

Filippo Costa

List of Publications by Year in descending order

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148
papers

5,198
citations

117619
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all docs

148
docs citations

148
times ranked

2885
citing authors

#	ARTICLE	IF	CITATIONS
1	Simple, Low-Cost, and Reconfigurable Metamaterials and Metasurfaces Based on Reusable Building Blocks: A proposed approach. IEEE Antennas and Propagation Magazine, 2023, 65, 40-48.	1.4	0
2	Radio Frequency Identification (RFID) for Sensing. , 2023, , 375-390.		2
3	High-Performance Energy Selective Surface Based on Equivalent Circuit Design Approach. IEEE Transactions on Antennas and Propagation, 2022, 70, 4526-4538.	5.1	19
4	Design Guidelines for Sensors Based on Spiral Resonators. Sensors, 2022, 22, 2071.	3.8	7
5	Wearable Sensor for Breath Rate Monitoring. , 2022, , .		6
6	Radio-Frequency Guidance System for Path-Following Industrial Autonomous Guided Vehicles. , 2022, , .		6
7	Electromagnetic Characterization of Thin Films by Using Non-Contacting Waveguides. IEEE Transactions on Antennas and Propagation, 2022, 70, 8452-8460.	5.1	3
8	Contactless Waveguide Characterization of Piezoresistive Materials for Wireless Strain Sensors. Sensors, 2022, 22, 4085.	3.8	3
9	Additive Manufacturing for Item Identification. , 2022, , .		0
10	Frequency-Coded mm-Wave RFID Tags Using Cross Polarization. , 2022, , .		3
11	Wearable Chipless Sensor for Breath Rate monitoring. , 2022, , .		2
12	Thermal Modeling of Resonant Scatterers and Reflectometry Approach for Remote Temperature Sensing. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 4720-4734.	4.6	7
13	Surface Wave Attenuation in Multilayer Structures With Lossy Media and Impedance Surfaces. IEEE Access, 2021, 9, 130627-130637.	4.2	4
14	Electromagnetic Model of Reflective Intelligent Surfaces. IEEE Open Journal of the Communications Society, 2021, 2, 1577-1589.	6.9	30
15	Depolarizing Chipless Tags with Polarization Insensitive Capabilities. Electronics (Switzerland), 2021, 10, 478.	3.1	8
16	A switchable and tunable multifunctional absorber/reflector with polarization-insensitive features. International Journal of RF and Microwave Computer-Aided Engineering, 2021, 31, e22573.	1.2	8
17	A Review of RFID Sensors, the New Frontier of Internet of Things. Sensors, 2021, 21, 3138.	3.8	112
18	Radar Cross Section of Chipless RFID Tags and BER Performance. IEEE Transactions on Antennas and Propagation, 2021, 69, 2877-2886.	5.1	19

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19	A Simple Effective Permittivity Model for Metasurfaces Within Multilayer Stratified Media. IEEE Transactions on Antennas and Propagation, 2021, 69, 5148-5153.	5.1	12
20	Wireless Monitoring of Displacement Using Spiral Resonators. IEEE Sensors Journal, 2021, 21, 17838-17845.	4.7	17
21	Improved dual-polarized wideband multifunctional switchable absorber/reflector based on active frequency selective surfaces. Optics Express, 2021, 29, 31036.	3.4	12
22	Distance sensing using spiral resonators. , 2021, , .		4
23	Circuit Modelling of Reflecting Intelligent Surfaces. , 2021, , .		4
24	EBG waveguides for contactless surface impedance measurements. Journal of Physics: Conference Series, 2021, 2015, 012030.	0.4	7
25	Optically transparent water-based wideband switchable radar absorber/reflector with low infrared radiation characteristics. Optics Express, 2021, 29, 42863.	3.4	17
26	Planar Spiral Resonators for remote tracking of displacement. , 2021, , .		1
27	A novel approach for the contactless estimation of the surface impedance. , 2021, , .		0
28	Orientation-Insensitive and Normalization-Free Reading Chipless RFID System Based on Circular Polarization Interrogation. IEEE Transactions on Antennas and Propagation, 2020, 68, 2370-2378.	5.1	41
29	A Wideband Multifunctional Absorber/Reflector With Polarization-Insensitive Performance. IEEE Transactions on Antennas and Propagation, 2020, 68, 5033-5038.	5.1	49
30	A Simple Equivalent Circuit Approach for Anisotropic Frequency-Selective Surfaces and Metasurfaces. IEEE Transactions on Antennas and Propagation, 2020, 68, 7088-7098.	5.1	39
31	Systematic Design of Transmission-Type Polarization Converters Comprising Multilayered Anisotropic Metasurfaces. Physical Review Applied, 2020, 14, .	3.8	9
32	Three-Dimensional Chipless RFID Tags: Fabrication through Additive Manufacturing. Sensors, 2020, 20, 4740.	3.8	17
33	Design of Distributed Spiral Resonators for the Decoupling of MRI Array Coils. , 2020, , .		0
34	On the Use of Engineered Artificial Materials for Realistic Stealth Applications. , 2020, , .		0
35	Design of Distributed Spiral Resonators for the Decoupling of MRI Double-Tuned RF Coils. IEEE Transactions on Biomedical Engineering, 2020, 67, 2806-2816.	4.2	14
36	Reader Antennas Requirements in Chipless RFID Systems with Linear and Circular Polarization. , 2020, , .		2

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37	Metamaterials, Metasurfaces and Applications. , 2020, , 89-169.		6
38	Fast Computation of RCS of Large Metallic Platforms Covered With RAM: Benchmark with a Metallic Cube at 94 GHz. , 2020, , .		0
39	Study of Surface Wave and Transmission Properties in Radome Surface. , 2020, , .		1
40	2.5-D Miniaturized Multifunctional Active Frequency-Selective Surface. IEEE Transactions on Antennas and Propagation, 2019, 67, 4659-4667.	5.1	28
41	A Wideband and Polarization-insensitive Switchable Absorber/Reflector with Simple Biasing Configuration. , 2019, , .		1
42	Low-Cost Portable Reader for Frequency Domain Chipless Tags: Architecture and Experimental Results on Depolarizing Tags. Electronics (Switzerland), 2019, 8, 35.	3.1	3
43	Wireless Detection of Water Level by Using Spiral Resonators Operating in Sub-Ghz Range. , 2019, , .		11
44	Detection of Chipless Tags Through Near Field Interrogation with Waveguide Antennas. , 2019, , .		2
45	Accurate Extraction of Equivalent Circuit Parameters of Spiral Resonators for the Design of Metamaterials. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 626-633.	4.6	25
46	A Depolarizing Chipless RF Label for Dielectric Permittivity Sensing. IEEE Microwave and Wireless Components Letters, 2018, 28, 371-373.	3.2	47
47	Robust Reading Approach for Moving Chipless RFID Tags by Using ISAR Processing. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 2442-2451.	4.6	27
48	Active frequency selective surface with two independent electromagnetic functions. , 2018, , .		0
49	Non-contact RF Characterization of Reinforced Carbon Fiber Composite Materials. , 2018, , .		0
50	Multi-arm Dipole for Compact Wearable Antennas. , 2018, , .		0
51	Hybrid Physical Optics-MoM-Ray Tracing Method for the RCS Calculation of Electrically Large Objects Covered with Radar Absorbing Materials. , 2018, , .		7
52	On the Optimization of Distributed Magnetic Traps in MRI Coils Decoupling. , 2018, , .		4
53	Non-contact Material Monitoring by Using Depolarizing Chipless RFID Tags. , 2018, , .		1
54	Compact Antenna for Wearable Applications. , 2018, , .		2

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55	On the Reading of Moving Chipless RFID Tags. , 2018, , .		1
56	Dual-functional active frequency selective surface using parallel feeding configuration and its equivalent circuit model. International Journal of RF and Microwave Computer-Aided Engineering, 2018, 28, e21450.	1.2	4
57	Optimal Design of Miniaturized Reflecting Metasurfaces for Ultra-Wideband and Angularly Stable Polarization Conversion. Scientific Reports, 2018, 8, 7651.	3.3	31
58	Chipless Dielectric Constant Sensor for Structural Health Testing. IEEE Sensors Journal, 2018, 18, 5576-5585.	4.7	55
59	Linear Fabry-Perot/Leaky-Wave Antennas Excited by Multiple Sources. IEEE Transactions on Antennas and Propagation, 2018, 66, 5150-5159.	5.1	14
60	Chipless Radio Frequency Identification (RFID) Sensor for Angular Rotation Monitoring. Technologies, 2018, 6, 61.	5.1	26
61	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.	5.1	9
62	An Inkjet Printed Chipless RFID Sensor for Wireless Humidity Monitoring. IEEE Sensors Journal, 2017, 17, 4699-4707.	4.7	132
63	Analysis of Linear Fabry-Perot antennas excited by multiple sources. , 2017, , .		0
64	Progress in green chipless RFID sensors. , 2017, , .		6
65	Design of broadband reflecting metasurfaces for polarization conversion. , 2017, , .		3
66	Ultra-wideband linear polarization converters based on pixelated reflecting metasurfaces. , 2017, , .		5
67	An Iterative Design Procedure for Multiband Single-Layer Reflectarrays: Design and Experimental Validation. IEEE Transactions on Antennas and Propagation, 2017, 65, 4595-4606.	5.1	15
68	Design of wireless sensors by using chipless RFID technology. , 2017, , .		4
69	Chipless RFID sensor for rotation monitoring. , 2017, , .		31
70	Design of compact multiband frequency selective surfaces with meandered elements. , 2017, , .		2
71	Chipless RFID, from principles to applications. , 2017, , .		2
72	Design of metasurface radomes for wide-scan phased array antennas. , 2017, , .		0

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73	Iterative non-ambiguous estimation of dielectric permittivity from broadband transmission/reflection measurements. , 2017, , .		0
74	Distributed trap FSS filter for dual tuned RF MRI coil decoupling at 7.0T. , 2017, , .		3
75	Design of compact wearable antennas by using printed electronics. , 2017, , .		0
76	Exploitation of chipless RFID technology for humidity monitoring. , 2017, , .		7
77	Electromagnetic Characterisation of Materials by Using Transmission/Reflection (T/R) Devices. Electronics (Switzerland), 2017, 6, 95.	3.1	98
78	Permittivity measurement of thin dielectrics by using metamaterial absorbers inside a waveguide. , 2017, , .		1
79	Analytical design of extremely high-gain Fabry-Perot/leaky antennas by using multiple feeds. , 2017, , .		0
80	Detection of moving chipless tags by using SAR processing. , 2017, , .		3
81	A stepwise transmission/reflection multilayer-based algorithm for broadband permittivity measurements of dielectric materials. , 2016, , .		2
82	Chipless RFID tag exploiting cross polarization for angular rotation sensing. , 2016, , .		8
83	Wideband Scattering Diffusion by using Diffraction of Periodic Surfaces and Optimized Unit Cell Geometries. Scientific Reports, 2016, 6, 25458.	3.3	34
84	Design of electrically small antennas with inkjet-printing technology. , 2016, , .		1
85	Large-scale assessment of research outputs through a weighted combination of bibliometric indicators. Scientometrics, 2016, 107, 671-683.	3.0	22
86	Encoding/decoding strategies for frequency domain chipless RFIDs employing periodic surfaces. , 2016, , .		0
87	Theory, design and perspectives of electromagnetic wave absorbers. IEEE Electromagnetic Compatibility Magazine, 2016, 5, 67-74.	0.1	56
88	Element-independent design technique for wide angle impedance matching material. , 2016, , .		3
89	Multi-frequency polarizer converter with enhanced angular robustness. , 2016, , .		3
90	Indoor channel characterization for future 5G applications. , 2016, , .		1

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91	Enhanced chipless RFID tags for sensors design. , 2016, , .		12
92	Normalization-Free Chipless RFIDs by Using Dual-Polarized Interrogation. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 310-318.	4.6	53
93	Chipless RFID Tag Exploiting Multifrequency Delta-Phase Quantization Encoding. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 738-741.	4.0	63
94	Wearable Inkjet-Printed Wideband Antenna by Using Miniaturized AMC for Sub-GHz Applications. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1927-1930.	4.0	44
95	Efficient design of multiple-fed leaky wave/Fabry-Perot antennas. , 2016, , .		2
96	Chipless RFID with artificial impedance surfaces. , 2015, , .		0
97	Evaluating scientific research in Italy: The 2004-2010 research evaluation exercise. Research Evaluation, 2015, 24, 242-255.	2.6	56
98	Multi-frequency reflection only linear polarization converters. , 2015, , .		0
99	Metamaterial-inspired chipless RFID encoding exploiting phase response. , 2015, , .		0
100	A Robust Differential-Amplitude Codification for Chipless RFID. IEEE Microwave and Wireless Components Letters, 2015, 25, 832-834.	3.2	27
101	Reduction of monostatic and bistatic radar cross section of antenna arrays. , 2014, , .		0
102	Reading chipless RFID located on metallic platforms by using cross-polar scattering. , 2014, , .		8
103	Phase-only encoding for novel chipless RFID tag. , 2014, , .		8
104	Chipless RFIDs by using metasurfaces. , 2014, , .		2
105	Low-Cost Metamaterial Absorbers for Sub-GHz Wireless Systems. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 27-30.	4.0	52
106	Calibration method for periodic surface based chipless tags. , 2014, , .		2
107	Chipless RFIDs for Metallic Objects by Using Cross Polarization Encoding. IEEE Transactions on Antennas and Propagation, 2014, 62, 4402-4407.	5.1	72
108	Wideband Radar Cross Section Reduction of Slot Antennas Arrays. IEEE Transactions on Antennas and Propagation, 2014, 62, 163-173.	5.1	143

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109	Surface Impedance Measurement of Resistive Coatings at Microwave Frequencies. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 432-437.	4.7	34
110	A Chipless RFID Based on Multiresonant High-Impedance Surfaces. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 146-153.	4.6	175
111	A Circuit-Based Model for the Interpretation of Perfect Metamaterial Absorbers. IEEE Transactions on Antennas and Propagation, 2013, 61, 1201-1209.	5.1	235
112	Ultra-thin absorbers for ultra-high frequency RFID systems. , 2013, , .		2
113	A chipless RFID readable on metallic objects. , 2013, , .		4
114	Effects of absorbing layers on the RCS reduction and radiation performance of an antenna array. , 2013, , .		2
115	Ultra-broad and sharp-transition bandpass terahertz filters by hybridizing multiple resonances mode in monolithic metamaterials. Optics Express, 2012, 20, 7580.	3.4	53
116	On the design of perfect metamaterial absorbers. , 2012, , .		3
117	A Frequency Selective Radome With Wideband Absorbing Properties. IEEE Transactions on Antennas and Propagation, 2012, 60, 2740-2747.	5.1	604
118	Closed-Form Analysis of Reflection Losses in Microstrip Reflectarray Antennas. IEEE Transactions on Antennas and Propagation, 2012, 60, 4650-4660.	5.1	76
119	Low-Profile Array With Reduced Radar Cross Section by Using Hybrid Frequency Selective Surfaces. IEEE Transactions on Antennas and Propagation, 2012, 60, 2327-2335.	5.1	180
120	Efficient Analysis of Frequency-Selective Surfaces by a Simple Equivalent-Circuit Model. IEEE Antennas and Propagation Magazine, 2012, 54, 35-48.	1.4	341
121	A wideband RCS reduction of slot array antennas. , 2012, , .		1
122	A FREQUENCY SELECTIVE ABSORBING GROUND PLANE FOR LOW-RCS MICROSTRIP ANTENNA ARRAYS. Progress in Electromagnetics Research, 2012, 126, 317-332.	4.4	55
123	Electromagnetic Absorbers based on High-Impedance Surfaces: From ultra-narrowband to ultra-wideband absorption. Advanced Electromagnetics, 2012, 1, 7.	1.0	30
124	TE Surface Wave Resonances on High-Impedance Surface Based Antennas: Analysis and Modeling. IEEE Transactions on Antennas and Propagation, 2011, 59, 3588-3596.	5.1	119
125	Absorptive frequency selective radome. , 2011, , .		12
126	Tunable High-Impedance Surface With a Reduced Number of Varactors. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 11-13.	4.0	68

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127	Waveguide Dielectric Permittivity Measurement Technique Based on Resonant FSS Filters. IEEE Microwave and Wireless Components Letters, 2011, 21, 273-275.	3.2	41
128	EFFECT OF THE METAL SHEET THICKNESS ON THE FREQUENCY BLUESHIFT IN SINGLE LAYER COMPOSITE MATERIALS AT KA MICROWAVE FREQUENCY. Progress in Electromagnetics Research Letters, 2011, 22, 47-58.	0.7	0
129	OPTIMAL DESIGN OF DIPOLE ANTENNAS BACKED BY A FINITE HIGH-IMPEDANCE SCREEN. Progress in Electromagnetics Research C, 2011, 18, 137-151.	0.9	13
130	DESIGN OF SUBWAVELENGTH TUNABLE AND STEERABLE FABRY-PEROT/LEAKY WAVE ANTENNAS. Progress in Electromagnetics Research, 2011, 111, 467-481.	4.4	59
131	Optimization of wide-bandpass filter within the Terahertz frequency regime. , 2011, , .		2
132	Multiband electromagnetic wave absorber based on reactive impedance ground planes. IET Microwaves, Antennas and Propagation, 2010, 4, 1720.	1.4	25
133	Low-profile tunable and steerable fabry-perot antenna for software defined radio applications. , 2010, , .		6
134	Analysis and Design of Ultra Thin Electromagnetic Absorbers Comprising Resistively Loaded High Impedance Surfaces. IEEE Transactions on Antennas and Propagation, 2010, 58, 1551-1558.	5.1	670
135	Experimental verification of the suppression of spatial dispersion in artificial plasma. Applied Physics Letters, 2010, 96, .	3.3	11
136	Experimental validation of the suppression of spatial dispersion in artificial plasma. , 2010, , .		0
137	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
138	On the Bandwidth of High-Impedance Frequency Selective Surfaces. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 1341-1344.	4.0	118
139	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.	1.4	10
140	Increasing the absorption band of thin electromagnetic absorbers by using plasma resonance of wire medium. , 2009, , .		1
141	An equivalent circuit model of Frequency Selective Surfaces embedded within dielectric layers. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	53
142	A Thin Electromagnetic Absorber for Wide Incidence Angles and Both Polarizations. IEEE Transactions on Antennas and Propagation, 2009, 57, 3119-3125.	5.1	243
143	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
144	An equivalent-circuit modeling of high impedance surfaces employing arbitrarily shaped FSS. , 2009, , .		30

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145	Multi-frequency highly directive Fabry-Perot based antenna. , 2008, , .		7
146	An Active High-Impedance Surface for Low-Profile Tunable and Steerable Antennas. IEEE Antennas and Wireless Propagation Letters, 2008, 7, 676-680.	4.0	98
147	An active AMC ground plane for tunable low-profile antennas. , 2008, , .		7
148	Ultra-thin absorbers by using high impedance surfaces with resistive frequency selective surfaces. , 2007, , .		29