

# Gabriel Caffarena

## List of Publications by Year in descending order

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37  
papers

419  
citations

1163117

8  
h-index

794594

19  
g-index

41  
all docs

41  
docs citations

41  
times ranked

708  
citing authors

#	ARTICLE	IF	CITATIONS
1	A clustering approach to multireference alignment of single-particle projections in electron microscopy. <i>Journal of Structural Biology</i> , 2010, 171, 197-206.	2.8	188
2	Fast and accurate computation of the round-off noise of linear time-invariant systems. <i>IET Circuits, Devices and Systems</i> , 2008, 2, 393.	1.4	29
3	SQNR Estimation of Fixed-Point DSP Algorithms. <i>Eurasip Journal on Advances in Signal Processing</i> , 2010, 2010, .	1.7	28
4	Optimal combined word-length allocation and architectural synthesis of digital signal processing circuits. <i>IEEE Transactions on Circuits and Systems Part 2: Express Briefs</i> , 2006, 53, 339-343.	2.2	21
5	FPGA ACCELERATION FOR DNA SEQUENCE ALIGNMENT. <i>Journal of Circuits, Systems and Computers</i> , 2007, 16, 245-266.	1.5	20
6	Comparing scientific performance among equals. <i>Scientometrics</i> , 2014, 101, 1731-1745.	3.0	12
7	Fast and accurate power estimation of FPGA DSP components based on high-level switching activity models. <i>International Journal of Electronics</i> , 2008, 95, 653-668.	1.4	11
8	High-Level Synthesis of Multiple Word-Length DSP Algorithms Using Heterogeneous-Resource FPGAs. , 2006, , .		10
9	Tracking the pipelining-power rule along the FPGA technical literature. , 2013, , .		10
10	A Formal Method for Optimal High-Level Casting of Heterogeneous Fixed-Point Adders and Subtractors. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2015, 34, 52-62.	2.7	9
11	A Low-Latency, Low-Power FPGA Implementation of ECG Signal Characterization Using Hermite Polynomials. <i>Electronics (Switzerland)</i> , 2021, 10, 2324.	3.1	9
12	FPGA for pseudorandom generator cryptanalysis. <i>Microprocessors and Microsystems</i> , 2006, 30, 63-71.	2.8	8
13	Architectural Synthesis of Fixed-Point DSP Datapaths Using FPGAs. <i>International Journal of Reconfigurable Computing</i> , 2009, 2009, 1-14.	0.2	8
14	A fault-tolerant clustering algorithm for processing data from multiple streams. <i>Information Sciences</i> , 2022, 584, 649-664.	6.9	7
15	A Generator of High-Speed Floating-Point Modules. , 0, , .		6
16	Self-Reconfigurable Constant Multiplier for FPGA. <i>ACM Transactions on Reconfigurable Technology and Systems</i> , 2013, 6, 1-17.	2.5	6
17	Quantization Noise Power Estimation for Floating-Point DSP Circuits. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2016, 63, 593-597.	3.0	6
18	A Methodology for CFD Acceleration Through Reconfigurable Hardware. , 2008, , .		5

#	ARTICLE	IF	CITATIONS
19	Architectural synthesis of DSP circuits under simultaneous error and time constraints. , 2010, , .		3
20	Fast fixed-point optimization of DSP algorithms. , 2010, , .		3
21	High-Performance Decoding of Variable-Length Memory Data Packets for FPGA Stream Processing. , 2019, , .		3
22	Switching Activity Models for Power Estimation in FPGA Multipliers. , 2007, , 201-213.		3
23	Design and Implementation of a Hardware Module for Equalisation in A 4G MIMO Receiver. , 2006, , .		2
24	Fast Fixed-Point Optimization of DSP Algorithms. International Federation for Information Processing, 2012, , 182-205.	0.4	2
25	Elastic Downsampling: An Adaptive Downsampling Technique to Preserve Image Quality. Electronics (Switzerland), 2021, 10, 400.	3.1	2
26	Optimized Architectural Synthesis of Fixed-Point Datapaths. , 2008, , .		1
27	A Discrete Model for Correlation Between Quantization Noises. IEEE Transactions on Circuits and Systems II: Express Briefs, 2012, 59, 800-804.	3.0	1
28	Quantization of VLSI digital signal processing systems. Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.7	1
29	Correlations between physiological parameters related with kidney function and minuteâ€”minute urine output. Nephrology, 2016, 21, 1034-1040.	1.6	1
30	Automated Timing Characterization of High-Performance Macroblocks for Latency Insensitive FPGA Designs. , 2018, , .		1
31	GPU-Based Acceleration of ECG Characterization Using High-Order Hermite Polynomials. Current Bioinformatics, 2016, 11, 430-439.	1.5	1
32	Optimized Synthesis of DSP Cores Combining Logic-based and Embedded FPGA Resources. , 2006, , .		0
33	Providing Self-learning to Students of Highly Attended Electronics Courses through the Remote Access to a Microelectronics Laboratory. , 2009, , .		0
34	Iterative reconstruction for pet scanners with continuous scintillators. , 2015, 2015, 2259-62.		0
35	Witelo: Automated generation and timing characterization of distributed-control macroblocks for high-performance FPGA designs. The Integration VLSI Journal, 2019, 68, 1-11.	2.1	0
36	Behavioural Biometrics Hardware Based on Bioinformatics Matching. Advances in Intelligent and Soft Computing, 2009, , 171-178.	0.2	0

#	ARTICLE	IF	CITATIONS
37	FPGA acceleration of bit-true simulations for word-length optimization. , 2021, , .		0