

Alessandro Fedeli

List of Publications by Year in descending order

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102
papers

833
citations

471371

17
h-index

526166

27
g-index

104
all docs

104
docs citations

104
times ranked

446
citing authors

#	ARTICLE	IF	CITATIONS
1	A Short-Range FMCW Radar-Based Approach for Multi-Target Human-Vehicle Detection. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16.	2.7	11
2	Experimental Assessment of a Novel Hybrid Scheme for Quantitative GPR Imaging. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	8
3	Exploring Response to Immunotherapy in Non-Small Cell Lung Cancer Using Delta-Radiomics. Cancers, 2022, 14, 350.	1.7	22
4	2-D Greenâ€™s Function for an Elliptically Layered Cylindrical PEC Enclosure. IEEE Transactions on Antennas and Propagation, 2022, 70, 7338-7343.	3.1	0
5	A Robust SVM Color-Based Food Segmentation Algorithm for the Production Process of a Traditional Carasau Bread. IEEE Access, 2022, 10, 15359-15377.	2.6	3
6	Designing a Microwave Moisture Content Sensor for Carasau Bread: A Feasibility Study. , 2022, , .		2
7	Multistatic Electromagnetic Imaging of Dielectric Targets with LSTM Cells. , 2022, , .		0
8	A Hybrid Lebesgue-Space Inverse-Scattering Technique for Microwave Imaging of Objects Hidden Behind a Wall. , 2022, , .		1
9	A Microwave Imaging Technique Based on Artificial Neural Networks for Neck Tumors Detection. , 2022, , .		0
10	Microwaves as Diagnostic Tool for Pituitary Tumors: Preliminary Investigations. Electronics (Switzerland), 2022, 11, 1608.	1.8	0
11	Detection of Failures in Antenna Arrays Through a Lebesgue-Space Approach. IEEE Open Journal of Antennas and Propagation, 2022, 3, 652-662.	2.5	4
12	Radiomic Detection of EGFR Mutations in NSCLC. Cancer Research, 2021, 81, 724-731.	0.4	57
13	A Breath Monitoring Approach Based on Electrical Impedance Measurements. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2021, 5, 179-186.	2.3	2
14	Microwave Imaging for the Diagnosis of Cervical Diseases: A Feasibility Analysis. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2021, 5, 277-285.	2.3	18
15	2-D TM GPR Imaging Through a Multiscaling Multifrequency Approach in Lp Spaces. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 10011-10021.	2.7	15
16	A Microwave Imaging Technique for Neck Diseases Monitoring. , 2021, , .		0
17	Analysis of a Nonlinear Technique for Microwave Imaging of Targets Inside Conducting Cylinders. Electronics (Switzerland), 2021, 10, 594.	1.8	4
18	An Electrical Impedance Tomography System for Brain Stroke Imaging based on a Lebesgue-Space Inversion Procedure. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2021, 5, 54-61.	2.3	3

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19	Nonlinear S-Parameters Inversion for Stroke Imaging. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 1760-1771.	2.9	47
20	Nonlinear Inverse-Scattering in Variable-Exponent Spaces for Multifrequency Subsurface Imaging. , 2021, , .		0
21	A Through-the-Wall Imaging Approach Based on a TSVD/Variable-Exponent Lebesgue-Space Method. Remote Sensing, 2021, 13, 2028.	1.8	6
22	Two Ways for Early Detection of a Stroke Through a Wearable Smart Helmet: Signal Processing vs. Electromagnetism. IEEE Wireless Communications, 2021, 28, 22-27.	6.6	8
23	Full-Wave Modeling and Inversion of UWB Radar Data for Wave Propagation in Cylindrical Objects. Remote Sensing, 2021, 13, 2370.	1.8	0
24	Assessment of an L_p multi-frequency focusing inversion method for subsoil mapping with multi-frequency data. Microwave and Optical Technology Letters, 2021, 63, 2559-2564.	0.9	0
25	Radiomic-based diagnostics in oncology: challenges toward clinical practice. Oncoscience, 2021, 8, 72-73.	0.9	1
26	A Two-Step Inverse-Scattering Technique in Variable-Exponent Lebesgue Spaces for Through-the-Wall Microwave Imaging: Experimental Results. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 7189-7200.	2.7	14
27	Electromagnetic Scattering and Its Applications: From Low Frequencies to Photonics. Electronics (Switzerland), 2021, 10, 2352.	1.8	1
28	Microwave Tomography With LSTM-Based Processing of the Scattered Field. IEEE Open Journal of Antennas and Propagation, 2021, 2, 213-223.	2.5	10
29	Microwave Imaging of the Neck by Means of Artificial Neural Networks for Tumor Detection. IEEE Open Journal of Antennas and Propagation, 2021, 2, 1044-1056.	2.5	9
30	Through-the-Wall Imaging by means of a Hybrid Inverse-Scattering Procedure. , 2021, , .		0
31	An Iterative Multifrequency Approach in L_p Spaces for Multiscaling Detection of Buried Objects. , 2021, , .		0
32	Microwave Characterization and Modeling of the Carasau Bread Doughs During Leavening. IEEE Access, 2021, 9, 159833-159847.	2.6	11
33	Microwave Tomography of the Neck with ANNs: Preliminary Results with Simplified Numerical Phantoms. , 2021, , .		0
34	Effect of Data Noise on LSTM-FC Scattered-Field Processing for Microwave Imaging. , 2021, , .		0
35	Microwave Imaging of Dielectric Targets by Means of a Variable-Exponent Finite-Elements Approach. , 2021, , .		0
36	An Antenna Array Diagnostic Technique based on a Lebesgue-Space Inversion Procedure. , 2021, , .		0

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37	A Tomographic Multistatic System for Biomedical Microwave Sensing. , 2020, , .		1
38	Microwave Detection of Brain Injuries by Means of a Hybrid Imaging Method. IEEE Open Journal of Antennas and Propagation, 2020, 1, 513-523.	2.5	22
39	Microwave Imaging of Cervical Myelopathy: A Preliminary Feasibility Assessment. , 2020, , .		1
40	Forward and Inverse Scattering Models Applied to Through-Wall Imaging. , 2020, , .		1
41	A Phaseless Microwave Imaging Approach Based on a Lebesgue-Space Inversion Algorithm. IEEE Transactions on Antennas and Propagation, 2020, 68, 8091-8103.	3.1	24
42	Variable-Exponent Lebesgue-Space Inversion for Brain Stroke Microwave Imaging. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 1882-1895.	2.9	48
43	Through-the-Wall Microwave Imaging: Forward and Inverse Scattering Modeling. Sensors, 2020, 20, 2865.	2.1	17
44	A Microwave Imaging System for the Detection of Targets Hidden behind Dielectric Walls. , 2020, , .		2
45	Multi-Frequency Inversion of Scattered-Field Data in Lebesgue Spaces with Nonconstant Exponents. , 2020, , .		0
46	A Microwave Diagnostic Technique for Early-Stage Brain Stroke Characterization. , 2020, , .		1
47	Inverse Scattering in the Framework of Unconventional Lebesgue Spaces: A Case Study. , 2020, , .		0
48	Microwave Imaging by Means of Lebesgue-Space Inversion: An Overview. Electronics (Switzerland), 2019, 8, 945.	1.8	31
49	Microwave Imaging of 3D Dielectric Structures by Means of a Newton-CG Method in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1">\langle \text{mml:msup}>\langle \text{mml:mrow}>\langle \text{mml:mi}> </\text{mml:mi}></\text{mml:mrow}>\langle \text{mml:mrow}>\langle \text{mml:mi}>p</\text{mml:mi}></\text{mml:mrow}>\langle \text{mml:msup}>$ Spaces. International Journal of Antennas and Propagation, 2019, 2019, 1-14.	0.7	3
50	Mapping the Dielectric Properties of Unknown Targets by Using a Network of Microwave Sensors: A Proof-of-Concept. Sensors, 2019, 19, 1270.	2.1	0
51	Nonlinear Inverse-Scattering Methods in Lebesgue Spaces Applied to Microwave Imaging Problems. , 2019, , .		0
52	Open-Source Software for Electromagnetic Scattering Simulation: The Case of Antenna Design. Electronics (Switzerland), 2019, 8, 1506.	1.8	12
53	Numerical Experiments with Open Source Programs for Antenna Design. , 2019, , .		1
54	A Hybrid Asymptotic-FVTD Method for the Estimation of the Radar Cross Section of 3D Structures. Electronics (Switzerland), 2019, 8, 1388.	1.8	3

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55	Free and Open Source Software Codes for Antenna Design: Preliminary Numerical Experiments. Electrical, Control and Communication Engineering, 2019, 15, 88-95.	0.4	2
56	Microwave Tomography for the Inspection of Wood Materials: Imaging System and Experimental Results. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 3497-3510.	2.9	57
57	A numerical study concerning brain stroke detection by microwave imaging systems. Multimedia Tools and Applications, 2018, 77, 9341-9363.	2.6	30
58	Microwave Sensor Network for Quantitative Characterization of Targets: A Proof-of-Concept. , 2018, , .		1
59	A Tomograph Prototype for Quantitative Microwave Imaging: Preliminary Experimental Results. Journal of Imaging, 2018, 4, 139.	1.7	15
60	A Newton-Conjugate-Gradient Method in L^p Banach Spaces for Three-Dimensional Microwave Imaging. , 2018, , .		0
61	An Imaging Technique for Brain Stroke Monitoring at Microwaves. , 2018, , .		1
62	Quantitative Microwave Imaging Method in Lebesgue Spaces With Nonconstant Exponents. IEEE Transactions on Antennas and Propagation, 2018, 66, 7282-7294.	3.1	31
63	Microwave Imaging Method Developed in Lebesgue Spaces for Inspecting Dielectric Targets. , 2018, , .		0
64	Comparison Between Conjugate Gradient and Landweber Based Regularization Approaches in L^p Banach Spaces for Microwave Tomography. , 2018, , .		1
65	Brain Stroke Imaging by Means of Microwave Tomography: Quantitative Inversion Procedure, Configuration Set Up, and Preliminary Experimental Results. , 2018, , .		0
66	Design and Experimental Test of a Microwave System for Quantitative Biomedical Imaging. , 2018, , .		4
67	Brain Stroke Microwave Imaging by Means of a Newton-Conjugate-Gradient Method in L^p Banach Spaces. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 3668-3682.	2.9	58
68	Ground-penetrating radar for tree trunk investigation. , 2017, , .		2
69	Numerical analysis of the performance of a multi-frequency inversion scheme for subsurface prospection. , 2017, , .		0
70	Feasibility assessment of a Banach-space inversion procedure for biomedical applications. , 2017, , .		0
71	Application of EMFs at microwave frequencies for brain stroke detection: Preliminary results. , 2017, , .		0
72	Electromagnetic biomedical imaging in Banach spaces: A numerical case study. , 2017, , .		2

#	ARTICLE	IF	CITATIONS
73	Brain stroke detection by means of complex dielectric permittivity reconstruction at microwaves. , 2017, , .		3
74	Mobile Smart Helmet for Brain Stroke Early Detection through Neural Network-Based Signals Analysis. , 2017, , .		5
75	Wood characterization by using microwave inverse scattering: Experimental results. , 2017, , .		0
76	Preliminary assessment of an Lp Banach-space inversion approach for through-the-wall imaging. , 2017, , .		1
77	Microwave data inversion in hemorrhagic brain stroke imaging: A Newton-conjugate-gradient based approach in LpBanach spaces (Invited paper). , 2017, , .		0
78	An inverse scattering procedure in Lebesgue spaces with non-constant exponents. , 2017, , .		0
79	Three-dimensional electromagnetic imaging of dielectric targets by means of the multiscaling inexact-Newton method. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 1119.	0.8	23
80	2-D Greenâ€™s Function for Scattering and Radiation Problems in Elliptically Layered Media With PEC Cores. IEEE Transactions on Antennas and Propagation, 2017, 65, 7110-7118.	3.1	5
81	Advanced Inversion Techniques for Ground Penetrating Radar. Journal of Telecommunications and Information Technology, 2017, 3, 37-42.	0.3	5
82	A Banach Space Regularization Approach for Multifrequency Microwave Imaging. International Journal of Antennas and Propagation, 2016, 2016, 1-8.	0.7	16
83	Phaseless tomographic inverse scattering in Banach spaces. Journal of Physics: Conference Series, 2016, 756, 012010.	0.3	2
84	A two-step multifrequency imaging technique for ground penetrating radar. , 2016, , .		0
85	Experimental analysis of dielectric structures with a two-step electromagnetic imaging method. , 2016, , .		0
86	Microwave imaging systems: Three-dimensional reconstructions of dielectric targets. , 2016, , .		0
87	Brain stroke detection by microwave imaging systems: Preliminary two-dimensional numerical simulations. , 2016, , .		6
88	Further investigations on the capabilities of inverse scattering procedures to recover velocity profiles of cylinders moving in the axial direction. , 2016, , .		0
89	Buried object detection by means of a L^p Banach-space inversion procedure. Radio Science, 2015, 50, 41-51.	0.8	27
90	Nonlinear electromagnetic inverse scattering in via Frozen or Broyden update of the Fréchet derivative. Journal of Physics: Conference Series, 2015, 657, 012008.	0.3	1

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91	Microwave imaging of dielectric targets by means of an inexact-Newton method in L^p Banach spaces and multifrequency processing. , 2015, , .		0
92	A Banach-space multifrequency imaging approach for electromagnetic subsurface sensing. , 2015, , .		0
93	A multifrequency Banach-space inversion method for ground penetrating radar imaging. , 2015, , .		0
94	Preliminary test of a prototype of microwave axial tomograph for medical applications. , 2015, , .		6
95	A Multifrequency Inexact-Newton Method in L^p Banach Spaces for Buried Objects Detection. IEEE Transactions on Antennas and Propagation, 2015, 63, 4198-4204.	3.1	54
96	A microwave tomographic system for wood characterization in the forest products industry. Wood Material Science and Engineering, 2015, 10, 75-85.	1.1	30
97	Quantitative microwave imaging in L^p Banach spaces: A numerical assessment. , 2015, , .		0
98	Quick and reliable estimates of velocity profiles in pipelines by a simple electromagnetic inverse scattering technique. , 2014, , .		1
99	Experimental validation of a novel Gauss-Newton inversion method for microwave tomographic imaging. , 2014, , .		1
100	A numerical analysis concerning microwave imaging in L^p Banach spaces by using an inexact Newton method. , 2014, , .		0
101	Microwave imaging of elliptically shaped dielectric cylinders by means of an L^p Banach-space inversion algorithm. Measurement Science and Technology, 2013, 24, 074017.	1.4	19
102	Microwave imaging of elliptically-shaped dielectric cylinders by means of a L^p Banach-space inversion algorithm. , 2012, , .		0