

Ville V Viikari

List of Publications by Year in descending order

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151
papers

1,832
citations

257450

24
h-index

330143

37
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151
all docs

151
docs citations

151
times ranked

1239
citing authors

#	ARTICLE	IF	CITATIONS
1	Eight-Element antenna array for diversity and mimo mobile terminal in LTE 3500 MHz band. <i>Microwave and Optical Technology Letters</i> , 2014, 56, 1323-1327.	1.4	128
2	Co-Designed mm-Wave and LTE Handset Antennas. <i>IEEE Transactions on Antennas and Propagation</i> , 2019, 67, 1545-1553.	5.1	108
3	Phase-Based UHF RFID Tracking With Nonlinear Kalman Filtering and Smoothing. <i>IEEE Sensors Journal</i> , 2012, 12, 904-910.	4.7	87
4	Intermodulation Read-Out Principle for Passive Wireless Sensors. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2011, 59, 1025-1031.	4.6	79
5	Optimization of Wireless Sensors Based on Intermodulation Communication. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2013, 61, 3446-3452.	4.6	72
6	Road-Condition Recognition Using 24-GHz Automotive Radar. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2009, 10, 639-648.	8.0	65
7	Implementation of Sensor RFID: Carrying Sensor Information in the Modulation Frequency. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2015, 63, 2672-2681.	4.6	63
8	On Design and Evaluation of Harmonic Transponders. <i>IEEE Transactions on Antennas and Propagation</i> , 2015, 63, 15-23.	5.1	52
9	Millimeter-wave beam shaping using holograms. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2003, 51, 1274-1280.	4.6	47
10	Frequency Reconfigurable Multiband Handset Antenna Based on a Multichannel Transceiver. <i>IEEE Transactions on Antennas and Propagation</i> , 2017, 65, 4452-4460.	5.1	43
11	Concept for Frequency-Reconfigurable Antenna Based on Distributed Transceivers. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2017, 16, 764-767.	4.0	42
12	Analyzing Radar Cross Section Signatures of Diverse Drone Models at mmWave Frequencies. <i>IEEE Access</i> , 2020, 8, 48958-48969.	4.2	40
13	Design Strategy for 4G Handset Antennas and a Multiband Hybrid Antenna. <i>IEEE Transactions on Antennas and Propagation</i> , 2014, 62, 1918-1927.	5.1	37
14	Dual-Polarized Ka-Band Vivaldi Antenna Array. <i>IEEE Transactions on Antennas and Propagation</i> , 2020, 68, 2675-2683.	5.1	34
15	Dual-Polarized mm-Wave Endfire Antenna for Mobile Devices. <i>IEEE Transactions on Antennas and Propagation</i> , 2020, 68, 5924-5934.	5.1	34
16	RFID MEMS Sensor Concept Based on Intermodulation Distortion. <i>IEEE Sensors Journal</i> , 2009, 9, 1918-1923.	4.7	33
17	Dual-Polarized mm-Wave Endfire Chain-Slot Antenna for Mobile Devices. <i>IEEE Transactions on Antennas and Propagation</i> , 2021, 69, 25-34.	5.1	31
18	Ranging of UHF RFID Tag Using Stepped Frequency Read-Out. <i>IEEE Sensors Journal</i> , 2010, 10, 1535-1539.	4.7	29

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19	MULTIBAND FREQUENCY RECONFIGURABLE 4G HANDSET ANTENNA WITH MIMO CAPABILITY. Progress in Electromagnetics Research, 2014, 148, 233-243.	4.4	29
20	Holograms for shaping radio-wave fields. Journal of Optics, 2002, 4, S161-S167.	1.5	27
21	Testing of a 1.5-m reflector antenna at 322 GHz in a CATR based on a hologram. IEEE Transactions on Antennas and Propagation, 2005, 53, 3142-3150.	5.1	26
22	Hologram-based compact range for submillimeter-wave antenna testing. IEEE Transactions on Antennas and Propagation, 2005, 53, 3151-3159.	5.1	26
23	Antenna Tests With a Hologram-Based CATR at 650 GHz. IEEE Transactions on Antennas and Propagation, 2009, 57, 711-720.	5.1	25
24	Coupling of Characteristic Modes on PEC and Lossy Dielectric Structures. IEEE Transactions on Antennas and Propagation, 2019, 67, 2565-2573.	5.1	25
25	Unbroken Metal Rim MIMO Antenna Utilizing Antenna Clusters. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 1071-1075.	4.0	24
26	Beam-Switching Dual-Spherical Lens Antenna With Low Scan Loss at 71–76 GHz. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 1871-1875.	4.0	21
27	Designing Hand-Immune Handset Antennas With Adaptive Excitation and Characteristic Modes. IEEE Transactions on Antennas and Propagation, 2021, 69, 3829-3839.	5.1	21
28	Wireless ferroelectric resonating sensor. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 785-791.	3.0	19
29	Technical Solutions for Automotive Intermodulation Radar for Detecting Vulnerable Road Users. , 2009, , .		18
30	Tunable eight-element MIMO antenna based on the antenna cluster concept. IET Microwaves, Antennas and Propagation, 2019, 13, 959-965.	1.4	18
31	Passive Wireless Sensor Platform Utilizing a Mechanical Resonator. IEEE Sensors Journal, 2013, 13, 1180-1186.	4.7	17
32	Plastic-Filled Dual-Polarized Lens Antenna for Beam-Switching in the <i>Ka</i> -Band. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 2458-2462.	4.0	15
33	Surface-Mounted Ka-Band Vivaldi Antenna Array. IEEE Open Journal of Antennas and Propagation, 2021, 2, 126-137.	3.7	15
34	A feed scanning based APC technique for compact antenna test ranges. IEEE Transactions on Antennas and Propagation, 2005, 53, 3160-3165.	5.1	14
35	Transponder Designs for Harmonic Radar Applications. International Journal of Antennas and Propagation, 2015, 2015, 1-9.	1.2	14
36	Antenna Matching at Harmonic Frequencies to Complex Load Impedance. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 535-538.	4.0	14

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37	METAL-COVERED HANDSET WITH LTE MIMO, WI-FI MIMO, AND GPS ANTENNAS. Progress in Electromagnetics Research C, 2018, 80, 89-101.	0.9	14
38	ANTENNA PATTERN RETRIEVAL FROM REFLECTION COEFFICIENT MEASUREMENTS WITH REFLECTIVE LOADS. Progress in Electromagnetics Research, 2014, 148, 15-22.	4.4	13
39	Designing Harmonic Transponders Using Lumped-Component Matching Circuits. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 246-249.	4.0	13
40	Antenna Pattern Correction Technique Based on an Adaptive Array Algorithm. IEEE Transactions on Antennas and Propagation, 2007, 55, 2194-2199.	5.1	11
41	HARMONIC TRANSPONDERS: PERFORMANCE AND CHALLENGES. Progress in Electromagnetics Research M, 2015, 41, 139-147.	0.9	11
42	RFID-Based Book Finder [Education Corner]. IEEE Antennas and Propagation Magazine, 2016, 58, 72-80.	1.4	11
43	A study of 5G antennas in a mobile terminal. , 2017, , .		11
44	Performance Analysis of Frequency-Reconfigurable Antenna Cluster With Integrated Radio Transceivers. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 756-759.	4.0	11
45	Realizing Optimal Current Distributions for Radiation Efficiency in Practical Antennas. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 731-735.	4.0	10
46	Comparison of Additively Manufactured and Machined Antenna Array Performance at $\langle i \rangle \text{Ka} \langle /i \rangle$ -Band. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 9-13.	4.0	10
47	Characterization of Transponder Antennas Using Intermodulation Response. IEEE Transactions on Antennas and Propagation, 2015, 63, 2412-2420.	5.1	9
48	Designing a Passive Retrodirective Wireless Sensor. IEEE Antennas and Wireless Propagation Letters, 2017, , 1-1.	4.0	9
49	Millimeter-Wave Antennas for 5G. , 2018, , .		9
50	Switch-Reconfigurable Metal Rim MIMO Handset Antenna With Distributed Feeding. IEEE Access, 2019, 7, 48971-48981.	4.2	9
51	Capacitively-Loaded Feed Line to Improve mm-Wave and Sub-6 GHz Antenna Co-Existence. IEEE Access, 2020, 8, 139680-139690.	4.2	9
52	Waveguide-Based Phased Array With Integrated Element-Specific Electronics for 28 GHz. IEEE Access, 2019, 7, 90045-90054.	4.2	8
53	Ambient Backscattering Transponder With Independently Switchable Rx and Tx Antennas. , 2019, 3, 1-4.		8
54	Polarization Conversion-Based Ambient Backscatter System. IEEE Access, 2020, 8, 216793-216804.	4.2	8

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55	Orthogonality Properties of Characteristic Modes for Lossy Structures. IEEE Transactions on Antennas and Propagation, 2022, 70, 5597-5605.	5.1	8
56	Maximum-Likelihood Estimation for Passive Wireless Intermodulation Communication Sensors. IEEE Sensors Journal, 2015, 15, 2280-2286.	4.7	7
57	Optimization of RFID Sensor With Frequency Modulation. IEEE Sensors Journal, 2016, 16, 5993-6002.	4.7	7
58	Lens antenna design for E-band point-to-point radio links. , 2017, , .		7
59	Combinatory Feeding Method for Mobile Applications. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 1312-1316.	4.0	7
60	A 1.5-5-GHz Integrated RF Transmitter Front End for Active Matching of an Antenna Cluster. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 4728-4739.	4.6	7
61	Extremely Low-Profile Tunable Multiport Handset Antenna. IEEE Transactions on Antennas and Propagation, 2022, 70, 911-921.	5.1	7
62	Radio-wave beam shaping using holograms. , 0, , .		7
63	Antenna Pattern Correction Technique Based on Signal-to-Interference Ratio Optimization. IEEE Antennas and Wireless Propagation Letters, 2007, 6, 267-270.	4.0	6
64	Wireless passive photo detector for insect tracking. Microwave and Optical Technology Letters, 2010, 52, 2312-2315.	1.4	6
65	Reflection coefficient method for antenna radiation pattern measurements. , 2015, , .		6
66	LTE handset antenna with closely-located radiators, low-band MIMO, and high efficiency. , 2017, , .		6
67	Rod Waveguides as Future 5G Antennas for Mobile Devices. , 2018, , .		6
68	E-Band Beam-Steerable and Scalable Phased Antenna Array for 5G Access Point. International Journal of Antennas and Propagation, 2018, 2018, 1-10.	1.2	6
69	A Lumped-Element Decoupling and Matching Network for a Four-Element Mobile Handset MIMO Antenna. International Journal of Antennas and Propagation, 2019, 2019, 1-7.	1.2	6
70	A Modular Dual-Polarized Ka-Band Vivaldi Antenna Array. IEEE Access, 2022, 10, 36362-36372.	4.2	6
71	Optimized signal processing for FMCW interrogated reflective delay line-type SAW sensors. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 2522-2526.	3.0	5
72	Further investigations on the behavior of a frequency reconfigurable antenna cluster. , 2017, , .		5

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73	Dual-Polarized mm-Wave Antenna Solution for Mobile Phone. , 2020, , .		5
74	Dual-Band Dual-Polarized mm-Wave Slot Antenna Array for Mobile Handsets. , 2020, , .		5
75	Broadband Transponder Based on Frequency-Reconfigurable Cluster Antenna and Phased Modulators. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 238-242.	4.0	5
76	Low-Profile Scanloss-Reduced Integrated Metal-Lens Antenna. IEEE Transactions on Antennas and Propagation, 2022, 70, 876-887.	5.1	5
77	Dual-Polarized 2â€“6 GHz Antenna Array With Inverted BoR Elements and Integrated PCB Feed. IEEE Open Journal of Antennas and Propagation, 2022, 3, 229-237.	3.7	5
78	A Frequency Shift Technique for Pattern Correction in Hologram-Based CATRs. IEEE Transactions on Antennas and Propagation, 2006, 54, 2963-2968.	5.1	4
79	Achieving long reading ranges with passive wireless intermodulation sensors. , 2014, , .		4
80	Dielectric-filled waveguide antenna array for millimeter-wave communications. , 2017, , .		4
81	Antenna Measurements at Millimeter and Submillimeter Wavelengths. Signals and Communication Technology, 2018, , 409-450.	0.5	4
82	Reducing User Effect on Mobile Antenna Systems With Antenna Cluster Technique. , 2020, , .		4
83	Beam-Steerable Transponder Based on Antenna Array and Phased Modulators. IEEE Antennas and Wireless Propagation Letters, 2021, 20, 356-360.	4.0	4
84	A Method for Tailoring the Gain Pattern of a Single Antenna Element. IEEE Open Journal of Antennas and Propagation, 2021, 2, 431-438.	3.7	4
85	Sub-mm antenna tests in a hologram-based CATR. IEEE Antennas and Propagation Magazine, 2005, 47, 237-240.	1.4	3
86	How to test a high-gain antenna at THz frequencies?. , 2007, , .		3
87	Extension to Characterization Model for GPS Antenna Performance in Mobile Terminals. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 1212-1215.	4.0	3
88	DESIGN AND MEASUREMENT-BASED EVALUATION OF MULTI-ANTENNA MOBILE TERMINALS FOR LTE 3500 MHZ BAND. Progress in Electromagnetics Research B, 2013, 53, 241-266.	1.0	3
89	Review of passive wireless sensors utilizing the intermodulation communication. , 2014, , .		3
90	Long range passive wireless MEMS-based inclination or acceleration sensor utilizing the intermodulation communication principle. , 2014, , .		3

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91	Investigation on bendable mobile devices in the presence of the user. , 2014, , .		3
92	Realizing frequency division multiple access with passive wireless intermodulation communication sensors. Microwave and Optical Technology Letters, 2015, 57, 274-277.	1.4	3
93	Single-element handset antenna design for modern smartphones: An industrial approach. , 2017, , .		3
94	Millimeter-Wave Imaging Method based on Frequency-Diverse Subarrays. , 2019, , .		3
95	5G Antenna Challenges and Opportunities. , 2019, , .		3
96	Characterizing 60 GHz Patch Antenna Segments for Fully Digital Transceiver. , 2020, , .		3
97	A 2â€“5.5 GHz Beamsteering Receiver IC With 4-Element Vivaldi Antenna Array. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 3852-3860.	4.6	3
98	Comparison of Different Antenna Cluster Weighting Methods. , 2020, , .		3
99	Estimator for reflective delay line-type SAW sensors. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 1277-1281.	3.0	2
100	Wakeâ€“up radio architecture utilizing passive down conversion mixing. Microwave and Optical Technology Letters, 2013, 55, 1038-1041.	1.4	2
101	Radiation pattern retrieval from impedance measurement with a reflective object in the antenna near field. , 2014, , .		2
102	Double loop matching technique for robust UHF RFID tag antennas. , 2014, , .		2
103	Realization of RFID tag antenna with 3D printing technology. , 2016, , .		2
104	Transponder utilizing the modulated re-scattering communication principle. , 2017, , .		2
105	CARRIER AGGREGATION COMPATIBLE MIMO ANTENNA FOR LTE HANDSET. Progress in Electromagnetics Research C, 2017, 78, 1-10.	0.9	2
106	Integrated Lens Antennas for E-Band. , 2018, , .		2
107	Millimeter-wave stepped series array with LTCC. , 2019, , .		2
108	Beam-Reconfigurable Antenna Based on Vector Modulator and Rotman Lens on LTCC. IEEE Access, 2021, 9, 52872-52882.	4.2	2

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109	MILLIMETER-WAVE FREQUENCY-DIVERSE IMAGING WITH PHASED ARRAY INTENDED FOR COMMUNICATIONS. Progress in Electromagnetics Research M, 2021, 101, 69-78.	0.9	2
110	Q -Factor for Multiport Antennas and Achievable Bandwidth Estimation. IEEE Transactions on Antennas and Propagation, 2021, 69, 6364-6373.	5.1	2
111	A Frequency Tunable MIMO Antenna Cluster with Transmitter IC. , 2021, , .		2
112	Positioning of orthogonally-polarized waveguide probes for near-field antenna measurement. , 2021, , .		2
113	Low-Scattering Chopped Dipole for Secondary Surveillance Radar. IEEE Transactions on Antennas and Propagation, 2022, 70, 1694-1705.	5.1	2
114	Development of a hologram-based CATR for testing a very high gain antenna at 650 GHz. , 2006, , .		1
115	Compact Antenna Test Range Based on a Computer-Generated Hologram and Its Use at Submillimeter Wavelengths. , 2007, , .		1
116	Theory and applications of millimeter wave identification. , 2010, , .		1
117	Suitable multiantenna placement in mobile handsets based on electromagnetic isolation. , 2016, , .		1
118	UHF RFID sensors based on frequency modulation. , 2016, , .		1
119	Wideband monopole antenna for RF power scavenger. , 2016, , .		1
120	Uncertainty analysis of intermodulation-based antenna measurements. , 2016, , .		1
121	Diagnostics of the Phased Array for E-Band Using Holography Data. , 2018, , .		1
122	Effect of mutual coupling between feed elements on integrated lens antenna performance. IET Microwaves, Antennas and Propagation, 2018, 12, 1649-1655.	1.4	1
123	Millimeter-Wave Antennas for Mobile Devices and Networks. , 2019, , .		1
124	Co-Designed Handset Antennas with Wide Angular mm-Wave Coverage and LTE MIMO. , 2019, , .		1
125	Optimizing RF Efficiency of a Vector-Modulator-Driven Antenna Array. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 2507-2511.	4.0	1
126	Substrate integrated waveguide E-plane tapering in low-temperature co-fired ceramic. Microwave and Optical Technology Letters, 2021, 63, 1165-1170.	1.4	1

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127	FOUR-ELEMENT LOW-BAND MIMO ANTENNA FOR MOBILE PHONES WITH SMALL CLEARANCE. Progress in Electromagnetics Research Letters, 2021, 98, 145-153.	0.7	1
128	Low-Band LTE Antenna Integrated into mm-Wave Handset Antenna. , 2021, , .		1
129	A Method to Co-Design Antenna Element and Array Patterns. IEEE Access, 2022, 10, 31190-31200.	4.2	1
130	Dielectric-loaded flat reflector test antenna for submillimetre wavelengths. , 2005, , .		0
131	Hologram based compact ranges for antenna and RCS testing at submm waves. , 2005, , .		0
132	Integrated passive wireless sensor transponders based on the intermodulation communication principle. , 2014, , .		0
133	Dual-resonant PIFA for body area networks. , 2015, , .		0
134	Effect of shape and surroundings on harmonic transponder performance. , 2016, , .		0
135	RF-powered multi-sensing platform for RFID with frequency modulation. , 2016, , .		0
136	Applying bandwidth estimators to tablet antenna design. , 2016, , .		0
137	Mitigation of multiple reflections in antenna pattern retrieval method. , 2016, , .		0
138	Study on non-linear effects of two coupled UHF-band RFID tags. , 2017, , .		0
139	Antenna tuning without physical matching elements. , 2017, , .		0
140	Diagnostics of the Phased Array for E-band Using Holography Data. , 2018, , .		0
141	Beam Optimization for 28 GHz Phased Array Utilizing Measurement Data. , 2020, , .		0
142	Adjusting Radiation Pattern of Small Antennas. , 2020, , .		0
143	Eight-Element MIMO Handset Based on Combinatory Feeding. , 2020, , .		0
144	A Compact Low-Power 140-GHz Low-Noise Amplifier with 19-dB Gain and 7-dB NF. , 2021, , .		0

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145	A Transmitter IC with Supply Tuning for Frequency-Reconfigurable Antenna Cluster. , 2021, , .		0
146	Concept of Beam Steerable Transponder based on Load Modulation. , 2020, , .		0
147	Characterization of an Antenna Cluster and Transmitter IC with a Modulated Signal. , 2021, , .		0
148	Leveraging frequency agility of an MIMO antenna cluster with a transmitter IC. International Journal of Microwave and Wireless Technologies, 0, , 1-10.	1.9	0
149	A Dual-Polarized Wideband Planar Multiport Mobile Antenna. , 2022, , .		0
150	Effect of Integrated Lens Antenna Diameter on Scan Loss. , 2022, , .		0
151	Surface-Wave Minimization Using Spherical Wave Expansion. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1639-1643.	4.0	0