

# Luca Catarinucci

## List of Publications by Year in descending order

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144  
papers

3,085  
citations

186265

28  
h-index

189892

50  
g-index

145  
all docs

145  
docs citations

145  
times ranked

2640  
citing authors

#	ARTICLE	IF	CITATIONS
1	An IoT-Aware Smart System Exploiting the Electromagnetic Behavior of UHF-RFID Tags to Improve Worker Safety in Outdoor Environments. <i>Electronics (Switzerland)</i> , 2022, 11, 717.	3.1	14
2	A triple band dual-polarized multi-slotted antenna array for base station applications. <i>Wireless Networks</i> , 2022, 28, 1475-1487.	3.0	1
3	Dielectric Resonators Antennas Potential Unleashed by 3D Printing Technology: A Practical Application in the IoT Framework. <i>Electronics (Switzerland)</i> , 2022, 11, 64.	3.1	16
4	Laser-Induced Graphene, Fused Filament Fabrication, and Aerosol Jet Printing for Realizing Conductive Elements of UHF RFID Antennas. <i>IEEE Journal of Radio Frequency Identification</i> , 2022, 6, 601-609.	2.3	11
5	Smart IoT system empowered by customized energy-aware wireless sensors integrated in graphene-based tissues to improve workers thermal comfort. <i>Journal of Cleaner Production</i> , 2022, 360, 132132.	9.3	4
6	RFID-Based Indoor Positioning Using Edge Machine Learning. <i>IEEE Journal of Radio Frequency Identification</i> , 2022, 6, 573-582.	2.3	8
7	A Novel Design for Flexible and Conformable 3D-Printed Dielectric Resonator Antennas for WiFi and IoT Applications. , 2022, , .		1
8	Analysis of FDM and DLP 3D-Printing Technologies to Prototype Electromagnetic Devices for RFID Applications. <i>Sensors</i> , 2021, 21, 897.	3.8	19
9	Design of UHF RFID Sensor-Tags for the Biomechanical Analysis of Human Body Movements. <i>IEEE Sensors Journal</i> , 2021, 21, 14090-14098.	4.7	25
10	IoT-Ready Energy-Autonomous Parking Sensor Device. <i>IEEE Internet of Things Journal</i> , 2021, 8, 4830-4840.	8.7	20
11	Laser-Fabricated Antennas for RFID Applications. , 2021, , .		6
12	The Promising Role of 3D-printed Dielectric Resonator Antennas in the IoT Framework. , 2021, , .		1
13	Recent Activities in Rfid Applications Empowered by 3D Printing at UniSalento. , 2021, , .		0
14	Fully 3D-printed UHF RFID Antennas: Technological Comparison to Realize Conductive Elements. , 2021, , .		2
15	Customized UHF RFID Sensor Tags to Feed Biomechanical Models. , 2021, , .		0
16	An innovative IoT-oriented prototype platform for the management and valorisation of the organic fraction of municipal solid waste. <i>Journal of Cleaner Production</i> , 2020, 247, 119618.	9.3	33
17	IoT-Aware Waste Management System Based on Cloud Services and Ultra-Low-Power RFID Sensor-Tags. <i>IEEE Sensors Journal</i> , 2020, 20, 14873-14881.	4.7	26
18	Considerations on Rigorous UHF RFID Tag Electromagnetic Performance Evaluation in Non-Anechoic Environments. , 2020, , .		1

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19	Yagi-Uda Antenna with Fully 3D-Printed Bow-Tie Elements. , 2020, , .		4
20	A Curved 3-D Printed Microstrip Patch Antenna Layout for Bandwidth Enhancement and Size Reduction. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 1118-1122.	4.0	39
21	3D-Printed Barcodes as RFID Tags. , 2020, , .		5
22	Conformal Circularly-Polarized Shoe-Integrated Antenna based on Leather Substrate and Conductive Fabric for Bluetooth Low Energy Body-Centric Links. , 2020, , .		0
23	Circularly Polarized Antenna in 3D Printing Technology to Feed a Wearable Fully-Integrated WiFi-RFID Reader for Biomedical Applications. , 2020, , .		1
24	Customizing 3D-Printing for Electromagnetics to Design Enhanced RFID Antennas. IEEE Journal of Radio Frequency Identification, 2020, 4, 452-460.	2.3	13
25	Permittivity-Customizable Ceramic-Doped Silicone Substrates Shaped With 3-D-Printed Molds to Design Flexible and Conformal Antennas. IEEE Transactions on Antennas and Propagation, 2020, 68, 4967-4972.	5.1	30
26	3D-Printed Tunable UHF RFID PIFA Realized with BaTiO3 Enhanced PLA for Multipurpose Applications. , 2020, , .		0
27	IoT-oriented Waste Management System based on new RFID-Sensing Devices and Cloud Technologies. , 2019, , .		7
28	RFID Sensing System Based on UHF Platform-Tolerant Antenna for Harsh Industrial Environments. , 2019, , .		1
29	Fully 3D-Printed RFID Tags based on Printable Metallic Filament: Performance Comparison with other Fabrication Techniques. , 2019, , .		15
30	Adding RFID Capabilities to IoT Technologies: Proof-of-Concept on Microwave Doppler Sensors. , 2019, , .		2
31	Sensors-based treatment system of the organic waste with RFID identification and on-cloud traceability. , 2019, , .		5
32	X-Band RFID System Exploiting Doppler-Based Microwave Motion Sensors. IEEE Transactions on Antennas and Propagation, 2019, 67, 6602-6611.	5.1	2
33	Electromagnetic Performance Evaluation of UHF RFID Tags With Power Discretization Error Cancellation. IEEE Transactions on Antennas and Propagation, 2019, 67, 3545-3549.	5.1	22
34	On the Use of Additive Manufacturing 3D-Printing Technology in RFID Antenna Design. , 2019, , .		5
35	A 3D-Printed Wideband Antenna for UHF RFID. , 2019, , .		2
36	Opportunity to Analyze Laboratory Mice Behavior by Tracking Systems based on UHF RFID Technology: pros and cons. , 2019, , .		2

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37	Proof of Presence: Novel Vehicle Detection System. IEEE Wireless Communications, 2019, 26, 44-49.	9.0	15
38	Electromagnetic Design of UHF RFID Tags Enabling a Novel Method to Retrieve Sensor Data. IEEE Journal of Radio Frequency Identification, 2018, 2, 23-30.	2.3	3
39	Design Considerations on the Placement of a Wearable UHF-RFID PIFA on a Compact Ground Plane. IEEE Transactions on Antennas and Propagation, 2018, 66, 3142-3147.	5.1	34
40	Wearable UHF RFID Sensor Tag in 3D-Printing Technology for Body Temperature Monitoring. , 2018, , .		9
41	Single-Chip Gen2-Compliant UHF RFID Sensor Tags Based on Novel Pseudo-BAP Mode. , 2018, , .		1
42	Wearable UHF RFID Sensor-Tag Based on Customized 3D-Printed Antenna Substrates. IEEE Sensors Journal, 2018, 18, 8789-8795.	4.7	30
43	3D printed wearable sensor tag based on UHF RFID ICs implementing a novel interrogation modality. , 2018, , .		1
44	Compact 3-D-Printed Circularly Polarized Antenna for Handheld UHF RFID Readers. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 2021-2025.	4.0	21
45	Measurement system for over-the-air evaluation of UHF RFID tags quality. Wireless Power Transfer, 2017, 4, 33-41.	1.1	3
46	Comparison of Fabrication Techniques for Flexible UHF RFID Tag Antennas [Wireless Corner]. IEEE Antennas and Propagation Magazine, 2017, 59, 159-168.	1.4	18
47	Design of a 3D-printed circularly polarized antenna for portable UHF RFID readers. , 2017, , .		9
48	Exploiting 3D-printing in passive UHF RFID electromagnetic projects. , 2017, , .		0
49	Performance Evaluation of a Novel Animals Tracking System based on UHF RFID Technology. Journal of Communications Software and Systems, 2017, 9, 4.	0.8	14
50	An IoT-aware Architecture to improve Safety in Sports Environments. Journal of Communications Software and Systems, 2017, 13, 44.	0.8	7
51	An Energy-Efficient MAC Scheduler based on a Switched-Beam Antenna for Wireless Sensor Networks. Journal of Communications Software and Systems, 2017, 9, 117.	0.8	20
52	Microwave characterisation of polylactic acid for 3D-printed dielectrically controlled substrates. IET Microwaves, Antennas and Propagation, 2017, 11, 1970-1976.	1.4	34
53	Experimental Performance Evaluation of Passive UHF RFID Tags in Electromagnetically Critical Supply Chains. Journal of Communications Software and Systems, 2017, 7, 59.	0.8	22
54	Programming UHF RFID Systems for the Internet of Things [EM Programmer's Notebook]. IEEE Antennas and Propagation Magazine, 2016, 58, 109-119.	1.4	3

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55	High-Sensitivity CMOS RF-DC Converter in HF RFID Band. IEEE Microwave and Wireless Components Letters, 2016, 26, 732-734.	3.2	11
56	RF-DC converter for HF RFID sensing applications powered by a near-field loop antenna. Radio Science, 2016, 51, 942-950.	1.6	2
57	Improved RFID tag characterization system: Use case in the IoT arena. , 2016, , .		8
58	Evaluating the suitability of specific RFID tags for IoT applications through a new characterization platform. , 2016, , .		3
59	Passive RFID tag with sensing and reasoning capabilities for building automation. , 2016, , .		1
60	UHF front-end feeding RFID-based body sensor networks by exploiting the reader signal. Radio Science, 2016, 51, 481-489.	1.6	2
61	Measurement Platform for Electromagnetic Characterization and Performance Evaluation of UHF RFID Tags. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 905-914.	4.7	53
62	Improved Battery-Less Augmented RFID Tag: Application on Ambient Sensing and Control. IEEE Sensors Journal, 2016, 16, 3484-3485.	4.7	4
63	A UHF-RFID power management circuit for body sensor networks. , 2015, , .		2
64	Cost-effective electromagnetic characterization system for radiation pattern and sensitivity estimation of UHF RFID tags. , 2015, , .		2
65	EM design of a passive RFID-based device with sensing and reasoning capabilities. , 2015, , .		1
66	A $\sim 19$ dBm sensitivity integrated RF-DC converter with regulated output voltage for powering UHF wireless sensors. , 2015, , .		1
67	A HF-RFID, -19 dBm sensitivity fully integrated RF-DC voltage multiplier. , 2015, , .		0
68	An IoT-Aware Architecture for Smart Healthcare Systems. IEEE Internet of Things Journal, 2015, 2, 515-526.	8.7	850
69	SPARTACUS: Self-Powered Augmented RFID Tag for Autonomous Computing and Ubiquitous Sensing. IEEE Transactions on Antennas and Propagation, 2015, 63, 2272-2281.	5.1	48
70	Ultralong-Range RFID-Based Wake-Up Radios for Wireless Sensor Networks. IEEE Sensors Journal, 2014, 14, 4016-4017.	4.7	8
71	Novel fully-passive multifunction RFID-enabled devices. , 2014, , .		0
72	A Cross-Layer Approach to Minimize the Energy Consumption in Wireless Sensor Networks. International Journal of Distributed Sensor Networks, 2014, 10, 268284.	2.2	29

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73	Integration of UHF RFID and WSN technologies in healthcare systems. , 2014, , .		10
74	Smart RFID Antenna System for Indoor Tracking and Behavior Analysis of Small Animals in Colony Cages. IEEE Sensors Journal, 2014, 14, 1198-1206.	4.7	52
75	A Battery-Assisted Sensor-Enhanced RFID Tag Enabling Heterogeneous Wireless Sensor Networks. IEEE Sensors Journal, 2014, 14, 1048-1055.	4.7	77
76	RAMSES: RFID Augmented Module for Smart Environmental Sensing. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 1701-1708.	4.7	108
77	Advances in the design of smart, multi-function, RFID-enabled devices. , 2014, , .		3
78	Compact Switched-Beam Antennas Enabling Novel Power-Efficient Wireless Sensor Networks. IEEE Sensors Journal, 2014, 14, 3252-3259.	4.7	28
79	Rfid-based traceability along the food-production chain [Wireless Corner]. IEEE Antennas and Propagation Magazine, 2014, 56, 196-207.	1.4	24
80	Pattern-Reconfigurable Antennas and Smart Wake-Up Circuits to Decrease Power Consumption in WSN Nodes. IEEE Sensors Journal, 2014, 14, 4323-4324.	4.7	9
81	An animal tracking system for behavior analysis using radio frequency identification. Lab Animal, 2014, 43, 321-327.	0.4	24
82	GPU-based acceleration of computational electromagnetics codes. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2013, 26, 309-323.	1.9	2
83	Customized Ultra High Frequency Radio Frequency Identification Tags and Reader Antennas Enabling Reliable Mobile Robot Navigation. IEEE Sensors Journal, 2013, 13, 783-791.	4.7	33
84	An UHF RFID Energy-Harvesting System Enhanced by a DC-DC Charge Pump in Silicon-on-Insulator Technology. IEEE Microwave and Wireless Components Letters, 2013, 23, 315-317.	3.2	72
85	Enhanced UHF RFID Sensor-Tag. IEEE Microwave and Wireless Components Letters, 2013, 23, 49-51.	3.2	51
86	Enabling self-powered autonomous wireless sensors with new-generation <sup>2</sup>-RFID chips. , 2013, , .		20
87	Fully-passive devices for RFID smart sensing. , 2013, , .		9
88	On the use of passive UHF RFID tags in the pharmaceutical supply chain: a novel enhanced tag versus high-performance commercial tags. International Journal of Radio Frequency Identification Technology and Applications, 2013, 4, 122.	0.5	2
89	An RFID tracking system supporting the behavior analysis of colonial laboratory animals. International Journal of RF Technologies: Research and Applications, 2013, 5, 63-80.	0.7	5
90	A LONG-RANGE COMPUTATIONAL RFID TAG FOR TEMPERATURE AND ACCELERATION SENSING APPLICATIONS. Progress in Electromagnetics Research C, 2013, 45, 223-235.	0.9	3

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91	SWITCHED-BEAM ANTENNA FOR WIRELESS SENSOR NETWORK NODES. Progress in Electromagnetics Research C, 2013, 39, 193-207.	0.9	31
92	Near Field UHF RFID Antenna System Enabling the Tracking of Small Laboratory Animals. International Journal of Antennas and Propagation, 2013, 2013, 1-10.	1.2	16
93	Traceability of Goods by Radio Systems: Proposals, Techniques, and Applications. International Journal of Antennas and Propagation, 2013, 2013, 1-2.	1.2	1
94	Differential RCS and sensitivity calculation of RFID tags with Software-Defined Radio. , 2012, , .		23
95	Enhanced UHF RFID Tags for Drug Tracing. Journal of Medical Systems, 2012, 36, 3451-3462.	3.6	28
96	RFID Sensor-Tags Feeding a Context-Aware Rule-Based Healthcare Monitoring System. Journal of Medical Systems, 2012, 36, 3435-3449.	3.6	32
97	On the use of UHF RFID antenna systems customized for robotic applications. , 2012, , .		9
98	Prototyping flexible UHF RFID tags through rapid and effective unconventional techniques: Validation on label-type sensor-tag. , 2012, , .		6
99	3D patch antenna using a cardboard substrate for RFID reader applications. , 2012, , .		0
100	PERFORMANCE ENHANCEMENT OF THE RFID EPC GEN2 PROTOCOL BY EXPLOITING COLLISION RECOVERY. Progress in Electromagnetics Research B, 2012, 43, 53-72.	1.0	19
101	PLATFORM-ROBUST PASSIVE UHF RFID TAGS: A CASE-STUDY IN ROBOTICS. Progress in Electromagnetics Research C, 2012, 30, 27-39.	0.9	13
102	NEW ALGORITHMS FOR THE SPECIFIC ABSORPTION RATE NUMERICAL EVALUATION BASED ON SPHERICAL AVERAGING VOLUMES. Progress in Electromagnetics Research B, 2012, 44, 427-445.	1.0	4
103	METAL FOAMS FOR ELECTROMAGNETICS: EXPERIMENTAL, NUMERICAL AND ANALYTICAL CHARACTERIZATION. Progress in Electromagnetics Research B, 2012, 45, 1-18.	1.0	11
104	SMART PROTOTYPING TECHNIQUES FOR UHF RFID TAGS: ELECTROMAGNETIC CHARACTERIZATION AND COMPARISON WITH TRADITIONAL APPROACHES. Progress in Electromagnetics Research, 2012, 132, 91-111.	4.4	42
105	Design, development, and performance evaluation of a compact and long-range passive UHF RFID tag. Microwave and Optical Technology Letters, 2012, 54, 1335-1339.	1.4	25
106	A Cost-Effective SDR Platform for Performance Characterization of RFID Tags. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 903-911.	4.7	63
107	Performance analysis of passive UHF RFID tags with GNU-radio. , 2011, , .		24
108	Design and applications of a Software-Defined listener for UHF RFID systems. , 2011, , .		10

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109	Optimized antennas for enhanced RFID sensor tags. , 2011, , .		3
110	A framework for context-aware home-health monitoring. International Journal of Autonomous and Adaptive Communications Systems, 2010, 3, 75.	0.3	29
111	New materials for electromagnetic shielding: Metal foams with plasma properties. Microwave and Optical Technology Letters, 2010, 52, 1700-1705.	1.4	10
112	Challenge. , 2010, , .		46
113	BROAD-BAND DIPOLE FOR RFID APPLICATIONS. Progress in Electromagnetics Research C, 2010, 12, 163-172.	0.9	17
114	Integration of RFID and sensors for remote healthcare. , 2010, , .		6
115	Sensor data transmission through passive RFID tags to feed wireless sensor networks. , 2010, , .		9
116	Sensor data transmission through passive RFID tags to feed wireless sensor networks. , 2010, , .		12
117	Improving item-level tracing systems through Ad Hoc UHF RFID tags. , 2010, , .		18
118	Introduction to GPU Computing and CUDA Programming: A Case Study on FDTD [EM Programmer's Notebook. IEEE Antennas and Propagation Magazine, 2010, 52, 116-122.	1.4	85
119	COMPACT MICROSTRIP ANTENNA FOR RFID APPLICATIONS. Progress in Electromagnetics Research Letters, 2009, 8, 191-199.	0.7	39
120	A context-aware smart infrastructure based on RFID sensor-tags and its application to the health-care domain. , 2009, , .		6
121	On the use of advanced numerical models for the evaluation of dosimetric parameters and the verification of exposure limits at workplaces. Radiation Protection Dosimetry, 2009, 137, 218-222.	0.8	0
122	A Parallel Graded-Mesh FDTD Algorithm for Humanâ€™Antenna Interaction Problems. International Journal of Occupational Safety and Ergonomics, 2009, 15, 45-52.	1.9	3
123	Assessment of a TD-Based Method for Characterization of Antennas. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 1412-1419.	4.7	31
124	A Combined TDâ€™FD Method for Enhanced Reflectometry Measurements in Liquid Quality Monitoring. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 3534-3543.	4.7	27
125	Enhanced reflectometry measurements of permittivities and levels in layered petrochemical liquids using an â€™in-situâ€™ coaxial probe. Measurement: Journal of the International Measurement Confederation, 2009, 42, 685-696.	5.0	34
126	A Cost-Effective UHF RFID Tag for Transmission of Generic Sensor Data in Wireless Sensor Networks. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 1291-1296.	4.6	45



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127	Experimental validation of a plasma model for electromagnetic metal foam shields. , 2009, , .		4
128	A novel low-cost multisensor-tag for RFID applications in healthcare. Microwave and Optical Technology Letters, 2008, 50, 2877-2880.	1.4	20
129	A novel and low-cost multisensor-integrated RFID tag for biomedical applications. , 2008, , .		6
130	A Comparative Analysis of Reflectometry Methods for Characterization of Antennas. , 2008, , .		7
131	A Framework for Context-Aware Home-Health Monitoring. Lecture Notes in Computer Science, 2008, , 119-130.	1.3	16
132	A TD-FD Combined Method for Enhancing Reflectometry Measurements in Liquid Quality Monitoring. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	7
133	A frequency-domain method for extending TDR performance in quality determination of fluids. Measurement Science and Technology, 2007, 18, 675-688.	2.6	32
134	Specific Absorption Rate (SAR) Numerical Evaluation: a Critical Discussion. IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium, 2007, , .	0.0	2
135	High added-value em shielding by using metal-foams: experimental and numerical characterization. , 2006, , .		14
136	Human exposure to the near field of radiobase antennas - a full-wave solution using parallel FDTD. IEEE Transactions on Microwave Theory and Techniques, 2003, 51, 935-940.	4.6	35
137	On the use of numerical phantoms in the study of the human-antenna interaction problem. IEEE Antennas and Wireless Propagation Letters, 2003, 2, 43-45.	4.0	5
138	On the use of numerical phantoms in the study of the human-antenna interaction problem. IEEE Antennas and Wireless Propagation Letters, 2003, 2, 43-45.	4.0	1
139	Parallel FD-TD Simulation of Radiobase Antennae. Radiation Protection Dosimetry, 2001, 97, 409-413.	0.8	1
140	A parallel FDTD tool for the solution of large dosimetric problems: an application to the interaction between humans and radiobase antennas. , 0, , .		5
141	A Parallel Variable-Mesh FDTD Algorithm for the Solution of Large Electromagnetic Problems. , 0, , .		1
142	A Parallel-Grid-Enabled Variable-Mesh FDTD Approach for the Analysis of Slabs of Double-Negative Metamaterials. , 0, , .		3
143	Switched-Beam Antenna for WSN Nodes Enabling Hardware-driven Power Saving. , 0, , .		4
144	Smart Data Collection and Management in Heterogeneous Ubiquitous Healthcare. , 0, , .		0