

# Brent J Maundy

## List of Publications by Year in descending order

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127  
papers

2,310  
citations

279487

23  
h-index

253896

43  
g-index

131  
all docs

131  
docs citations

131  
times ranked

1355  
citing authors

#	ARTICLE	IF	CITATIONS
1	Estimating phase error using a Hilbert transform-based time-domain technique. International Journal of Circuit Theory and Applications, 2022, 50, 72-82.	1.3	0
2	Second-order cascode-based filters. The Integration VLSI Journal, 2022, 84, 111-121.	1.3	1
3	Ultra-low-power compact single-transistor all-pass filter with tunable delay capability. AEU - International Journal of Electronics and Communications, 2021, 132, 153645.	1.7	4
4	A Wideband 24-29 GHz Differential All-Pass Filter in 65-nm CMOS. , 2021, , .		0
5	Extending the double-dispersion Cole-Cole-Davidson and Havriliak-Negami electrochemical impedance spectroscopy models. European Biophysics Journal, 2021, 50, 915-926.	1.2	7
6	Delay-Tunable Compact RC-Only All-Pass Filter. IEEE Microwave and Wireless Components Letters, 2021, 31, 461-464.	2.0	3
7	Analog Circuit Design Using Symbolic Math Toolboxes: Demonstrative Examples. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2021, , 1-11.	2.1	0
8	Automatic Generation of Differential-Input Differential-Output Second-Order Filters Based on a Differential Pair. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 1258-1271.	1.9	8
9	Single transistor RC-only second-order allpass filters. International Journal of Circuit Theory and Applications, 2020, 48, 162-169.	1.3	10
10	On chip 0.5-2 GHz four-output quadrature-phase oscillator. AEU - International Journal of Electronics and Communications, 2020, 126, 153393.	1.7	5
11	Synthesis of Wideband High-Quality Factor Delay-Tunable Fully Differential All-Pass Filters. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 4348-4360.	2.9	12
12	Low-Power Single-Transistor Voltage-Mode Third-Order All-pass Filter in 65-nm CMOS. , 2020, , .		3
13	A generic impedance modeling technique. AEU - International Journal of Electronics and Communications, 2020, 123, 153301.	1.7	7
14	Extraction of bioimpedance phase information from its magnitude using a non-uniform Kramers-Kronig transform. European Biophysics Journal, 2020, 49, 207-213.	1.2	5
15	Wideband third-order single-transistor all-pass filter. International Journal of Circuit Theory and Applications, 2020, 48, 1201-1208.	1.3	11
16	On the mechanism of creating pinched hysteresis loops using a commercial memristor device. AEU - International Journal of Electronics and Communications, 2019, 111, 152923.	1.7	15
17	Single-Transistor Second-Order Allpass Filters. , 2019, , .		7
18	Simple Multi-Function Fractional-Order Filter Designs. , 2019, , .		6

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19	A Wideband Delay-Tunable Fully Differential Allpass Filter in 65-nm CMOS Technology. , 2019, , .		12
20	Correlation Between the Theory of Lissajous Figures and the Generation of Pinched Hysteresis Loops in Nonlinear Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 2606-2614.	3.5	11
21	In-Direct Impedance Measurement: Phase Extraction Algorithm. , 2019, , 33-49.		0
22	In-Direct Impedance Measurement: Design and Implementation. , 2019, , 51-80.		0
23	Partial fraction expansionâ€‘based realizations of fractionalâ€‘order differentiators and integrators using active filters. International Journal of Circuit Theory and Applications, 2019, 47, 513-531.	1.3	44
24	Enhancing the improved Howland circuit. International Journal of Circuit Theory and Applications, 2019, 47, 532-541.	1.3	7
25	8-GHz Low-Power Voltage-Mode Second-Order Allpass Filter in 65-nm CMOS. , 2019, , .		5
26	Thirdâ€‘order tunableâ€‘phase asymmetric crossâ€‘coupled oscillator. IET Circuits, Devices and Systems, 2019, 13, 929-933.	0.9	4
27	An Ultra-Low Power Wide-Band Single-Transistor Second-Order Allpass Filter in 65nm CMOS. , 2019, , .		5
28	Minimum MOS Transistor Count Fractional-Order Voltage-Mode and Current-Mode Filters. Technologies, 2019, 7, 85.	3.0	2
29	A voltage tunable CMOS differential active resistor and its application. International Journal of Circuit Theory and Applications, 2019, 47, 175-185.	1.3	1
30	Chaotic Flower Pollination and Grey Wolf Algorithms for parameter extraction of bio-impedance models. Applied Soft Computing Journal, 2019, 75, 750-774.	4.1	52
31	Parameter identification of fractional-order chaotic systems using different Meta-heuristic Optimization Algorithms. Nonlinear Dynamics, 2019, 95, 2491-2542.	2.7	46
32	Approximation of the Fractional-Order Laplacian $s^\alpha$ As a Weighted Sum of First-Order High-Pass Filters. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 1114-1118.	2.2	53
33	A four-quadrant current multiplier/divider cell with four transistors. Analog Integrated Circuits and Signal Processing, 2018, 95, 173-179.	0.9	9
34	Simple MOSâ€‘based circuit designed to show pinched hysteresis behavior. International Journal of Circuit Theory and Applications, 2018, 46, 1123-1128.	1.3	10
35	Wide-range grounded non-linear transconductor and its application as a frequency doubler. International Journal of Electronics Letters, 2018, 6, 214-219.	0.7	0
36	Extraction of Phase Information from Magnitude-Only Bio-impedance Measurements Using a Modified Kramersâ€‘Kronig Transform. Circuits, Systems, and Signal Processing, 2018, 37, 3635-3650.	1.2	20

#	ARTICLE	IF	CITATIONS
37	On a Class of Quadrature Phase Oscillators using Differential pairs. , 2018, , .		1
38	A 28 GHz Q-Tunable Fully Differential Bandpass Filter in 65-nm CMOS Technology. , 2018, , .		3
39	Synthesis of a Family of Differential Cross-coupled Oscillators and Design Application. , 2018, , .		1
40	Design and Implementation of a Bio-Impedance Analyzer Based on the Kramers-Kronig Transform. , 2018, , .		2
41	Review of fractional-order electrical characterization of supercapacitors. Journal of Power Sources, 2018, 400, 457-467.	4.0	125
42	Fractional-Order Multiphase Sinusoidal Oscillator Design Using Current-Mirrors. , 2018, , .		9
43	Variability of Cole-model bioimpedance parameters using magnitude-only measurements of apples from a two-electrode configuration. International Journal of Food Properties, 2017, 20, S507-S519.	1.3	18
44	Minimal two-transistor multifunction filter design. International Journal of Circuit Theory and Applications, 2017, 45, 1449-1466.	1.3	12
45	The common-base differential amplifier and applications revisited. Microelectronics Journal, 2017, 63, 8-19.	1.1	6
46	Low-voltage commercial supercapacitor response to periodic linear with time current excitation: a case study. IET Circuits, Devices and Systems, 2017, 11, 189-195.	0.9	19
47	Current-mode capacitorless integrators and differentiators for implementing emulators of fractional-order elements. AEU - International Journal of Electronics and Communications, 2017, 80, 94-103.	1.7	16
48	Analysis and experimental verification of a fractional-order Hartley oscillator. , 2017, , .		10
49	All-Pass Filter Based Synthesis of Multifunctional Microwave Active Circuits. , 2017, , .		4
50	Oscillator with tunable phase capability. Electronics Letters, 2017, 53, 1516-1518.	0.5	6
51	Synthesis and analysis of fully differential filters using two port networks. , 2017, , .		6
52	CMOS Realization of All-Positive Pinched Hysteresis Loops. Complexity, 2017, 2017, 1-15.	0.9	3
53	Design of a Portable Low-Cost Impedance Analyzer. , 2017, , .		22
54	Compact Wide Frequency Range Fractional-Order Models of Human Body Impedance against Contact Currents. Mathematical Problems in Engineering, 2016, 2016, 1-10.	0.6	18

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55	Fractional-Order Two-Port Networks. <i>Mathematical Problems in Engineering</i> , 2016, 2016, 1-5.	0.6	15
56	Analysis and realization of a switched fractional-order capacitor integrator. <i>International Journal of Circuit Theory and Applications</i> , 2016, 44, 2035-2040.	1.3	20
57	Electrode location impact on cole-impedance parameters using magnitude-only measurements. , 2016, , .		8
58	Improved method to determine supercapacitor metrics from highpass filter response. , 2016, , .		3
59	Determination of supercapacitor metrics using a magnitude-only method. , 2016, , .		3
60	Reevaluation of Performance of Electric Double-layer Capacitors from Constant-current Charge/Discharge and Cyclic Voltammetry. <i>Scientific Reports</i> , 2016, 6, 38568.	1.6	144
61	Factors impacting accurate Cole-impedance extractions from magnitude-only measurements. , 2016, , .		4
62	A low frequency oscillator using a super-capacitor. <i>AEU - International Journal of Electronics and Communications</i> , 2016, 70, 970-973.	1.7	65
63	Spectral Capacitance of Series and Parallel Combinations of Supercapacitors. <i>ChemElectroChem</i> , 2016, 3, 1429-1436.	1.7	46
64	On a class of cross coupled fully differential filters. <i>International Journal of Circuit Theory and Applications</i> , 2016, 44, 1425-1436.	1.3	9
65	Calculating output impedance in linear networks without source nulling or load disconnect: the instantaneous output impedance. <i>International Journal of Circuit Theory and Applications</i> , 2016, 44, 98-108.	1.3	4
66	Approximated Fractional-Order Inverse Chebyshev Lowpass Filters. <i>Circuits, Systems, and Signal Processing</i> , 2016, 35, 1973-1982.	1.2	67
67	Indirect Realization of the Imaginary Resistor $jR$ . <i>Circuits, Systems, and Signal Processing</i> , 2016, 35, 2610-2615.	1.2	6
68	A New Second-Order All-Pass Filter in 130-nm CMOS. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2016, 63, 249-253.	2.2	45
69	An improved multiphase sinusoidal oscillator using current feedback amplifiers. <i>International Journal of Electronics Letters</i> , 2016, 4, 177-187.	0.7	4
70	Approximated Fractional Order Chebyshev Lowpass Filters. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-7.	0.6	75
71	Second order bandstop and bandpass filters using transformers. <i>Microelectronics Journal</i> , 2015, 46, 690-697.	1.1	5
72	Versatile composite amplifier configuration. <i>International Journal of Electronics</i> , 2015, 102, 993-1006.	0.9	7

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73	Fractional-order models of supercapacitors, batteries and fuel cells: a survey. <i>Materials for Renewable and Sustainable Energy</i> , 2015, 4, 1.	1.5	149
74	A D/A converter based on a pseudo-exponential function. <i>International Journal of Electronics Letters</i> , 2015, 3, 187-200.	0.7	0
75	Extracting the parameters of the single-dispersion Cole bioimpedance model using a magnitude-only method. <i>Computers and Electronics in Agriculture</i> , 2015, 119, 153-157.	3.7	36
76	Single Transistor Active Filters: What is Possible and What is Not. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2014, 61, 2517-2524.	3.5	20
77	Extracting the parameters of the double-dispersion Cole bioimpedance model from magnitude response measurements. <i>Medical and Biological Engineering and Computing</i> , 2014, 52, 749-758.	1.6	69
78	Measurement of Supercapacitor Fractional-Order Model Parameters From Voltage-Excited Step Response. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2013, 3, 367-376.	2.7	158
79	Cole impedance extractions from the step-response of a current excited fruit sample. <i>Computers and Electronics in Agriculture</i> , 2013, 98, 100-108.	3.7	46
80	Differential Time Signaling Data-Link Architecture. <i>Journal of Signal Processing Systems</i> , 2013, 70, 21-37.	1.4	13
81	Fractional Step Analog Filter Design. <i>Lecture Notes in Electrical Engineering</i> , 2013, , 243-267.	0.3	6
82	Strain Gauge Amplifier Circuits. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2013, 62, 693-700.	2.4	20
83	Guest Editorial Fractional-Order Circuits and Systems. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2013, 3, 297-300.	2.7	12
84	Fractional Resonance-Based $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{RL} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle^2 \langle \text{mml:mi} \rangle \langle \text{mml:mdiv} \rangle \langle \text{mml:mdiv} \rangle \langle \text{mml:mi} \rangle \text{C} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \pm \langle \text{mml:mi} \rangle$ Mathematical Problems in Engineering, 2013, 2013, 1-10.	0.6	16
85	Incorporating FPAs into Laboratory Exercises for Analogue Filter Design. <i>International Journal of Electrical Engineering and Education</i> , 2013, 50, 188-200.	0.4	3
86	Design of fractional notch filter with asymmetric slopes and large values of notch magnitude. , 2013, , .		11
87	Accurate time domain extraction of supercapacitor fractional-order model parameters. , 2013, , .		8
88	Simplifying Cole-impedance extraction from the current-excited step response. , 2013, , .		1
89	Fractional-step Tow-Thomas biquad filters. <i>Nonlinear Theory and Its Applications IEICE</i> , 2012, 3, 357-374.	0.4	45
90	Multiple-Valued Time-Based Architecture for Serial Communication Links. , 2012, , .		5

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91	Improved Cole-Cole parameter extraction from frequency response using least squares fitting. , 2012, ,		6
92	4-Bit Parallel-Input Exponential Digital-to-Analog Converter in CMOS 0.18 $\mu\text{m}$ Technology. Circuits, Systems, and Signal Processing, 2012, 31, 413-433.	1.2	3
93	On the Realization of Multiphase Oscillators Using $\hat{A}$ Fractional-Order Allpass Filters. Circuits, Systems, and Signal Processing, 2012, 31, 3-17.	1.2	44
94	Extracting single dispersion Cole-Cole impedance model parameters using an integrator setup. Analog Integrated Circuits and Signal Processing, 2012, 71, 107-110.	0.9	41
95	Active grounded inductor circuit. International Journal of Electronics, 2011, 98, 555-567.	0.9	12
96	Numerical extraction of Cole-Cole impedance parameters from step response. Nonlinear Theory and Its Applications IEICE, 2011, 2, 548-561.	0.4	19
97	84-dB Range Logarithmic Digital-to-Analog Converter in CMOS 0.18- $\mu\text{m}$ Technology. IEEE Transactions on Circuits and Systems II: Express Briefs, 2011, 58, 279-283.	2.2	6
98	Improved dynamic range, digitally-controlled linear-in-dB CMOS variable gain amplifier. , 2011, ,		4
99	Band-pass filters with high quality factors and asymmetric-slope characteristics. , 2011, , ,		5
100	A practical near constant bandwidth amplifier. International Journal of Circuit Theory and Applications, 2010, 38, 577-590.	1.3	5
101	On a multivibrator that employs a fractional capacitor. Analog Integrated Circuits and Signal Processing, 2010, 62, 99-103.	0.9	55
102	Second order approximation of the fractional laplacian operator for equal-ripple response. , 2010, , ,		9
103	Towards the realization of fractional step filters. , 2010, , ,		26
104	Data link design using a time-based approach. , 2010, , ,		11
105	A new 90NM CMOS current feedback operational amplifier. , 2009, , ,		4
106	A new time-based architecture for serial communication links. , 2009, , ,		12
107	A power-efficient, high data rate chaos-based Transceiver design. , 2009, , ,		1
108	On a class of pseudo-logarithmic amplifiers suitable for use with digitally switched resistors. International Journal of Circuit Theory and Applications, 2008, 36, 81-108.	1.3	2

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109	A novel circuit element and its application in signal amplification. International Journal of Circuit Theory and Applications, 2008, 36, 219-231.	1.3	12
110	A low power and high speed PPM design for ultra wideband communications. Canadian Conference on Electrical and Computer Engineering, 2008, , .	0.0	11
111	Constant bandwidth current feedback amplifier from two operational amplifiers. International Journal of Electronics, 2007, 94, 605-615.	0.9	9
112	New topology for implementing bandpass, bandstop and allpass filters with CFAs. International Journal of Electronics, 2007, 94, 1025-1035.	0.9	1
113	A useful pseudo-logarithmic circuit. Microelectronics International, 2007, 24, 35-45.	0.4	3
114	Ultra Low Power Transceiver for Wireless Patient Vital Sign Monitoring. , 2007, , .		4
115	A Novel Hybrid Active Inductor. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2007, 54, 663-667.	2.3	6
116	A novel wide-band 5.3 GHz ESD protected input and output matched low noise amplifier. Midwest Symposium on Circuits and Systems, 2007, , .	1.0	1
117	High-performance current-mode instrumentation amplifier circuit. International Journal of Electronics, 2007, 94, 1015-1024.	0.9	27
118	Generalized CFA filter topology based on gain blocks. Midwest Symposium on Circuits and Systems, 2007, , .	1.0	0
119	Realization of a GIC using hybrid current conveyor/operational amplifier circuits. Midwest Symposium on Circuits and Systems, 2007, , .	1.0	4
120	An improved pseudo-exponential, pseudo-logarithmic circuit. Canadian Journal of Electrical and Computer Engineering, 2007, 32, 145-150.	1.5	6
121	Versatile Precision Full-Wave Rectifiers for Instrumentation and Measurements. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 1703-1710.	2.4	52
122	Complete automatic Q tuning system on a chip. The Integration VLSI Journal, 2005, 38, 399-415.	1.3	0
123	High-performance active bandpass filter using current-feedback amplifiers. International Journal of Electronics, 2004, 91, 563-570.	0.9	3
124	A novel Q -tuning scheme for continuous time filters. International Journal of Electronics, 2002, 89, 477-491.	0.9	3
125	A novel CMOS first-order all-pass filter. International Journal of Electronics, 2002, 89, 739-743.	0.9	23
126	Alternative Realizations of CMOS Current Feedback Amplifiers for Low Voltage Applications. Analog Integrated Circuits and Signal Processing, 2002, 32, 157-168.	0.9	21



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127	Designing with programmable logic arrays. <i>Microprocessors and Microsystems</i> , 1987, 11, 475-486.	1.8	0