Fabio Mangini

List of Publications by Year
in descending order

134 papers	2,081 citations	279701 23 h-index	276775 41 g-index
136 all docs	136 docs citations	136 times ranked	1457 citing authors

#	Article	IF	Citations
1	Helical plasma filaments from the self-channeling of intense femtosecond laser pulses in optical fibers. Optics Letters, 2022, 47, 1.	1.7	17
2	Multimode solitons in step-index fibers. Optics Express, 2022, 30, 6300.	1.7	9
3	Understanding the Spread of COVID-19 Based on Economic and Socio-Political Factors. Sustainability, 2022, 14, 1768.	1.6	2
4	Statistical mechanics of beam self-cleaning in GRIN multimode optical fibers. Optics Express, 2022, 30, 10850.	1.7	49
5	Finite-Size and Illumination Conditions Effects in All-Dielectric Metasurfaces. Electronics (Switzerland), 2022, 11, 1017.	1.8	8
6	Helical plasma filaments from the self-channeling of intense femtosecond laser pulses in optical fibers: publisherâ€™s note. Optics Letters, 2022, 47, 1919.	1.7	0
7	Multiple Scattering by Two PEC Spheres Using Translation Addition Theorem. Electronics (Switzerland), 2022, 11, 126.	1.8	4
8	Multiphoton ionization of standard optical fibers. Photonics Research, 2022, 10, 1394.	3.4	14
9	Multimode soliton collisions in graded-index optical fibers. Optics Express, 2022, 30, 21710.	1.7	12
10	Thermalization of Orbital Angular Momentum Beams in Multimode Optical Fibers. Physical Review Letters, 2022, 128, .	2.9	29
11	Infrared light power transmission limitation of optical fibers. , 2021, , .		0
12	Rainbow spiral emission from optical fibers. , 2021, , .		0
13	Polarizability of dielectric prolate half ellipse. , 2021, , .		1
14	Experimental observation of self-imaging in SMF-28 optical fibers. Optics Express, 2021, 29, 12625.	1.7	15
15	GPR radargrams analysis through machine learning approach. Journal of Electromagnetic Waves and Applications, 2021, 35, 1678-1686.	1.0	3
16	Single-mode spatiotemporal soliton attractor in multimode GRIN fibers. Photonics Research, 2021, 9, 741.	3.4	26
17	Managing Self-Phase Modulation in Pseudo-Linear Multimodal and Monomodal Systems. Journal of Lightwave Technology, 2021, 39, 1953-1960.	2.7	3
18	Rainbow Archimedean spiral emission from optical fibres. Scientific Reports, 2021, 11, 13030.	1.6	14

#	Article	IF	Citations
19	Direct visualization of bimodal-propagation-induced spatial self-imaging. , 2021, , .		0
20	To study the Mueller matrix polarimetry for the characterization of wood and Teflon flat samples. Results in Optics, 2021, 4, 100102.	0.9	4
21	Conditions for walk-off soliton generation in a multimode fiber. Communications Physics, 2021, 4, .	2.0	26
22	Verification of the electromagnetic deep-penetration effect in the real world. Scientific Reports, 2021, 11, 15928.	1.6	3
23	Spatiotemporal beam self-cleaning for high-resolution nonlinear fluorescence imaging with multimode fiber. Scientific Reports, 2021, 11, 18240.	1.6	19
24	Femtosecond nonlinear losses in multimode optical fibers. Photonics Research, 2021, 9, 2443.	3.4	22
25	Steerable3D: An ImageJ plugin for neurovascular enhancement in 3-D segmentation. Physica Medica, 2021, 81, 197-209.	0.4	5
26	3D time-domain beam mapping for studying nonlinear dynamics in multimode optical fibers. Optics Letters, 2021, 46, 66.	1.7	24
27	Scattering of an inhomogeneous wave impinging on parallel stratified cylinders. , 2021, , .		0
28	Mueller matrix polarimetry for differentiating characteristic features of different materials (wood,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50		0
29	Femtosecond soliton spatio-temporal properties in multimode GRIN fibers. , 2021, , .		0
30	Mode-scrambling security using short pulses in multimode graded-index fiber. , 2021, , .		0
31	Spatio-Temporal Behaviour of Femtosecond Solitons in Graded-Index Multimode Fibers. , 2021, , .		0
32	Numerical simulation of the blood oxygenation levelâ€“dependent functional magnetic resonance signal using finite element method. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3290.	1.0	1
33	Cloaking using anisotropic multilayer circular cylinder. AIP Advances, 2020, 10, .	0.6	9
34	Electromagnetic scattering between an elliptically inhomogeneous plane wave and a multilayered cylinder. Journal of Electromagnetic Waves and Applications, 2020, 34, 2455-2466.	1.0	3
35	Adverse Patient Events in Anesthesia Delivery â€“ Review and Analysis of Potentially Avoidable Events. , 2020, , .		0
36	Measuring immediate effects of patellar taping on balance kinematics. , 2020, , .		0

#	Article	IF	Citations
37	Laser Beam Self-Focusing in Optical Fiber controlled through FBG integration. , 2020, , .		2
38	Cloaking and Magnifying using Radial Anisotropy in Non-Integer Dimensional Space. , 2020, , .		1
39	Cloaking Using the Anisotropic Multilayer Sphere. Photonics, 2020, 7, 52.	0.9	11
40	Semi-analytical form of full-wave self-interaction integrals over rectangles. , 2020, , .		1
41	Multiphoton-Absorption-Excited Up-Conversion Luminescence in Optical Fibers. Physical Review Applied, 2020, 14, .	1.5	34
42	Scattering of Light from the Systemic Circulatory System. Diagnostics, 2020, 10, 1026.	1.3	7
43	Study of optical tag profile of the tag recognition measurement system in cultural heritage. Journal of Cultural Heritage, 2020, 45, 240-248.	1.5	3
44	Introduction to Radar Scattering Application in Remote Sensing and Diagnostics: Review. Atmosphere, 2020, 11, 517.	1.0	11
45	Scattering from multiple PEC sphere using Translation Addition Theorems for Spherical Vector Wave Function. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 248, 106905.	1.1	14
46	A Multifunctional Integrated Design of Simultaneous Unity Absorption and Polarization Conversion. Plasmonics, 2020, 15, 1141-1149.	1.8	5
47	Spatial Beam Self-Cleaning in Tapered Yb-Doped GRIN Multimode Fiber With Decelerating Nonlinearity. IEEE Photonics Journal, 2020, 12, 1-8.	1.0	15
48	Introduction to electromagnetic scattering, part II: tutorial. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2020, 37, 1300.	0.8	22
49	High-energy soliton fission dynamics in multimode GRIN fiber. Optics Express, 2020, 28, 20473.	1.7	27
50	Nonlinear beam self-imaging and self-focusing dynamics in a GRIN multimode optical fiber: theory and experiments. Optics Express, 2020, 28, 24005.	1.7	52
51	Electromagnetic Scattering by a Cylinder in a Lossy Medium of an Inhomogeneous Elliptically Polarized Plane Wave. Journal of Telecommunications and Information Technology, 2020, 4, 36-42.	0.3	5
52	Electromagnetic Scattering of Inhomogeneous Plane Wave by Ensemble of Cylinders. Journal of Telecommunications and Information Technology, 2020, 3, 1-7.	0.3	4
53	The polarizability of an alternative sequence of isotropic and radially anisotropic multilayer sphere. , 2020, , .		2
54	Electromagnetic interaction with a monodispersed system in sedimentation equilibrium. , 2020, , .		0

#	Article	IF	Citations
55	Finding the polarizability of radially anisotropic multilayer circular cylinder. , 2020, , .		2
56	Multiphoton Absorption Excited Upconversion Luminescence in Multimode Optical Fiber. , 2020, , .		0
57	Nonlinear beam cleanup in Yb-doped GRIN multimode fiber taper. , 2020, , .		0
58	Brain Networks Underlying Eyeâ€™s Pupil Dynamics. Frontiers in Neuroscience, 2019, 13, 965.	1.4	42
59	Cancer Diagnosis Using Deep Learning: A Bibliographic Review. Cancers, 2019, 11, 1235.	1.7	268
60	Deep Learning for Applications to Ground Penetrating Radar and Electromagnetic Diagnostic. , 2019, , .		3
61	Effect of Finite Terms on the Truncation Error of Addition Theorems for Spherical Vector Wave Function. , 2019, , .		2
62	The Key role of Giovanni Giorgi in Developing the MKSA System of Units. , 2019, , .		0
63	Benefits and hazards of electromagnetic waves, telecommunication, physical and biomedical: a review. European Review for Medical and Pharmacological Sciences, 2019, 23, 3121-3128.	0.5	14
64	Parallelism between risk and perception of risk among caregivers during anesthesia delivery. European Review for Medical and Pharmacological Sciences, 2019, 23, 3129-3141.	0.5	2
65	Equivalent-circuit model for stacked slot-based 2D periodic arrays of arbitrary geometry for broadband analysis. Journal of Applied Physics, 2018, 123, .	1.1	9
66	Polarization-maintaining reflection-mode THz time-domain spectroscopy of a polyimide based ultra-thin narrow-band metamaterial absorber. Scientific Reports, 2018, 8, 1985.	1.6	28
67	Fractal Dimension Analysis of High-Resolution X-Ray Phase Contrast Micro-Tomography Images at Different Threshold Levels in a Mouse Spinal Cord. Condensed Matter, 2018, 3, 48.	0.8	9
68	An Analytical Study of Electromagnetic Deep Penetration Conditions and Implications in Lossy Media through Inhomogeneous Waves. Materials, 2018, 11, 1595.	1.3	8
69	An Approach to the Extreme Miniaturization of Rotary Comb Drives. Actuators, 2018, 7, 70.	1.2	16
70	Tag recognition: A new methodology for the structural monitoring of cultural heritage. Measurement: Journal of the International Measurement Confederation, 2018, 127, 308-313.	2.5	12
71	Introduction to electromagnetic scattering: tutorial. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2018, 35, 163.	0.8	70
72	Can the Perception of Risk Be Decreased among Caregivers during Anesthesia Delivery?. , 2018, , .		1

#	Article	IF	Citations
73	Numerical analysis of electromagnetic interactions by a cell during the mitosis phases. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e3110.	1.0	1
74	FBG Multifunctional pH Sensor - Monitoring the pH Rain in Cultural Heritage. Acta IMEKO (2012), 2018, 7, 24.	0.4	13
75	Ultra-thin narrow-band, complementary narrow-band, and dual-band metamaterial absorbers for applications in the THz regime. Journal of Applied Physics, 2017, 121, .	1.1	53
76	Analysis of reflection from a novel anisotropic lossy medium characterized by particular material properties. Journal of Electromagnetic Waves and Applications, 2017, 31, 798-807.	1.0	4
77	Broad-band terahertz metamaterial absorber with stacked electric ring resonators. Journal of Electromagnetic Waves and Applications, 2017, 31, 727-739.	1.0	7
78	A novel model to detect the content of inorganic nanoparticles in coatings used for stone protection. Progress in Organic Coatings, 2017, 106, 177-185.	1.9	5
79	Scattering of an electromagnetic plane wave by a sphere embedded in a cylinder. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 760.	0.8	14
80	PIM generation by rough conductors. , 2017, , .		2
81	Analysis of the electromagnetic reflection and transmission through a stratified lossy medium of an elliptically polarized plane wave. Mathematics and Mechanics of Complex Systems, 2016, 4, 153-167.	0.5	5
82	Improvement of GPR tracking by using inertial and GPS combined data. , 2016, , .		3
83	Measurement System for Evaluating Dielectric Permittivity of Granular Materials in the 1.7â€“2.6-GHz Band. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 1051-1059.	2.4	24
84	Electromagnetic scattering by a buried sphere in a lossy medium of an inhomogeneous plane wave at arbitrary incidence: spectral-domain method. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, 947.	0.8	18
85	Numerical investigation of DB metamaterial and retrieval of its effective parameters. , 2016, , .		0
86	Plane-wave reflection from the interface of a novel uniaxial medium with extreme parameters. , 2016, , .		1
87	Narrow-band and dual-band metamaterial absorbers in the THz regime. , 2016, , .		1
88	On zero-reflection and zero-transmission of a stratified lossy medium. , 2016, , .		4
89	A preliminary work on the discrimination of magnetic properties by means of TDR data. , 2016, , .		0
90	Design and Realization of a cheap Ground Penetrating Radar Prototype @ 2.45 GHz. , 2016, , .		13

#	Article	IF	Citations
91	Electromagnetic scattering of an inhomogeneous elliptically polarized plane wave by a multilayered sphere. Journal of Electromagnetic Waves and Applications, 2016, 30, 492-504.	1.0	22
92	Spectralâ€domain solution to the electromagnetic scattering of a twoâ€dimensional beam by cylinders buried below a flat interface. Near Surface Geophysics, 2015, 13, 219-225.	0.6	2
93	A Primer on Electromagnetic Fields. , 2015, , .		5
94	A spectral-domain method for the electromagnetic scattering from a multilayered sphere buried in a stratified medium. , 2015, , .		1
95	Analytical evaluation of the capacitance of a conical sensor for micro-nano imaging techniques. , 2015, , .		0
96	On a Lossy Electricâ€“Magnetic Uniaxial Medium and Its Applications to Boundary Conditions. IEEE Transactions on Antennas and Propagation, 2015, 63, 1686-1692.	3.1	6
97	Electromagnetic scattering by two concentric spheres buried in a stratified material. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 277.	0.8	21
98	Plane-wave expansion of elliptic cylindrical functions. Optics Communications, 2015, 349, 185-192.	1.0	2
99	In silico validation procedure for cell volume fraction estimation through dielectric spectroscopy. Journal of Biological Physics, 2015, 41, 223-234.	0.7	14
100	Vectorial spherical-harmonics representation of an inhomogeneous elliptically polarized plane wave. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 1379.	0.8	18
101	Electromagnetic interaction with two eccentric spheres. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2014, 31, 783.	0.8	21
102	An analysis of the inhomogeneous wave interaction with plane interfaces. , 2014, , .		4
103	Realization of a Radial Uniaxial sphere with a multilayer sphere. , 2014, , .		4
104	Analysis of the polarizability of an array of spherical metallic inclusions in a dielectric host sphere. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2014, 31, 2409.	0.8	3
105	Homogenization model of two eccentric spheres. , 2014, , .		0
106	Electromagnetic reflection at an interface of a lossy electric-magnetic uniaxial medium and its applications. , 2014, , .		0
107	Homogenization of a multilayer sphere as a radial uniaxial sphere: features and limits. Journal of Electromagnetic Waves and Applications, 2014, 28, 916-931.	1.0	28
108	Analytic solution for the reflection of cylindrical wave at planar interfaces. , 2014, , .		1

#	Article	IF	Citations
109	Electromagnetic Scattering by a Metallic Cylinder Buried in a Lossy Medium With the Cylindrical-Wave Approach. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 179-183.	1.4	39
110	Reflection and Transmission at the Interface With an Electricâ€“Magnetic Uniaxial Medium With Applications to Boundary Conditions. IEEE Transactions on Antennas and Propagation, 2013, 61, 5666-5675.	3.1	12
111	Spectral domain method for the electromagnetic scattering by a buried sphere. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2013, 30, 783.	0.8	25
112	Metal-Insulator-Metal (MIM) plasmonic waveguide based directional couplers operating at telecom wavelengths. , 2013, , .		2
113	Deeply penetrating waves in lossy media. Optics Letters, 2012, 37, 2616.	1.7	15
114	On the electromagnetic power transmission between two lossy media: discussion. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 2281.	0.8	28
115	Scattering by a Circular Cylinder Buried Under a Slightly Rough Surface: The Cylindrical-Wave Approach. IEEE Transactions on Antennas and Propagation, 2012, 60, 2834-2842.	3.1	54
116	EBG SUPERSTRATES FOR DIRECTIVITY ENHANCEMENT OF ANTENNAS. , 2011, , 215-238.		0
117	Application of the Cylindrical Wave Approach to the Simulation of Buried Utilities. International Journal of Geophysics, 2011, 2011, 1-8.	0.4	4
118	Scattering by dielectric circular cylinders in a dielectric slab. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 687.	0.8	37
119	Unidimensional EBG cavities as superstrates of a patch antenna. Microwave and Optical Technology Letters, 2009, 51, 2769-2774.	0.9	0
120	Scattering by Perfectly Conducting Circular Cylinders Buried in a Dielectric Slab Through the Cylindrical Wave Approach. IEEE Transactions on Antennas and Propagation, 2009, 57, 1208-1217.	3.1	39
121	A Novel Technique for Open-Stopband Suppression in 1-D Periodic Printed Leaky-Wave Antennas. IEEE Transactions on Antennas and Propagation, 2009, 57, 1894-1906.	3.1	234
122	Regularization of Mixed-Potential Layered-Media Green's Functions for Efficient Interpolation Procedures in Planar Periodic Structures. IEEE Transactions on Antennas and Propagation, 2009, 57, 122-134.	3.1	48
123	Efficient Near-Field Interpolation of Mixed-Potential Green's Functions in Layered Media. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 674-677.	2.4	5
124	Efficient Design of a Compact Wideband EBG Filter for Active Integrated Antennas. , 2008, , .		0
125	Full-Wave Modal Dispersion Analysis and Broadside Optimization for a Class of Microstrip CRLH Leaky-Wave Antennas. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 2826-2837.	2.9	152
126	Analysis and design of a microstrip patch antenna for harmonic tuning in a high-efficiency integrated microwave transmitter. , 2007, , .		0

#	Article	IF	Citations
127	Short-Pulse Electromagnetic Scattering by Buried Perfectly Conducting Cylinders. IEEE Geoscience and Remote Sensing Letters, 2007, 4, 611-615.	1.4	22
128	Spectral Green's Functions for Layered Gyrotropic Structures Through a Transmission-Line Approach. Journal of Infrared, Millimeter and Terahertz Waves, 2001, 22, 1469-1484.	0.6	0
129	A Novel 3D BEM Approach for Efficient Analysis of Microwave Passive Components. , 2000, , .		0
130	The Nature of the Radiation at Low Frequencies from a Class of Periodic Structures. , 2000, , .		2
131	A BEM formulation for efficient and accurate analysis of dielectric waveguiding structures: Extension to multiboundary topologies. International Journal of RF and Microwave Computer-Aided Engineering, 1998, 8, 355-366.	0.8	1
132	Stepped leaky-wave antennas for microwave and millimeter wave applications. Annales Des Telecommunications/Annals of Telecommunications, 1997, 52, 202-208.	1.6	17
133	Comparative modal analysis of NRD parallelepiped dielectric resonators. Journal of Infrared, Millimeter and Terahertz Waves, 1996, 17, 1403-1418.	0.6	0
134	Leaky Wave Antennas. , 0, , .		0