, 50, 1.	1.5	15
65	Generating sub wavelength pure longitudinal magnetization probe and chain using complex phase plate. Optics Communications, 2018, 407, 275-279.	1.0	16
66	Relativistic self-focusing of finite Airy-Gaussian beams in collisionless plasma using the Wentzel-Kramers-Brillouin approximation. Optik, 2018, 154, 58-66.	1.4	16
67	Generation of generalized spiraling Bessel beams by a curved fork-shaped hologram with Bessel-Gaussian laser beams modulated by a Bessel grating. Optik, 2018, 154, 331-343.	1.4	6
68	Conical diffraction of Dark and Antidark beams modulated by a Gaussian profile in biaxial crystals. Optik, 2018, 154, 344-353.	1.4	9
69	A new atmospheric spectral model for the marine environment. Optik, 2018, 153, 86-94.	1.4	16
70	On the validity of integral localized approximation for on-axis zeroth-order Mathieu beams. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 204, 27-34.	1.1	42
71	Impact of light absorption and temperature on self-focusing of zeroth-order Bessel-Gauss beams in a plasma with relativistic-ponderomotive regime. Optical and Quantum Electronics, 2018, 50, 1.	1.5	6
72	Introduction of generalized Bessel-Laguerre-Gaussian beams and its central intensity travelling a turbulent atmosphere. Optical and Quantum Electronics, 2018, 50, 1.	1.5	46

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73	Near-field spectral shift of a zero-order Bessel beam scattered from a spherical particle. <i>Laser Physics Letters</i> , 2018, 15, 066002.	0.6	4
74	Contribution to the study of lowest order Bessel-Gaussian beams propagating in thermal quantum plasma. <i>Optik</i> , 2018, 174, 106-113.	1.4	3
75	Diffraction by a radial phase modulated spiral zone plate of abruptly autofocusing beams generated with multiple Bessel-like beams. <i>Optics and Laser Technology</i> , 2018, 107, 366-371.	2.2	9
76	Conversion of the hyperbolic-cosine Gaussian beam to a novel Finite Airy-related beam using an optical airy transform system. <i>Optik</i> , 2018, 171, 501-506.	1.4	25
77	Propagation of the finite Olver beams through an apertured misaligned ABCD optical system. <i>Optik</i> , 2017, 136, 573-580.	1.4	9
78	A theoretical study of the on-axis average intensity of generalized spiraling Bessel beams in a turbulent atmosphere. <i>Optical and Quantum Electronics</i> , 2017, 49, 1.	1.5	33
79	Focus shaping of cylindrically polarized Bessel-Gaussian beam modulated by Bessel gratings by a high numerical aperture objective. <i>Optical and Quantum Electronics</i> , 2017, 49, 1.	1.5	4
80	A theoretical investigation on the propagation properties of Hollow Gaussian beams passing through turbulent biological tissues. <i>Optik</i> , 2017, 141, 72-82.	1.4	20
81	Focusing properties of radially polarized Bessel-like beam with radial cosine phase wavefront by a high numerical aperture objective. <i>Optical and Quantum Electronics</i> , 2017, 49, 1.	1.5	4
82	Creation of generalized spiraling Bessel beams by Fresnel diffraction of Bessel-Gaussian laser beams. <i>Optical and Quantum Electronics</i> , 2017, 49, 1.	1.5	9
83	Conversion of circular beams by a spiral phase plate: Generation of Generalized Humbert beams. <i>Optik</i> , 2017, 138, 516-528.	1.4	14
84	Theoretical conversion of the hypergeometric-Gaussian beams family into a high-order spiraling Bessel beams by a curved fork-shaped hologram. <i>Optical and Quantum Electronics</i> , 2017, 49, 1.	1.5	10
85	A detailed study of internal conical refraction phenomenon of Flattened Gaussian beams propagating in a biaxial crystal. <i>Optik</i> , 2017, 138, 145-152.	1.4	6
86	A theoretical study of the Fresnel diffraction of Laguerre-Bessel-Gaussian beam by a helical axicon. <i>Optik</i> , 2017, 149, 416-422.	1.4	13
87	Propagation characteristics of Bessel-like beams through ABCD optical system. <i>Optical and Quantum Electronics</i> , 2017, 49, 1.	1.5	8
88	Van der Waals dispersion energy between atoms and nanoparticles. <i>Journal of Physics: Conference Series</i> , 2017, 869, 012057.	0.3	1
89	Focusing properties of radially polarized modified Bessel-modulated Gaussian beam by a high numerical aperture objective. <i>Optics and Laser Technology</i> , 2017, 88, 40-53.	2.2	8
90	TRANSFORMATION OF FINITE OLVER-GAUSSIAN BEAMS BY AN UNIAXIAL CRYSTAL ORTHOGONAL TO THE OPTICAL AXIS. <i>Progress in Electromagnetics Research M</i> , 2016, 45, 153-161.	0.5	6

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91	NOVEL FINITE AIRY ARRAY BEAMS GENERATED FROM GAUSSIAN ARRAY BEAMS ILLUMINATING AN OPTICAL AIRY TRANSFORM SYSTEM. Progress in Electromagnetics Research M, 2016, 49, 41-50.	0.5	15
92	The conversion of a Liê™s flat-topped-Gaussian beam to a superposition of Kummer dark hollow beam by the illumination of a fractional radial Hilbert transform system. Optical and Quantum Electronics, 2016, 48, 1.	1.5	3
93	A new study of turbulence effects in the marine environment on the intensity distributions of flat-topped Gaussian beams. Optik, 2016, 127, 8194-8202.	1.4	13
94	Theoretical investigation on the Hollow Gaussian beams propagating in atmospheric turbulent. Chinese Journal of Physics, 2016, 54, 194-204.	2.0	27
95	Radiation pressure cross section exerted on homogenous dielectric spherical particle by zeroth order Mathieu beams. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 179, 170-176.	1.1	16
96	Conical refraction with Bessel-Gaussian beam modulated by Bessel gratings using biaxial crystals. Optik, 2016, 127, 10868-10874.	1.4	9
97	Generation of generalized spiraling Bessel beams of arbitrary order by curved fork-shaped holograms. Optical and Quantum Electronics, 2016, 48, 1.	1.5	16
98	Effect of turbulent atmosphere on the on-axis average intensity of Pearceyâ€“Gaussian beam. Chinese Physics B, 2016, 25, 064208.	0.7	22
99	Behavior of the central intensity of a Hollow-Gaussian beam against the turbulence. Optik, 2016, 127, 11522-11528.	1.4	10
100	Light scattering by hexagonal ice crystal in the Wentzelâ€“Kramersâ€“Brillouin approximation. Optical and Quantum Electronics, 2016, 48, 1.	1.5	4
101	Effects of a turbulent atmosphere on an apertured Lommel-Gaussian beam. Optik, 2016, 127, 11534-11543.	1.4	37
102	A study of nondiffracting Lommel beams propagating in a medium containing spherical scatterers. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 184, 1-7.	1.1	12
103	A closed form of a kurtosis parameter of a hypergeometric-Gaussian type-II beam. Chinese Physics B, 2016, 25, 044206.	0.7	6
104	Comment on paper: â€œGeneration of dark hollow beams by using a fractional radial Hilbert transform systemâ€• Optics Communications, 2015, 357, 198-199.	1.0	1
105	Radiation Forces on a Dielectric Sphere Produced by Finite Olver-Gaussian Beams. Optics and Photonics Journal, 2015, 05, 344-353.	0.3	5
106	Theoretical Introduction and Generation Method of a Novel Nondiffracting Waves: Olver Beams. Optics and Photonics Journal, 2015, 05, 234-246.	0.3	39
107	Propagation Properties of Finite Olver-Gaussian Beams Passing through a Paraxial ABCD Optical System. Optics and Photonics Journal, 2015, 05, 273-294.	0.3	19
108	Generation and propagation of novel donut beams by a spiral phase plate: Humbert beams. Optical and Quantum Electronics, 2014, 46, 201-208.	1.5	11

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109	Propagation Characteristics of Airy-Gaussian Beams Passing through a Misaligned Optical System with Finite Aperture. Optics and Photonics Journal, 2014, 04, 325-336.	0.3	21
110	Scattering of Mathieu beams by a rigid sphere. Optics Communications, 2011, 284, 3030-3035.	1.0	13
111	Parametric characterization of Mathieu-Gauss beams. Optics Communications, 2009, 282, 2590-2594.	1.0	5
112	Propagation of generalized Mathieu-Gauss beams through paraxial misaligned optical systems. Optics Communications, 2009, 282, 3934-3939.	1.0	8
113	Propagation of generalized Mathieu-Gauss beams through paraxial misaligned optical system. , 2008, , .		0
114	Propagation properties of vector Mathieu-Gauss beams. Optics Communications, 2007, 275, 165-169.	1.0	17
115	Flat-topped Mathieu-Gauss beam and its transformation by paraxial optical systems. Optics Communications, 2007, 278, 142-146.	1.0	14
116	A detailed study of Mathieu-Gauss beams propagation through an apertured ABCD optical system. Optics Communications, 2006, 265, 594-602.	1.0	30
117	Thin cadmium sulphide film for radiative cooling application. Optics Communications, 2006, 267, 65-68.	1.0	25
118	Paraxial propagation of Mathieu beams through an apertured ABCD optical system. Optics Communications, 2005, 253, 223-230.	1.0	45
119	A comparative parametric characterization of elegant and standard Hermite-cosh-Gaussian beams. Optics Communications, 2005, 253, 231-241.	1.0	32
120	Focusing properties and focal shift in hyperbolic-cosine-Gaussian beams. Optics Communications, 2005, 253, 242-249.	1.0	45
121	Focal shift in the axisymmetric Bessel-modulated Gaussian beam. Optics Communications, 2005, 255, 235-240.	1.0	26
122	Radiative properties of cadmium telluride thin film as radiative cooling materials. Optics Communications, 2005, 256, 10-15.	1.0	28
123	Title is missing!. Optical and Quantum Electronics, 2003, 35, 101-110.	1.5	19
124	Scattering amplitude of absorbing and nonabsorbing spheroidal particles in the WKB approximation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 72, 385-402.	1.1	7
125	Response on the "Comment on propagation properties of Hermite-cosh-Gaussian laser beams" in [Opt. Commun. 186 (2000) 269]. Optics Communications, 2002, 203, 17-19.	1.0	3
126	Parametric characterization of truncated Hermite-cosh-Gaussian beams. Optics Communications, 2001, 190, 29-36.	1.0	35



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127	Closed-form propagation expressions of flattened Gaussian beams through an apertured ABCD optical system. Optics Communications, 2001, 193, 73-79.	1.0	27
128	The shape of spectral lines: widths and equivalent widths of the Voigt profile. Optics Communications, 2000, 177, 111-118.	1.0	16
129	Collins formula and propagation of Bessel-modulated Gaussian light beams through an ABCD optical system. Optics Communications, 2000, 177, 181-188.	1.0	66
130	Theoretical intensity distribution of internal conical refraction. Optics Communications, 2000, 178, 257-265.	1.0	19
131	Propagation properties of Hermite-cosh-Gaussian laser beams. Optics Communications, 2000, 186, 269-276.	1.0	83
132	Fraunhofer diffraction by conical tracks. Optics Communications, 2000, 175, 51-55.	1.0	8
133	Fourier Transform Spectroscopy of Carbonyl Sulfide from 4800 to 8000 $\text{cm}^{-1}$ and New Global Analysis of $^{16}\text{O}^{12}\text{C}^{32}\text{S}$ . Journal of Molecular Spectroscopy, 1998, 191, 32-44.	0.4	35
134	Absolute Intensities in $^{16}\text{O}^{12}\text{C}^{32}\text{S}$ : The 2500-3100 $\text{cm}^{-1}$ . Journal of Molecular Spectroscopy, 1995, 173, 347-369.	0.4	19
135	Fourier Transform Spectroscopy of Carbonyl Sulfide from 1800 to 3120 $\text{cm}^{-1}$ : The Normal Species. Journal of Molecular Spectroscopy, 1995, 174, 1-19.	0.4	42
136	A comment on recent proposals for the calculation of vibration-rotation energies in more-than-three atom molecules. Molecular Physics, 1992, 77, 947-955.	0.8	8
137	N-body quantum-mechanical Hamiltonians: Extrapotential terms. Journal of Molecular Spectroscopy, 1991, 149, 274-304.	0.4	73