

Gabriele Gradoni

List of Publications by Year in descending order

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131
papers

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citations

361413

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131
all docs

131
docs citations

131
times ranked

1043
citing authors

#	ARTICLE	IF	CITATIONS
1	Broadband Electromagnetic Absorbers Using Carbon Nanostructure-Based Composites. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 2633-2646.	4.6	225
2	Optimization of Multilayer Shields Made of Composite Nanostructured Materials. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 60-69.	2.2	85
3	Predicting the statistics of wave transport through chaotic cavities by the random coupling model: A review and recent progress. Wave Motion, 2014, 51, 606-621.	2.0	85
4	End-to-End Mutual Coupling Aware Communication Model for Reconfigurable Intelligent Surfaces: An Electromagnetic-Compliant Approach Based on Mutual Impedances. IEEE Wireless Communications Letters, 2021, 10, 938-942.	5.0	82
5	Wireless Environment as a Service Enabled by Reconfigurable Intelligent Surfaces: The RISE-6G Perspective. , 2021, , .		73
6	Electromagnetic shielding of thermal protection system for hypersonic vehicles. Acta Astronautica, 2013, 87, 30-39.	3.2	66
7	Reduction of satellite electromagnetic scattering by carbon nanostructured multilayers. Acta Astronautica, 2013, 88, 61-73.	3.2	66
8	REVERBERATION CHAMBER AS A MULTIVARIATE PROCESS: FDTD EVALUATION OF CORRELATION MATRIX AND INDEPENDENT POSITIONS. Progress in Electromagnetics Research, 2013, 133, 217-234.	4.4	47
9	Parity-time symmetric coupled microresonators with a dispersive gain/loss. Optics Express, 2015, 23, 11493.	3.4	47
10	Generalized Extreme-Value Distributions of Power Near a Boundary Inside Electromagnetic Reverberation Chambers. IEEE Transactions on Electromagnetic Compatibility, 2010, 52, 506-515.	2.2	42
11	Determination of the electrical conductivity of carbon/carbon at high microwave frequencies. Carbon, 2013, 54, 76-85.	10.3	42
12	Accurate Analysis of Reverberation Field Penetration Into an Equipment-Level Enclosure. IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 170-180.	2.2	41
13	A phase-space approach for propagating field-field correlation functions. New Journal of Physics, 2015, 17, 093027.	2.9	38
14	Probability Distribution of the Quality Factor of a Mode-Stirred Reverberation Chamber. IEEE Transactions on Electromagnetic Compatibility, 2013, 55, 35-44.	2.2	33
15	Tunable nanostructured composite with built-in metallic wire-grid electrode. AIP Advances, 2013, 3, .	1.3	29
16	Numerical and Experimental Analysis of the Field to Enclosure Coupling in Reverberation Chamber and Comparison With Anechoic Chamber. IEEE Transactions on Electromagnetic Compatibility, 2006, 48, 203-211.	2.2	28
17	ABSORBING CROSS SECTION IN REVERBERATION CHAMBER: EXPERIMENTAL AND NUMERICAL RESULTS. Progress in Electromagnetics Research B, 2012, 45, 187-202.	1.0	27
18	A Statistical Model for the Excitation of Cavities Through Apertures. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 1049-1061.	2.2	25

#	ARTICLE	IF	CITATIONS
19	Challenges of time domain measurement of field-field correlation for complex PCBs. , 2015, , .		23
20	Coupling Between Multipath Environments Through a Large Aperture. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1463-1466.	4.0	23
21	Wigner-Function-Based Propagation of Stochastic Field Emissions From Planar Electromagnetic Sources. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 580-588.	2.2	23
22	Base-Case Model for Measurement Uncertainty in a Reverberation Chamber Including Frequency Stirring. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 1695-1703.	2.2	22
23	Quantifying volume changing perturbations in a wave chaotic system. New Journal of Physics, 2013, 15, 023025.	2.9	21
24	Shielding effectiveness of carbon nanotube reinforced concrete composites by reverberation chamber measurements. , 2015, , .		19
25	Wireless Fingerprinting Localization in Smart Environments Using Reconfigurable Intelligent Surfaces. IEEE Access, 2021, 9, 135526-135541.	4.2	19
26	Localized Single Frequency Lasing States in a Finite Parity-Time Symmetric Resonator Chain. Scientific Reports, 2016, 6, 20499.	3.3	18
27	Near-Field MIMO Communication Links. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 3027-3036.	5.4	18
28	Impedance and power fluctuations in linear chains of coupled wave chaotic cavities. Physical Review E, 2012, 86, 046204.	2.1	17
29	Evolution of transverse correlation in stochastic electromagnetic fields. , 2015, , .		17
30	Near-Field Scanning and Propagation of Correlated Low-Frequency Radiated Emissions. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 2045-2048.	2.2	17
31	Correlation matrix methods to assess the stirring performance of electromagnetic reverberation chambers. Wave Motion, 2019, 87, 213-226.	2.0	15
32	Reverberation chambers for testing wireless devices and systems. IEEE Electromagnetic Compatibility Magazine, 2020, 9, 45-55.	0.1	15
33	Higher Order Statistical Characterization of Received Power Fluctuations for Partially Coherent Random Fields. IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 583-591.	2.2	13
34	A wigner function approach for describing the radiation of complex sources. , 2014, , .		13
35	Near-field scanning of stochastic fields considering reduction of complexity. , 2017, , .		13
36	Electromagnetic Reverberation: The Legacy of Paolo Corona. IEEE Transactions on Electromagnetic Compatibility, 2016, 58, 643-652.	2.2	12

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37	Efficient Statistical Model for Predicting Electromagnetic Wave Distribution in Coupled Enclosures. <i>Physical Review Applied</i> , 2020, 14, .	3.8	12
38	Stirrer performance of reverberation chambers evaluated by time domain fidelity. , 2013, , .		11
39	Propagating wave correlations in complex systems. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 045101.	2.1	11
40	Stochastic electromagnetic field propagation measurement and modelling. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018, 376, 20170455.	3.4	11
41	Engineering Reflective Metasurfaces With Ising Hamiltonian and Quantum Annealing. <i>IEEE Transactions on Antennas and Propagation</i> , 2022, 70, 2841-2854.	5.1	11
42	Uncorrelated frequency steps in a reverberation chamber: A multivariate approach. , 2015, , .		10
43	Shielding effectiveness statistical evaluation of random concrete composites. , 2016, , .		10
44	Statistical characterization of complex enclosures with distributed ports. , 2011, , .		9
45	Carousel stirrer efficiency evaluation by a volumetric lattice-based correlation matrix. , 2013, , .		9
46	Measurement and Wigner function analysis of field-field correlation for complex PCBs in near field. , 2016, , .		9
47	On the Estimated Measurement Uncertainty of the Insertion Loss in a Reverberation Chamber Including Frequency Stirring. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2019, 61, 1414-1422.	2.2	9
48	Theoretical analysis of apertures radiating inside wave chaotic cavities. , 2012, , .		8
49	Reverberation chamber as a statistical relaxation process: Entropy analysis and fast time domain simulations. , 2012, , .		8
50	Latest developments on the shielding effectiveness measurements of materials and gaskets in reverberation chambers. <i>IET Science, Measurement and Technology</i> , 2020, 14, 435-445.	1.6	8
51	Hollow-Core Coaxial Fiber Sensor for Biophotonic Detection. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014, 20, 134-142.	2.9	7
52	Time domain measurement of near field emissions from complex PCBs. , 2016, , .		7
53	On the Shielding Effectiveness Calculation of Enclosures Through Measurements in Reverberation Chambers. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2021, 63, 1395-1406.	2.2	7
54	Shielding effectiveness evaluation of densified-small-particles (DSP) cement composite. , 2008, , .		6

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55	Dependence of reverberation chamber performance on distributed losses: A numerical study. , 2014, , .		6
56	A mechanical mode-stirred reverberation chamber inspired by chaotic cavities. , 2015, , .		6
57	Probability Distribution of the Coherence Bandwidth of a Reverberation Chamber. IEEE Transactions on Antennas and Propagation, 2015, 63, 2286-2290.	5.1	6
58	Near-field measurement of connected smart RFIC objects accounting for environmental uncertainties. , 2016, , .		6
59	Theory and Numerical Modelling of Parity-Time Symmetric Structures in Photonics: Introduction and Grating Structures in One Dimension. Springer Series in Optical Sciences, 2017, , 161-205.	0.7	6
60	A Fast Converging Resonance-Free Global Multi-Trace Method for Scattering by Partially Coated Composite Structures. IEEE Transactions on Antennas and Propagation, 2022, 70, 9534-9543.	5.1	6
61	Coupling of external radiation to circuitry inside complex EM environments. , 2012, , .		5
62	Random coupling model for the radiation of irregular apertures. Radio Science, 2015, 50, 678-687.	1.6	5
63	Experimental characterization of building material absorption at mmWave frequencies: By using reverberation chamber in the frequency range 50â€“68 GHz. , 2016, , .		5
64	Absorption cross section of building materials at mm wavelength in a reverberation chamber. Measurement Science and Technology, 2017, 28, 024001.	2.6	5
65	Reverberation chambers deformed by spherical diffractors. , 2017, , .		5
66	DSP cement composites for electromagnetic shielding: practice and experimental analysis. , 2009, , .		4
67	Ballistic characterization of nanocomposite materials by means of “Coil Gun” electromagnetic accelerator. , 2010, , .		4
68	Minimum-value distribution of random electromagnetic fields for modeling deep fading in wireless communications. Annales Des Telecommunications/Annals of Telecommunications, 2011, 66, 465-473.	2.5	4
69	Random Coupling Model for interconnected wireless environments. , 2014, , .		4
70	Stochastic Kron's model inspired from the Random Coupling Model. , 2015, , .		4
71	Transient evolution of eigenmodes in dynamic cavities and time-varying media. Radio Science, 2015, 50, 1256-1270.	1.6	4
72	Analysis of a near field MIMO wireless channel using 5.6 GHz dipole antennas. , 2016, , .		4

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73	A Secure Waveform Format for Interference Mitigation in Heterogeneous Uplink Networks. IEEE Access, 2018, 6, 41688-41696.	4.2	4
74	Transport of Power through Networks of Cables Using Quantum Graph Theory. , 2019, , .		4
75	Wave chaotic analysis of weakly coupled reverberation chambers. , 2011, , .		3
76	Modeling and measuring of microwave absorbing and shielding nanostructured materials. , 2012, , .		3
77	Effect of losses on the maximum-to-mean value in a mode-stirred reverberation chamber. , 2014, , .		3
78	Propagation of correlation functions in cavities. , 2015, , .		3
79	Measurement and analysis of electromagnetic field-field correlation functions. , 2015, , .		3
80	A phase-space approach for propagating field-field correlation functions near stochastic sources. , 2016, , .		3
81	High frequency propagation in large and multiply connected electromagnetic environments. , 2016, , .		3
82	Reducing the complexity of near-field scanning of stochastic fields. , 2017, , .		3
83	Experimental Analysis of the Aging Effects on Shielding Effectiveness of Cementitious Composites. , 2018, , .		3
84	Diffusive transport in highly corrugated channels. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 1084-1091.	2.1	3
85	Reconfigurable intelligent surface design in phase-space. , 2022, , .		3
86	FDTD analysis of the field penetration through lossy materials in a reverberation chamber. , 2007, , .		2
87	On distributions of fields and power in undermoded mode-stirred reverberation chambers. , 2011, , .		2
88	External radiation of complex cavities described by the random coupling model. , 2012, , .		2
89	Stochastic differential equation for wave diffusion in random media. , 2013, , .		2
90	Transfer operator approach for cavities with apertures. , 2016, , .		2

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91	Energy Transfer in Complex Networks: A Quantum Graph Approach. , 2019, , .		2
92	HPC Simulations of a Reverberation Chamber with Nonparallel Walls. , 2019, , .		2
93	Average Linear and Angular Momentum and Power of Random Fields Near a Perfectly Conducting Boundary. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 1118-1127.	2.2	2
94	Nearfield acoustical holography â€œ a Wigner function approach. Journal of Sound and Vibration, 2020, 486, 115593.	3.9	2
95	Propagation of rays in 2D and 3D waveguides: A stability analysis with Lyapunov and reversibility fast indicators. Chaos, 2021, 31, 043138.	2.5	2
96	Wireless power distributions in multi-cavity systems at high frequencies. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20200228.	2.1	2
97	Diffraction of Wigner functions. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 015701.	2.1	2
98	Reconfigurable Intelligent Surface-Assisted Bluetooth Low Energy Link in Metal Enclosure. Frontiers in Communications and Networks, 2021, 2, .	3.0	2
99	Reverberation Chambers at the Edge of Chaos: Discussion Forum at EMC Europe 2020. IEEE Electromagnetic Compatibility Magazine, 2022, 11, 73-88.	0.1	2
100	Modeling of Resonant Tunneling Diode Oscillators Based on the Time-Domain Boundary Element Method. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2022, 7, 161-167.	2.2	2
101	Field-to-enclosure coupling in reverberation chamber: numerical and experimental analysis. , 0, , .		1
102	A statistical model of the interaction between reverberation fields and lossy materials. , 2008, , .		1
103	Theoretical model of transient random fields based on the fluctuation-dissipation theorem. , 2010, , .		1
104	Sensitivity analysis of a Hollow-core Bragg fiber biosensor. , 2011, , .		1
105	Physical considerations on complex cavities in undermoded regime. , 2011, , .		1
106	Random coupling model for wireless communication channels. , 2014, , .		1
107	Saturable and dispersive parity-time symmetric directional coupler: A transmission-line modelling study. , 2014, , .		1
108	Coupled Parity-Time symmetric cavities: Results from Transmission Line Modelling simulations. , 2015, , .		1

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109	Random coupling model for the radiation of statistical sources inside cavities. , 2016, , .		1
110	Design and characterization of a diamond-shaped monopole antenna. Microwave and Optical Technology Letters, 2017, 59, 2695-2698.	1.4	1
111	Theory and Numerical Modelling of Parity-Time Symmetric Structures in Photonics: Boundary Integral Equation for Coupled Microresonator Structures. Springer Series in Optical Sciences, 2017, , 207-233.	0.7	1
112	Propagation methods for stochastic field emissions and source reconstruction. , 2017, , .		1
113	Analysis of Nonstationary Emissions for Efficient Characterization of Stochastic EM Fields. , 2018, , .		1
114	Applicability of Measurement Uncertainty Models in a Reverberation Chamber Including Frequency Stirring. , 2018, , .		1
115	High-Frequency Electromagnetic Coupling Calculation Using the Dynamical Energy Analysis by Discrete Flow Method. , 2019, , .		1
116	Evaluation of Stochastic Electromagnetic Field in Multi-Volume Reverberation Chamber Configurations. , 2019, , .		1
117	Electromagnetism in Curved Space-Time: Coupling Doppler Shifts and Gravitational Redshifts. IEEE Antennas and Propagation Magazine, 2021, , 2-13.	1.4	1
118	Hamiltonian Analytical Optics and Simulations of Betatronic Motion by Optical Devices. , 2019, , .		1
119	Distribution of Energy through Cable Networks using Random Coupling Model. , 2020, , .		1
120	Integration of Reconfigurable Intelligent Surfaces in Dynamical Energy Analysis. , 2022, , .		1
121	Uncovering interference paths in complex environments with the random coupling model. , 2013, , .		0
122	Representation of random electromagnetic fields through a correlated plane-wave spectrum. , 2014, , .		0
123	Radiation of complex sources in reflecting environments: A Wigner function approach. , 2014, , .		0
124	Characterization of electromagnetic fields in complex systems through phase-space techniques. , 2014, , .		0
125	Krons method and random coupling model for electromagnetic compatibility studies. , 2015, , .		0
126	Threshold manipulation in parity-time symmetric microresonator chain. , 2015, , .		0

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127	Influence of multi-path fading on MIMO/OAM communications. , 2019, , .		0
128	Evaluation of Angular Momentum and Angular Power Flux Density in Complex Electromagnetic Environments. , 2019, , .		0
129	Propagation of rays in corrugated waveguides. Software Impacts, 2021, 9, 100093.	1.4	0
130	Meta-networks: Reconfigurable cable network topologies for interference control. , 2021, , .		0
131	Electromagnetic Illusion in Smart Environments. , 2022, , .		0