Claudio Paoloni

List of Publications by Year
in descending order

187	2,995	361413	175258
papers	citations	20 h-index	52 g-index

188	188	188	2486
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The 2017 terahertz science and technology roadmap. Journal Physics D: Applied Physics, 2017, 50, 043001.	2.8	1,160
2	Double-Corrugated Rectangular Waveguide Slow-Wave Structure for Terahertz Vacuum Devices. IEEE Transactions on Electron Devices, 2010, 57, 3169-3175.	3.0	221
3	Corrugated Rectangular Waveguide Tunable Backward Wave Oscillator for Terahertz Applications. IEEE Transactions on Electron Devices, 2010, 57, 1481-1484.	3.0	121
4	Design and Realization Aspects of 1-THz Cascade Backward Wave Amplifier Based on Double Corrugated Waveguide. IEEE Transactions on Electron Devices, 2013, 60, 1236-1243.	3.0	120
5	Double Corrugated Waveguide for G-Band Traveling Wave Tubes. IEEE Transactions on Electron Devices, 2014, 61, 4259-4263.	3.0	120
6	Nano-CNC Machining of Sub-THz Vacuum Electron Devices. IEEE Transactions on Electron Devices, 2016, 63, 4067-4073.	3.0	84
7	Millimeter wave traveling wave tubes for the 21st Century. Journal of Electromagnetic Waves and Applications, 2021, 35, 567-603.	1.6	76
8	Accurate analysis of helix slow-wave structures. IEEE Transactions on Electron Devices, 1998, 45, 1605-1613.	3.0	75
9	THz Backward-Wave Oscillators for Plasma Diagnostic in Nuclear Fusion. IEEE Transactions on Plasma Science, 2016, 44, 369-376.	1.3	63
10	Nanoscale Surface Roughness Effects on THz Vacuum Electron Device Performance. IEEE Nanotechnology Magazine, 2016, 15, 85-93.	2.0	57
11	Photonic Crystal-Structures for THz Vacuum Electron Devices. IEEE Transactions on Electron Devices, 2015, 62, 178-183.	3.0	37
12	Design of 71â€“76 GHz Double-Corrugated Waveguide Traveling-Wave Tube for Satellite Downlink. IEEE Transactions on Electron Devices, 2018, 65, 2195-2200.	3.0	33
13	Sequentially rotated arrays with reduced sidelobe levels. IET Microwaves Antennas and Propagation, 1994, 141, 321.	1.2	31
14	Fabrication of a 0.346-THz BWO for Plasma Diagnostics. IEEE Transactions on Electron Devices, 2018, 65, 2156-2163.	3.0	27
15	Technology, Assembly, and Test of a W-Band Traveling Wave Tube for New 5G High-Capacity Networks. IEEE Transactions on Electron Devices, 2020, 67, 2919-2924.	3.0	27
16	Double Corrugated Waveguide for Ka-Band Traveling Wave Tube. IEEE Transactions on Electron Devices, 2015, 62, 3851-3856.	3.0	26
17	Recent Progress in Electromagnetic Interference Shielding Performance of Porous Polymer Nanocompositesâ€”A Review. Energies, 2022, 15, 3901.	3.1	23
18	UV-LIGA microfabrication process for sub-terahertz waveguides utilizing multiple layered SU-8 photoresist. Journal of Micromechanics and Microengineering, 2016, 26, 095010.	2.6	22

#	Article	IF	Citations
19	CAD-oriented lossy models for radial stubs. IEEE Transactions on Microwave Theory and Techniques, 1988, 36, 305-313.	4.6	21
20	Analytical Design Method for Corrugated Rectangular Waveguide SWS THz Vacuum Tubes. Journal of Electromagnetic Waves and Applications, 2010, 24, 2479-2494.	1.6	21
21	Modeling and Analysis of Point-to-Multipoint Millimeter Wave Backhaul Networks. IEEE Transactions on Wireless Communications, 2019, 18, 268-285.	9.2	21
22	Design of high-performance power-distributed amplifier using Lange couplers. IEEE Transactions on Microwave Theory and Techniques, 1994, 42, 2525-2530.	4.6	20
23	Design of sub-THz traveling wave tubes for high data rate long range wireless links. Semiconductor Science and Technology, 2018, 33, 124009.	2.0	20
24	Vectorially Combined Distributed Power Amplifiers for Software-Defined Radio Applications. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 3189-3200.	4.6	19
25	COMPARISON OF THz BACKWARD WAVE OSCILLATORS BASED ON CORRUGATED WAVEGUIDES. Progress in Electromagnetics Research Letters, 2012, 30, 163-171.	0.7	15
26	Sub-THz Wireless Transport Layer for Ubiquitous High Data Rate. IEEE Communications Magazine, 2021, 59, 102-107.	6.1	15
27	Improved Corrugation Cross-Sectional Shape in Terahertz Double Corrugated Waveguide. IEEE Transactions on Electron Devices, 2012, 59, 3116-3119.	3.0	14
28	A Millimeter-Wave Klystron Upconverter With a Higher Order Mode Output Cavity. IEEE Transactions on Electron Devices, 2017, 64, 3857-3862.	3.0	14
29	An approach to distributed amplifier based on a design-oriented FET model. IEEE Transactions on Microwave Theory and Techniques, 1995, 43, 272-277.	4.6	13
30	Vectorially combined distributed power amplifier with load pull impedance determination. Electronics Letters, 2010, 46, 1137.	1.0	13
31	Photonic Crystal-Coupler for Sheet Beam THz Vacuum Electron Tubes. IEEE Electron Device Letters, 2016, 37, 1227-1230.	3.9	13
32	A design procedure for monolithic matrix amplifier. IEEE Transactions on Microwave Theory and Techniques, 1997, 45, 135-139.	4.6	12
33	Sensitivity analysis of TWT's small signal gain based on the effect of rod shape and dimensions. IEEE Transactions on Electron Devices, 2000, 47, 1457-1462.	3.0	12
34	HEMT-HBT matrix amplifier. IEEE Transactions on Microwave Theory and Techniques, 2000, 48, 1308-1312.	4.6	12
35	Analytical Computations, Measurements and 3-D EM Simulations for the Calculation of Cold Parameters in Helical SWSs. , 2007, , .		12
36	The European project OPTHER for the development of a THz tube amplifier. , 2009, , .		11

#	Article	IF	Citations
37	Micro reentrant cavity for 100 GHz klystron. , 2012, , .		11
38	Broadband lumped equivalent circuit for shunt-connected radial stub. Electronics Letters, 1986, 22, 485.	1.0	10
39	Narrow corrugation rectangular waveguide for terahertz TWTs. Electronics Letters, 2010, 46, 927.	1.0	10
40	Periodically Allocated Reentrant Cavity Klystron. IEEE Transactions on Electron Devices, 2014, 61, 1687-1691.	3.0	10
41	W-band TWTs for new generation high capacity wireless networks. , 2016, , .		10
42	Fabrication of W-band TWT for 5G small cells backhaul. , 2017, , .		10
43	A study on helix pitch tolerance impact on TWT small-signal gain. IEEE Electron Device Letters, 2002, 23, 746-748.	3.9	9
44	Parametric oscillations in distributed power amplifiers. Electronics Letters, 2009, 45, 1325.	1.0	9
45	Millimeter wave wireless system based on point to multipoint transmissions. , 2016, , .		9
46	Millimeter wave point to multipoint for affordable high capacity backhaul of dense cell networks. , 2018, , .		9
47	Technology for D-band/G-band ultra capacity layer. , 2019, , .		9
48	D-band Point to Multi-Point Deployment with G-Band Transport. , 2020, , .		9
49	1-THz cascade backward wave amplifier. , 2012, , .		8
50	A traveling wave tube for 92â€“95 GHz band wireless applications. , 2016, , .		8
51	Transmisson Hub and Terminals for Point to Multipoint W-Band Tweether System. , 2018, , .		8
52	Design of D-band Double Corrugated Waveguide TWT for Wireless Communications. , 2019, , .		8
53	${H}$ - and ${E}$ -Plane Loaded Slow Wave Structure for ${W}$ -Band TWT. IEEE Transactions on Electron Devices, 2020, 67, 309-313.	3.0	8
54	A 0.35-THz Extended Interaction Oscillator Based on Overmoded and Bi-Periodic Structure. IEEE Transactions on Electron Devices, 2021, 68, 5814-5819.	3.0	8

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55	An advanced GaAs monolithic transimpedance amplifier for high-speed optical communication systems. Microwave and Optical Technology Letters, 1993, 6, 65-70.	1.4	7
56	The OPTHER project: Progress toward the THz amplifier. , 2011, , .		7
57	346 GHz BWO for fusion plasma diagnostics. , 2014, , .		7
58	THz backward-wave oscillators for plasma diagnostic in nuclear fusion. , 2015, , .		7
59	Experimental Validation of Phase Velocity and Interaction Impedance of Meander-Line Slow-Wave Structures for Space Traveling-Wave Tubes. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 2148-2154.	4.6	7
60	Development of aD-Band Traveling Wave Tube for High Data-Rate Wireless Links. IEEE Transactions on Electron Devices, 2021, 68, 4675-4680.	3.0	7
61	Planar analysis of radial-line power dividers. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 1990, 3, 23-31.	1.9	6
62	Nonlinear yield analysis and optimization of monolithic microwave integrated circuits. IEEE Transactions on Microwave Theory and Techniques, 1995, 43, 2504-2507.	4.6	6
63	A simplified procedure to calculate the power gain definitions of FETs. IEEE Transactions on Microwave Theory and Techniques, 2000, 48, 470-474.	4.6	6
64	Scaled design and test of a coupler for micro-reentrant square-cavities for millimeter wave klystrons. , 2013, , .		6
65	Design and fabrication of a sheet beam BWO at 346 GHz. , 2015, , .		6
66	Microwave coupler for Wâ€band micro reâ€entrant square cavities. IET Microwaves, Antennas and Propagation, 2016, 10, 764-769.	1.4	6
67	TWEETHER future generation W-band backhaul and access network technology. , 2017, , .		6
68	Power distributed amplifier with inputâ€output combiners. Microwave and Optical Technology Letters, 1994, 7, 312-315.	1.4	5
69	Backward wave oscillators for THz applications based on corrugated waveguide. , 2011, , .		5
70	Low Cost Electron Gun for D-band Traveling Wave Tubes. , 2021, , .		5
71	Application of filter theory in the design of twas based on FETS with different gate widths. Microwave and Optical Technology Letters, 1993, 6, 261-266.	1.4	4
72	Modeling of carbon nanotube-based devices: from nanoFETs to THz emitters. , 2006, , .		4

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73	Analysis of dielectric rods with arbitrary shape for low-dispersion slow-wave structures in helix TWTs. IEEE Transactions on Electron Devices, 2006, 53, 1490-1493.	3.0	4
74	Backward wave mode interaction impedance at THz frequencies for corrugated waveguide. Microwave and Optical Technology Letters, 2012, 54, 837-839.	1.4	4
75	Design of a Terahertz Cascade Backward Wave Amplifier. IEEE Transactions on Electron Devices, 2014, 61, 1715-1720.	3.0	4
76	0.22 THz TWT based on the double corrugated waveguide. , 2014, , .		4
77	TWEETHER project for W-band wireless networks. , 2016, , .		4
78	UV-LIGA microfabrication of 0.3 THz double corrugated waveguide. , 2017, , .		4
79	On the Analysis and Improvement of Yield for TWT Small-Signal Gain. IEEE Transactions on Electron Devices, 2008, 55, 2774-2778.	3.0	3
80	European research on THz vacuum amplifiers. , 2010, , .		3
81	Towards a THz backward wave amplifier in European OPTHER project. , 2010, , .		3
82	Design procedure for THz cascade backward wave amplifiers. , 2012, , .		3
83	New klystron topology based on periodic sequence of high order mode cavities. , 2013, , .		3
84	Horizon 2020 TWEETHER project for W-band high data rate wireless communications. , 2015, , .		3
85	Study of multiple beam backward wave oscillator based on corrugated waveguide TWT. , 2017, , .		3
86	Sub-THz components for high capacity point to multipoint wireless networks. , 2019, , .		3
87	Long range millimeter wave wireless links enabled by traveling wave tubes and resonant tunnelling diodes. , 2019, , .		3
88	D-band Transmission Hub for Point to MultiPoint Wireless Distribution. , 2021, , .		3
89	Improved Model for Beamâ€“Wave Interaction With Ohmic Losses and Reflections of Sheet Beam Traveling Wave Tubes. IEEE Transactions on Electron Devices, 2021, 68, 2977-2983.	3.0	3
90	Vacuum Electronic Devices. Springer Series in Optical Sciences, 2022, , 317-327.	0.7	3

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91	On the TWT based on a helix slow-wave structure sustained by rectangular dielectric rods. Microwave and Optical Technology Letters, 1999, 20, 177-179.	1.4	2
92	Effect of mechanical tolerance of T-shaped rods in a TWT based on a helix slow-wave structure. Microwave and Optical Technology Letters, 2000, 25, 393-395.	1.4	2
93	Cathode voltage adjustment to compensate helix pitch tolerance in TWTs. Electronics Letters, 2004, 40, 36.	1.0	2
94	Field emission vacuum triode: THz waveguide solutions for the transmission lines. , 2008, , .		2
95	A novel adaptive LDMOS power amplifier with constant efficiency for wide dynamic power levels control. , 2008, , .		2
96	Backward wave oscillator for THz frequency range based on double corrugation slow-wave structure. , 2010, , .		2
97	Backward-wave vacuum amplifier for THz amplification. , 2011, , .		2
98	Photonic crystals assisted slow wave structure for THz vacuum devices. , 2013, , .		2
99	DUAL FED DISTRIBUTED AMPLIFIER WITH CONTROLLED TERMINATION ADJUSTMENT. Progress in Electromagnetics Research, 2013, 139, 761-777.	4.4	2
100	THz backward wave oscillator based on PhC-wall corrugated waveguide. , 2014, , .		2
101	Magnetic fusion energy plasma diagnostic needs novel THz BWOs. , 2015, , .		2
102	Lagrangian simulator for millimetre wave TWT based on non-rotationally symmetric slow wave structure. Journal of Electromagnetic Waves and Applications, 2017, 31, 1902-1913.	1.6	2
103	W-band TWT for high capacity transmission hub for small cells backhaul. , 2018, , .		2
104	Preliminary Study of a New Meander Line for W-band TWT. , 2019, , .		2
105	THz links using tube amplifiers and steerable beams for indoor applications. , 2019, , .		2
106	Longâ€range millimetre wave wireless links enabled by travelling wave tubes and resonant tunnelling diodes. IET Microwaves, Antennas and Propagation, 2020, 14, 2110-2114.	1.4	2
107	Offset Double Corrugated Waveguide. , 2021, , .		2
108	Low impedance matching: The radial stub solution. Microwave and Optical Technology Letters, 1989, 2, 291-297.	1.4	1

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109	Comparison between MMIC matrix and distributed amplifiers. IET Microwaves Antennas and Propagation, 1995, 142, 75.	1.2	1
110	Design of a matrix amplifier using FETâ€gateâ€width tapering. Microwave and Optical Technology Letters, 1995, 8, 118-121.	1.4	1
111	Experimental validation of a large-signal MESFET model for submicron-gate-length devices. Microwave and Optical Technology Letters, 1997, 15, 227-229.	1.4	1
112	Effect of tape width and thickness on helix slow-wave structure performance. Microwave and Optical Technology Letters, 1999, 23, 147-149.	1.4	1
113	Design and computer simulation of high efficiency broadband parallel-circuit Class E RF power amplifier with reactance compensation technique. , 2008, , .		1
114	SWS improved analysis based on inhomogeneous dielectric loading. , 2008, , .		1
115	Design study of Corrugated Waveguide Slow-Wave Structure for THz amplification. , 2009, , .		1
116	15.3: Design method for Double Corrugation Rectangular Waveguide THz vacuum amplifiers. , 2010, , .		1
117	Thermal analysis of THz double corrugated waveguide. , 2013, , .		1
118	Tapered metallic Photonic Crystal slow wave structure for terahertz vacuum electron devices. , 2013, , .		1
119	Photonic bandgap coupler for 346 GHz sheet-beam BWO. , 2015, , .		1
120	Dispersion characteristics of double-corrugated rectangular waveguide for terahertz vacuum devices. , 2015, , .		1
121	Nanoscale surface roughness effects on THz vacuum electron device performance. , 2015, , .		1
122	THz BWO based on photonic crystal corrugated waveguide. , 2015, , .		1
123	Comparison of couplers for 0.346 THz DCW-BWO. , 2016, , .		1
124	Progress in development of a 346GHz BWO. , 2016, , .		1
125	Electron gun and CVD diamond window for a 346 GHz sheet beam BWO. , 2016, , .		1
126	High energy beam THz backward wave oscillator based on double corrugated waveguide. , 2016, , .		1

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127	71â€“76 GHz traveling wave tube for high data rate satellite communication. , 2017, , .		1
128	Fabrication of the 0.346 THz BWO for plasma diagnostic. , 2017, , .		1
129	Toward 100 Gbps wireless networks enabled by millimeter wave Traveling Wave Tubes. , 2018, , .		1
130	Design of Slow Wave Structure for G-band TWT for High Data Rate Links. , 2019, , .		1
131	Large Signal Analysis of a New Meander Line Topology for W-band Traveling Wave Tubes. , 2019, , .		1
132	Backward wave oscillator for high power generation at THz frequencies. , 2017, , .		1
133	Advancement in high capacity wireless distribution above 140 GHz. , 2020, , .		1
134	3D Meander Line Slow Wave Structure for W-band TWT. , 2020, , .		1
135	On a D-band Traveling Wave Tube for Wireless Links. , 2020, , .		1
136	Novel Meander Line Slow Wave Structure for W-band TWT. , 2020, , .		1
137	Pillared Meander Line Slow Wave Structure for W-band Traveling Wave Tubes. , 2021, , .		1
138	On stability in the MMIC distributed amplifier. Microwave and Optical Technology Letters, 1994, 7, 215-216.	1.4	0
139	Wideband large-signal amplifier based on an odd number of mesfets. Microwave and Optical Technology Letters, 1995, 9, 310-312.	1.4	0
140	A practical approach based on a unilateral FET model for the design of a MMIC distributed amplifier. Microwave and Optical Technology Letters, 1996, 13, 219-221.	1.4	0
141	Fast prediction and optimization of yield in gallium arsenide large-signal MMICs. , 1998, 8, 68-76.		0
142	An optimization procedure for MMIC large-signal amplifiers. , 1998, 19, 386-388.		0
143	A finite-element 3-D method for the design of TWT collectors. Microwave and Optical Technology Letters, 2000, 26, 119-122.	1.4	0
144	Analysis of high-efficiency multistage depressed collectors based on the 3-D finite-element method. Microwave and Optical Technology Letters, 2000, 27, 275-278.	1.4	0

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145	Impact of process parameters in 40 GHz traveling-wave amplifiers. Microwave and Optical Technology Letters, 2001, 31, 421-423.	1.4	0
146	Helix wire tolerances in TWT small-signal gain prediction. Microwave and Optical Technology Letters, 2001, 29, 208-209.	1.4	0
147	Fast computation of FET power gains. Microwave and Optical Technology Letters, 2002, 33, 104-106.	1.4	0
148	On the influence of electron-beam parameters on TWT small-signal gain. Microwave and Optical Technology Letters, 2002, 34, 433-434.	1.4	0
149	Yield improvement via helix-pitch profile adjustment in multisection helix traveling-wave tubes. Microwave and Optical Technology Letters, 2005, 46, 433-435.	1.4	0
150	Nonrounded dielectric rectangular rods in helix traveling-wave tubes. Microwave and Optical Technology Letters, 2005, 47, 101-103.	1.4	0
151	Innovative design of nano-vacuum triode. , 2007, , .		0
152	High performance 1.5W pHEMT Distributed Power Amplifier with Adjustable Inter-Stage Cascaded Network for 10. , 2008, , .		0
153	Helix TWT yield improvement by helix pitch optimization. , 2009, , .		0
154	P2-4: Improved rod shapes for helix slow wave structures. , 2010, , .		0
155	Vacuum electron tubes for THz applications. , 2011, , .		0
156	Narrow corrugated waveguide BWO for THz signal generation. , 2012, , .		0
157	Vacuum tube amplifier of the opther Project for 1-THz amplification. , 2012, , .		0
158	Improvement of cold parameters of the double corrugated waveguide by geometrical shaping of the corrugations. , 2013, , .		0
159	Novel klystron approach for THz frequency amplification. , 2013, , .		0
160	Simulation of 0.346 THz double corrugated waveguide BWO. , 2015, , .		0
161	A fast model of a 1-D nonlinear beam-wave interaction for a 225 GHz TWT. , 2015, , .		0
162	Sub-THz traveling wave amplifiers based on the double corrugated waveguide. , 2015, , .		0

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163	Low-cost method for waveguide device components fabrication at 220 â€“ 325 GHz. , 2016, , .		0
164	Photonic band gap corrugated slow wave structure for THz sheet-beam vacuum electron devices. , 2016, , .		0
165	Double corrugated waveguide 0.346 THz BWO with wide beam channel. , 2016, , .		0
166	Evaluation of a rapid manufacturing approach for rectangular waveguide filters up to 1.1 THz. , 2016, , .		0
167	Design and fabrication of double corrugated waveguide for a Ka-band traveling wave tube. , 2016, , .		0
168	Study of the dispersion of the double-corrugated waveguide at THz frequencies. , 2016, , .		0
169	Cold-test analysis of H-plane and E-plane loaded rectangular slow-wave structure. , 2017, , .		0
170	Lagrangian large signal model for double corrugated waveguides. , 2017, , .		0
171	W-band klystron upconverter driven by pseudospark-sourced electron beam. , 2017, , .		0
172	Frequency-Stabilized Terahertz Gyrotron Backward-Wave Oscillator During Electronic Tuning Process. , 2018, , .		0
173	Effect of fabrication tolerance on 0.346 THz double corrugated waveguide for backward wave oscillators. , 2018, , .		0
174	Lagrangian large signal model for double corrugated waveguide. , 2018, , .		0
175	Design of a highâ€gain silicon BJT and an Eâ€pHEMT hybrid matrix amplifier with an optimum filterâ€matching technique. IET Microwaves, Antennas and Propagation, 2019, 13, 2153-2158.	1.4	0
176	Design and fabrication of a D-Band Traveling Wave Tube for millimeter wave communications. , 2019, , .		0
177	Variable aperture horn antenna for millimeter wave wireless communications. , 2019, , .		0
178	Toward the first D-band Point to multipoint wireless system field test. , 2021, , .		0
179	Analysis of the Bottom Metal/Dielectric Supporting Plane in Meander Line Slow Wave Structures for Millimeter Wave Traveling Wave Tubes. , 2021, , .		0
180	Preliminary Design of Reentrant Square Cavity for EIK Application. , 2021, , .		0

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181	Tolerance Analysis of Double Corrugated Waveguide for D-band TWT. , 2021, , .		0
182	Efficient Interference Mitigation in mmWave Backhaul Network for High Data Rate 5G Wireless Communications. International Journal of Communications, Network and System Sciences, 2017, 10, 170-180.	0.6	0
183	TWTs for Point to Point D-band Wireless Links. , 2020, , .		0
184	Design and Microfabrication of a Double Corrugated Waveguide for G-band TWTs. , 2020, , .		0
185	Front end for D-band High Data Rate Point to Point links. , 2020, , .		0
186	ULTRAWAVE. Springer Series in Optical Sciences, 2022, , 423-425.	0.7	0
187	Sub-THz Traveling Wave Tubes for Novel Wireless High Capacity Networks. , 2020, , .		0