Simone Genovesi

List of Publications by Year in descending order

143 papers	3,002 citations	159525 30 h-index	175177 52 g-index
143 all docs	143 docs citations	143 times ranked	1879 citing authors

#	Article	IF	Citations
1	Radio Frequency Identification (RFID) for Sensing. , 2023, , 375-390.		2
2	Antenna Element Design Using Characteristic Mode Analysis: Insights and research directions. IEEE Antennas and Propagation Magazine, 2022, 64, 32-40.	1.2	35
3	Design Guidelines for Sensors Based on Spiral Resonators. Sensors, 2022, 22, 2071.	2.1	7
4	Space-Air-Ground Integrated 6G Wireless Communication Networks: A Review of Antenna Technologies and Application Scenarios. Sensors, 2022, 22, 3136.	2.1	42
5	Penrose Tiling Subarrays for Large-Scanning and Energy-Saving Phased Array. , 2022, , .		2
6	Characteristic Modes Analysis for the Design of a Wideband Circularly Polarized X-band Antenna. , 2022, , .		1
7	Wearable Sensor for Breath Rate Monitoring. , 2022, , .		6
8	Radio-Frequency Guidance System for Path-Following Industrial Autonomous Guided Vehicles. , 2022, , .		6
9	Electromagnetic Characterization of Thin Films by Using Non-Contacting Waveguides. IEEE Transactions on Antennas and Propagation, 2022, 70, 8452-8460.	3.1	3
10	Contactless Waveguide Characterization of Piezoresistive Materials for Wireless Strain Sensors. Sensors, 2022, 22, 4085.	2.1	3
11	Linear-to-Circular Polarization Transmission Converter Exploiting Meandered Metallic Slots. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 2191-2195.	2.4	16
12	Additive Manufacturing for Item Identification. , 2022, , .		0
13	Frequency-Coded mm-Wave RFID Tags Using Cross Polarization. , 2022, , .		3
14	Wearable Chipless Sensor for Breath Rate monitoring. , 2022, , .		2
15	Thermal Modeling of Resonant Scatterers and Reflectometry Approach for Remote Temperature Sensing. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 4720-4734.	2.9	7
16	Exploitation of Triangular Lattice Arrays for Improved Spectral Efficiency in Massive MIMO 5G Systems. IEEE Access, 2021, 9, 17530-17543.	2.6	24
17	Depolarizing Chipless Tags with Polarization Insensitive Capabilities. Electronics (Switzerland), 2021, 10, 478.	1.8	8
18	Improving the Spectral Efficiency of Array for 5G Massive MIMO by Exploiting a Triangular Lattice. , 2021, , .		0

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19	Characteristic Mode Analysis for the Design of Metasurface-Based Space Antennas. , 2021, , .		3
20	A Review of RFID Sensors, the New Frontier of Internet of Things. Sensors, 2021, 21, 3138.	2.1	112
21	Spectral Efficiency Improvement of 5G Massive MIMO Systems for High-Altitude Platform Stations by Using Triangular Lattice Arrays. Sensors, 2021, 21, 3202.	2.1	22
22	Radar Cross Section of Chipless RFID Tags and BER Performance. IEEE Transactions on Antennas and Propagation, 2021, 69, 2877-2886.	3.1	19
23	Wireless Monitoring of Displacement Using Spiral Resonators. IEEE Sensors Journal, 2021, 21, 17838-17845.	2.4	17
24	Compact Reconfigurable Antenna for Nanosatellites. , 2021, , .		0
25	Distance sensing using spiral resonators. , 2021, , .		4
26	Improving the 5G Massive MIMO Performance for Aerial Base Stations by Exploiting Triangular Lattice Arrays. , 2021, , .		1
27	Orientation-Insensitive and Normalization-Free Reading Chipless RFID System Based on Circular Polarization Interrogation. IEEE Transactions on Antennas and Propagation, 2020, 68, 2370-2378.	3.1	41
28	Characteristic Modes Analysis of Non-Uniform Metasurface Superstrate for Nanosatellite Antenna Design. IEEE Access, 2020, 8, 176050-176061.	2.6	43
29	Three-Dimensional Chipless RFID Tags: Fabrication through Additive Manufacturing. Sensors, 2020, 20, 4740.	2.1	17
30	Metasurface Matching Layers for Enhanced Electric Field Penetration Into the Human Body. IEEE Access, 2020, 8, 197745-197756.	2.6	16
31	A Compact CubeSat Antenna With Beamsteering Capability and Polarization Agility: Characteristic Modes Theory for Breakthrough Antenna Design. IEEE Antennas and Propagation Magazine, 2020, 62, 82-93.	1.2	41
32	Reader Antennas Requirements in Chipless RFID Systems with Linear and Circular Polarization. , 2020, , .		2
33	Low-Cost Portable Reader for Frequency Domain Chipless Tags: Architecture and Experimental Results on Depolarizing Tags. Electronics (Switzerland), 2019, 8, 35.	1.8	3
34	Wireless Detection of Water Level by Using Spiral Resonators Operating in Sub-Ghz Range. , 2019, , .		11
35	Detection of Chipless Tags Through Near Field Interrogation with Waveguide Antennas. , 2019, , .		2
36	A Depolarizing Chipless RF Label for Dielectric Permittivity Sensing. IEEE Microwave and Wireless Components Letters, 2018, 28, 371-373.	2.0	47

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37	Efficient Excitation of Characteristic Modes for Radiation Pattern Control by Using a Novel Balanced Inductive Coupling Element. IEEE Transactions on Antennas and Propagation, 2018, 66, 1102-1113.	3.1	54
38	Robust Reading Approach for Moving Chipless RFID Tags by Using ISAR Processing. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 2442-2451.	2.9	27
39	Multi-arm Dipole for Compact Wearable Antennas. , 2018, , .		0
40	Smart Antennas Mounted on Complex Platforms by Using Phase-Shifted Characteristic Modes. , 2018, , .		0
41	Non-contact Material Monitoring by Using Depolarizing Chipless RFID Tags. , 2018, , .		1
42	Optimal Design of Miniaturized Reflecting Metasurfaces for Ultra-Wideband and Angularly Stable Polarization Conversion. Scientific Reports, 2018, 8, 7651.	1.6	31
43	Chipless Dielectric Constant Sensor for Structural Health Testing. IEEE Sensors Journal, 2018, 18, 5576-5585.	2.4	55
44	Chipless Radio Frequency Identification (RFID) Sensor for Angular Rotation Monitoring. Technologies, 2018, 6, 61.	3.0	26
45	Element-Independent Design of Wide-Angle Impedance Matching Radomes by Using the Generalized Scattering Matrix Approach. IEEE Transactions on Antennas and Propagation, 2018, 66, 4708-4718.	3.1	9
46	Randomly Overlapped Subarrays for Reduced Sidelobes in Angle-Limited Scan Arrays. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 1969-1972.	2.4	22
47	Characteristic modes analysis for pattern shaping of handheld platforms. , 2017, , .		1
48	An Inkjet Printed Chipless RFID Sensor for Wireless Humidity Monitoring. IEEE Sensors Journal, 2017, 17, 4699-4707.	2.4	132
49	Progress in green chipless RFID sensors. , 2017, , .		6
50	Design of broadband reflecting metasurfaces for polarization conversion. , 2017, , .		3
51	Ultra-wideband linear polarization converters based on pixelated reflecting metasurfaces. , 2017, , .		5
52	Advantageous Exploitation of Characteristic Modes Analysis for the Design of 3-D Null-Scanning Antennas. IEEE Transactions on Antennas and Propagation, 2017, 65, 3924-3934.	3.1	49
53	Excitation of multiple characteristic modes on a three dimensional platform. , 2017, , .		4
54	Pattern control for portable devices by exploiting phase-shifted characteristic modes. , 2017, , .		0

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55	An Iterative Design Procedure for Multiband Single-Layer Reflectarrays: Design and Experimental Validation. IEEE Transactions on Antennas and Propagation, 2017, 65, 4595-4606.	3.1	15
56	Analysis of the Performance Enhancement of MIMO Systems Employing Circular Polarization. IEEE Transactions on Antennas and Propagation, 2017, 65, 4824-4835.	3.1	100
57	Design of wireless sensors by using chipless RFID technology. , 2017, , .		4
58	Chipless RFID sensor for rotation monitoring. , 2017, , .		31
59	Design of compact multiband frequency selective surfaces with meandered elements. , 2017, , .		2
60	Multiple characteristic modes excitation for pattern reconfigurable antennas design. , 2017, , .		0
61	Design of metasurface radomes for wide-scan phased array antennas. , 2017, , .		0
62	On the complexity of randomly overlapped subarray feeding networks. , 2017, , .		0
63	Design of compact wearable antennas by using printed electronics. , 2017, , .		0
64	Exploitation of chipless RFID technology for humidity monitoring. , 2017, , .		7
65	Detection of moving chipless tags by using SAR processing. , 2017, , .		3
66	RANDOMLY OVERLAPPED SUBARRAYS FOR ANGULAR-LIMITED SCAN ARRAYS. Progress in Electromagnetics Research C, 2016, 68, 129-139.	0.6	8
67	Chipless RFID tag exploiting cross polarization for angular rotation sensing. , 2016, , .		8
68	Design of electrically small antennas with inkjet-printing technology. , 2016, , .		1
69	Design guidelines for pattern reconfigurable antennas by exploiting the characteristic modes analysis. , 2016, , .		1
70	Null-Steering Antenna Design Using Phase-Shifted Characteristic Modes. IEEE Transactions on Antennas and Propagation, 2016, 64, 2698-2706.	3.1	55
71	Encoding/decoding strategies for frequency domain chipless RFIDs employing periodic surfaces. , 2016, , .		0
72	Element-independent design technique for wide angle impedance matching material. , 2016, , .		3

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73	Multi-frequency polarizarition converter with enhanced angular robustness. , 2016, , .		3
74	Circularly polarized MIMO antennas for wireless LAN applications. , 2016, , .		2
75	Characteristic modes analysis for pattern reconfigurable antenna design. , 2016, , .		0
76	Indoor channel characterization for future 5G applications. , 2016, , .		1
77	Enhanced chipless RFID tags for sensors design. , 2016, , .		12
78	Normalization-Free Chipless RFIDs by Using Dual-Polarized Interrogation. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 310-318.	2.9	53
79	Chipless RFID Tag Exploiting Multifrequency Delta-Phase Quantization Encoding. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 738-741.	2.4	63
80	Wearable Inkjet-Printed Wideband Antenna by Using Miniaturized AMC for Sub-GHz Applications. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1927-1930.	2.4	44
81	Chipless RFID with artificial impedance surfaces. , 2015, , .		0
82	Multi-frequency reflection only linear polarization converters. , 2015, , .		0
83	Metamaterial-inspired chipless RFID encoding exploiting phase response. , 2015, , .		0
84	A Robust Differential-Amplitude Codification for Chipless RFID. IEEE Microwave and Wireless Components Letters, 2015, 25, 832-834.	2.0	27
85	Reduction of monostatic and bistatic radar cross section of antenna arrays. , 2014, , .		0
86	Fast Optimization of Ultra-Broadband Antennas With Distributed Matching Networks. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 642-645.	2.4	6
87	A novel methodology for the fast design of ultra-wide broadband antennas. , 2014, , .		0
88	Reading chipless RFID located on metallic platforms by using cross-polar scattering. , 2014, , .		8
89	Phase-only encoding for novel chipless RFID tag. , 2014, , .		8
90	Chipless RFIDs by using metasurfaces. , 2014, , .		2

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91	Low-Cost Metamaterial Absorbers for Sub-GHz Wireless Systems. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 27-30.	2.4	52
92	Calibration method for periodic surface based chipless tags. , 2014, , .		2
93	Compact and Low Profile Frequency Agile Antenna for Multistandard Wireless Communication Systems. IEEE Transactions on Antennas and Propagation, 2014, 62, 1019-1026.	3.1	55
94	Chipless RFIDs for Metallic Objects by Using Cross Polarization Encoding. IEEE Transactions on Antennas and Propagation, 2014, 62, 4402-4407.	3.1	72
95	Wideband Radar Cross Section Reduction of Slot Antennas Arrays. IEEE Transactions on Antennas and Propagation, 2014, 62, 163-173.	3.1	143
96	Design of linear arrays by employing randomly-overlapped subarrays. , 2014, , .		3
97	A Chipless RFID Based on Multiresonant High-Impedance Surfaces. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 146-153.	2.9	175
98	A Circuit-Based Model for the Interpretation of Perfect Metamaterial Absorbers. IEEE Transactions on Antennas and Propagation, 2013, 61, 1201-1209.	3.1	235
99	Ultra-thin absorbers for ultra-high frequency RFID systems. , 2013, , .		2
100	Reducing time-delay units through randomly-overlapped subarrays in wideband linear array designs. , 2013, , .		1
101	A chipless RFID readable on metallic objects. , 2013, , .		4
102	Effects of absorbing layers on the RCS reduction and radiation performance of an antenna array. , 2013, , .		2
103	Ultra-broad and sharp-transition bandpass terahertz filters by hybridizing multiple resonances mode in monolithic metamaterials. Optics Express, 2012, 20, 7580.	1.7	53
104	On the design of perfect metamaterial absorbers. , 2012, , .		3
105	Spectral domain characteristic basis function method for efficient simulation of microstrip devices in layered media. IET Microwaves, Antennas and Propagation, 2012, 6, 411.	0.7	11
106	A Computationally Efficient Technique for Prototyping Planar Antennas and Printed Circuits for Wireless Applications. Proceedings of the IEEE, 2012, 100, 2122-2131.	16.4	12
107	Low-Profile Array With Reduced Radar Cross Section by Using Hybrid Frequency Selective Surfaces. IEEE Transactions on Antennas and Propagation, 2012, 60, 2327-2335.	3.1	180
108	Compact Triple-Frequency Antenna for Sub-GHz Wireless Communications. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 14-17.	2.4	13

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109	A wideband RCS reduction of slot array antennas. , 2012, , .		1
110	Frequency-Reconfigurable Microstrip Antenna With Biasing Network Driven by a PIC Microcontroller. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 156-159.	2.4	22
111	A FREQUENCY SELECTIVE ABSORBING GROUND PLANE FOR LOW-RCS MICROSTRIP ANTENNA ARRAYS. Progress in Electromagnetics Research, 2012, 126, 317-332.	1.6	55
112	Constrained Pareto Optimization of Wide Band and Steerable Concentric Ring Arrays. IEEE Transactions on Antennas and Propagation, 2012, 60, 3195-3204.	3.1	33
113	Parametric Design of Compact Dual-Frequency Antennas for Wireless Sensor Networks. IEEE Transactions on Antennas and Propagation, 2011, 59, 2619-2627.	3.1	18
114	Frequency-reconfigurable antenna for software defined radio driven by PIC microcontroller. , 2011, , .		4
115	ARBITRARY VOXEL SELECTION FOR ACCELERATING A RAY TRACING-BASED FIELD PREDICTION MODEL IN URBAN ENVIRONMENTS. Progress in Electromagnetics Research C, 2011, 20, 43-53.	0.6	2
116	OPTIMAL DESIGN OF DIPOLE ANTENNAS BACKED BY A FINITE HIGH-IMPEDANCE SCREEN. Progress in Electromagnetics Research C, 2011, 18, 137-151.	0.6	13
117	Dynamic particle swarm optimisation for the design of loaded wire antennas. IET Microwaves, Antennas and Propagation, 2011, 5, 611.	0.7	7
118	The pareto optimization of wide-band conformal antenna arrays. , 2011, , .		0
119	Multi-objective optimization of wideband spiral arrays. , 2010, , .		6
120	A new technique for efficient simulation of microstrip circuits etched in layered media. , 2010, , .		4
121	Arbitrary voxel selection for speeding up a ray tracing-based EM simulator. , 2010, , .		1
122	Pareto optimization of wideband circular ring arrays. , 2010, , .		1
123	Low-Profile Three-Arm Folded Dipole Antenna for UHF Band RFID Tags Mountable on Metallic Objects. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 1225-1228.	2.4	53
124	A Technique for Efficient Evaluation of the Multilayered Green's Function for Frequency Sweep Analysis of Planar Microstrip Structures. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 428-431.	2.4	9
125	Low profile array with reduced Radar Cross Section. , 2010, , .		3
126	Zirconium tin titanate (ZST) for miniaturized high impedance surfaces: Microwave dielectric properties and applications. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	0

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127	On the Bandwidth of High-Impedance Frequency Selective Surfaces. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 1341-1344.	2.4	118
128	A remotely distributed ray tracing for the analysis of electromagnetic propagation in complex indoor and outdoor environments. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	3
129	New technique for efficient evaluation of Green's function for multilayered media. , 2009, , .		0
130	Permittivity range profile reconstruction of multilayered structures from microwave backscattering data by using particle swarm optimization. Microwave and Optical Technology Letters, 2009, 51, 2390-2394.	0.9	2
131	Miniaturized high impedance surfaces with angular stability by using zirconium tin titanate substrates and convoluted FSS elements. Microwave and Optical Technology Letters, 2009, 51, 2753-2758.	0.9	10
132	Bidimensional spline fitting procedure for rapid evaluation of Green's function for multilayered media. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	0
133	On the bandwidth of printed frequency selective surfaces for designing high impedance surfaces. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	6
134	A multi-objective genetic algorithm applied to array synthesis at multiple frequencies. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	2
135	Double-loop antenna for wireless tyre pressure monitoring. Electronics Letters, 2008, 44, 1385.	0.5	11
136	A Novel Electromagnetic Bandgap Structure for Broadband Switching Noise Suppression in High-Speed Printed Circuit Boards. , 2008, , .		1
137	Investigation of the influence of the cell shape and lattice on EBG structures for the effective surface wave suppression. , 2008, , .		0
138	Investigation on the relation between dispersion diagram and the radiation pattern of low-profile antennas. , 2008, , .		2
139	A parallel particle swarm optimization approach to designing frequency selective surfaces. , 2007, , .		0
140	An Efficient Interpolation Scheme for the Synthesis of Linear Arrays Based on Schelkunoff Polynomial Method. IEEE Antennas and Wireless Propagation Letters, 2007, 6, 484-487.	2.4	14
141	AMC-based low profile antennas for 4G communication services. , 2007, , .		8
142	A Sub-boundary Approach for Enhanced Particle Swarm Optimization and Its Application to the Design of Artificial Magnetic Conductors. IEEE Transactions on Antennas and Propagation, 2007, 55, 766-770.	3.1	27
143	Particle Swarm Optimization for the Design of Frequency Selective Surfaces. IEEE Antennas and Wireless Propagation Letters, 2006, 5, 277-279.	2.4	88