

Gregory H Huff

List of Publications by Year in descending order

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102
papers

1,109
citations

516710

16
h-index

454955

30
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103
all docs

103
docs citations

103
times ranked

908
citing authors

#	ARTICLE	IF	CITATIONS
1	A novel radiation pattern and frequency reconfigurable single turn square spiral microstrip antenna. IEEE Microwave and Wireless Components Letters, 2003, 13, 57-59.	3.2	178
2	Frequency reconfigurable patch antenna using liquid metal as switching mechanism. Electronics Letters, 2013, 49, 1370-1371.	1.0	78
3	Manipulating Liquid Metal Droplets in Microfluidic Channels With Minimized Skin Residues Toward Tunable RF Applications. Journal of Microelectromechanical Systems, 2015, 24, 1069-1076.	2.5	66
4	Microfluidically Switched Frequency-Reconfigurable Slot Antennas. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 828-831.	4.0	55
5	A Frequency Reconfigurable Dielectric Resonator Antenna Using Colloidal Dispersions. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 288-290.	4.0	52
6	A Stochastic Mathematical Framework for the Analysis of Spherically-Bound Random Arrays. IEEE Transactions on Antennas and Propagation, 2014, 62, 3002-3011.	5.1	46
7	Stripline-Fed Archimedean Spiral Antenna. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 346-349.	4.0	44
8	Analysis of a Variable SIW Resonator Enabled by Dielectric Material Perturbations and Applications. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 225-233.	4.6	33
9	Performance analysis of wireless hybrid-ARQ systems with delay-sensitive traffic. IEEE Transactions on Communications, 2010, 58, 1262-1272.	7.8	32
10	Self-foldable origami reflector antenna enabled by shape memory polymer actuation. Smart Materials and Structures, 2020, 29, 115011.	3.5	29
11	A Physically Reconfigurable Structurally Embedded Vascular Antenna. IEEE Transactions on Antennas and Propagation, 2017, 65, 2282-2288.	5.1	27
12	INVESTIGATION OF FOLD-DEPENDENT BEHAVIOR IN AN ORIGAMI-INSPIRED FSS UNDER NORMAL INCIDENCE. Progress in Electromagnetics Research M, 2018, 63, 131-139.	0.9	25
13	Improvements in the performance of microstrip antennas on finite ground planes through ground plane edge serrations. IEEE Microwave and Wireless Components Letters, 2002, 12, 308-310.	3.2	24
14	A Fluidic Loading Mechanism in a Polarization Reconfigurable Antenna With a Comparison to Solid State Approaches. IEEE Transactions on Antennas and Propagation, 2014, 62, 4008-4014.	5.1	20
15	RF Dielectric Loss Due to MOCVD Aluminum Nitride on High Resistivity Silicon. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 1465-1470.	4.6	19
16	Colloidal microstructures, transport, and impedance properties within interfacial microelectrodes. Applied Physics Letters, 2007, 90, 224102.	3.3	18
17	Increasing channel capacity on MIMO system employing adaptive pattern/polarization reconfigurable antenna. , 2007, , .		17
18	Three variations of a pattern-reconfigurable microstrip parasitic array. Microwave and Optical Technology Letters, 2005, 45, 369-372.	1.4	16

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19	On the Applications for a Radiation Reconfigurable Antenna. , 2007, , .		16
20	A Fluidic Loading Mechanism for Phase Reconfigurable Reflectarray Elements. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 876-879.	4.0	16
21	A liquid metal-based structurally embedded vascular antenna: I. Concept and multiphysical modeling. Smart Materials and Structures, 2017, 26, 025001.	3.5	15
22	Physical reconfiguration of an origami-inspired deployable microstrip patch antenna array. , 2017, , .		15
23	A Spherical Inverted-F Antenna (SIFA). IEEE Antennas and Wireless Propagation Letters, 2009, 8, 649-652.	4.0	14
24	Origami-Inspired Frequency Selective Surface with Fixed Frequency Response under Folding. Sensors, 2019, 19, 4808.	3.8	14
25	A comparison of geometrically bound random arrays in euclidean space. , 2011, , .		12
26	An investigation of geolocation-aware beamforming algorithms for swarming UAVs. , 2017, , .		11
27	A comparative study of diversity gain and spatial coverage: Fixed versus reconfigurable antennas for portable devices. Microwave and Optical Technology Letters, 2007, 49, 535-539.	1.4	10
28	A Coaxial Stub Microfluidic Impedance Transformer (Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td (emphasistype="italic"&) 2010, 20, 154-156.	3.2	10
29	Stripline-based spiral antennas with integrated feed structure, impedance transformer, and dyson-style balun. , 2007, , .		9
30	An Origami Inspired Circularly-Polarized Folding Patch Antenna Array. , 2018, , .		9
31	3-D Printed Directional Couplers in Circular Waveguide. IEEE Microwave and Wireless Components Letters, 2021, 31, 561-564.	3.2	9
32	ANALYTICAL INVESTIGATION OF PERIODIC COPLANAR WAVEGUIDES. Progress in Electromagnetics Research M, 2013, 30, 167-181.	0.9	8
33	Transmission line analysis of the Archimedean spiral antenna in free space. Journal of Electromagnetic Waves and Applications, 2014, 28, 1175-1193.	1.6	8
34	Enabling High Performance Wireless Communication Systems Using Reconfigurable Antennas. , 2006, , .		7
35	Cognitive Motion-Dynamic Tethering of a Phased Array to an Android Smartphone. IEEE Transactions on Antennas and Propagation, 2014, 62, 1093-1101.	5.1	7
36	Investigation of beamforming patterns from volumetrically distributed phased arrays. , 2017, , .		7

#	ARTICLE	IF	CITATIONS
37	Folding, Tessellation, and Deployment of an Origami-Inspired Active-Material-Enabled Self-Folding Reflector Antenna. , 2018, , .		7
38	A Sensor-Driven Analysis of Distributed Direction Finding Systems Based on UAV Swarms. Sensors, 2019, 19, 2659.	3.8	7
39	On the Constant Input Impedance of the Archimedean Spiral Antenna in Free-Space. IEEE Transactions on Antennas and Propagation, 2014, 62, 3869-3872.	5.1	6
40	A Substrate Integrated Fluidic Compensation Mechanism for Deformable Antennas. , 2009, , .		5
41	Experiments on a fluidic loading mechanism for beam-steering reflectarrays. , 2010, , .		5
42	Biologically-inspired vascular antenna reconfiguration mechanism. Electronics Letters, 2011, 47, 637.	1.0	5
43	Reconfigurable Antennas, Preemptive Switching and Virtual Channel Management. IEEE Transactions on Communications, 2014, 62, 1272-1282.	7.8	5
44	Analysis and characterization of structurally embedded vascular antennas using liquid metals. Proceedings of SPIE, 2016, , .	0.8	5
45	Electroless silver plating of 3D printed waveguide components by peristaltic pump driven system. Electronics Letters, 2019, 55, 100-102.	1.0	5
46	Circularlyâ€polarised origamiâ€inspired folding patch antenna subâ€array. IET Microwaves, Antennas and Propagation, 2020, 14, 1262-1271.	1.4	5
47	Null Beamsteering Using Distributed Arrays and Shared Aperture Distributions. IEEE Transactions on Antennas and Propagation, 2020, 68, 5353-5364.	5.1	5
48	Direction of arrival estimation using canonical and crystallographic volumetric element configurations. , 2012, , .		4
49	Modal Resistance of Spiral Antenna. Journal of Electromagnetic Analysis and Applications, 2013, 05, 223-228.	0.2	4
50	Dualâ€band frequency selective surfaces based on multiâ€arm subâ€wavelength Archimedean spirals. Electronics Letters, 2015, 51, 1476-1478.	1.0	3
51	Occupancy Estimation With Wireless Monitoring Devices and Application-Specific Antennas. IEEE Transactions on Signal Processing, 2017, 65, 2123-2135.	5.3	3
52	A computer vision-based framework for the synthesis and analysis of beamforming behavior in swarming intelligent systems. , 2017, , .		3
53	Impact of UAV swarm density and heterogeneity on synthetic aperture DoA convergence. , 2017, , .		3
54	Multi-Layer and Conformally Integrated Structurally Embedded Vascular Antenna (SEVA) Arrays. Sensors, 2021, 21, 1764.	3.8	3

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55	An adaptive SIW filter using vertically-orientated fluidic material perturbations. , 2010, , .		2
56	Fluidic tuning of a frequency selective surface based on a four-arm Archimedean spiral. , 2013, , .		2
57	A Geometrically-Appropriate Cavity Model for a Spherical Inverted-F Antenna (SIFA). IEEE Transactions on Antennas and Propagation, 2013, 61, 2404-2410.	5.1	2
58	Development and analysis of a stripline Archimedean snail antenna for disk-shaped unmanned aerial vehicle applications. Journal of Electromagnetic Waves and Applications, 2014, 28, 685-699.	1.6	2
59	Random antenna array phase and range limitations. , 2015, , .		2
60	Orientation-awareness and wireless systems. , 2015, , .		2
61	Frequency tuning through physical reconfiguration of a corrugated origami frequency selective surface. , 2017, , .		2
62	Polygonalization of mm-wave dual-band circular phased arrays for multi-mode beamforming. , 2018, , .		2
63	Electroless Silver Plating of Additive Manufactured Trough Waveguide Mode Transducer and Antenna Structure. , 2019, , .		2
64	Statistical Analysis and Discussion of Circularly Bound Random Antenna Array Distributions. , 2019, , .		2
65	Design Optimization of Origami-Tunable Frequency Selective Surfaces. IEEE Open Journal of Antennas and Propagation, 2021, 2, 897-910.	3.7	2
66	Impact of Position Errors on Synthetic Aperture DOA Convergence Based on Swarming UAV s. , 2020, , .		2
67	Mapping geometric and electromagnetic feature spaces with machine learning for additively manufactured RF devices. Additive Manufacturing, 2022, 50, 102549.	3.0	2
68	Ground plane edge serrations for improved performance of microstrip active reflectarray elements. IEEE Antennas and Wireless Propagation Letters, 2003, 2, 334-336.	4.0	1
69	Detecting the presence of a proximate cellular user through distributed femtocell sensing. , 2012, , .		1
70	A closed-form analysis of infinitely parallel coplanar waveguides. , 2013, , .		1
71	Real-time and near-real-time acquisition systems for measuring aliasing in small arrays based on crystal microstructures. , 2013, , .		1
72	A fluidic-enabled polarization reconfigurable antenna on a hexagonal substrate tile. , 2013, , .		1

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73	Analysis and experiments on peaking sidelobe and scanning behavior in planar random arrays. , 2014, , .		1
74	Fluidic-Enabled Reconfigurable Patch With Integrated Dielectric Spectrometer. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 1116-1119.	4.0	1
75	Distributed beamforming from triangular planar random antenna arrays. , 2015, , .		1
76	A study of liquid metal alloy reconfigurable antennas embedded in a structural composite. , 2016, , .		1
77	Transmit beamforming for radar applications using circularly tapered random arrays. , 2017, , .		1
78	Synchronization considerations using circularly distributed arrays. , 2017, , .		1
79	A polarization reconfigurable microstrip patch antenna using liquid metal microfluidics. Smart Materials and Structures, 2020, 29, 045032.	3.5	1
80	Experimental Mechanics for Multifunctional Composites and Next Generation UAVs. Conference Proceedings of the Society for Experimental Mechanics, 2018, , 215-221.	0.5	1
81	Reconfigurable radiation from a W-band trough waveguide antenna: trade-offs in impedance and radiation from tapered MEMS-based perturbations. , 2007, , .		0
82	A cognitive compensation mechanism for deformable antennas. , 2009, , .		0
83	Automation of reconfiguration, compensation, and thermoregulation using vascular networks. , 2012, , .		0
84	Re-visitation on the input impedance of two-arm frequency-independent antennas in free space. , 2013, , .		0
85	Localization of a single source with orientation-aware smart devices. , 2013, , .		0
86	An android-controlled direction of arrival system using polarization-reconfigurable antennas. , 2013, , .		0
87	Reconfigurable antennas, preemptive switching and virtual channel management under partial observations. , 2013, , .		0
88	Evaluation of Fluidic-Based Mechanisms for Electromagnetic Compensation from Mechanical Bending and Thermoregulation of Flexible Patch Antenna. , 2013, , .		0
89	Antenna design for graph inference: Striking a balance between quality and quantity. , 2014, , .		0
90	Adding dimensions to wireless systems with orientation-aware devices and reconfigurable antennas. , 2014, , .		0

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91	On the design and analysis of antenna patterns for localization with smart devices. , 2014, , .		0
92	Design, analysis, and reconfiguration of a multi-arm spiral frequency selective surface. , 2014, , .		0
93	A novel fluidic switch for high power applications. , 2014, , .		0
94	Development of UAS Design Based on Wideband Antenna Architecture. Aerospace, 2015, 2, 312-324.	2.2	0
95	A cognitive spatial learning control system for volumetric random arrays. , 2015, , .		0
96	Z0lver: A cross-platform open-source App for transmission line analysis and circuit design. , 2015, , .		0
97	A micro air vehicle design based on a wideband antenna. , 2015, , .		0
98	Modal beam generation from circularly bound random array topologies. , 2016, , .		0
99	Experimental transmit beamforming using a circular canonical family bound to a locus of quadric roots. , 2017, , .		0
100	Graphical Material Selection Methods for Multi-Constraint, Multi-Functional Composites Pressure Vessels. , 2017, , .		0
101	Lossy Beam Generation of Circular Arrays. , 2021, , .		0
102	Additive manufactured spherical resonator V&Eband elliptical waveguide filter. Microwave and Optical Technology Letters, 0, , .	1.4	0