Paris P Velez

List of Publications by Year
in descending order

94 papers	2,439 citations	218677 26 h-index	223800 46 g-index
98 all docs	98 docs citations	98 times ranked	966 citing authors

#	Article	IF	Citations
1	Microwave Microfluidic Sensor Based on a Microstrip Splitter/Combiner Configuration and Split Ring Resonators (SRRs) for Dielectric Characterization of Liquids. IEEE Sensors Journal, 2017, 17, 6589-6598.	4.7	275
2	Splitter/Combiner Microstrip Sections Loaded With Pairs of Complementary Split Ring Resonators (CSRRs): Modeling and Optimization for Differential Sensing Applications. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 4362-4370.	4.6	149
3	Highly-Sensitive Microwave Sensors Based on Open Complementary Split Ring Resonators (OCSRRs) for Dielectric Characterization and Solute Concentration Measurement in Liquids. IEEE Access, 2018, 6, 48324-48338.	4.2	149
4	Split Ring Resonator-Based Microwave Fluidic Sensors for Electrolyte Concentration Measurements. IEEE Sensors Journal, 2019, 19, 2562-2569.	4.7	146
5	Analytical Method to Estimate the Complex Permittivity of Oil Samples. Sensors, 2018, 18, 984.	3.8	131
6	Planar Microwave Resonant Sensors: A Review and Recent Developments. Applied Sciences (Switzerland), 2020, 10, 2615.	2.5	67
7	Differential Bandpass Filter With Common-Mode Suppression Based on Open Split Ring Resonators and Open Complementary Split Ring Resonators. IEEE Microwave and Wireless Components Letters, 2013, 23, 22-24.	3.2	62
8	Single-Frequency Amplitude-Modulation Sensor for Dielectric Characterization of Solids and Microfluidics. IEEE Sensors Journal, 2021, 21, 12189-12201.	4.7	61
9	Differential Sensor Based on Electroinductive Wave Transmission Lines for Dielectric Constant Measurements and Defect Detection. IEEE Transactions on Antennas and Propagation, 2020, 68, 1876-1886.	5.1	58
10	An Analytical Method to Implement High-Sensitivity Transmission Line Differential Sensors for Dielectric Constant Measurements. IEEE Sensors Journal, 2020, 20, 178-184.	4.7	58
11	Highly Sensitive Phase-Variation Dielectric Constant Sensor Based on a Capacitively-Loaded Slow-Wave Transmission Line. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 2787-2799.	5.4	54
12	On the Sensitivity of Reflective-Mode Phase-Variation Sensors Based on Open-Ended Stepped-Impedance Transmission Lines: Theoretical Analysis and Experimental Validation. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 308-324.	4.6	52
13	Differential Microfluidic Sensors Based on Dumbbell-Shaped Defect Ground Structures in Microstrip Technology: Analysis, Optimization, and Applications. Sensors, 2019, 19, 3189.	3.8	46
14	Differential-Mode to Common-Mode Conversion Detector Based on Rat-Race Hybrid Couplers: Analysis and Application to Differential Sensors and Comparators. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 1312-1325.	4.6	45
15	Configurations of Splitter/Combiner Microstrip Sections Loaded with Stepped Impedance Resonators (SIRs) for Sensing Applications. Sensors, 2016, 16, 2195.	3.8	44
16	Highly Sensitive Reflective-Mode Phase-Variation Permittivity Sensor Based on a Coplanar Waveguide Terminated With an Open Complementary Split Ring Resonator (OCSRR). IEEE Access, 2021, 9, 27928-27944.	4.2	42
17	Automated Design of Common-Mode Suppressed Balanced Wideband Bandpass Filters by Means of Aggressive Space Mapping. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 3896-3908.	4.6	40
18	Design of Capacitively Loaded Coupled-Line Bandpass Filters With Compact Size and Spurious Suppression. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 1235-1248.	4.6	38

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19	Highly Sensitive Phase Variation Sensors Based on Step-Impedance Coplanar Waveguide (CPW) Transmission Lines. IEEE Sensors Journal, 2021, 21, 2864-2872.	4.7	36
20	A Review of Sensing Strategies for Microwave Sensors Based on Metamaterial-Inspired Resonators: Dielectric Characterization, Displacement, and Angular Velocity Measurements for Health Diagnosis, Telecommunication, and Space Applications. International Journal of Antennas and Propagation, 2017, 2017, 1-13.	1.2	35
21	A Reflective-Mode Phase-Variation Displacement Sensor. IEEE Access, 2020, 8, 189565-189575.	4.2	34
22	Phase-Variation Microwave Sensor for Permittivity Measurements Based on a High-Impedance Half-Wavelength Transmission Line. IEEE Sensors Journal, 2021, 21, 10647-10656.	4.7	33
23	Ultra-Compact (80 <formula formulatype="inline"> <tex) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 592 Td (Notation="TeX" (UWB) Bandpass Filters With Common-Mode Noise Suppression. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 1272-1280.	4.6	30
24	Microfluidic reflective-mode differential sensor based on open split ring resonators (OSRRs). International Journal of Microwave and Wireless Technologies, 2020, 12, 588-597.	1.9	30
25	Recent Advances in Metamaterial Transmission Lines Based on Split Rings. Proceedings of the IEEE, 2011, 99, 1701-1710.	21.3	29
26	Estimation of the complex permittivity of liquids by means of complementary split ring resonator (CSRR) loaded transmission lines. , 2017, , .		29
27	Compact Wideband Balanced Bandpass Filters With Very Broad Common-Mode and Differential-Mode Stopbands. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 737-750.	4.6	27
28	Differential Microstrip Lines With Common-Mode Suppression Based on Electromagnetic Band-Gaps (EBGs). IEEE Antennas and Wireless Propagation Letters, 2015, 14, 40-43.	4.0	25
29	The Beauty of Symmetry: Common-Mode Rejection Filters for High-Speed Interconnects and Band Microwave Circuits. IEEE Microwave Magazine, 2017, 18, 42-55.	0.8	24
30	Highly Sensitive Reflective-Mode Defect Detectors and Dielectric Constant Sensors Based on Open-Ended Stepped-Impedance Transmission Lines. Sensors, 2020, 20, 6236.	3.8	24
31	Frequency-Variation Sensors for Permittivity Measurements Based on Dumbbell-Shaped Defect Ground Structures (DB-DGS): Analytical Method and Sensitivity Analysis. IEEE Sensors Journal, 2022, 22, 9378-9386.	4.7	24
32	Branch Line Couplers With Small Size and Harmonic Suppression Based on Non-Periodic Step Impedance Shunt Stub (SISS) Loaded Lines. IEEE Access, 2020, 8, 67310-67320.	4.2	23
33	Differential Sensing Based on Quasi-Microstrip Mode to Slot-Mode Conversion. IEEE Microwave and Wireless Components Letters, 2019, 29, 690-692.	3.2	22
34	Circuit Analysis of a Coplanar Waveguide (CPW) Terminated With a Step-Impedance Resonator (SIR) for Highly Sensitive One-Port Permittivity Sensing. IEEE Access, 2022, 10, 62597-62612.	4.2	21
35	Capacitively-Loaded Slow-Wave Transmission Lines for Sensitivity Improvement in Phase-Variation Permittivity Sensors. , 2021, , .		20
36	Planar Phase-Variation Microwave Sensors for Material Characterization: A Review and Comparison of Various Approaches. Sensors, 2021, 21, 1542.	3.8	20

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37	Dual-Band Balanced Bandpass Filter With Common-Mode Suppression Based on Electrically Small Planar Resonators. IEEE Microwave and Wireless Components Letters, 2016, 26, 16-18.	3.2	19
38	Microwave Sensors Based on Resonant Elements. Sensors, 2020, 20, 3375.	3.8	19
39	Size reduction and harmonic suppression in branch line couplers implemented by means of capacitively loaded slowâ€wave transmission lines. Microwave and Optical Technology Letters, 2017, 59, 2822-2830.	1.4	17
40	Modeling and analysis of pairs of open complementary split ring resonators (OCSRRs) for differential permittivity sensing. , 2017, , .		17
41	Slow-wave inductively-loaded electromagnetic bandgap (EBG) coplanar waveguide (CPW) transmission lines and application to compact power dividers. , 2016, , .		16
42	Compact power dividers with filtering capability for ground penetrating radar applications. Microwave and Optical Technology Letters, 2012, 54, 608-611.	1.4	15
43	Size reduction and spurious suppression in microstrip coupled line bandpass filters by means of capacitive electromagnetic bandgaps. , 2016, , .		15
44	Miniaturised and harmonicâ€suppressed ratâ€race couplers based on slowâ€wave transmission lines. IET Microwaves, Antennas and Propagation, 2019, 13, 1293-1299.	1.4	15
45	Characterization of electrolyte content in urine samples through a differential microfluidic sensor based on dumbbell-shaped defected ground structures. International Journal of Microwave and Wireless Technologies, 2020, 12, 817-824.	1.9	15
46	Compact Dual-Band Differential Power Splitter With Common-Mode Suppression and Filtering Capability Based on Differential-Mode Composite Right/Left-Handed Transmission-Line Metamaterials. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 536-539.	4.0	14
47	EBG-based transmission lines with slow-wave characteristics and application to miniaturization of microwave components. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	14
48	Highly Sensitive Defect Detectors and Comparators Exploiting Port Imbalance in Rat-Race Couplers Loaded With Step-Impedance Open-Ended Transmission Lines. IEEE Sensors Journal, 2021, 21, 26731-26745.	4.7	14
49	Solute Concentration Measurements in Diluted Solutions by Means of Split Ring Resonators. , 2018, , .		13
50	Parametric Analysis of the Edge Capacitance of Uniform Slots and Application to Frequency-Variation Permittivity Sensors. Applied Sciences (Switzerland), 2021, 11, 7000.	2.5	13
51	On the Modeling of Microstrip Lines Loaded With Dumbbell Defect-Ground-Structure (DB-DGS) and Folded DB-DGS Resonators. IEEE Access, 2021, 9, 150878-150888.	4.2	13
52	Embroidered Textile Frequency-Splitting Sensor Based on Stepped-Impedance Resonators. IEEE Sensors Journal, 2022, 22, 8596-8603.	4.7	13
53	Differential bandpass filters with common-mode suppression based on stepped impedance resonators (SIRs). , 2013, , .		12
54	High miniaturization potential of slow-wave transmission lines based on simultaneous inductor and capacitor loading. , 2017, , .		10

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55	Slow-wave coplanar waveguides based on inductive and capacitive loading and application to compact and harmonic suppressed power splitters. International Journal of Microwave and Wireless Technologies, 2018, 10, 530-537.	1.9	10
56	Enhancing commonâ€mode suppression in microstrip differential lines by means of chirped and multiâ€tuned electromagnetic bandgaps. Microwave and Optical Technology Letters, 2016, 58, 328-332.	1.4	9
57	Compact power splitter with harmonic suppression based on inductively loaded slowâ€wave transmission lines. Microwave and Optical Technology Letters, 2018, 60, 1464-1468.	1.4	9
58	Broadband Microstrip Bandpass Filter Based on Open Complementary Split Ring Resonators. International Journal of Antennas and Propagation, 2012, 2012, 1-6.	1.2	8
59	Common-mode suppressed differential bandpass filter based on open complementary split ring resonators fabricated in microstrip technology without ground plane etching. Microwave and Optical Technology Letters, 2014, 56, 910-916.	1.4	8
60	Design of differential-mode wideband bandpass filters with wide stop band and common-mode suppression by means of multisection mirrored stepped impedance resonators (SIRs). , 2015, , .		8
61	High-order coplanar waveguide (CPW) filters implemented by means of open split ring resonators (OSRRs) and open complementary split ring resonators (OCSRRs). Metamaterials, 2011, 5, 51-55.	2.2	7
62	Transmission line metamaterials based on pairs of coupled split ring resonators (SRRs) and complementary split ring resonators (CSRR): A comparison to the light of the lumped element equivalent circuits. , 2015, , .		7
63	Automated design of balanced wideband bandpass filters based on mirrored stepped impedance resonators (SIRs) and interdigital capacitors. International Journal of Microwave and Wireless Technologies, 2016, 8, 731-740.	1.9	7
64	Electrolyte Concentration Measurements in DI Water with 0.125 g/L Resolution by means of CSRR-Based Structures. , 2019, , .		7
65	Step Impedance Resonator (SIR) Loaded with Complementary Split Ring Resonator (CSRR): Modeling, Analysis and Applications. , 2020, , .		7
66	Characterization of the Denaturation of Bovine Serum Albumin (BSA) Protein by Means of a Differential-Mode Microwave Microfluidic Sensor Based on Slot Resonators. IEEE Sensors Journal, 2022, 22, 14075-14083.	4.7	7
67	Signal Balancing in Unbalanced Transmission Lines. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 3339-3349.	4.6	6
68	Reactively-loaded non-periodic slow-wave artificial transmission lines for stop band bandwidth enhancement: application to power splitters. International Journal of Microwave and Wireless Technologies, 2019, 11, 475-481.	1.9	6
69	Application of electromagnetic bandgaps based on capacitively-loaded lines to the reduction of size and suppression of harmonic bands in microwave devices. , 2017, , .		5
70	Open-Ended-Line Reflective-Mode Phase-Variation Sensors for Dielectric Constant Measurements. , 2020, , .		5
71	A Microwave Microfluidic Reflective-Mode Phase-Variation Sensor. , 2021, , .		5
72	Discussion and Analysis of Dumbbell Defect-Ground-Structure (DB-DGS) Resonators for Sensing Applications from a Circuit Theory Perspective. Sensors, 2021, 21, 8334.	3.8	5

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73	Optimized wideband differential-mode bandpass filters with broad stopband and common-mode suppression based on multi-section stepped impedance resonators and interdigital capacitors. , 2017, , .		4
74	On the Sensitivity of Microwave Sensors based on Slot Resonators and Frequency Variation. , 2019, , .		4
75	Compact coplanar waveguide power splitter with filtering capability based on slowâ€wave structures. Microwave and Optical Technology Letters, 2019, 61, 1143-1148.	1.4	4
76	Reactively-loaded EBG-based transmission lines and application to power splitters. , 2016, , .		3
77	Slow-Wave Artificial Transmission Lines based on Stepped Impedance Shunt Stub (SISS) Loading: Analysis and Stopband Bandwidth Enhancement. , 2018, , .		3
78	Microstrip Lines Loaded with Metamaterial-Inspired Resonators for Microwave Sensors/Comparators with Optimized Sensitivity. , 2019, , .		3
79	Ultra-wideband (UWB) balanced bandpass filters with wide stop band and intrinsic common-mode rejection based on embedded capacitive electromagnetic bandgaps (EBG). , 2014, , .		2
80	Common-mode suppressed differential transmission lines based on periodic structures. , 2014, , .		2
81	Applications of electromagnetic band gaps (EBGs) in microstrip and balanced microstrip lines. , 2014, , .		2
82	Application of metamaterial concepts to sensors and chipless RFID. Journal of Physics: Conference Series, 2018, 963, 012012.	0.4	2
83	Dual and broadband power dividers at microwave frequencies based on composite right/left handed (CRLH) lattice networks. Photonics and Nanostructures - Fundamentals and Applications, 2014, 12, 269-278.	2.0	1
84	Application of aggressive space mapping (ASM) to the automated design of differential-mode wideband bandpass filters with common-mode suppression. , 2015, , .		1
85	Measuring Glucose Content in Aqueous Solutions by means of Split Ring Resonator (SRR) Loaded Transmission Lines. , 2018, , .		1
86	Differential dual-band impedance inverter with common mode suppression based on composite right/left handed (CRLH) transmission lines. , 2013, , .		0
87	Differential microstrip lines with wideband common-mode rejection based on chirped-EBGs. , 2015, , .		0
88	Recent advances in the design of compact microwave components based on reactively-loaded transmission lines. , 2016, , .		0
89	Slow wave EBG-based transmission lines and applications. , 2016, , .		0
90	Reactively-Loaded EBG Transmission Lines with Periodicity Truncation for Improvement of the Stop Band Performance. , 2019, , .		0

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91	Unattended Design of Wideband Planar Filters Using a Two-Step Aggressive Space Mapping (ASM) Optimization Algorithm. Springer Proceedings in Mathematics and Statistics, 2016, , 135-159.	0.2	0
92	Permittivity Sensor Based on a Slow-Wave Artificial Transmission Line. , 2020, , .		0
93	Differential Microfluidic Sensors based on Electroinductive-Wave (EIW) Transmission Lines. , 2020, , .		0
94	On the Capacitance of Slotted Metamaterial Resonators for Frequency-Variation Permittivity Sensing. , 2022, , .		0