

Jean Michel Geffrin

List of Publications by Year in descending order

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69
papers

1,315
citations

394286

19
h-index

360920

35
g-index

69
all docs

69
docs citations

69
times ranked

948
citing authors

#	ARTICLE	IF	CITATIONS
1	Free space experimental scattering database continuation: experimental set-up and measurement precision. <i>Inverse Problems</i> , 2005, 21, S117-S130.	1.0	257
2	Full-Wave Three-Dimensional Microwave Imaging With a Regularized Gauss-Newton Method Theory and Experiment. <i>IEEE Transactions on Antennas and Propagation</i> , 2007, 55, 3279-3292.	3.1	149
3	Small Dielectric Spheres with High Refractive Index as New Multifunctional Elements for Optical Devices. <i>Scientific Reports</i> , 2015, 5, 12288.	1.6	73
4	High-Q Transparency Band in All-Dielectric Metasurfaces Induced by a Quasi Bound State in the Continuum. <i>Laser and Photonics Reviews</i> , 2021, 15, 2000263.	4.4	72
5	Controllable emission of a dipolar source coupled with a magneto-dielectric resonant subwavelength scatterer. <i>Scientific Reports</i> , 2013, 3, 3063.	1.6	60
6	Drift correction for scattering measurements. <i>Applied Physics Letters</i> , 2006, 89, 244104.	1.5	50
7	Validation of a 3D bistatic microwave scattering measurement setup. <i>Radio Science</i> , 2008, 43, .	0.8	41
8	Optimization of a bistatic microwave scattering measurement setup: From high to low scattering targets. <i>Radio Science</i> , 2009, 44, .	0.8	37
9	Electromagnetic polarization-controlled perfect switching effect with high-refractive-index dimers and the beam-splitter configuration. <i>Nature Communications</i> , 2017, 8, 13910.	5.8	32
10	Molding acoustic, electromagnetic and water waves with a single cloak. <i>Scientific Reports</i> , 2015, 5, 10678.	1.6	31
11	A new implementation of a microwave analog to light scattering measurement device. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2011, 112, 1753-1760.	1.1	29
12	Microwave measurements of the full amplitude scattering matrix of a complex aggregate: a database for the assessment of light scattering codes. <i>Optics Express</i> , 2010, 18, 2056.	1.7	28
13	A New Value Picking Regularization Strategy Application to the 3-D Electromagnetic Inverse Scattering Problem. <i>IEEE Transactions on Antennas and Propagation</i> , 2009, 57, 1133-1149.	3.1	25
14	Aperture Antenna Modeling by a Finite Number of Elemental Dipoles From Spherical Field Measurements. <i>IEEE Transactions on Antennas and Propagation</i> , 2010, 58, 1260-1268.	3.1	25
15	Complex Permittivity Determination From Far-Field Scattering Patterns. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2015, 14, 309-312.	2.4	24
16	Recent advances in microwave analog to light scattering experiments. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2014, 146, 100-105.	1.1	23
17	3D-Aggregate Quantitative Imaging: Experimental Results and Polarization Effects. <i>IEEE Transactions on Antennas and Propagation</i> , 2011, 59, 1237-1244.	3.1	22
18	Brewster quasi bound states in the continuum in all-dielectric metasurfaces from single magnetic-dipole resonance meta-atoms. <i>Scientific Reports</i> , 2019, 9, 16048.	1.6	22

#	ARTICLE	IF	CITATIONS
19	Amplitude and phase of light scattered by micro-scale aggregates of dielectric spheres: Comparison between theory and microwave analogy experiments. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 103, 156-167.	1.1	20
20	Electromagnetic three-dimensional reconstruction of targets from free space experimental data. Applied Physics Letters, 2008, 92, 194103.	1.5	19
21	ON THE CALIBRATION OF A MULTISTATIC SCATTERING MATRIX MEASURED BY A FIXED CIRCULAR ARRAY OF ANTENNAS. Progress in Electromagnetics Research, 2010, 110, 1-21.	1.6	19
22	On the scattering directionality of a dielectric particle dimer of High Refractive Index. Scientific Reports, 2018, 8, 7976.	1.6	19
23	Experimental demonstration of spectrally broadband Huygens sources using low-index spheres. APL Photonics, 2019, 4, 020802.	3.0	17
24	Imposing Zernike representation for imaging two-dimensional targets. Inverse Problems, 2009, 25, 035012.	1.0	16
25	Directional Fano resonances in light scattering by a high refractive index dielectric sphere. Physical Review B, 2016, 94, .	1.1	16
26	Microwave analog to light scattering measurements on a fully characterized complex aggregate. Applied Physics Letters, 2009, 94, 181107.	1.5	14
27	Measurement strategies for a confined microwave circular scanner. Inverse Problems in Science and Engineering, 2009, 17, 787-802.	1.2	12
28	A large 3D target with small inner details: A difficult cocktail for imaging purposes without a priori knowledge on the scatterers geometry. Radio Science, 2012, 47, .	0.8	12
29	A RIGOROUS FOREST SCATTERING MODEL VALIDATION THROUGH COMPARISON WITH INDOOR BISTATIC SCATTERING MEASUREMENTS. Progress in Electromagnetics Research B, 2011, 33, 1-19.	0.7	11
30	Polarization effects in 3D vectorial-induced current reconstructions. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2013, 30, 1967.	0.8	11
31	Evanescent wave scattering by particles on a surface: Validation of the discrete dipole approximation with surface interaction against microwave analog experiments. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 452-458.	1.1	10
32	3-D Imaging of a Microwave Absorber Sample From Microwave Scattered Field Measurements. IEEE Microwave and Wireless Components Letters, 2015, 25, 472-474.	2.0	10
33	Imaging the interior of a comet from bistatic microwave measurements: Case of a scale comet model. Advances in Space Research, 2018, 62, 1977-1986.	1.2	9
34	Target localization and measured scattered field pre-processing using spectral bandwidth minimization for shallowly buried target problems. Microwave and Optical Technology Letters, 2010, 52, 147-151.	0.9	8
35	Number of independent measurements required to obtain reliable mean scattering properties of irregular particles having a small size parameter, using microwave analogy measurements. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 272, 107718.	1.1	8
36	Microwave analog experiments on optically soft spheroidal scatterers with weak electromagnetic signature. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 196, 1-9.	1.1	7

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37	Imaging of dielectric cylinders from experimental stepped-frequency data. Applied Physics Letters, 2006, 88, 164104.	1.5	6
38	An extended-DORT method and its application in a cavity configuration. Inverse Problems, 2012, 28, 115008.	1.0	6
39	Counting and Phase Function Measurements with the LONSCAPE Instrument to Determine Physical Properties of Aerosols in Ice Giant Planet Atmospheres. Space Science Reviews, 2020, 216, 1.	3.7	6
40	Influence of the description of the scattering matrix on permittivity reconstruction with a quantitative imaging procedure: polarization effects. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, 234.	0.8	6
41	Gradient and Newton-Kantorovich Methods for Microwave Tomography. , 1997, , 168-187.		5
42	Full wavefield simulation versus measurement of microwave scattering by a complex 3D-printed asteroid analogue. Astronomy and Astrophysics, 2020, 643, A68.	2.1	5
43	A microwave imaging circular setup for soil moisture information. , 2007, , .		4
44	Embedding Approach to Modeling Electromagnetic Fields in a Complex Two-Dimensional Environment. International Journal of Antennas and Propagation, 2018, 2018, 1-15.	0.7	4
45	Approach to Control Permittivity and Shape of Centimeter-Sized Additive Manufactured Objects: Application to Microwave Scattering Experiments. IEEE Transactions on Antennas and Propagation, 2021, 69, 983-991.	3.1	4
46	Drift correction for 3D scattering measurements. , 2006, , .		3
47	National comparison of radar cross section measurements: Motivations and scheduled tasks. , 2014, , .		3
48	Bistatic scattering measurement on low permittivity spheroidal objects. , 2017, , .		3
49	Full-Wave Indoor Measurementsâ€™ Cross-Validation With the Model Demos for Foliage Penetrating Applications. IEEE Geoscience and Remote Sensing Letters, 2020, 17, 933-937.	1.4	3
50	Complex-structured 3D-printed wireframes as asteroid analogues for tomographic microwave radar measurements. Materials and Design, 2021, 198, 109364.	3.3	3
51	On the accuracy of scattering measurements in free space: Random and systematic errors. , 2005, , .		2
52	Validation of 3D scattering measurements. , 2006, , .		2
53	A single-view imaging strategy for transient scattered fields. Inverse Problems, 2008, 24, 015008.	1.0	2
54	Effects of polarization on microwave imaging reconstructions. , 2011, , .		2

#	ARTICLE	IF	CITATIONS
55	Scattering directionality of high refractive index dielectric particles: a note for solar energy harvesting. , 2018, , .		2
56	Free space experimental scattering database continuation: 2D multi-dielectric and hybrid targets. , 2005, , .		1
57	Three dimensional complex permittivity reconstruction by means of Newton-type microwave imaging. , 2006, , .		1
58	3D Quantitative imaging of a complex shape target from microwave scattering measurements. , 2010, , .		1
59	3D Inversion of lossy targets from free space scattering measurements. , 2012, , .		1
60	Imaging of a scaled comet model from lab experiments. , 2014, , .		1
61	Upgrading The Settings of a Microwave Experimental Setup for Better Accuracy in Bistatic Radar Cross Section Measurement. , 2017, , .		1
62	Three dimensional permittivity reconstructions from free space experimental data. , 2007, , .		0
63	The reconstruction of inhomogeneous targets from single view transient data. Near Surface Geophysics, 2008, 6, 381-390.	0.6	0
64	Manipulating light matter interaction with Mie resonators. , 2013, , .		0
65	Influence of the uncertainties on the scattering problems. , 2014, , .		0
66	The Surface Wave Scattering-Microwave Scanner (SWS-MS). Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 168, 1-9.	1.1	0
67	Interlaboratory comparisons of radar cross section measurements by the ϵ_{eff} criteria suggestions. , 2017, , .		0
68	On the interest of a bistatic radar cross section setup to measure various scattering quantities. , 2017, , .		0
69	Quantitative imaging using scattering matrix: Influence of the polarization. , 2017, , .		0