Gianluca Setti

List of Publications by Year
in descending order

86 papers	**1,680** citations	331259 **21** h-index	301761 **39** g-index
91 all docs	**91** docs citations	**91** times ranked	**1297** citing authors

#	Article	IF	Citations
1	From Chaos to Pseudorandomness: A Case Study on the 2-D Coupled Map Lattice. IEEE Transactions on Cybernetics, 2023, 53, 1324-1334.	6.2	12
2	A Deep Learning Method for Optimal Undersampling Patterns and Image Recovery for MRI Exploiting Losses and Projections. IEEE Journal on Selected Topics in Signal Processing, 2022, 16, 713-724.	7.3	1
3	A Comparison between Class-E DC-DC Design Methodologies for Wireless Power Transfer. , 2021, , .		0
4	An architecture for ultra-low-voltage ultra-low-power compressed sensing-based acquisition systems. , 2021, , .		0
5	Compressed Sensing Inspired Neural Decoder for Undersampled MRI with Self-Assessment. , 2021, , .		0
6	An MCU Implementation of PCA/PSA Streaming Algorithms for EEG Features Extraction. , 2021, , .		1
7	Class-E Isolated DCâ€"DC Converter With High-Rate and Cost-Effective Bidirectional Data Channel. IEEE Transactions on Power Electronics, 2020, 35, 5304-5318.	5.4	3
8	Low-Power Fixed-Point Compressed Sensing Decoder with Support Oracle. , 2020, , .		2
9	A Wireless Power Transfer System for Biomedical Implants based on an isolated Class-E DC-DC Converter with Power Regulation Capability. , 2020, , .		2
10	A Methodology for Practical Design and Optimization of Class-E DC-DC Resonant Converters. IEEE Access, 2020, 8, 205568-205589.	2.6	3
11	Through-The-Barrier Communications in Isolated Class-E Converters Embedding a Low-K Transformer. , 2020, , .		1
12	A fully CMOS true random number generator based on hidden attractor hyperchaotic system. Nonlinear Dynamics, 2020, 102, 2887-2904.	2.7	14
13	Adapted Compressed Sensing: A Game Worth Playing. IEEE Circuits and Systems Magazine, 2020, 20, 40-60.	2.6	11
14	A passive and low-complexity Compressed Sensing architecture based on a charge-redistribution SAR ADC. The Integration VLSI Journal, 2020, 75, 40-51.	1.3	3
15	Deep Neural Oracles for Short-window Optimized Compressed Sensing of Biosignals. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 1-1.	2.7	14
16	Subspace Energy Monitoring for Anomaly Detection @Sensor or @Edge. IEEE Internet of Things Journal, 2020, 7, 7575-7589.	5.5	13
17	Low-power ECG acquisition by Compressed Sensing with Deep Neural Oracles. , 2020, , .		4
18	Deep Neural Oracle With Support Identification in the Compressed Domain. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2020, 10, 458-468.	2.7	6

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19	Frequency-Domain Characterization of Power Inductors for Class-E Resonant Converters. , 2019, , .		1
20	Rakeness-Based Compressed Sensing of Atrial Electrograms for the Diagnosis of Atrial Fibrillation. , 2019, , .		1
21	An Energy-Efficient Multi-Sensor Compressed Sensing System Employing Time-Mode Signal Processing Techniques. , 2019, , .		4
22	A Unified Design Theory for Class-E Resonant DC–DC Converter Topologies. IEEE Access, 2019, 7, 83825-83838.	2.6	11
23	Tuning a Resonant DC/DC Converter on the Second Harmonic for Improving Performance: A Case Study. , 2019, , .		1
24	Chained Compressed Sensing for Iot Node Security. , 2019, , .		1
25	Chained Compressed Sensing: A Blockchain-Inspired Approach for Low-Cost Security in IoT Sensing. IEEE Internet of Things Journal, 2019, 6, 6465-6475.	5.5	17
26	Compressed Sensing of $DeltaSigma$ Streams. , 2019, , .		0
27	Impact of Dead Times on Radiated Emissions of Integrated and Discrete DC-DC Converter. , 2019, , .		1
28	Resource Redistribution in Internet of Things applications by Compressed Sensing: A Survey. , 2018, , .		0
29	Rakeness-Based Compressed Sensing of Multiple-Graph Signals for IoT Applications. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 682-686.	2.2	8
30	Adaptive Matrix Design for Boosting Compressed Sensing. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 1016-1027.	3.5	9
31	Energy-Aware Bio-Signal Compressed Sensing Reconstruction on the WBSN-Gateway. IEEE Transactions on Emerging Topics in Computing, 2018, 6, 370-381.	3.2	23
32	On the Security of a Class of Diffusion Mechanisms for Image Encryption. IEEE Transactions on Cybernetics, 2018, 48, 1163-1175.	6.2	92
33	Low-Cost Security of IoT Sensor Nodes With Rakeness-Based Compressed Sensing: Statistical and Known-Plaintext Attacks. IEEE Transactions on Information Forensics and Security, 2018, 13, 327-340.	4.5	28
34	Impact of the Spread-Spectrum Technique on the Higher-Order Harmonics and Radiated Emissions of a Synchronous Buck Converter. , 2018, , .		0
35	Disturbance Rejection With Rakeness-based Compressed Sensing: Method and Application to Baseline/Powerline Mitigation in ECGs. , 2018, , .		1
36	Rakeness-based Compressed Sensing of Surface ElectroMyoGraphy for Improved Hand Movement Recognition in the Compressed Domain. , 2018, , .		2

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37	Projected-Gradient-Descent in Rakeness-Based Compressed Sensing with Disturbance Rejection. , 2018, , .		0
38	Reflections on the Future of Research Curation and Research Reproducibility [Point of View]. Proceedings of the IEEE, 2018, 106, 779-783.	16.4	2
39	Administering Quality-Energy Trade-Off in IoT Sensing Applications by Means of Adapted Compressed Sensing. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 895-907.	2.7	5
40	Rakeness-Based Compressed Sensing and Hub Spreading to Administer Short/Long-Range Communication Tradeoff in IoT Settings. IEEE Internet of Things Journal, 2018, 5, 2220-2233.	5.5	5
41	Guest Editorial Special Issue on the 2018 IEEE International Symposium on Circuits and Systems. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 531-531.	2.2	0
42	Architectures for Compressed Sensing. , 2018, , 139-167.		0
43	Analog-to-Information Conversion. , 2018, , 169-210.		1
44	Low-Complexity Biosignal Compression Using Compressed Sensing. , 2018, , 211-254.		1
45	Security at the Analog-to-Information Interface Using Compressed Sensing. , 2018, , 255-319.		0
46	Adapted Compressed Sensing for Effective Hardware Implementations. , 2018, , .		14
47	Rakeness-Based Design of Low-Complexity Compressed Sensing. IEEE Transactions on Circuits and Systems I: Regular Papers, 2017, 64, 1201-1213.	3.5	47
48	Energy Analysis of Decoders for Rakeness-Based Compressed Sensing of ECG Signals. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 1278-1289.	2.7	27
49	Zeroing for HW-efficient compressed sensing architectures targeting data compression in wireless sensor networks. Microprocessors and Microsystems, 2017, 48, 69-79.	1.8	16
50	Sparse sensing matrix based compressed sensing in low-power ECG sensor nodes. , 2017, , .		3
51	Low-complexity greedy algorithm in compressed sensing for the adapted decoding of ECGs. , 2017, , .		1
52	Countering the false myth of democracy: Boosting compressed sensing performance with maximum-energy approach. , 2017, , .		1
53	Security analysis of rakeness-based compressed sensing. , 2016, , .		3
54	Hardware-Algorithms Co-Design and Implementation of an Analog-to-Information Converter for Biosignals Based on Compressed Sensing. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 149-162.	2.7	85

#	ARTICLE	IF	CITATIONS
55	An Analytical Approach for the Design of Class-E Resonant DC–DC Converters. IEEE Transactions on Power Electronics, 2016, 31, 7701-7713.	5.4	42
56	Energy-Aware Bio-signal Compressed Sensing Reconstruction: FOCUSS on the WBSN-Gateway. , 2015, , .		11
57	A new semi-analytic approach for class-E resonant DC-DC converter design. , 2015, , .		3
58	Average recovery performances of non-perfectly informed compressed sensing: With applications to multiclass encryption. , 2015, , .		3
59	EMI Reduction via Spread Spectrum in DC/DC Converters: State of the Art, Optimization, and Tradeoffs. IEEE Access, 2015, 3, 2857-2874.	2.6	107
60	Low-Complexity Multiclass Encryption by Compressed Sensing. IEEE Transactions on Signal Processing, 2015, , 1-1.	3.2	90
61	A Case Study in Low-Complexity ECG Signal Encoding: How Compressing is Compressed Sensing?. IEEE Signal Processing Letters, 2015, 22, 1743-1747.	2.1	33
62	A Low-Power Architecture for Punctured Compressed Sensing and Estimation in Wireless Sensor-Nodes. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 1296-1305.	3.5	20
63	A first implementation of a semi-analytically designed class-E resonant DC-DC converter. , 2015, , .		3
64	On Known-Plaintext Attacks to a Compressed Sensing-Based Encryption: A Quantitative Analysis. IEEE Transactions on Information Forensics and Security, 2015, 10, 2182-2195.	4.5	75
65	Generation of Antipodal Random Vectors With Prescribed Non-Stationary 2-nd Order Statistics. IEEE Transactions on Signal Processing, 2014, 62, 1603-1612.	3.2	15
66	Leakage compensation in analog random modulation pre-integration architectures for biosignal acquisition. , 2014, , .		2
67	Short-term Optimized Spread Spectrum Clock Generator for EMI Reduction in Switching DC/DC Converters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 3044-3053.	3.5	27
68	Practical Optimization of EMI Reduction in Spread Spectrum Clock Generators With Application to Switching DC/DC Converters. IEEE Transactions on Power Electronics, 2014, 29, 4646-4657.	5.4	84
69	A two-class information concealing system based on compressed sensing. , 2013, , .		27
70	Bibliometric Indicators: Why Do We Need More Than One?. IEEE Access, 2013, 1, 232-246.	2.6	24
71	A rakeness-based design flow for Analog-to-Information conversion by Compressive Sensing. , 2013, , .		25
72	Coping with saturating projection stages in RMPI-based Compressive Sensing. , 2012, , .		7

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73	Rakeness in the Design of Analog-to-Information Conversion of Sparse and Localized Signals. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 1001-1014.	3.5	82
74	A Pragmatic Look at Some Compressive Sensing Architectures With Saturation and Quantization. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2012, 2, 443-459.	2.7	100
75	On Statistical Tests for Randomness Included in the NIST SP800-22 Test Suite and Based on the Binomial Distribution. IEEE Transactions on Information Forensics and Security, 2012, 7, 491-505.	4.5	117
76	A spread spectrum clock generator based on a short-term optimized chaotic map. , 2011, , .		2
77	A 3-GHz Serial ATA Spread-Spectrum Clock Generator Employing a Chaotic PAM Modulation. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 2577-2587.	3.5	37
78	STATISTICAL TESTING OF A CHAOS BASED CMOS TRUE-RANDOM NUMBER GENERATOR. Journal of Circuits, Systems and Computers, 2010, 19, 897-910.	1.0	4
79	Probability metrics to calibrate stochastic chemical kinetics. , 2010, , .		3
80	On the Approximate Solution of a Class of Large Discrete Quadratic Programming Problems by $DeltaSigma$ Modulation: The Case of Circulant Quadratic Forms. IEEE Transactions on Signal Processing, 2010, 58, 6126-6139.	3.2	17
81	Implementation and Testing of High-Speed CMOS True Random Number Generators Based on Chaotic Systems. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 3124-3137.	3.5	122
82	Memory-m antipodal processes: Spectral analysis and synthesis. IEEE Transactions on Circuits and Systems I: Regular Papers, 2009, 56, 156-167.	3.5	33
83	Analysis and design of biological circuits and systems. , 2009, , .		2
84	Linear probability feedback processes. , 2008, , .		6
85	Chaos-Based Spreading in DS-UWB Sensor Networks Increases Available Bit Rate. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2007, 54, 1327-1339.	0.1	53
86	Information storage and retrieval in an associative memory based on one-dimensional mapsâ€. International Journal of Electronics, 1995, 79, 815-821.	0.9	2