Gabriele Gradoni

List of Publications by Year
in descending order

131	1,742	361413	345221
papers	citations	20 h-index	36 g-index

131	131	131	1043
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Engineering Reflective Metasurfaces With Ising Hamiltonian and Quantum Annealing. IEEE Transactions on Antennas and Propagation, 2022, 70, 2841-2854.	5.1	11
2	Reverberation Chambers at the Edge of Chaos: Discussion Forum at EMC Europe 2020. IEEE Electromagnetic Compatibility Magazine, 2022, 11, 73-88.	0.1	2
3	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
4	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
5	Electromagnetic Illusion in Smart Environments. , 2022, , .		0
6	Reconfigurable intelligent surface design in phase-space. , 2022, , .		3
7	Integration of Reconfigurable Intelligent Surfaces in Dynamical Energy Analysis. , 2022, , .		1
8	On the Shielding Effectiveness Calculation of Enclosures Through Measurements in Reverberation Chambers. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 1395-1406.	2.2	7
9	Electromagnetism in Curved Space-Time: Coupling Doppler Shifts and Gravitational Redshifts. IEEE Antennas and Propagation Magazine, 2021, , 2-13.	1.4	1
10	Propagation of rays in 2D and 3D waveguides: A stability analysis with Lyapunov and reversibility fast indicators. Chaos, 2021, 31, 043138.	2.5	2
11	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
12	Wireless Environment as a Service Enabled by Reconfigurable Intelligent Surfaces: The RISE-6G Perspective. , 2021, , .		73
13	Propagation of rays in corrugated waveguides. Software Impacts, 2021, 9, 100093.	1.4	0
14	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
15	Wireless Fingerprinting Localization in Smart Environments Using Reconfigurable Intelligent Surfaces. IEEE Access, 2021, 9, 135526-135541.	4.2	19
16	Diffraction of Wigner functions. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 015701.	2.1	2
17	Reconfigurable Intelligent Surface-Assisted Bluetooth Low Energy Link in Metal Enclosure. Frontiers in Communications and Networks, 2021, 2, .	3.0	2
18	Meta-networks: Reconfigurable cable network topologies for interference control. , 2021, , .		0

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19	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
20	Reverberation chambers for testing wireless devices and systems. IEEE Electromagnetic Compatibility Magazine, 2020, 9, 45-55.	0.1	15
21	Nearfield acoustical holography â€“ a Wigner function approach. Journal of Sound and Vibration, 2020, 486, 115593.	3.9	2
22	Efficient Statistical Model for Predicting Electromagnetic Wave Distribution in Coupled Enclosures. Physical Review Applied, 2020, 14, .	3.8	12
23	Latest developments on the shielding effectiveness measurements of materials and gaskets in reverberation chambers. IET Science, Measurement and Technology, 2020, 14, 435-445.	1.6	8
24	Distribution of Energy through Cable Networks using Random Coupling Model. , 2020, , .		1
25	Influence of multi-path fading on MIMO/OAM communications. , 2019, , .		0
26	Energy Transfer in Complex Networks: A Quantum Graph Approach. , 2019, , .		2
27	Transport of Power through Networks of Cables Using Quantum Graph Theory. , 2019, , .		4
28	HPC Simulations of a Reverberation Chamber with Nonparallel Walls. , 2019, , .		2
29	Diffusive transport in highly corrugated channels. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 1084-1091.	2.1	3
30	High-Frequency Electromagnetic Coupling Calculation Using the Dynamical Energy Analysis by Discrete Flow Method. , 2019, , .		1
31	Evaluation of Stochastic Electromagnetic Field in Multi-Volume Reverberation Chamber Configurations. , 2019, , .		1
32	Evaluation of Angular Momentum and Angular Power Flux Density in Complex Electromagnetic Environments. , 2019, , .		0
33	On the Estimated Measurement Uncertainty of the Insertion Loss in a Reverberation Chamber Including Frequency Stirring. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 1414-1422.	2.2	9
34	Correlation matrix methods to assess the stirring performance of electromagnetic reverberation chambers. Wave Motion, 2019, 87, 213-226.	2.0	15
35	Hamiltonian Analytical Optics and Simulations of Betatronic Motion by Optical Devices. , 2019, , .		1
36	Near-Field Scanning and Propagation of Correlated Low-Frequency Radiated Emissions. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 2045-2048.	2.2	17

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37	Near-Field MIMO Communication Links. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 3027-3036.	5.4	18
38	Wigner-Function-Based Propagation of Stochastic Field Emissions From Planar Electromagnetic Sources. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 580-588.	2.2	23
39	Stochastic electromagnetic field propagationâ€" measurement and modelling. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170455.	3.4	11
40	Analysis of Nonstationary Emissions for Efficient Characterization of Stochastic EM Fields. , 2018, , .		1
41	Experimental Analysis of the Aging Effects on Shielding Effectiveness of Cementitious Composites. , 2018, , .		3
42	Applicability of Measurement Uncertainty Models in a Reverberation Chamber Including Frequency Stirring. , 2018, , .		1
43	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
44	A Secure Waveform Format for Interference Mitigation in Heterogeneous Uplink Networks. IEEE Access, 2018, 6, 41688-41696.	4.2	4
45	Absorption cross section of building materials at mm wavelength in a reverberation chamber. Measurement Science and Technology, 2017, 28, 024001.	2.6	5
46	Propagating wave correlations in complex systems. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 045101.	2.1	11
47	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
48	Design and characterization of a diamondâ€shaped monopole antenna. Microwave and Optical Technology Letters, 2017, 59, 2695-2698.	1.4	1
49	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
50	Near-field scanning of stochastic fields considering reduction of complexity. , 2017, , .		13
51	Propagation methods for stochastic field emissions and source reconstruction. , 2017, , .		1
52	Reducing the complexity of near-field scanning of stochastic fields. , 2017, , .		3
53	Reverberation chambers deformed by spherical diffractors. , 2017, , .		5
54	Near-field measurement of connected smart RFIC objects accounting for environmental uncertainties. , 2016, , .		6

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55	Time domain measurement of near field emissions from complex PCBs. , 2016, , .		7
56	Random coupling model for the radiation of statistical sources inside cavities. , 2016, , .		1
57	A phase-space approach for propagating field-field correlation functions near stochastic sources. , 2016, , .		3
58	Localized Single Frequency Lasing States in a Finite Parity-Time Symmetric Resonator Chain. Scientific Reports, 2016, 6, 20499.	3.3	18
59	Electromagnetic Reverberation: The Legacy of Paolo Corona. IEEE Transactions on Electromagnetic Compatibility, 2016, 58, 643-652.	2.2	12
60	Experimental characterization of building material absorption at mmWave frequencies: By using reverberation chamber in the frequency range 50â€“68 GHz. , 2016, , .		5
61	Shielding effectiveness statistical evaluation of random concrete composites. , 2016, , .		10
62	High frequency propagation in large and multiply connected electromagnetic environments. , 2016, , .		3
63	Analysis of a near field MIMO wireless channel using 5.6 GHz dipole antennas. , 2016, , .		4
64	Measurement and Wigner function analysis of field-field correlation for complex PCBs in near field. , 2016, , .		9
65	Transfer operator approach for cavities with apertures. , 2016, , .		2
66	A Statistical Model for the Excitation of Cavities Through Apertures. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 1049-1061.	2.2	25
67	Stochastic Kron's model inspired from the Random Coupling Model. , 2015, , .		4
68	Transient evolution of eigenmodes in dynamic cavities and time-varying media. Radio Science, 2015, 50, 1256-1270.	1.6	4
69	A phase-space approach for propagating fieldâ€“field correlation functions. New Journal of Physics, 2015, 17, 093027.	2.9	38
70	Random coupling model for the radiation of irregular apertures. Radio Science, 2015, 50, 678-687.	1.6	5
71	Propagation of correlation functions in cavities. , 2015, , .		3
72	Coupled Parity-Time symmetric cavities: Results from Transmission Line Modelling simulations. , 2015, , .		1

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73	Uncorrelated frequency steps in a reverberation chamber: A multivariate approach. , 2015, , .		10
74	A mechanical mode-stirred reverberation chamber inspired by chaotic cavities. , 2015, , .		6
75	Krons method and random coupling model for electromagnetic compatibility studies. , 2015, , .		0
76	Challenges of time domain measurement of field-field correlation for complex PCBs. , 2015, , .		23
77	Evolution of transverse correlation in stochastic electromagnetic fields. , 2015, , .		17
78	Threshold manipulation in parity-time symmetric microresonator chain. , 2015, , .		0
79	Measurement and analysis of electromagnetic field-field correlation functions. , 2015, , .		3
80	Shielding effectiveness of carbon nanotube reinforced concrete composites by reverberation chamber measurements. , 2015, , .		19
81	Coupling Between Multipath Environments Through a Large Aperture. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1463-1466.	4.0	23
82	Probability Distribution of the Coherence Bandwidth of a Reverberation Chamber. IEEE Transactions on Antennas and Propagation, 2015, 63, 2286-2290.	5.1	6
83	Parity-time symmetric coupled microresonators with a dispersive gain/loss. Optics Express, 2015, 23, 11493.	3.4	47
84	Representation of random electromagnetic fields through a correlated plane-wave spectrum. , 2014, , .		0
85	Radiation of complex sources in reflecting environments: A Wigner function approach. , 2014, , .		0
86	Dependence of reverberation chamber performance on distributed losses: A numerical study. , 2014, , .		6
87	Random coupling model for wireless communication channels. , 2014, , .		1
88	A wigner function approach for describing the radiation of complex sources. , 2014, , .		13
89	Random Coupling Model for interconnected wireless environments. , 2014, , .		4
90	Characterization of electromagnetic fields in complex systems through phase-space techniques. , 2014, , .		0

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91	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
92	Hollow-Core Coaxial Fiber Sensor for Biophotonic Detection. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 134-142.	2.9	7
93	Saturable and dispersive parity-time symmetric directional coupler: A transmission-line modelling study. , 2014, , .		1
94	Effect of losses on the maximum-to-mean value in a mode-stirred reverberation chamber. , 2014, , .		3
95	Electromagnetic shielding of thermal protection system for hypersonic vehicles. Acta Astronautica, 2013, 87, 30-39.	3.2	66
96	Probability Distribution of the Quality Factor of a Mode-Stirred Reverberation Chamber. IEEE Transactions on Electromagnetic Compatibility, 2013, 55, 35-44.	2.2	33
97	Stirrer performance of reverberation chambers evaluated by time domain fidelity. , 2013, , .		11
98	Determination of the electrical conductivity of carbon/carbon at high microwave frequencies. Carbon, 2013, 54, 76-85.	10.3	42
99	Reduction of satellite electromagnetic scattering by carbon nanostructured multilayers. Acta Astronautica, 2013, 88, 61-73.	3.2	66
100	Stochastic differential equation for wave diffusion in random media. , 2013, , .		2
101	Quantifying volume changing perturbations in a wave chaotic system. New Journal of Physics, 2013, 15, 023025.	2.9	21
102	Uncovering interference paths in complex environments with the random coupling model. , 2013, , .		0
103	Carousel stirrer efficiency evaluation by a volumetric lattice-based correlation matrix. , 2013, , .		9
104	Tunable nanostructured composite with built-in metallic wire-grid electrode. AIP Advances, 2013, 3, .	1.3	29
105	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
106	Theoretical analysis of apertures radiating inside wave chaotic cavities. , 2012, , .		8
107	Impedance and power fluctuations in linear chains of coupled wave chaotic cavities. Physical Review E, 2012, 86, 046204.	2.1	17
108	External radiation of complex cavities described by the random coupling model. , 2012, , .		2

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109	Coupling of external radiation to circuitry inside complex EM environments. , 2012, , .		5
110	Reverberation chamber as a statistical relaxation process: Entropy analysis and fast time domain simulations. , 2012, , .		8
111	Modeling and measuring of microwave absorbing and shielding nanostructured materials. , 2012, , .		3
112	ABSORBING CROSS SECTION IN REVERBERATION CHAMBER: EXPERIMENTAL AND NUMERICAL RESULTS. Progress in Electromagnetics Research B, 2012, 45, 187-202.	1.0	27
113	Optimization of Multilayer Shields Made of Composite Nanostructured Materials. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 60-69.	2.2	85
114	Statistical characterization of complex enclosures with distributed ports. , 2011, , .		9
115	Wave chaotic analysis of weakly coupled reverberation chambers. , 2011, , .		3
116	Sensitivity analysis of a Hollow-core Bragg fiber biosensor. , 2011, , .		1
117	Broadband Electromagnetic Absorbers Using Carbon Nanostructure-Based Composites. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 2633-2646.	4.6	225
118	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
119	Physical considerations on complex cavities in undermoded regime. , 2011, , .		1
120	On distributions of fields and power in undermoded mode-stirred reverberation chambers. , 2011, , .		2
121	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
122	Ballistic characterization of nanocomposite materials by means of “Coil Gun” electromagnetic accelerator. , 2010, , .		4
123	Theoretical model of transient random fields based on the fluctuation-dissipation theorem. , 2010, , .		1
124	Accurate Analysis of Reverberation Field Penetration Into an Equipment-Level Enclosure. IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 170-180.	2.2	41
125	DSP cement composites for electromagnetic shielding: practice and experimental analysis. , 2009, , .		4
126	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

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127	A statistical model of the interaction between reverberation fields and lossy materials. , 2008, , .		1
128	Shielding effectiveness evaluation of densified-small-particles (DSP) cement composite. , 2008, , .		6
129	FDTD analysis of the field penetration through lossy materials in a reverberation chamber. , 2007, , .		2
130	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
131	Field-to-enclosure coupling in reverberation chamber: numerical and experimental analysis. , 0, , .		1