

# Fabio Mangini

## List of Publications by Year in descending order

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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	Cancer Diagnosis Using Deep Learning: A Bibliographic Review. <i>Cancers</i> , 2019, 11, 1235.	1.7	268
2	A Novel Technique for Open-Stopband Suppression in 1-D Periodic Printed Leaky-Wave Antennas. <i>IEEE Transactions on Antennas and Propagation</i> , 2009, 57, 1894-1906.	3.1	234
3	Full-Wave Modal Dispersion Analysis and Broadside Optimization for a Class of Microstrip CRLH Leaky-Wave Antennas. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2008, 56, 2826-2837.	2.9	152
4	Introduction to electromagnetic scattering: tutorial. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2018, 35, 163.	0.8	70
5	Scattering by a Circular Cylinder Buried Under a Slightly Rough Surface: The Cylindrical-Wave Approach. <i>IEEE Transactions on Antennas and Propagation</i> , 2012, 60, 2834-2842.	3.1	54
6	Ultra-thin narrow-band, complementary narrow-band, and dual-band metamaterial absorbers for applications in the THz regime. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	53
7	Nonlinear beam self-imaging and self-focusing dynamics in a GRIN multimode optical fiber: theory and experiments. <i>Optics Express</i> , 2020, 28, 24005.	1.7	52
8	Statistical mechanics of beam self-cleaning in GRIN multimode optical fibers. <i>Optics Express</i> , 2022, 30, 10850.	1.7	49
9	Regularization of Mixed-Potential Layered-Media Green's Functions for Efficient Interpolation Procedures in Planar Periodic Structures. <i>IEEE Transactions on Antennas and Propagation</i> , 2009, 57, 122-134.	3.1	48
10	Brain Networks Underlying Eye's Pupil Dynamics. <i>Frontiers in Neuroscience</i> , 2019, 13, 965.	1.4	42
11	Scattering by Perfectly Conducting Circular Cylinders Buried in a Dielectric Slab Through the Cylindrical Wave Approach. <i>IEEE Transactions on Antennas and Propagation</i> , 2009, 57, 1208-1217.	3.1	39
12	Electromagnetic Scattering by a Metallic Cylinder Buried in a Lossy Medium With the Cylindrical-Wave Approach. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2013, 10, 179-183.	1.4	39
13	Scattering by dielectric circular cylinders in a dielectric slab. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2010, 27, 687.	0.8	37
14	Multiphoton-Absorption-Excited Up-Conversion Luminescence in Optical Fibers. <i>Physical Review Applied</i> , 2020, 14, .	1.5	34
15	Thermalization of Orbital Angular Momentum Beams in Multimode Optical Fibers. <i>Physical Review Letters</i> , 2022, 128, .	2.9	29
16	On the electromagnetic power transmission between two lossy media: discussion. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2012, 29, 2281.	0.8	28
17	Homogenization of a multilayer sphere as a radial uniaxial sphere: features and limits. <i>Journal of Electromagnetic Waves and Applications</i> , 2014, 28, 916-931.	1.0	28
18	Polarization-maintaining reflection-mode THz time-domain spectroscopy of a polyimide based ultra-thin narrow-band metamaterial absorber. <i>Scientific Reports</i> , 2018, 8, 1985.	1.6	28

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19	High-energy soliton fission dynamics in multimode GRIN fiber. <i>Optics Express</i> , 2020, 28, 20473.	1.7	27
20	Single-mode spatiotemporal soliton attractor in multimode GRIN fibers. <i>Photonics Research</i> , 2021, 9, 741.	3.4	26
21	Conditions for walk-off soliton generation in a multimode fiber. <i>Communications Physics</i> , 2021, 4, .	2.0	26
22	Spectral domain method for the electromagnetic scattering by a buried sphere. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2013, 30, 783.	0.8	25
23	Measurement System for Evaluating Dielectric Permittivity of Granular Materials in the 1.7–2.6-GHz Band. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2016, 65, 1051-1059.	2.4	24
24	3D time-domain beam mapping for studying nonlinear dynamics in multimode optical fibers. <i>Optics Letters</i> , 2021, 46, 66.	1.7	24
25	Short-Pulse Electromagnetic Scattering by Buried Perfectly Conducting Cylinders. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2007, 4, 611-615.	1.4	22
26	Electromagnetic scattering of an inhomogeneous elliptically polarized plane wave by a multilayered sphere. <i>Journal of Electromagnetic Waves and Applications</i> , 2016, 30, 492-504.	1.0	22
27	Femtosecond nonlinear losses in multimode optical fibers. <i>Photonics Research</i> , 2021, 9, 2443.	3.4	22
28	Introduction to electromagnetic scattering, part II: tutorial. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2020, 37, 1300.	0.8	22
29	Electromagnetic interaction with two eccentric spheres. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2014, 31, 783.	0.8	21
30	Electromagnetic scattering by two concentric spheres buried in a stratified material. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2015, 32, 277.	0.8	21
31	Spatiotemporal beam self-cleaning for high-resolution nonlinear fluorescence imaging with multimode fiber. <i>Scientific Reports</i> , 2021, 11, 18240.	1.6	19
32	Vectorial spherical-harmonics representation of an inhomogeneous elliptically polarized plane wave. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2015, 32, 1379.	0.8	18
33	Electromagnetic scattering by a buried sphere in a lossy medium of an inhomogeneous plane wave at arbitrary incidence: spectral-domain method. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2016, 33, 947.	0.8	18
34	Stepped leaky-wave antennas for microwave and millimeter wave applications. <i>Annales Des Telecommunications/Annals of Telecommunications</i> , 1997, 52, 202-208.	1.6	17
35	Helical plasma filaments from the self-channeling of intense femtosecond laser pulses in optical fibers. <i>Optics Letters</i> , 2022, 47, 1.	1.7	17
36	An Approach to the Extreme Miniaturization of Rotary Comb Drives. <i>Actuators</i> , 2018, 7, 70.	1.2	16

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37	Deeply penetrating waves in lossy media. <i>Optics Letters</i> , 2012, 37, 2616.	1.7	15
38	Spatial Beam Self-Cleaning in Tapered Yb-Doped GRIN Multimode Fiber With Decelerating Nonlinearity. <i>IEEE Photonics Journal</i> , 2020, 12, 1-8.	1.0	15
39	Experimental observation of self-imaging in SMF-28 optical fibers. <i>Optics Express</i> , 2021, 29, 12625.	1.7	15
40	In silico validation procedure for cell volume fraction estimation through dielectric spectroscopy. <i>Journal of Biological Physics</i> , 2015, 41, 223-234.	0.7	14
41	Scattering of an electromagnetic plane wave by a sphere embedded in a cylinder. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2017, 34, 760.	0.8	14
42	Scattering from multiple PEC sphere using Translation Addition Theorems for Spherical Vector Wave Function. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020, 248, 106905.	1.1	14
43	Rainbow Archimedean spiral emission from optical fibres. <i>Scientific Reports</i> , 2021, 11, 13030.	1.6	14
44	Multiphoton ionization of standard optical fibers. <i>Photonics Research</i> , 2022, 10, 1394.	3.4	14
45	Benefits and hazards of electromagnetic waves, telecommunication, physical and biomedical: a review. <i>European Review for Medical and Pharmacological Sciences</i> , 2019, 23, 3121-3128.	0.5	14
46	Design and Realization of a cheap Ground Penetrating Radar Prototype @ 2.45 GHz. , 2016, , .		13
47	FBG Multifunctional pH Sensor - Monitoring the pH Rain in Cultural Heritage. <i>Acta IMEKO (2012)</i> , 2018, 7, 24.	0.4	13
48	Reflection and Transmission at the Interface With an Electricâ€“Magnetic Uniaxial Medium With Applications to Boundary Conditions. <i>IEEE Transactions on Antennas and Propagation</i> , 2013, 61, 5666-5675.	3.1	12
49	Tag recognition: A new methodology for the structural monitoring of cultural heritage. Measurement: <i>Journal of the International Measurement Confederation</i> , 2018, 127, 308-313.	2.5	12
50	Multimode soliton collisions in graded-index optical fibers. <i>Optics Express</i> , 2022, 30, 21710.	1.7	12
51	Cloaking Using the Anisotropic Multilayer Sphere. <i>Photonics</i> , 2020, 7, 52.	0.9	11
52	Introduction to Radar Scattering Application in Remote Sensing and Diagnostics: Review. <i>Atmosphere</i> , 2020, 11, 517.	1.0	11
53	Equivalent-circuit model for stacked slot-based 2D periodic arrays of arbitrary geometry for broadband analysis. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	9
54	Fractal Dimension Analysis of High-Resolution X-Ray Phase Contrast Micro-Tomography Images at Different Threshold Levels in a Mouse Spinal Cord. <i>Condensed Matter</i> , 2018, 3, 48.	0.8	9

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55	Cloaking using anisotropic multilayer circular cylinder. AIP Advances, 2020, 10, .	0.6	9
56	Multimode solitons in step-index fibers. Optics Express, 2022, 30, 6300.	1.7	9
57	An Analytical Study of Electromagnetic Deep Penetration Conditions and Implications in Lossy Media through Inhomogeneous Waves. Materials, 2018, 11, 1595.	1.3	8
58	Finite-Size and Illumination Conditions Effects in All-Dielectric Metasurfaces. Electronics (Switzerland), 2022, 11, 1017.	1.8	8
59	Broad-band terahertz metamaterial absorber with stacked electric ring resonators. Journal of Electromagnetic Waves and Applications, 2017, 31, 727-739.	1.0	7
60	Scattering of Light from the Systemic Circulatory System. Diagnostics, 2020, 10, 1026.	1.3	7
61	On a Lossy Electric-Magnetic Uniaxial Medium and Its Applications to Boundary Conditions. IEEE Transactions on Antennas and Propagation, 2015, 63, 1686-1692.	3.1	6
62	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
63	A Primer on Electromagnetic Fields. , 2015, , .		5
64	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
65	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
66	A Multifunctional Integrated Design of Simultaneous Unity Absorption and Polarization Conversion. Plasmonics, 2020, 15, 1141-1149.	1.8	5
67	Steerable3D: An ImageJ plugin for neurovascular enhancement in 3-D segmentation. Physica Medica, 2021, 81, 197-209.	0.4	5
68	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
69	Application of the Cylindrical Wave Approach to the Simulation of Buried Utilities. International Journal of Geophysics, 2011, 2011, 1-8.	0.4	4
70	An analysis of the inhomogeneous wave interaction with plane interfaces. , 2014, , .		4
71	Realization of a Radial Uniaxial sphere with a multilayer sphere. , 2014, , .		4
72	On zero-reflection and zero-transmission of a stratified lossy medium. , 2016, , .		4

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73	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
74	To study the Mueller matrix polarimetry for the characterization of wood and Teflon flat samples. Results in Optics, 2021, 4, 100102.	0.9	4
75	Electromagnetic Scattering of Inhomogeneous Plane Wave by Ensemble of Cylinders. Journal of Telecommunications and Information Technology, 2020, 3, 1-7.	0.3	4
76	Multiple Scattering by Two PEC Spheres Using Translation Addition Theorem. Electronics (Switzerland), 2022, 11, 126.	1.8	4
77	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
78	Improvement of GPR tracking by using inertial and GPS combined data. , 2016, , .		3
79	Deep Learning for Applications to Ground Penetrating Radar and Electromagnetic Diagnostic. , 2019, , .		3
80	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
81	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
82	GPR radargrams analysis through machine learning approach. Journal of Electromagnetic Waves and Applications, 2021, 35, 1678-1686.	1.0	3
83	Managing Self-Phase Modulation in Pseudo-Linear Multimodal and Monomodal Systems. Journal of Lightwave Technology, 2021, 39, 1953-1960.	2.7	3
84	Verification of the electromagnetic deep-penetration effect in the real world. Scientific Reports, 2021, 11, 15928.	1.6	3
85	The Nature of the Radiation at Low Frequencies from a Class of Periodic Structures. , 2000, , .		2
86	Metal-Insulator-Metal (MIM) plasmonic waveguide based directional couplers operating at telecom wavelengths. , 2013, , .		2
87	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
88	Plane-wave expansion of elliptic cylindrical functions. Optics Communications, 2015, 349, 185-192.	1.0	2
89	PIM generation by rough conductors. , 2017, , .		2
90	Effect of Finite Terms on the Truncation Error of Addition Theorems for Spherical Vector Wave Function. , 2019, , .		2

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91	Laser Beam Self-Focusing in Optical Fiber controlled through FBG integration. , 2020, , .		2
92	The polarizability of an alternative sequence of isotropic and radially anisotropic multilayer sphere. , 2020, , .		2
93	Finding the polarizability of radially anisotropic multilayer circular cylinder. , 2020, , .		2
94	Understanding the Spread of COVID-19 Based on Economic and Socio-Political Factors. Sustainability, 2022, 14, 1768.	1.6	2
95	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
96	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
97	Analytic solution for the reflection of cylindrical wave at planar interfaces. , 2014, , .		1
98	A spectral-domain method for the electromagnetic scattering from a multilayered sphere buried in a stratified medium. , 2015, , .		1
99	Plane-wave reflection from the interface of a novel uniaxial medium with extreme parameters. , 2016, , .		1
100	Narrow-band and dual-band metamaterial absorbers in the THz regime. , 2016, , .		1
101	Can the Perception of Risk Be Decreased among Caregivers during Anesthesia Delivery?. , 2018, , .		1
102	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
103	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
104	Cloaking and Magnifying using Radial Anisotropy in Non-Integer Dimensional Space. , 2020, , .		1
105	Semi-analytical form of full-wave self-interaction integrals over rectangles. , 2020, , .		1
106	Polarizability of dielectric prolate half ellipse. , 2021, , .		1
107	Comparative modal analysis of NRD parallelepiped dielectric resonators. Journal of Infrared, Millimeter and Terahertz Waves, 1996, 17, 1403-1418.	0.6	0
108	A Novel 3D BEM Approach for Efficient Analysis of Microwave Passive Components. , 2000, , .		0

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109	Spectral Green's Functions for Layered Gyrotropic Structures Through a Transmission-Line Approach. <i>Journal of Infrared, Millimeter and Terahertz Waves</i> , 2001, 22, 1469-1484.	0.6	0
110	Analysis and design of a microstrip patch antenna for harmonic tuning in a high-efficiency integrated microwave transmitter. , 2007, , .		0
111	Efficient Design of a Compact Wideband EBG Filter for Active Integrated Antennas. , 2008, , .		0
112	Unidimensional EBG cavities as superstrates of a patch antenna. <i>Microwave and Optical Technology Letters</i> , 2009, 51, 2769-2774.	0.9	0
113	EBG SUPERSTRATES FOR DIRECTIVITY ENHANCEMENT OF ANTENNAS. , 2011, , 215-238.		0
114	Homogenization model of two eccentric spheres. , 2014, , .		0
115	Electromagnetic reflection at an interface of a lossy electric-magnetic uniaxial medium and its applications. , 2014, , .		0
116	Analytical evaluation of the capacitance of a conical sensor for micro-nano imaging techniques. , 2015, , .		0
117	Numerical investigation of DB metamaterial and retrieval of its effective parameters. , 2016, , .		0
118	A preliminary work on the discrimination of magnetic properties by means of TDR data. , 2016, , .		0
119	The Key role of Giovanni Giorgi in Developing the MKSA System of Units. , 2019, , .		0
120	Adverse Patient Events in Anesthesia Delivery – Review and Analysis of Potentially Avoidable Events. , 2020, , .		0
121	Measuring immediate effects of patellar taping on balance kinematics. , 2020, , .		0
122	Infrared light power transmission limitation of optical fibers. , 2021, , .		0
123	Rainbow spiral emission from optical fibers. , 2021, , .		0
124	Direct visualization of bimodal-propagation-induced spatial self-imaging. , 2021, , .		0
125	Scattering of an inhomogeneous wave impinging on parallel stratified cylinders. , 2021, , .		0
126	Mueller matrix polarimetry for differentiating characteristic features of different materials (wood,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50		0



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127	Leaky Wave Antennas. , 0, , .		0
128	Electromagnetic interaction with a monodispersed system in sedimentation equilibrium. , 2020, , .		0
129	Multiphoton Absorption Excited Upconversion Luminescence in Multimode Optical Fiber. , 2020, , .		0
130	Nonlinear beam cleanup in Yb-doped GRIN multimode fiber taper. , 2020, , .		0
131	Femtosecond soliton spatio-temporal properties in multimode GRIN fibers. , 2021, , .		0
132	Mode-scrambling security using short pulses in multimode graded-index fiber. , 2021, , .		0
133	Spatio-Temporal Behaviour of Femtosecond Solitons in Graded-Index Multimode Fibers. , 2021, , .		0
134	Helical plasma filaments from the self-channeling of intense femtosecond laser pulses in optical fibers: publisher's note. Optics Letters, 2022, 47, 1919.	1.7	0