Mark F Bocko

List of Publications by Year
in descending order

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93	1,151	394421	434195
papers	citations	19 h-index	31 g-index

104	104	104	774
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the measurement of a weak classical force coupled to a harmonic oscillator: experimental progress. Reviews of Modern Physics, 1996, 68, 755-799.	45.6	178
2	Observation of frequency shifts of spectral lines due to source correlations. Physical Review Letters, 1987, 58, 2649-2651.	7.8	78
3	Vacuum Tunneling Probe: A Nonreciprocal, Reduced-Back-Action Transducer. Physical Review Letters, 1988, 61, 726-729.	7.8	57
4	An interface circuit for measuring capacitance changes based upon capacitance-to-duty cycle (CDC) converter. IEEE Sensors Journal, 2005, 5, 403-410.	4.7	47
5	Approaching the Quantum "Limit" for Force Detection. Physical Review Letters, 1981, 47, 1184-1187.	7.8	40
6	Surpassing the Amplifier Limit for Force Detection. Physical Review Letters, 1982, 48, 1371-1374.	7.8	39
7	Effect of Network Latency on Interactive Musical Performance. Music Perception, 2006, 24, 49-62.	1.1	37
8	Low Power, High Dynamic Range CMOS Image Sensor Employing Pixel-Level Oversampling <formula formulatype="inline"> <tex Notation="TeX">$SigmaDelta$</tex> </formula> Analog-to-Digital Conversion. IEEE Sensors Journal, 2012, 12, 737-746.	4.7	30
9	Automated Cough Assessment on a Mobile Platform. Journal of Medical Engineering, 2014, 2014, 1-9.	1.1	29
10	The scanning tunneling microscope as a highâ€gain, lowâ€noise displacement sensor. Review of Scientific Instruments, 1990, 61, 3763-3768.	1.3	27
11	Phase-sensitive amplification and deamplification of noise and the noise rise in period-doubling systems near a bifurcation. Physical Review Letters, 1988, 60, 1763-1766.	7.8	23
12	Uncertainty-principle noise in vacuum-tunneling transducers. Physical Review B, 1992, 45, 3735-3743.	3.2	23
13	A Set Theoretic Framework for Watermarking and Its Application to Semifragile Tamper Detection. IEEE Transactions on Information Forensics and Security, 2006, 1, 479-492.	6.9	23
14	RSFQ circular shift registers. IEEE Transactions on Applied Superconductivity, 1997, 7, 2832-2835.	1.7	21
15	Optimal Spread Spectrum Watermark Embedding via a Multistep Feasibility Formulation. IEEE Transactions on Image Processing, 2009, 18, 371-387.	9.8	21
16	Bounded regions of chaotic behavior in the control parameter space of a driven non-linear resonator. Physics Letters, Section A: General, Atomic and Solid State Physics, 1984, 104, 388-390.	2.1	20
17	Evaluating the Validity of an Automated Device for Asthma Monitoring for Adolescents: Correlational Design. Journal of Medical Internet Research, 2015, 17, e234.	4.3	20
18	Phase-sensitive parametric motion transducer. Physical Review A, 1984, 30, 2135-2137.	2.5	19

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19	A realistic experiment to demonstrate macroscopic quantum coherence. Physica C: Superconductivity and Its Applications, 2001, 350, 171-176.	1.2	19
20	An RSFQ variable duty cycle oscillator for driving a superconductive qubit. IEEE Transactions on Applied Superconductivity, 2003, 13, 966-969.	1.7	18
21	High speed testing of a four-bit RSFQ decimation digital filter. IEEE Transactions on Applied Superconductivity, 1997, 7, 2975-2978.	1.7	17
22	A proposed back action evading read-out for a gravitational wave detector. Physics Letters, Section A: General, Atomic and Solid State Physics, 1983, 97, 259-262.	2.1	16
23	Reduced-noise nonreciprocal transducer based upon vacuum tunneling. Physical Review A, 1989, 40, 6615-6625.	2.5	16
24	Design of an RSFQ control circuit to observe MQC on an rf-SQUID. IEEE Transactions on Applied Superconductivity, 2001, 11, 1014-1017.	1.7	16
25	Timing jitter and bit errors in a 64-bit circular shift register. IEEE Transactions on Applied Superconductivity, 1999, 9, 3721-3724.	1.7	15
26	Non-Contact ECG Sensing Employing Gradiometer Electrodes. IEEE Transactions on Biomedical Engineering, 2013, 60, 179-183.	4.2	15
27	Behavior of a nonlinear resonator driven at subharmonic frequencies. Physical Review A, 1990, 41, 619-625.	2.5	13
28	Modal Crossover Networks for Flat-Panel Loudspeakers. AES: Journal of the Audio Engineering Society, 2016, 64, 229-240.	1.0	13
29	Picosecond On-Chip Qubit Control Circuitry. IEEE Transactions on Applied Superconductivity, 2005, 15, 837-840.	1.7	12
30	High-speed operation of a 64-bit circular shift register. IEEE Transactions on Applied Superconductivity, 1998, 8, 120-124.	1.7	11
31	An unshunted comparator as a device for quantum measurements. IEEE Transactions on Applied Superconductivity, 2003, 13, 974-977.	1.7	11
32	Multipump and quasistroboscopic back-action evasion measurements for resonant-bar gravitational-wave antennas. Physical Review D, 1992, 45, 1869-1877.	4.7	10
33	Sound-Source Localization On Flat-Panel Loudspeakers. AES: Journal of the Audio Engineering Society, 2017, 65, 168-177.	1.0	10
34	Noise characteristics of a cryogenically cooled GaAs metal semiconductor field effect transistor at 4 MHz. Review of Scientific Instruments, 1984, 55, 256-257.	1.3	9
35	Tunneling transducers: Quantum limited displacement monitors at the nanometer scale. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1991, 9, 1363.	1.6	9
36	A tipping pulse scheme for a rf-SQUID qubit. IEEE Transactions on Applied Superconductivity, 2001, 11, 1018-1021.	1.7	9

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37	Non-contact ECG employing signal compensation. , 2013, , .		9
38	Beating the quantum limit in SIS mixers. IEEE Transactions on Magnetics, 1989, 25, 1376-1379.	2.1	8
39	Coherent harmonic generation in superconductors for various critical-state models. Physical Review B, 1991, 44, 7726-7729.	3.2	8
40	Design and testing of QOS comparators for an RSFQ based analog to digital converter. IEEE Transactions on Applied Superconductivity, 1995, 5, 2244-2247.	1.7	8
41	Non-Uniformly Tiled CMOS Image Sensors for Efficient On-Chip Image Compression. IEEE Sensors Journal, 2012, 12, 2655-2663.	4.7	8
42	Measures of vibrational localization on point-driven flat-panel loudspeakers. Proceedings of Meetings on Acoustics, 2016, , .	0.3	8
43	A RF superconducting electromechanical transducer for gravitational wave antennae. IEEE Transactions on Magnetics, 1989, 25, 1358-1361.	2.1	7
44	Short-term frequency stability of clock generators for multigigahertz rapid-single-flux quantum digital circuits. IEEE Transactions on Applied Superconductivity, 2003, 13, 25-37.	1.7	7
45	Unshunted QOS Comparator for Qubit Readout. Journal of Physics: Conference Series, 2006, 43, 1413-1416.	0.4	7
46	CMOS image sensor readout employing in-pixel transistor current sensing. , 2008, , .		7
47	Optimized Driver Placement for Array-Driven Flat-Panel Loudspeakers. Archives of Acoustics, 2017, 42, 93-104.	0.8	7
48	Proposed room-temperature detector for gravitational radiation from galactic sources. Physical Review D, 1990, 42, 2952-2955.	4.7	6
49	Short-term frequency stability of RSFQ ring oscillators. IEEE Transactions on Applied Superconductivity, 1999, 9, 3545-3548.	1.7	6
50	Inherently Stable Weighted Least-Squares Estimation of Common Acoustical Poles With the Application in Feedback Path Modeling Utilizing a Kautz Filter. IEEE Signal Processing Letters, 2018, 25, 368-372.	3.6	6
51	Performance of an inertially coupled, threeâ€mode gravitational wave antenna prototype. Review of Scientific Instruments, 1994, 65, 2627-2634.	1.3	5
52	Adder-accumulator cells in RSFQ logic. IEEE Transactions on Applied Superconductivity, 1995, 5, 3006-3009.	1.7	5
53	Thermal design of superconducting digital circuits for millikelvin operation. IEEE Transactions on Applied Superconductivity, 2003, 13, 978-981.	1.7	5
54	Thermometry Using Thermal Activation of Josephson Junctions at MilliKelvin Temperatures. IEEE Transactions on Applied Superconductivity, 2005, 15, 868-871.	1.7	5

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55	A low noise, non-contact capacitive cardiac sensor. , 2012, 2012, 4994-7.		5
56	Flat-Panel Loudspeaker Simulation Model with Electromagnetic Inertial Exciters and Enclosures. AES: Journal of the Audio Engineering Society, 2017, 65, 722-732.	1.0	5
57	A CMOS Image Sensor with Focal Plane Discrete Cosine Transform Computation. , 2007, , .		4
58	Current Sensing-Assisted Active Pixel Sensor for High-Speed CMOS Image Sensors. IEEE Sensors Journal, 2015, 15, 4365-4372.	4.7	4
59	Steganalysis aware steganography: statistical indistinguishability despite high distortion. , 2008, , .		3
60	An oversampling digital pixel sensor with a charge transfer DAC employing parasitic capacitances. , 2009, , .		3
61	Preamplifiers for non-contact capacitive biopotential measurements. , 2013, 2013, 1482-5.		3
62	Adaptive Feedback Cancellation in Hearing Aids Based on Orthonormal Basis Functions With Prediction-Error Method Based Prewhitening. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 1260-1269.	5.8	3
63	Isolation Structures for the Solid-State Quantum-to-Classical Interface. , 2001, , .		3
64	Squeezed Noise in Precision Force Measurements. , 1986, , 47-56.		3
65	Polyphonic music transcription employing max-margin classification of spectrograhic features. , 2009, , .		2
66	Reverberation features identification from music recordings using the discrete wavelet transform. , 2010, , .		2
67	Noise model of indirect-feedback sigma-delta image sensors. , 2013, , .		2
68	Indirect-Feedback Sigma-Delta Image Sensors: Theory, Modeling and Design. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 48-60.	5.4	2
69	Terahertz detection in Si MOSFET based on thermionic emission. , 2015, , .		2
70	Least-squares estimation of the common acoustical poles in room acoustics and head related transfer functions. , 2017, , .		2
71	Design rules for scalability in spin-orbit electronics. Scientific Reports, 2019, 9, 13732.	3.3	2
72	Phase-locked operation of RSFQ ring oscillators. Superconductor Science and Technology, 1999, 12, 789-791.	3.5	1

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73	Collusion Resilient Fingerprint Design by Alternating Projections. , 2007, , .		1
74	What makes music musical? a framework for extracting performance expression and emotion in musical sound. , 2011, , .		1
75	gMRAM: Gain-cell magnetoresistive random access memory for high density embedded storage and in-situ computing. , 2017, , .		1
76	Progress in Back Action Evasion Experiments. Annals of the New York Academy of Sciences, 1986, 480, 250-262.	3.8	0
77	New ways with gravitational waves. Nature, 1989, 338, 122-122.	27.8	0
78	A Method for Efficient Interpolation of Discrete-Time Signals By Using a Blue-Noise Mapping Method. , 0, , .		0
79	Improved embedding efficiency and AWGN robustness for SS watermarks via pre-coding. , 2008, , .		0
80	Aural environment adjustment for noise cancelling headphones employing early reverberation signature. , 2011, , .		0
81	Generative modeling of temporal signal features using hierarchical probabilistic graphical models. , 2011, , .		0
82	Using musical instruments as human control interface for electronic games. , 2011, , .		0
83	Using real-time adaptive noise masking to mitigate ambient interferences. , 2011, , .		0
84	Audio phase singularity detection for room acoustics parameter estimation. , 2012, , .		0
85	Interacting with semantic musical features: Enhanced human-computer interactions based on musical “meaning”. , 2012, , .		0
86	An additional “Depth” of reverberation helps content stand out: Media content emphasis using audio reverberation effect. , 2013, , .		0
87	T-ray detection in 0.35-Î¼m CMOS technology. , 2014, , .		0
88	Indirect-feedback Sigma-Delta CMOS image sensors with SAR-based startup. , 2015, , .		0
89	Source rendering on dynamic audio displays. , 2017, , .		0
90	Adaptive Feedback Cancellation for Hearing Aids Using the Prediction-Error Method with Orthonormal Basis Functions. , 2019, , .		0

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91	A tipping pulse scheme for an rf-SQUID qubit. , 2001, , .		0
92	Parametric Transducers and Quantum Nondemolition in Bar Detectors. , 1989, , 125-134.		0
93	Playing in Time: Integrating Temporal Information in the Computational Measurement of Musical Similarity. Journal of Creative Music Systems, 2016, 1, .	1.0	0