

# Francesco De Paulis

## List of Publications by Year in descending order

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139  
papers

1,928  
citations

279798

23  
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148  
all docs

148  
docs citations

148  
times ranked

925  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electromagnetic Absorbing Materials Design by Optimization Using a Machine Learning Approach. IEEE Transactions on Electromagnetic Compatibility, 2024, , 1-8.	2.2	14
2	A Compact High-Isolation Wideband Three-Sector Linear Array. IEEE Transactions on Antennas and Propagation, 2022, 70, 3094-3099.	5.1	2
3	Single-step algorithm for the cascade assembly of multiple S-parameters based multiports networks. International Journal of RF and Microwave Computer-Aided Engineering, 2022, 32, e23070.	1.2	2
4	Corrugated horn with stable phase center for Ka-band compact antenna test range measurement systems. International Journal of RF and Microwave Computer-Aided Engineering, 2022, 32, .	1.2	2
5	Rapid Test Method for Multi-Beam Profile of Phased Array Antennas. Sensors, 2022, 22, 47.	3.8	1
6	EMI Minimization from Stacked Radiation Sources by Means of Multiple Objective Genetic Algorithm. Electronics (Switzerland), 2022, 11, 1402.	3.1	0
7	Efficient Analytical Prediction of the Cavity Resonant Behavior of PEC-PMC Metallic Enclosures and Packages. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 93-102.	2.2	7
8	A Method for Measuring the Maximum Measurable Gain of a Passive Intermodulation Chamber. Electronics (Switzerland), 2021, 10, 770.	3.1	1
9	Single Step 2-Port Device De-Embedding Algorithm for Fixture-DUT-Fixture Network Assembly. Electronics (Switzerland), 2021, 10, 1275.	3.1	2
10	Easy-to-Design-and-Manufacture Frequency Selective Surfaces for Conformal Applications. IEEE Antennas and Wireless Propagation Letters, 2021, 20, 753-757.	4.0	5
11	Signal Integrity and Crosstalk Analysis of PCBs Within a PEC-PMC Bandgap Metallic Cavity. , 2021, , .		2
12	Accurate Multi-Port De-Embedding of Crosstalk-Affected Fixtures for High Speed Devices. , 2021, , .		2
13	Multiband and Broadband Interference-Free Metallic Package Designs for Microwave Modules. IEEE Microwave and Wireless Components Letters, 2020, 30, 1053-1056.	3.2	4
14	Backplane Channel Design Exploration at 112 Gbps Using Channel Operating Margin (COM). , 2020, , .		8
15	Genetic Algorithm PDN Optimization based on Minimum Number of Decoupling Capacitors Applied to Arbitrary Target Impedance. , 2020, , .		13
16	Validation and Performance Evaluation of High Speed Connector Model for Channel Design at 56 Gbps and Above. , 2020, , .		7
17	Effective PCB Decoupling Optimization by Combining an Iterative Genetic Algorithm and Machine Learning. Electronics (Switzerland), 2020, 9, 1243.	3.1	18
18	Estimation of Modal Parameters for Inter-Area Oscillations Analysis by a Machine Learning Approach with Offline Training. Energies, 2020, 13, 6410.	3.1	12

#	ARTICLE	IF	CITATIONS
19	Tunable Band-Gap for Metallic Packages and Cavities. , 2020, , .		3
20	Efficient estimation of EMI from stacked radiation sources by combining their spherical wave expansion coefficients. IET Microwaves, Antennas and Propagation, 2020, 14, 1504-1513.	1.4	1
21	Decoupling Capacitors Placement at Board Level Adopting a Nature-Inspired Algorithm. Electronics (Switzerland), 2019, 8, 737.	3.1	5
22	Reduction of EMI in Transmit/Receive Modules for Space Systems. , 2019, , .		5
23	Transmission Line Representation of the Capacitive Via-Plate Interaction Toward a Capacitor-Free Via Model. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 2248-2256.	2.5	3
24	Remote Monitoring of Joints Status on In-Service High-Voltage Overhead Lines. Energies, 2019, 12, 1004.	3.1	1
25	Reduction of IC Heatsink Radiation by Optimization of Absorbing Material Geometry. , 2019, , .		0
26	Efficient Iterative Process based on an Improved Genetic Algorithm for Decoupling Capacitor Placement at Board Level. Electronics (Switzerland), 2019, 8, 1219.	3.1	6
27	An intelligent wire fault diagnosis approach using time domain reflectometry and pattern recognition network. Nondestructive Testing and Evaluation, 2019, 34, 99-116.	2.1	8
28	Notice of Retraction: Applicability of Cylindrical Near-Field to Far-Field Transformation to OTA and EMC Measurements of 5G Equipment and Devices. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 1171-1179.	2.2	3
29	Notice of Retraction: Most Valuable Player Algorithm for Circular Antenna Arrays Optimization to Maximum Sidelobe Levels Reduction. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 1655-1661.	2.2	11
30	Notice of Retraction: Carbon-Reinforced Flexible Band-Stop Frequency Selective Surface Design. IEEE Transactions on Electromagnetic Compatibility, 2018, , 1-3.	2.2	0
31	Decoupling Capacitors Placement for a Multichip PDN by a Nature-Inspired Algorithm. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 1678-1685.	2.2	27
32	Fast-Convergent Expression for the Barrel-Plate Capacitance in the Physics-Based Via Circuit Model. IEEE Microwave and Wireless Components Letters, 2018, 28, 368-370.	3.2	5
33	Identification and Modeling of Intrinsic Discontinuities in High-Voltage Transmission Lines for PLC Applications. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 42-49.	2.2	3
34	Notice of Retraction: Resistive Coupling at Termination Networks of Lossy and Externally Excited MTL: An FDTD Formulation. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 211-217.	2.2	0
35	Notice of Retraction: Near-Field Shielding Performances of Absorbing Materials for Integrated Circuits (IC) Applications. Part II: Crossing Excitation. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 196-201.	2.2	3
36	Probe calibrations for phased array measurement. , 2018, , .		0

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37	A Truncation Scheme for the Analytical Formula of via Barrel-Plate Capacitance. , 2018, , .		2
38	An improved expression of via barrel-plate capacitance based on a convergence study. , 2018, , .		0
39	High Power, Thermally Efficient, X-band 3D T/R Module With Calibration Capability for Space Radar. IEEE Access, 2018, 6, 60921-60929.	4.2	20
40	Compact and Reliable T/R Module Prototype for Advanced Space Active Electronically Steerable Antenna in 3-D LTCC Technology. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 2746-2756.	4.6	34
41	Impact of chip and interposer PDN to eye diagram in high speed channels. , 2018, , .		3
42	Notice of Retraction: Near Field Shielding Performances of Absorbing Materials for Integrated Circuits (IC) Applications Part I: Lateral Excitation. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 188-195.	2.2	11
43	TEM-Like Launch Geometries and Simplified De-embedding for Accurate Through Silicon Via Characterization. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 792-801.	4.7	7
44	Notice of Retraction: Localization of Short and Open Defects in Multilayer Through Silicon Vias (TSV) Daisy-Chain Structures. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1558-1564.	2.2	6
45	Novel De-Embedding Methodology and Broadband Microprobe Measurement for Through-Silicon Via Pair in Silicon Interposer. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1565-1575.	2.2	1
46	Algorithm for Extracting Parameters of the Coupling Capacitance Hysteresis Cycle for TSV Transient Modeling and Robustness Analysis. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1329-1338.	2.2	9
47	Notice of Retraction: Experimental Validation of a 3D FSS Designed by Periodic Conductive Fibers Part-2: Band-Stop Filter Characteristic. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1835-1840.	2.2	9
48	Notice of Retraction: Experimental Validation of a 3D FSS Designed by Periodic Conductive Fibers Part-1: Band-Pass Filter Characteristic. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1841-1847.	2.2	13
49	CBO-Based TDR Approach for Wiring Network Diagnosis. Modeling and Optimization in Science and Technologies, 2017, , 329-348.	0.7	1
50	Notice of Retraction: Electric Dipole Equations in Very Near Field Conditions for Electromagnetic Shielding Assessment. Part I: Radiation Equations. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1196-1202.	2.2	5
51	Notice of Retraction: Approximate Versus Exact Near Field Formulation for a Cylindrical Electric Dipole. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1498-1504.	2.2	0
52	Through-Silicon Via Capacitanceâ€“Voltage Hysteresis Modeling for 2.5-D and 3-D IC. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2017, 7, 925-935.	2.5	4
53	Through Silicon Via (TSV) Defect Modeling, Measurement, and Analysis. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2017, 7, 138-152.	2.5	45
54	Notice of Retraction: FDTD Implementation of Resistive Coupling at MTL Termination Networks. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1975-1982.	2.2	1

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55	Detection of open and short faults in 3D-ICs based on through silicon via (TSV). , 2017, , .		3
56	A multilayer removable EBG based common mode filter for high speed buses. , 2017, , .		0
57	Notice of Retraction: Efficient Analytical Prediction of the EMI Bandgap Limits of PEC-PMC Metallic Enclosures Hosting RF and Digital Circuits. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 367-374.	2.2	8
58	Analysis of Near-Field Emissions From Common-Mode Filters Based on EBG Structures. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 593-599.	2.2	10
59	Near-Field Shielding Performances of EMI Noise Suppression Absorbers. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 654-661.	2.2	39
60	Analytical Unit Cell Assembly for Efficient Chip/Package Power Distribution Network Modeling. IEEE Microwave and Wireless Components Letters, 2017, 27, 815-817.	3.2	4
61	Effective noise coupling reduction in metallic enclosures hosting X-K bands microwave circuits. , 2017, , .		6
62	Performance improvements of wire fault diagnosis approach based on time-domain reflectometry. IET Science, Measurement and Technology, 2017, 11, 538-544.	1.6	16
63	Notice of Retraction: Exact Near-Field Formulation for Shielding Evaluation: The Werner's Equations Revised. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1967-1974.	2.2	0
64	Impact of Voltage Bias on Through Silicon Vias (TSV) depletion and crosstalk. , 2016, , .		2
65	Reduction of EMI Due to Common-Mode Currents Using a Surface-Mount EBG-Based Filter. IEEE Transactions on Electromagnetic Compatibility, 2016, 58, 1440-1447.	2.2	25
66	Band-gap limits prediction for effective noise coupling reduction in microwave circuits metallic enclosures. , 2016, , .		9
67	Extraction of the parameters of the coupling capacitance hysteresis cycle for TSV transient modeling. , 2016, , .		1
68	Modeling optimization of test patterns used in de-embedding method for through silicon via (TSV) measurement in silicon interposer. , 2016, , .		6
69	Resonant EBG-based common mode filter for LTCC substrates. , 2016, , .		2
70	Optimization procedure for removable EBG common mode filter design. , 2016, , .		0
71	Detectability of Degraded Joint Discontinuities in HV Power Lines Through TDR-Like Remote Monitoring. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 2725-2733.	4.7	24
72	Exploring Remote Monitoring of Degraded Compression and Bolted Joints in HV Power Transmission Lines. IEEE Transactions on Power Delivery, 2016, 31, 2179-2187.	4.3	24

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73	Performance Optimization of EBG-Based Common Mode Filters for Signal Integrity Applications. Springer Proceedings in Mathematics and Statistics, 2016, , 111-133.	0.2	4
74	Mitigating the threat of crosstalk and unwanted radiation when using electromagnetic bandgap structures to suppress common mode signal propagation in PCB differential interconnects. , 2015, , .		6
75	Reconfigurable photoinduced metamaterials in the microwave regime. Journal Physics D: Applied Physics, 2015, 48, 135103.	2.8	11
76	Effects of time-variant non-linear TSV parameters on transient analysis for signal integrity. , 2015, , .		1
77	Equivalent Circuit Modeling of Dielectric Hysteresis Loops in Through Silicon Vias. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 1510-1516.	2.2	8
78	Equivalent Circuit Modeling in Time Domain of the Hysteresis of Magnetic Materials. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 1013-1020.	2.2	7
79	An advanced transmit/receive 3D ceramic hybrid circuit module for space applications. , 2015, , .		12
80	Through silicon via time domain crosstalk modeling considering hysteretic coupling capacitance. , 2015, , .		9
81	EBG-Based Common-Mode Stripline Filters: Experimental Investigation on Interlayer Crosstalk. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 1416-1424.	2.2	21
82	Impact of Frequency-Dependent and Nonlinear Parameters on Transient Analysis of Through Silicon Vias Equivalent Circuit. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 538-545.	2.2	16
83	Diagnosis of Multiple Wiring Faults Using Time-Domain Reflectometry and Teachingâ€“Learning-Based Optimization. Electromagnetics, 2015, 35, 10-24.	0.7	29
84	EBG-Based Common-Mode Microstrip and Stripline Filters: Experimental Investigation of Performances and Crosstalk. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 996-1004.	2.2	18
85	Transient Analysis of TSV Equivalent Circuit Considering Nonlinear MOS Capacitance Effects. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 1216-1225.	2.2	36
86	Removable EBG-Based Common-Mode Filter for High-Speed Signaling: Experimental Validation of Prototype Design. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 672-679.	2.2	25
87	Analytical evaluation of scattering parameters for equivalent circuit of through silicon via array. Electronics Letters, 2015, 51, 1025-1027.	1.0	13
88	Dynamically reconfigurable metamaterials for shielding and absorption in the GHz range. , 2015, , .		2
89	Miniaturization approach for EBG-based common mode filter and interference analysis. , 2015, , .		8
90	Histogram density for the Feature Selective Validation (FSV) method. , 2014, , .		1

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91	Electromagnetic simulation of 3D stacked ICs: Full model vs. S-parameter cascaded based model. , 2014, , .		3
92	Sensitivity analysis of electromagnetic transmission, reflection and absorption coefficients for biphasic composite structures. , 2014, , .		6
93	Design of Homogeneous and Composite Materials From Shielding Effectiveness Specifications. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 343-351.	2.2	28
94	Standalone removable EBG-based common mode filter for high speed differential signaling. , 2014, , .		6
95	Investigating Confidence Histograms and Classification in FSV: Part II-Float FSV. IEEE Transactions on Electromagnetic Compatibility, 2013, 55, 925-932.	2.2	5
96	Practical EBG application to multilayer PCB: impact on signal integrity. IEEE Electromagnetic Compatibility Magazine, 2013, 2, 82-87.	0.1	4
97	Investigating Confidence Histograms and Classification in FSV: Part I. Fuzzy FSV. IEEE Transactions on Electromagnetic Compatibility, 2013, 55, 917-924.	2.2	6
98	Experimental validation of an 8 GHz EBG based common mode filter and impact of manufacturing uncertainties. , 2013, , .		9
99	Impact of planar electromagnetic band-gap structures on IR-DROP and signal integrity in high speed printed circuit boards. , 2012, , .		4
100	Practical EBG application to multilayer PCB: Impact on power integrity. IEEE Electromagnetic Compatibility Magazine, 2012, 1, 60-65.	0.1	21
101	Evaluation of dielectric permittivity for homogeneous materials from transmittance requirements. , 2012, , .		1
102	Signal integrity: Efficient, physics-based via modeling: Integration of striplines. IEEE Electromagnetic Compatibility Magazine, 2012, 1, 74-81.	0.1	9
103	Optimum geometrical parameters for the EBG-based common mode filter design. , 2012, , .		15
104	ACCURATE AND EFFICIENT ANALYSIS OF PLANAR ELECTROMAGNETIC BAND-GAP STRUCTURES FOR POWER BUS NOISE MITIGATION IN THE GHZ BAND. Progress in Electromagnetics Research B, 2012, 37, 59-80.	1.0	20
105	HOMOGENIZED PERMITTIVITY OF COMPOSITES WITH ALIGNED CYLINDRICAL INCLUSIONS FOR CAUSAL ELECTROMAGNETIC SIMULATIONS. Progress in Electromagnetics Research B, 2012, 37, 205-235.	1.0	14
106	Compact Configuration for Common Mode Filter Design based on Planar Electromagnetic Bandgap Structures. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 646-654.	2.2	46
107	Bandwidth Enhancement Based on Optimized Via Location for Multiple Vias EBG Power/Ground Planes. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 332-341.	2.5	37
108	From Maxwell Garnett to Debye Model for Electromagnetic Simulation of Composite Dielectrics&#x2014;Part II: Random Cylindrical Inclusions. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 280-289.	2.2	26

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109	Routing strategies for improving common mode filter performances in high speed digital differential interconnects. , 2011, , .		5
110	From Maxwell Garnett to Debye Model for Electromagnetic Simulation of Composite Dielectrics Part I: Random Spherical Inclusions. IEEE Transactions on Electromagnetic Compatibility, 2011, 53, 933-942.	2.2	18
111	Rapid Rotary Scanner and Portable Coherent Wideband Q-Band Transceiver for High-Resolution Millimeter-Wave Imaging Applications. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 186-197.	4.7	44
112	A Simple and Efficient Design Procedure for Planar Electromagnetic Bandgap Structures on Printed Circuit Boards. IEEE Transactions on Electromagnetic Compatibility, 2011, 53, 482-490.	2.2	65
113	Compact configuration of a planar EBG based CM filter and crosstalk analysis. , 2011, , .		5
114	Full-wave EMC simulations using Maxwell Garnett model for composites with cylindrical inclusions. , 2011, , .		2
115	Mitigation of Noise Coupling in Multilayer High-Speed PCB: State of the Art Modeling Methodology and EBG Technology. IEICE Transactions on Communications, 2010, E93-B, 1678-1689.	0.7	21
116	Block Analysis of a Voltage Supply Chain: Mixed Electromagnetic Modeling and Validation. IEEE Transactions on Electromagnetic Compatibility, 2010, 52, 629-639.	2.2	3
117	Signal/Power Integrity Analysis for Multilayer Printed Circuit Boards Using Cascaded S-Parameters. IEEE Transactions on Electromagnetic Compatibility, 2010, 52, 1008-1018.	2.2	65
118	Impact of Shorting Vias Placement on Embedded Planar Electromagnetic BandGap Structures Within Multilayer Printed Circuit Boards. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 1867-1876.	4.6	48
119	Equivalent circuit models for evaluation of bandgap limits for planar electromagnetic bandgap structures. , 2010, , .		7
120	Experimental validation of common-mode filtering performances of planar electromagnetic band-gap structures. , 2010, , .		15
121	IR-DROP Analysis and Thermal Assessment of Planar Electromagnetic Bandgap Structures for Power Integrity Applications. IEEE Transactions on Advanced Packaging, 2010, 33, 617-622.	1.6	38
122	Design of a Common Mode Filter by Using Planar Electromagnetic Bandgap Structures. IEEE Transactions on Advanced Packaging, 2010, 33, 994-1002.	1.6	38
123	Performance of signal link paths in presence of signal reference planes of EBG type. , 2010, , .		1
124	Signal integrity analysis of embedded planar EBG Structures. , 2010, , .		4
125	Measurement of differential mode propagation in printed circuit board for satellites applications. , 2010, , .		1
126	Common mode filtering performances of planar EBG structures. , 2009, , .		30



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127	Physics-Based Via and Trace Models for Efficient Link Simulation on Multilayer Structures Up to 40 GHz. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 2072-2083.	4.6	196
128	An equivalent circuit model for the identification of the stub resonance due to differential vias on PCB. , 2009, , .		4
129	Signal Integrity Analysis of Single-Ended and Differential Striplines in Presence of EBG Planar Structures. IEEE Microwave and Wireless Components Letters, 2009, 19, 554-556.	3.2	33
130	Fundamental mechanisms of coupling between planar electromagnetic bandgap structures and interconnects in high-speed digital circuits. Part I - microstrip lines. , 2009, , .		19
131	Analytical Evaluation of Via-Plate Capacitance for Multilayer Printed Circuit Boards and Packages. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 2118-2128.	4.6	179
132	Return via connections for extending signal link path bandwidth of via transitions. , 2008, , .		17
133	Characterization of serial links at 5.5Gbps on FR4 backplanes. , 2008, , .		2
134	Using TWDP to quantify channel performance with frequency-domain s-parameter data. , 2008, , .		0
135	Link path design on a block-by-block basis. , 2008, , .		6
136	Closed-form expressions for determining approximate PMC boundaries around an aperture in a metal cavity wall. , 2008, , .		0
137	Aperture modeling using a hybrid method for RFI analysis. , 2008, , .		1
138	Efficient prediction of RF interference in a shielding enclosure with PCBs using a general segmentation method. , 2008, , .		6
139	Modeling multilayer power distribution network by systematically incorporating via and cavity models. , 2008, , .		8