Brent J Maundy

List of Publications by Citations

122 papers	**1,753** citations
22 h-index	**37** g-index
131 ext. papers	**2,076** ext. citations
2.2 avg, IF	**5.38** L-index

#	Paper	IF	Citations
122	Measurement of Supercapacitor Fractional-Order Model Parameters From Voltage-Excited Step Response. *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, **2013**, 3, 367-376	5.2	119
121	Reevaluation of Performance of Electric Double-layer Capacitors from Constant-current Charge/Discharge and Cyclic Voltammetry. *Scientific Reports*, **2016**, 6, 38568	4.9	108
120	Fractional-order models of supercapacitors, batteries and fuel cells: a survey. *Materials for Renewable and Sustainable Energy*, **2015**, 4, 1	4.7	107
119	Review of fractional-order electrical characterization of supercapacitors. *Journal of Power Sources*, **2018**, 400, 457-467	8.9	92
118	Extracting the parameters of the double-dispersion Cole bioimpedance model from magnitude response measurements. *Medical and Biological Engineering and Computing*, **2014**, 52, 749-58	3.1	60
117	A low frequency oscillator using a super-capacitor. *AEU - International Journal of Electronics and Communications*, **2016**, 70, 970-973	2.8	56
116	Approximated Fractional-Order Inverse Chebyshev Lowpass Filters. *Circuits, Systems, and Signal Processing*, **2016**, 35, 1973-1982	2.2	54
115	Approximated Fractional Order Chebyshev Lowpass Filters. *Mathematical Problems in Engineering*, **2015**, 2015, 1-7	1.1	54
114	On a multivibrator that employs a fractional capacitor. *Analog Integrated Circuits and Signal Processing*, **2010**, 62, 99-103	1.2	48
113	Approximation of the Fractional-Order Laplacian s^α As a Weighted Sum of First-Order High-Pass Filters. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2018**, 65, 1114-1118	3.5	43
112	Cole impedance extractions from the step-response of a current excited fruit sample. *Computers and Electronics in Agriculture*, **2013**, 98, 100-108	6.5	42
111	Chaotic Flower Pollination and Grey Wolf Algorithms for parameter extraction of bio-impedance models. *Applied Soft Computing Journal*, **2019**, 75, 750-774	7.5	41
110	Spectral Capacitance of Series and Parallel Combinations of Supercapacitors. *ChemElectroChem*, **2016**, 3, 1429-1436	4.3	39
109	Fractional-step Tow-Thomas biquad filters. *Nonlinear Theory and Its Applications IEICE*, **2012**, 3, 357-374	0.6	39
108	A New Second-Order All-Pass Filter in 130-nm CMOS. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2016**, 63, 249-253	3.5	36
107	Fractional Resonance-Based RLC Filters. *Mathematical Problems in Engineering*, **2013**, 2013, 1-10	1.1	36
106	Versatile Precision Full-Wave Rectifiers for Instrumentation and Measurements. *IEEE Transactions on Instrumentation and Measurement*, **2007**, 56, 1703-1710	5.2	36

105	Extracting single dispersion Cole-Cole impedance model parameters using an integrator setup. *Analog Integrated Circuits and Signal Processing*, **2012**, 71, 107-110	1.2	34
104	Extracting the parameters of the single-dispersion Cole bioimpedance model using a magnitude-only method. *Computers and Electronics in Agriculture*, **2015**, 119, 153-157	6.5	31
103	On the Realization of Multiphase Oscillators Using Fractional-Order Allpass Filters. *Circuits, Systems, and Signal Processing*, **2012**, 31, 3-17	2.2	31
102	Partial fraction expansion-based realizations of fractional-order differentiators and integrators using active filters. *International Journal of Circuit Theory and Applications*, **2019**, 47, 513-531	2	30
101	Parameter identification of fractional-order chaotic systems using different Meta-heuristic Optimization Algorithms. *Nonlinear Dynamics*, **2019**, 95, 2491-2542	5	30
100	High-performance current-mode instrumentation amplifier circuit. *International Journal of Electronics*, **2007**, 94, 1015-1024	1.2	21
99	**2010**,		19
98	A novel CMOS first-order all-pass filter. *International Journal of Electronics*, **2002**, 89, 739-743	1.2	19
97	Extraction of Phase Information from Magnitude-Only Bio-impedance Measurements Using a Modified Kramers-Kronig Transform. *Circuits, Systems, and Signal Processing*, **2018**, 37, 3635-3650	2.2	19
96	Design of a Portable Low-Cost Impedance Analyzer **2017**,		17
95	Compact Wide Frequency Range Fractional-Order Models of Human Body Impedance against Contact Currents. *Mathematical Problems in Engineering*, **2016**, 2016, 1-10	1.1	16
94	Low-voltage commercial super-capacitor response to periodic linear-with-time current excitation: a case study. *IET Circuits, Devices and Systems*, **2017**, 11, 189-195	1.1	15
93	Single Transistor Active Filters: What is Possible and What is Not. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2014**, 61, 2517-2524	3.9	15
92	Numerical extraction of Cole-Cole impedance parameters from step response. *Nonlinear Theory and Its Applications IEICE*, **2011**, 2, 548-561	0.6	15
91	Alternative Realizations of CMOS Current Feedback Amplifiers for Low Voltage Applications. *Analog Integrated Circuits and Signal Processing*, **2002**, 32, 157-168	1.2	15
90	Analysis and realization of a switched fractional-order-capacitor integrator. *International Journal of Circuit Theory and Applications*, **2016**, 44, 2035-2040	2	15
89	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	3	14
88	Current-mode capacitorless integrators and differentiators for implementing emulators of fractional-order elements. *AEU - International Journal of Electronics and Communications*, **2017**, 80, 94-103	2.8	14

87	Strain Gauge Amplifier Circuits. *IEEE Transactions on Instrumentation and Measurement*, **2013**, 62, 693-700	9.2	13
86	Fractional-Order Two-Port Networks. *Mathematical Problems in Engineering*, **2016**, 2016, 1-5	1.1	13
85	. *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, **2013**, 3, 297-300	5.2	11
84	A novel circuit element and its application in signal amplification. *International Journal of Circuit Theory and Applications*, **2008**, 36, 219-231	2	11
83	A Wideband Delay-Tunable Fully Differential Allpass Filter in 65-nm CMOS Technology **2019**,		10
82	On the mechanism of creating pinched hysteresis loops using a commercial memristor device. *AEU - International Journal of Electronics and Communications*, **2019**, 111, 152923	2.8	10
81	Simple MOS-based circuit designed to show pinched hysteresis behavior. *International Journal of Circuit Theory and Applications*, **2018**, 46, 1123-1128	2	9
80	Minimal two-transistor multifunction filter design. *International Journal of Circuit Theory and Applications*, **2017**, 45, 1449-1466	2	8
79	Design and Implementation of Portable Impedance Analyzers **2019**,		8
78	A four-quadrant current multiplier/divider cell with four transistors. *Analog Integrated Circuits and Signal Processing*, **2018**, 95, 173-179	1.2	8
77	**2013**,		8
76	Active grounded inductor circuit. *International Journal of Electronics*, **2011**, 98, 555-567	1.2	8
75	A new time-based architecture for serial communication links **2009**,		8
74	Constant bandwidth current feedback amplifier from two operational amplifiers. *International Journal of Electronics*, **2007**, 94, 605-615	1.2	8
73	. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2019**, 66, 2606-2614	3.9	7
72	On a class of cross coupled fully differential filters. *International Journal of Circuit Theory and Applications*, **2016**, 44, 1425-1436	2	7
71	**2010**,		7
70	Single transistor RC-only second-order allpass filters. *International Journal of Circuit Theory and Applications*, **2020**, 48, 162-169	2	7

69	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	2.5	7
68	Versatile composite amplifier configuration. *International Journal of Electronics*, **2015**, 102, 993-1006	1.2	6
67	Wideband third-order single-transistor all-pass filter. *International Journal of Circuit Theory and Applications*, **2020**, 48, 1201-1208	2	6
66	Single-Transistor Second-Order Allpass Filters **2019**,		6
65	Differential Time Signaling Data-Link Architecture. *Journal of Signal Processing Systems*, **2013**, 70, 21-37	1.4	6
64	Improved Cole-Cole parameter extraction from frequency response using least squares fitting **2012** ,		6
63	Accurate time domain extraction of supercapacitor fractional-order model parameters **2013**,		6
62	A low power and high speed PPM design for ultra wideband communications. *Canadian Conference on Electrical and Computer Engineering*, **2008**,		6
61	A Novel Hybrid Active Inductor. *IEEE Transactions on Circuits and Systems Part 2: Express Briefs*, **2007** , 54, 663-667		6
60	. *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 4348-4360	4.1	6
59	**2016**,		6
58	Simple Multi-Function Fractional-Order Filter Designs **2019**,		5
57	Fractional-Order Multiphase Sinusoidal Oscillator Design Using Current-Mirrors **2018**,		5
56	Analysis and experimental verification of a fractional-order Hartley oscillator **2017**,		5
55	Data link design using a time-based approach **2010**,		5
54	An improved pseudo-exponential, pseudo-logarithmic circuit. *Canadian Journal of Electrical and Computer Engineering*, **2007**, 32, 145-150	1.4	5
53	Extraction of bioimpedance phase information from its magnitude using a non-uniform Kramers-Kronig transform. *European Biophysics Journal*, **2020**, 49, 207-213	1.9	4
52	Indirect Realization of the Imaginary Resistor jR. *Circuits, Systems, and Signal Processing*, **2016**, 35, 2610-2615		4

51	All-Pass Filter Based Synthesis of Multifunctional Microwave Active Circuits **2017**,		4
50	84-dB Range Logarithmic Digital-to-Analog Converter in CMOS 0.18- $\mu\hbox{m}$ Technology. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2011**, 58, 279-283	3.5	4
49	Improved dynamic range, digitally-controlled linear-in-dB CMOS variable gain amplifier **2011**,		4
48	Band-pass filters with high quality factors and asymmetric-slope characteristics **2011**,		4
47	Ultra Low Power Transceiver for Wireless Patient Vital Sign Monitoring **2007**,		4
46	Realization of a GIC using hybrid current conveyor/operational amplifier circuits. *Midwest Symposium on Circuits and Systems*, **2007**,	1	4
45	8-GHz Low-Power Voltage-Mode Second-Order Allpass Filter in 65-nm CMOS **2019**,		4
44	An Ultra-Low Power Wide-Band Single-Transistor Second-Order Allpass Filter in 65nm CMOS **2019**,		4
43	The common-base differential amplifier and applications revisited. *Microelectronics Journal*, **2017**, 63, 8-19	1.8	3
42	Second order bandstop and bandpass filters using transformers. *Microelectronics Journal*, **2015**, 46, 690-697	1.8	3
41	Calculating output impedance in linear networks without source nulling or load disconnect: the instantaneous output impedance. *International Journal of Circuit Theory and Applications*, **2016**, 44, 98-108	2	3
40	Oscillator with tunable phase capability. *Electronics Letters*, **2017**, 53, 1516-1518	1.1	3
39	CMOS Realization of All-Positive Pinched Hysteresis Loops. *Complexity*, **2017**, 2017, 1-15	1.6	3
38	4-Bit Parallel-Input Exponential Digital-to-Analog Converter in CMOS 0.18 m Technology. *Circuits, Systems, and Signal Processing*, **2012**, 31, 413-433	2.2	3
37	Fractional Step Analog Filter Design. *Lecture Notes in Electrical Engineering*, **2013**, 243-267	0.2	3
36	Incorporating FPAAs into Laboratory Exercises for Analogue Filter Design. *International Journal of Electrical Engineering and Education*, **2013**, 50, 188-200	0.6	3
35	A practical near constant bandwidth amplifier. *International Journal of Circuit Theory and Applications*, **2009**, 38, n/a-n/a	2	3
34	A useful pseudo-logarithmic circuit. *Microelectronics International*, **2007**, 24, 35-45	0.8	3

33	High-performance active bandpass filter using current-feedback amplifiers. *International Journal of Electronics*, **2004**, 91, 563-570	1.2	3
32	Extending the double-dispersion Cole-Cole, Cole-Davidson and Havriliak-Negami electrochemical impedance spectroscopy models. *European Biophysics Journal*, **2021**, 50, 915-926	1.9	3
31	Factors impacting accurate Cole-impedance extractions from magnitude-only measurements **2016**,		3
30	Enhancing the improved Howland circuit. *International Journal of Circuit Theory and Applications*, **2019**, 47, 532-541	2	3
29	A 28 GHz Q-Tunable Fully Differential Bandpass Filter in 65-nm CMOS Technology **2018**,		3
28	An improved multiphase sinusoidal oscillator using current feedback amplifiers. *International Journal of Electronics Letters*, **2016**, 4, 177-187	0.6	2
27	A generic impedance modeling technique. *AEU - International Journal of Electronics and Communications*, **2020**, 123, 153301	2.8	2
26	Multiple-Valued Time-Based Architecture for Serial Communication Links **2012**,		2
25	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	2	2
24	A novel Q -tuning scheme for continuous time filters. *International Journal of Electronics*, **2002**, 89, 477-491	1.2	2
23	On chip 0.5 V 2 GHz four-output quadrature-phase oscillator. *AEU - International Journal of Electronics and Communications*, **2020**, 126, 153393	2.8	2
22	Low-Power Single-Transistor Voltage-Mode Third-Order All-pass Filter in 65-nm CMOS **2020**,		2
21	Improved method to determine supercapacitor metrics from highpass filter response **2016**,		2
20	Determination of supercapacitor metrics using a magnitude-only method **2016**,		2
19	Minimum MOS Transistor Count Fractional-Order Voltage-Mode and Current-Mode Filters. *Technologies*, **2019**, 7, 85	2.4	2
18	Design and Implementation of a Bio-Impedance Analyzer Based on the Kramers-Kronig Transform **2018**,		1
17	A new 90NM CMOS current feedback operational amplifier **2009**,		1
16	A power-efficient, high data rate chaos-based Transceiver design **2009**,		1

15	New topology for implementing bandpass, bandstop and allpass filters with CFAs. *International Journal of Electronics*, **2007**, 94, 1025-1035	1.2	1
14	Ultra-low-power compact single-transistor all-pass filter with tunable delay capability. *AEU - International Journal of Electronics and Communications*, **2021**, 132, 153645	2.8	1
13	Third-order tunable-phase asymmetric cross-coupled oscillator. *IET Circuits, Devices and Systems*, **2019**, 13, 929-933	1.1	1
12	A voltage tunable CMOS differential active resistor and its application. *International Journal of Circuit Theory and Applications*, **2019**, 47, 175-185	2	1
11	On a Class of Quadrature Phase Oscillators using Differential pairs **2018**,		1
10	Synthesis of a Family of Differential Cross-coupled Oscillators and Design Application **2018**,		1
9	Delay-Tunable Compact RC-Only All-Pass Filter. *IEEE Microwave and Wireless Components Letters*, **2021**, 31, 461-464	2.6	0
8	In-Direct Impedance Measurement: Phase Extraction Algorithm **2019**, 33-49		
7	In-Direct Impedance Measurement: Design and Implementation **2019**, 51-80		
6	A D/A converter based on a pseudo-exponential function. *International Journal of Electronics Letters*, **2015**, 3, 187-200	0.6	
5	Wide-range grounded non-linear transconductor and its application as a frequency doubler. *International Journal of Electronics Letters*, **2018**, 6, 214-219	0.6	
4	Complete automatic Q tuning system on a chip. *The Integration VLSI Journal*, **2005**, 38, 399-415	1.4	
3	Designing with programmable logic arrays. *Microprocessors and Microsystems*, **1987**, 11, 475-486	2.4	
2	Second-order cascode-based filters. *The Integration VLSI Journal*, **2022**, 84, 111-121	1.4	
1	Analog Circuit Design Using Symbolic Math Toolboxes: Demonstrative Examples. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **2021**, 1-11	2.6	