Diego Cabello

List of Publications by Year
in descending order

97 papers	968 citations	566801 15 h-index	525886 27 g-index
97 all docs	97 docs citations	97 times ranked	702 citing authors

#	Article	IF	Citations
1	An 11 mA Capacitor-Less LDO With 3.08 nA Quiescent Current and SSF-Based Adaptive Biasing. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 844-848.	2.2	8
2	On-Chip Solar Energy Harvester and PMU With Cold Start-Up and Regulated Output Voltage for Biomedical Applications. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 1103-1114.	3.5	21
3	Ultralow power voltage reference circuit for implantable devices in standard CMOS technology. International Journal of Circuit Theory and Applications, 2019, 47, 991-1005.	1.3	4
4	Corrections to â€œWireless Sensor Network With Perpetual Motes for Terrestrial Snail Activity Monitoringâ€. IEEE Sensors Journal, 2019, 19, 6553-6553.	2.4	0
5	Micro-Energy Harvesting System Including a PMU and a Solar Cell on the Same Substrate With Cold Startup From 2.38 nW and Input Power Range up to 10 μW Using Continuous MPPT. IEEE Transactions on Power Electronics, 2019, 34, 5105-5116.	5.4	25
6	Inâ€pixel analog memories for a pixelâ€based background subtraction algorithm on CMOS vision sensors. International Journal of Circuit Theory and Applications, 2018, 46, 1631-1647.	1.3	6
7	Pulsed timeâ€ofâ€flight pixel with onâ€chip 20Âklux background light suppression in standard CMOS technology. International Journal of Circuit Theory and Applications, 2018, 46, 987-1005.	1.3	0
8	Wireless Sensor Network With Perpetual Motes for Terrestrial Snail Activity Monitoring. IEEE Sensors Journal, 2017, 17, 5008-5015.	2.4	21
9	Effect of temporal and spatial noise on the performance of hardware oriented background extraction algorithms. , 2017, , .		3
10	Low-Power CMOS Vision Sensor for Gaussian Pyramid Extraction. IEEE Journal of Solid-State Circuits, 2017, 52, 483-495.	3.5	23
11	Dynamic Model of Switched-Capacitor DCâ€"DC Converters in the Slow-Switching Limit Including Charge Reusing. IEEE Transactions on Power Electronics, 2017, 32, 5293-5311.	5.4	14
12	Time-of-flight chip in standard CMOS technology with in-pixel adaptive number of accumulations. , 2016, , .		0
13	Live demonstration: Wireless sensor network for snail pest detection. , 2016, , .		1
14	Dynamic model of on-chip inverting capacitive charge pumps with charge reusing. , 2016, , .		0
15	Dynamic joint model of capacitive charge pumps and onâ€chip photovoltaic cells for CMOS microâ€energy harvesting. International Journal of Circuit Theory and Applications, 2016, 44, 1874-1894.	1.3	6
16	Design for maximum power transfer efficiency of thermoelectric generators using mixed mode simulations. , 2016, , .		2
17	Image Feature Extraction Acceleration. Studies in Computational Intelligence, 2016, , 109-132.	0.7	1
18	Dark current optimization of 4-transistor pixel topologies in standard CMOS technologies for time-of-flight sensors. , 2015, , .		0

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19	Live demonstration: Gaussian pyramid extraction with a CMOS vision sensor. , 2015, , .		0
20	Four-transistor pinned photodiodes in standard CMOS technologies for time-of-flight sensors. Semiconductor Science and Technology, 2015, 30, 045002.	1.0	2
21	Distance Measurement Error in Time-of-Flight Sensors Due to Shot Noise. Sensors, 2015, 15, 4624-4642.	2.1	28
22	Capacitance-based wireless sensor mote for snail pest detection. , 2015, , .		2
23	Wireless sensor mote for snail pest detection. , 2014, , .		8
24	A 26.5 nJ/px 2.64 Mpx/s CMOS vision sensor for Gaussian pyramid extraction. , 2014, , .		5
25	Split and shift methodology on cellular processor arrays: area saving versus time penalty. International Journal of Circuit Theory and Applications, 2014, 42, 258-295.	1.3	0
26	The dickson charge pump as voltage booster for light energy harvesting on CMOS vision chips. , 2014, , .		3
27	Custom design of pinned photodiodes in standard CMOS technologies for time-of-flight sensors. , 2014, , .		1
28	Simplification and hardware implementation of the feature descriptor vector calculation in the SIFT algorithm. , 2014, , .		3
29	Gaussian pyramid extraction with a CMOS vision sensor. , 2014, , .		1
30	Dark current in standard CMOS pinned photodiodes for Time-of-Flight sensors. , 2014, , .		3
31	Voltage boosters for on-chip solar cells on focal-plane processors. , 2013, , .		0
32	Scale- and rotation- invariant feature detectors on Cellular Processor Arrays. , 2012, , .		0
33	CMOS-3D Smart Imager Architectures for Feature Detection. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2012, 2, 723-736.	2.7	19
34	In-pixel generation of gaussian pyramid images by block reusing in 3D-CMOS. , 2012, , .		0
35	Switched-capacitor networks for scale-space generation. , 2011, , .		10
36	FPGA computation of the 3D heat equation. Computational Geosciences, 2010, 14, 649-664.	1.2	3

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37	Non-destructive soil inspection using an efficient 3D software–hardware heat equation solver. Inverse Problems in Science and Engineering, 2009, 17, 755-775.	1.2	2
38	A study of CMOS radiation tolerant transistors using green functions. , 2009, , .		1
39	Handsheet for full-custom circuit design. , 2009, , .		0
40	Efficient software–hardware 3D heat equation solver with applications on the non-destructive evaluation of minefields. Computers and Geosciences, 2009, 35, 2239-2249.	2.0	4
41	A dc I–V model for short-channel polygonal enclosed-layout transistors. International Journal of Circuit Theory and Applications, 2009, 37, 163-177.	1.3	2
42	Analytical model of short-channel gate enclosed transistors using Green functions. Solid-State Electronics, 2009, 53, 514-519.	0.8	1
43	Modeling and simulation of CMOS APS. , 2009, , .		1
44	Enclosed layout transistors in saturation. , 2009, , .		1
45	A 2D model for radiation-hard CMOS annular transistors. Semiconductor Science and Technology, 2009, 24, 125009.	1.0	3
46	CNN Technology for Spatiotemporal Signal Processing. Eurasip Journal on Advances in Signal Processing, 2009, 2009, .	1.0	2
47	FPGA-based hardware accelerator of the heat equation with applications on infrared thermography. , 2008, , .		2
48	DT-CNN emulator: 3D heat equation solver with applications on the non-destructive soil inspection. , 2008, , .		2
49	Template-oriented hardware design based on shape analysis of 2D CNN operators in CNN template libraries and applications. , 2008, , .		3
50	Bottom collection of photodiode-based CMOS APS. , 2008, , .		4
51	Verification of Split&Shift techniques for CNN hardware reduction. , 2007, , .		3
52	Relating Cellular Non-linear Networks to Threshold Logic and Single Instruction Multiple Data computing models. , 2007, , .		0
53	CNN Implementation of Spin Filters for Electronic Speckle Pattern Interferometry Applications. , 2007, , .		1
54	Area and Time Efficient Cellular Non-linear Networks. , 2007, , .		3

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55	Improved Analytical I-V model for polygonal-shape enclosed layout transistors. , 2007, , .		5
56	Soft-Hard 3D FD-TD Solver for Non Destructive Evaluation. , 2007, , .		3
57	FPGA Implementation of 3-D Thermal Model Simulator. , 2006, , .		2
58	On the Reduction of the Number of Coefficient Circuits in a DTCNN Cell. , 2006, , .		7
59	A binary-based on-chip CNN solution for pixel-level snakes. International Journal of Circuit Theory and Applications, 2006, 34, 383-407.	1.3	12
60	Design of the Processing Core of a Mixed-Signal CMOS DTCNN Chip for Pixel-Level Snakes. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2004, 51, 997-1013.	0.1	22
61	Improved thermal analysis of buried landmines. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 1965-1975.	2.7	26
62	Cellular neural networks and active contours: a tool for image segmentation. Image and Vision Computing, 2003, 21, 189-204.	2.7	45
63	Discriminant snakes for 3D reconstruction of anatomical organs. Medical Image Analysis, 2003, 7, 293-310.	7.0	15
64	Proposal for analog synthesis of a land mine detection system. , 2003, 5046, 253.		2
65	Detection of perturbations in thermal IR signatures: an inverse problem for buried land mine detection. , 2003, , .		4
66	Robustness oriented design tool for multilayer DTCNN applications. International Journal of Circuit Theory and Applications, 2002, 30, 195-210.	1.3	5
67	A snake for CT image segmentation integrating region and edge information. Image and Vision Computing, 2001, 19, 461-475.	2.7	48
68	Biomedical active segmentation guided by edge saliency. Pattern Recognition Letters, 2000, 21, 559-572.	2.6	12
69	Automatic Segmentation of Lung Fields on Chest Radiographic Images. Journal of Biomedical Informatics, 1999, 32, 283-303.	0.7	5
70	Genetic algorithm based training for multilayer discrete-time cellular neural networks. Lecture Notes in Computer Science, 1999, , 467-476.	1.0	1
71	A Markov random field model for bony tissue classification. Computerized Medical Imaging and Graphics, 1998, 22, 169-178.	3.5	1
72	Discrete-time CNN for image segmentation by active contours. Pattern Recognition Letters, 1998, 19, 721-734.	2.6	33

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73	Computer-aided diagnosis: a neural-network-based approach to lung nodule detection. IEEE Transactions on Medical Imaging, 1998, 17, 872-880.	5.4	166
74	Computer-aided diagnoses: Automatic detection of lung nodules. Medical Physics, 1998, 25, 1998-2006.	1.6	39
75	A snake for model-based segmentation of biomedical images. Pattern Recognition Letters, 1997, 18, 1529-1538.	2.6	19
76	The Markov random fields in functional neighbors as a texture model: applications in texture classification. , 1996, , .		2
77	Computer-aided lung nodule detection in chest radiography. Lecture Notes in Computer Science, 1995, , 331-338.	1.0	8
78	Medical images segmentation using region and edges information. , 1992, , .		0
79	Fuzzy K-nearest neighbor classifiers for ventricular arrhythmia detection. International Journal of Bio-medical Computing, 1991, 27, 77-93.	0.5	27
80	ON KNOWLEDGE-BASED MEDICAL IMAGE UNDERSTANDING. Cybernetics and Systems, 1990, 21, 277-289.	1.6	4
81	Algorithmic sequential decision-making in the frequency domain for life threatening ventricular arrhythmias and imitative artefacts: a diagnostic system. Journal of Biomedical Engineering, 1989, 11, 320-328.	0.7	142
82	Fuzzy clustering: application to the diagnosis of ventricular arrhythmias. , 1988, , .		5
83	A computational frame to study social behaviour in animals. International Journal of Bio-medical Computing, 1986, 19, 201-218.	0.5	1
84	Knowledge based refining of K-NN fuzzy classifier: a case study in ventricular arrhythmia diagnosis. , 0, , .		0
85	Chest X-ray Image Enhancement By Adaptive Processing. , 0, , .		1
86	A computational scheme for lung nodule detection. , 0, , .		0
87	A DTCNN circuit proposal for pixel-level snakes. , 0, , .		3
88	Antipersonnel mine detection on infrared images. , 0, , .		2
89	Design and training of multilayer discrete time cellular neural networks for antipersonnel mine detection using genetic algorithms. , 0, , .		7
90	CNN-based 3D thermal modeling of the soil for antipersonnel mine detection. , 0, , .		8

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91	Implementation oriented theory design issues on the DTCNN template generation. , 0, , .		0
92	An analogic CNN-algorithm of pixel level snakes for tracking and surveillance tasks. , 0, , .		3
93	A One-Quadrant Discrete-Time Cellular Neural Network CMOS Chip for Pixel-Level Snakes. , 0, , .		5
94	Practical considerations on doughnut transistors design. , 0, , .		0
95	A One-Quadrant Discrete-Time Cellular Neural Network Architecture for Pixel-Level Snakes: B/W Processing. , 0, , .		5
96	Performance analysis of high-speed MOS transistors with different layout styles. , 0, , .		14
97	FPGA finite difference time domain solver for thermal simulation. , 0, , .		1