

# Ladislau Matekovits

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

147  
papers

1,565  
citations

21  
h-index

35  
g-index

226  
ext. papers

2,244  
ext. citations

2.8  
avg, IF

5.08  
L-index

#	Paper	IF	Citations
147	Hyperparameter Optimization of Long Short-Term Memory Based Forecasting DNN for Antenna Modeling through Stochastic Methods. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2022</b> , 1-1	3.8	0
146	A Study on Application of Dielectric Resonator Antenna in Implantable Medical Devices. <i>IEEE Access</i> , <b>2022</b> , 10, 11846-11857	3.5	2
145	Manipulating the radiation pattern of equilateral triangular dielectric resonator antenna using asymmetric grooves. <i>AEU - International Journal of Electronics and Communications</i> , <b>2022</b> , 145, 154079	2.8	
144	Controlling frequency distance between individual modes of dielectric resonator nanoantenna using uniaxial anisotropic materials. <i>Radiation Physics and Chemistry</i> , <b>2022</b> , 190, 109812	2.5	0
143	Multi-objective Optimization Methods for Passive and Active Devices in mm-Wave 5G Networks. <i>PoliTO Springer Series</i> , <b>2022</b> , 337-371	0.4	
142	Printed Periodic Structures in Support to 5G Network Antennas. <i>PoliTO Springer Series</i> , <b>2022</b> , 73-108	0.4	0
141	Design and implementation of compact dual-band conformal antenna for leadless cardiac pacemaker system.. <i>Scientific Reports</i> , <b>2022</b> , 12, 3165	4.9	1
140	Deep Learning Assisted Automatic Methodology for Implanted MIMO Antenna Designs on Large Ground Plane. <i>Electronics (Switzerland)</i> , <b>2022</b> , 11, 47	2.6	2
139	Symmetry-breaking manipulation in the design of multifunctional tunable frequency selective surface. <i>AEU - International Journal of Electronics and Communications</i> , <b>2021</b> , 142, 154003	2.8	1
138	A Review on Different Techniques of Mutual Coupling Reduction Between Elements of Any MIMO Antenna. Part 2: Metamaterials and Many More. <i>Radio Science</i> , <b>2021</b> , 56, e2020RS007222	1.4	4
137	A Review on Different Techniques of Mutual Coupling Reduction Between Elements of Any MIMO Antenna. Part 1: DGSs and Parasitic Structures. <i>Radio Science</i> , <b>2021</b> , 56, e2020RS007122	1.4	5
136	Low-Cost, Low-Profile Wide-Band Radar Cross Section Reduction Using Dual-Concentric Phase Gradient Modulated Surface. <i>Electronics (Switzerland)</i> , <b>2021</b> , 10, 1552	2.6	0
135	Single-Layered Frequency Selective Surface for Polarization Processing by Transmission Through Elementary Simple Structure Unit Cell Array. <i>IEEE Access</i> , <b>2021</b> , 9, 30615-30625	3.5	0
134	Invisibility Utilizing Huygens Metasurface Based on Mantle Cloak and Scattering Suppression Phenomen. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2021</b> , 69, 5181-5186	4.9	2
133	Automated optimization for broadband flat-gain antenna designs with artificial neural network. <i>IET Microwaves, Antennas and Propagation</i> , <b>2021</b> , 15, 1537-1544	1.6	6
132	Dielectric Resonator Antennas: Applications and Developments in Multiple-Input, Multiple-Output Technology. <i>IEEE Antennas and Propagation Magazine</i> , <b>2021</b> , 2-15	1.7	3
131	Deep Learning and its Benefits in Prediction of Patients Through Medical Images <b>2021</b> ,		1

130	Key Generation of Biomedical Implanted Antennas Through Artificial Neural Networks <b>2021</b> ,		2
129	Topological edge states of interacting photon pairs emulated in a topoelectrical circuit. <i>Nature Communications</i> , <b>2020</b> , 11, 1436	17.4	37
128	Dual-band circularly polarized MIMO DRA for sub-6 GHz applications. <i>International Journal of RF and Microwave Computer-Aided Engineering</i> , <b>2020</b> , 30, e22350	1.5	4
127	Multiple input multiple output dielectric resonator antenna with circular polarized adaptability for 5G applications. <i>Journal of Electromagnetic Waves and Applications</i> , <b>2020</b> , 34, 1180-1194	1.3	7
126	Mantle cloaking due to ideal magnetic dipole scattering. <i>Scientific Reports</i> , <b>2020</b> , 10, 2413	4.9	5
125	Electrically tunable mantle cloaking utilizing graphene metasurface for oblique incidence. <i>AEU - International Journal of Electronics and Communications</i> , <b>2020</b> , 116, 153080	2.8	5
124	Electromagnetic Bottom-Up Optimization for Automated Antenna Designs <b>2020</b> ,		2
123	Harmonic analysis and reduction of the scattered field from electrically large cloaked metallic cylinders. <i>Applied Optics</i> , <b>2020</b> , 59, 3742-3750	1.7	2
122	Nonradiating anapole condition derived from Devaney-Wolf theorem and excited in a broken-symmetry dielectric particle. <i>Optics Express</i> , <b>2020</b> , 28, 10294-10307	3.3	6
121	Materials for Electromagnetic Purpose: The Case of a Microstrip Patch Antenna Characteristics Improvement by Additions of Metals as Spherical Inclusions Into the Substrate. <i>Acta Marisiensis Seria Technologica</i> , <b>2020</b> , 17, 11-16	0.1	
120	Multidisciplinary investigations on the use of TiNb alloy orthopedic device equipped with low profile antenna as smart sensor. <i>Procedia Manufacturing</i> , <b>2020</b> , 46, 828-837	1.5	1
119	A helical shaped broadband circularly polarized dielectric resonator antenna. <i>Journal of Electromagnetic Waves and Applications</i> , <b>2020</b> , 34, 1918-1929	1.3	
118	Optimization for Wideband Linear Array Antenna through Bottom-Up Method <b>2020</b> ,		2
117	Optimal Huygens Metasurface for Wireless Power Transfer Efficiency Improvement. <i>IEEE Access</i> , <b>2020</b> , 8, 216409-216418	3.5	1
116	. <i>IEEE Access</i> , <b>2020</b> , 8, 199242-199253	3.5	24
115	Analysis of the Surface Impedance of a Sinusoidally Modulated Metasurface <b>2019</b> ,		1
114	Dynamically Tunable Scattering Manipulation of Dielectric and Conducting Cylinders Using Nanostructured Graphene Metasurfaces. <i>IEEE Access</i> , <b>2019</b> , 7, 15556-15562	3.5	3
113	Frequency Selective Surface With Two Quasi-Independent Notch Frequencies. <i>IEEE Access</i> , <b>2019</b> , 7, 77263-77267		

112	A Stripline-Based Planar Wideband Feed for High-Gain Antennas with Partially Reflecting Superstructure. <i>Micromachines</i> , <b>2019</b> , 10,	3.3	3
111	. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2019</b> , 18, 1809-1813	3.8	10
110	Bending Analysis of Switchable Frequency Selective Surface Based on Flexible Composite Substrate <b>2019</b> ,		2
109	Tunable mantle cloaking utilizing graphene metasurface for terahertz sensing applications. <i>Optics Express</i> , <b>2019</b> , 27, 34824-34837	3.3	30
108	Numerical Investigation on Graphene Based Mantle Cloaking of a PEC Cylinder <b>2019</b> ,		1
107	Reconfigurable metasurface lens based on graphene split ring resonators using Pancharatnam Berry phase manipulation. <i>Journal of Electromagnetic Waves and Applications</i> , <b>2019</b> , 33, 572-583	1.3	7
106	Rectangular Dielectric Resonator Antenna With Corrugated Walls. <i>IEEE Access</i> , <b>2019</b> , 7, 3422-3429	3.5	1
105	Making UWB Antennas Unidirectional: Phase Coherence with an Ultra-Wide Band Frequency Selective Surface Reflector <b>2018</b> , 227-258		
104	Multipolar passive cloaking by nonradiating anapole excitation. <i>Scientific Reports</i> , <b>2018</b> , 8, 12514	4.9	36
103	Effect of Geometrical Parameters of a Width Modulated Microstrip Line Based Mantle-Cloak <b>2018</b> ,		1
102	Frequency Selective Surface with two Notch Frequencies and Good Incidence Angle Stability for Screening Applications <b>2018</b> ,		2
101	Sidelobe Suppression in Resonant Cavity Antennas through Near-field Analysis <b>2018</b> ,		1
100	Spectral Composition of the Scattered Field from a Large Metallic Cloaked Cylinder <b>2018</b> ,		2
99	A Low-Profile Phase Correcting Solution to Improve Directivity of Horn Antenna <b>2018</b> ,		3
98	Tunable Polarization Converter Based on Graphene Metasurfaces <b>2018</b> ,		2
97	Analysis and Experiment of Equilateral Triangular Uniaxial-Anisotropic Dielectric Resonator Antennas. <i>IEEE Access</i> , <b>2018</b> , 6, 63071-63079	3.5	1
96	A Near-Field Cloaking Study to Reduce MRI RF-Artefacts in Presence of Elongated Prostheses. <i>IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology</i> , <b>2018</b> , 2, 249-256	2.8	1
95	. <i>IEEE Access</i> , <b>2017</b> , 5, 8804-8811	3.5	14

94	Gain Improvement of Rectangular Dielectric Resonator Antenna by Engraving Grooves on Its Side Walls. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2017</b> , 16, 2167-2170	3.8	26
93	Cylindrical Anisotropic Dielectric Resonator Antenna With Improved Gain. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2017</b> , 65, 1404-1409	4.9	28
92	On the radiation mechanism of implanted antennas with large conformal ground plane. <i>IET Microwaves, Antennas and Propagation</i> , <b>2017</b> , 11, 1765-1769	1.6	2
91	Closed-form harmonic contrast control with surface impedance coatings for conductive objects. <i>Applied Optics</i> , <b>2017</b> , 56, 10055	1.7	9
90	An ideal dielectric coat to avoid prosthesis RF-artefacts in Magnetic Resonance Imaging. <i>Scientific Reports</i> , <b>2017</b> , 7, 326	4.9	3
89	Towards Printable Natural Dielectric Cloaks via Inverse Scattering Techniques. <i>Scientific Reports</i> , <b>2017</b> , 7, 3680	4.9	8
88	Band pattern of commensurate modulated periodic structures. <i>IET Microwaves, Antennas and Propagation</i> , <b>2017</b> , 11, 1303-1307	1.6	2
87	Surface-admittance equivalence principle for nonradiating and cloaking problems. <i>Physical Review A</i> , <b>2017</b> , 95,	2.6	12
86	High Gain Rectangular Dielectric Resonator Antenna Using Uniaxial Material at Fundamental Mode. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2017</b> , 65, 342-347	4.9	42
85	Dual-Band Dual-Mode Textile Antenna on PDMS Substrate for Body-Centric Communications. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2017</b> , 16, 677-680	3.8	100
84	A Surface Impedance Model for a Microstrip-line based Metasurface <b>2017</b> ,		3
83	Kirchhoff's current law as local cloaking condition: theory and applications. <i>Electronics Letters</i> , <b>2016</b> , 52, 1749-1751	1.1	1
82	Metal-based materials for the development of implanted bio-devices (Invited paper) <b>2016</b> ,		1
81	Invisibility and cloaking structures as weak or strong solutions of Devaney-Wolf theorem. <i>Optics Express</i> , <b>2016</b> , 24, 19245-53	3.3	14
80	Controlling surface waves with metasurfaces: From planar propagation to conformal cloaking <b>2016</b> ,		1
79	On-body antennas: Design considerations and challenges <b>2016</b> ,		5
78	Development of a Metal Coated Conformal Periodic Geometry for Electromagnetic Application. <i>Advanced Materials Research</i> , <b>2015</b> , 1114, 224-228	0.5	1
77	Inverse Scattering Homogenization method for conformal metamaterial structures <b>2015</b> ,		3

76	EQUIVALENT-CIRCUIT MODELS FOR EFFICIENT TRANSMISSION AND DISPERSION ANALYSES OF MULTI-STATE PERIODIC STRUCTURES. <i>Progress in Electromagnetics Research</i> , <b>2015</b> , 153, 93-102	3.8	5
75	Strip-Width and Slot-Gap Dependent Equivalent Isotropic Substrate and Dispersion Characteristics of Asymmetric Coplanar Waveguide, Symmetric Coplanar Waveguide and Micro-Coplanar Strip Line on Anisotropic Substrates. <i>IEEE Transactions on Microwave Theory and Techniques</i> , <b>2014</b> , 62, 2232-2241	4.1	9
74	Width-Modulated Microstrip-Line Based Mantle Cloaks for Thin Single- and Multiple Cylinders. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2014</b> , 62, 2606-2615	4.9	37
73	. <i>IEEE Transactions on Electromagnetic Compatibility</i> , <b>2014</b> , 56, 1404-1411	2	120
72	Efficient Numerical Analysis of a Periodic Structure of Multistate Unit Cells. <i>International Journal of Antennas and Propagation</i> , <b>2014</b> , 2014, 1-6	1.2	
71	Full-Wave Analysis of Inhomogeneous Waveguiding Structures Containing Corners With Singular Hierarchical Curl-Conforming Vector Bases. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2014</b> , 13, 1701-1704	3.8	3
70	Application of a 2D electromagnetic band-gap structure with metal inclusions to signal integrity issues <b>2014</b> ,		1
69	Singular Hierarchical Curl-Conforming Vector Bases for Triangular Cells. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2014</b> , 62, 3632-3644	4.9	6
68	Hierarchical Additive Basis Functions for the Finite-Element Treatment of Corner Singularities. <i>Electromagnetics</i> , <b>2014</b> , 34, 171-198	0.8	4
67	. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2013</b> , 61, 4957-4972	4.9	39
66	A transmission polarizer based on width-modulated lines and slots <b>2013</b> ,		4
65	<b>2013</b> ,		10
64	An implantable Hilbert PIFA antenna for RFID based telemetry <b>2013</b> ,		2
63	Localized surface plasmon resonance: nano-sinusoid arrays. <i>Journal of Electromagnetic Waves and Applications</i> , <b>2013</b> , 27, 638-648	1.3	2
62	A low-profile dual-layer ultra-wideband frequency selective surface reflector. <i>Microwave and Optical Technology Letters</i> , <b>2013</b> , 55, 1223-1227	1.2	21
61	Polarization stable ultra-wide-band Frequency Selective Surface for Ku- and K- band applications <b>2013</b> ,		2
60	A leaky-wave antenna for beam steering in forward and backward directions <b>2013</b> ,		3
59	Controlling the Phase of the Scattered and/or Radiated Field From a High Impedance Surface of Quasi-Periodic Sequences. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2013</b> , 12, 321-324	3.8	4

58	An implantable PIFA antenna with a J-shaped proximity feed for RFID telemetry <b>2013</b> ,		3
57	Changing the Electromagnetic Bandgap and Stopbands in a Multistate Periodic Circuit. <i>Microwave and Optical Technology Letters</i> , <b>2013</b> , 55, 1871-1874	1.2	8
56	<b>2013</b> ,		1
55	Modelling PIN diode switches in reconfigurable leaky-wave antenna design <b>2013</b> ,		1
54	Singular, Hierarchical Scalar Basis Functions for Triangular Cells. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2013</b> , 61, 3674-3692	4.9	7
53	Electromagnetic communication solution for scuba-diving <b>2013</b> ,		2
52	A CONSTANT GAIN ULTRA-WIDEBAND ANTENNA WITH A MULTI-LAYER FREQUENCY SELECTIVE SURFACE. <i>Progress in Electromagnetics Research Letters</i> , <b>2013</b> , 38, 119-125	0.5	25
51	Investigation on FET switch integration techniques for a tunable microwave periodic structure <b>2012</b> ,		1
50	. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2012</b> , 11, 97-100	3.8	5
49	Phase contrivance modulated artificial metasurface embedded with rotated slot <b>2012</b> ,		1
48	Increasing the gain of a semicircular slot UWB antenna using an FSS reflector <b>2012</b> ,		9
47	EVOLUTION TOWARDS A NEW LSPR PARTICLE: NANO-SINUSOID. <i>Progress in Electromagnetics Research</i> , <b>2012</b> , 132, 199-213	3.8	2
46	Electromagnetic bandgap solution for mitigation of parallel-plate noise in power distribution networks. <i>Microwave and Optical Technology Letters</i> , <b>2012</b> , 54, 1689-1692	1.2	4
45	Metamaterial Based High Impedance Surface with Band-Pass Frequency Response. <i>Materials Science Forum</i> , <b>2012</b> , 721, 59-64	0.4	1
44	Investigation on localized surface plasmon resonance of different nano-particles for biosensor applications <b>2012</b> ,		1
43	The development of hierarchical bases of the additive kind for corner singularities in triangular cells <b>2012</b> ,		1
42	A printed radial configuration of width-modulated strip-lines for controlled guided-wave radiation <b>2012</b> ,		1
41	Reduced complexity biasing solution for switched parallel plate waveguide with embedded active metamaterial layer. <i>Journal of Electromagnetic Waves and Applications</i> , <b>2012</b> , 26, 1828-1836	1.3	5

40	Metamaterial-Based Millimeter-Wave Switchable Leaky Wave Antennas for On-Chip Implementation in Gaas Technology. <i>Journal of Electromagnetic Waves and Applications</i> , <b>2011</b> , 25, 49-61	1.3	16
39	Multioctave Frequency Selective Surface Reflector for Ultrawideband Antennas. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2011</b> , 10, 219-222	3.8	89
38	Oblique incidence performance of UWB frequency selective surfaces for reflector applications <b>2011</b> ,		8
37	Design and analysis of frequency-selective surfaces for ultrawideband applications <b>2011</b> ,		7
36	Effects of a Coplanar Waveguide Biasing Network Built Into the Ground Plane on the Dispersion Characteristics of a Tunable Unit Cell With an Elliptical Patch and Multiple Vias. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2011</b> , 10, 1088-1091	3.8	7
35	Enhanced gain UWB slot antenna with multilayer Frequency-Selective Surface reflector <b>2011</b> ,		3
34	Numerical analysis of 2D tunable HIS on GaAs support. <i>Applied Physics A: Materials Science and Processing</i> , <b>2011</b> , 103, 779-782	2.6	1
33	. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2011</b> , 59, 4588-4599	4.9	33
32	Active Switching Devices in a Tunable EBG Structure: Placement Strategies and Modelling. <i>Journal of Electromagnetic Waves and Applications</i> , <b>2011</b> , 25, 1740-1751	1.3	5
31	Analysis of the Gap Bandwidth of some High Impedance Surfaces in the Microwave Range. <i>Materials Science Forum</i> , <b>2010</b> , 670, 497-503	0.4	1
30	Analytically Expressed Dispersion Diagram of Unit Cells for a Novel Type of Holographic Surface. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2010</b> , 9, 1251-1254	3.8	19
29	Effects of the variation of the dielectric constant for a periodic, width-modulated microstrip line based sensor <b>2010</b> ,		1
28	Modulated strip-line leaky-wave antenna using a printed grating lens and a surface-wave source <b>2010</b> ,		6
27	TUNABLE PERIODIC MICROSTRIP STRUCTURE ON GAAS WAFER. <i>Progress in Electromagnetics Research</i> , <b>2009</b> , 97, 1-10	3.8	16
26	Efficient numerical analysis of large planar high impedance surface by the synthetic function expansion technique. <i>Microwave and Optical Technology Letters</i> , <b>2009</b> , 51, 2763-2769	1.2	5
25	. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2009</b> , 57, 1936-1943	4.9	24
24	Controlling the Bandlimits of TE-Surface Wave Propagation Along a Modulated Microstrip-Line-Based High Impedance Surface. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2008</b> , 56, 2555-2562	4.9	26
23	. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2008</b> , 56, 67-75	4.9	46



22	Analysis of Large Complex Structures With the Synthetic-Functions Approach. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2007</b> , 55, 2509-2521	4.9	150
21	Effect of transverse periodicity on the value of the effective dielectric constant for a microstrip line <b>2007</b> ,		4
20	Propagation of Electromagnetic Waves in a Sinusoidally Modulated Dielectric Substrate. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2007</b> , 6, 207-210	3.8	6
19	Some Insight Over New Variations of the Particle Swarm Optimization Method. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2006</b> , 5, 235-238	3.8	38
18	Numerical and Experimental Characterization of a Wide-Band Conformal Base Station Antenna <b>2006</b> ,		1
17	Particle swarm optimization of microwave microstrip filters <b>2004</b> ,		17
16	Synthetic-functions analysis of antennas and inter-antenna coupling in complex environments <b>2004</b> ,		2
15	Multi-grid, Multi-level Analysis of Printed Arrays and Circuits <b>2002</b> ,		1
14	Multiresolution analysis of printed antennas and circuits: a dual-isoscalar approach. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2001</b> , 49, 858-874	4.9	29
13	A novel multiresolution approach to the EFIE analysis of printed antennas. <i>Microwave and Optical Technology Letters</i> , <b>1999</b> , 23, 49-51	1.2	2
12	Application of numerical regularization options to the integral-equation analysis of printed antennas. <i>IEEE Transactions on Antennas and Propagation</i> , <b>1997</b> , 45, 570-572	4.9	6
11	A numerical regularization of the EFIE for three-dimensional planar structures in layered media (invited article). <i>The International Executive</i> , <b>1997</b> , 7, 410-431		21
10	A reduced representation of the frequency response of printed antennas. <i>The International Executive</i> , <b>1997</b> , 7, 432-441		4
9	Hybrid spectral-spatial method for the analysis of printed antennas. <i>Radio Science</i> , <b>1996</b> , 31, 1263-1270	1.4	4
8	Network parameters of printed antennas from the MoM solution		1
7	Improved PSO algorithms for electromagnetic optimization		12
6			1
5	Reduced-complexity MoM simulation of printed structures		2

4	Synthetic function analysis of large printed structures: the solution space sampling approach	55
3	Use of dynamic modes in the analysis of printed antennas and arrays	1
2		2
1	Investigations on the Doping Effects on the Properties of Piezoelectric Ceramics. <i>Advanced Materials Research</i> , 1158, 105-114	0.5 2