Philipp Dominik HÃ¤fliger

List of Publications by Year
in descending order

73 papers	2,018 citations	623188 14 h-index	500791 28 g-index
73 all docs	73 docs citations	73 times ranked	2203 citing authors

#	Article	IF	Citations
1	Investigation of the Atomic Layer Deposition of the Titanium Dioxide (TiO2) Film as pH Sensor Using a Switched Capacitor Amplifier. Chemosensors, 2022, 10, 274.	1.8	0
2	Characterization of Polysilicon Microstructures to Estimate Local Temperature on CMOS Chips. , 2020, , .		0
3	Design and Fabrication of CMOS Microstructures to Locally Synthesize Carbon Nanotubes for Gas Sensing. Sensors, 2019, 19, 4340.	2.1	6
4	Low Noise Combined Optical-Chemical CMOS Sensor For Biomedical Application. , 2019, , .		1
5	A Miniaturized Two-Axis Ultra Low Latency and Low-Power Sun Sensor for Attitude Determination of Micro Space Probes. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 1543-1554.	3.5	16
6	Direct Synthesis of Carbon Nanotubes in CMOS-Layout of Micro-heaters. , 2018, , .		2
7	Live Demonstration: A Miniaturized Two-Axis Low Latency and Low-Power Sun Sensor for Attitude Determination of Sounding Rockets. , 2018, , .		0
8	Open source modules for tracking animal behavior and closed-loop stimulation based on Open Ephys and Bonsai. Journal of Neural Engineering, 2018, 15, 055002.	1.8	31
9	Combining biophysical modeling and deep learning for multielectrode array neuron localization and classification. Journal of Neurophysiology, 2018, 120, 1212-1232.	0.9	33
10	Pixel Characterization of a Protein-Based Retinal Implant Using a Microfabricated Sensor Array. International Journal of High Speed Electronics and Systems, 2017, 26, 1740012.	0.3	3
11	Localizing neuronal somata from Multi-Electrode Array in-vivo recordings using deep learning. , 2017, 2017, 974-977.		9
12	Guest Editorial ISCAS 2016 Special Issue. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 977-978.	2.7	0
13	Pixel Characterization of a Protein-Based Retinal Implant Using a Microfabricated Sensor Array. , 2017, , .		1
14	Combined optical and chemical asynchronous event pixel array. , 2016, , .		1
15	Guest Editorial Special Section on the 2015 IEEE International Symposium on Circuits and Systems (ISCAS 2015). IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 565-566.	3.5	0
16	Extracellular single neuron stimulation with high-density multi-electrode array. , 2016, , .		3
17	An Osmotic Pressure Sensor for Monitoring the Level of Hydration in Biological Fluids. IEEE Sensors Journal, 2016, 16, 4331-4337.	2.4	6
18	A time-to-first-n-spikes and time-out read-out extension to the AER arbitration system. , 2016, , .		0

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19	A Bio-Inspired Vision Sensor With Dual Operation and Readout Modes. IEEE Sensors Journal, 2016, 16, 317-330.	2.4	30
20	A Bio-Inspired AER Temporal Tri-Color Differentiator Pixel Array. IEEE Transactions on Biomedical Circuits and Systems, 2015, 9, 686-698.	2.7	8
21	Integrated electronic system for implantable sensory NFC tag. , 2015, 2015, 7119-22.		2
22	Miniaturized Sun sensor with in-pixel processing for Attitude Determination of micro space probes. , 2015, , .		4
23	A Submicrowatt Implantable Capacitive Sensor System for Biomedical Applications. IEEE Transactions on Circuits and Systems II: Express Briefs, 2015, 62, 209-213.	2.2	27
24	A Sub-<formula formulatype="inline"><tex Notation="TeX">$mu{m W}$</tex></formula> Bandgap Reference Circuit With an Inherent Curvature-Compensation Property. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 1-9.	3.5	83
25	Hybrid CMOS Rectifier Based on Synergistic RF-Piezoelectric Energy Scavenging. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 3330-3338.	3.5	15
26	Novel readout circuit for memristive biosensors in cancer detection. , 2014, , .		4
27	Live demonstration: A Bio-Inspired AER temporal tri-color differentiator. , 2014, , .		1
28	A bio-inspired AER temporal tri-color differentiator. , 2014, , .		3
29	A Dual-Operation-Mode Bio-Inspired Pixel. IEEE Transactions on Circuits and Systems II: Express Briefs, 2014, 61, 855-859.	2.2	8
30	Low power integrated electronics system for the operation of a miniaturized hydration sensor. , 2014, , .		3
31	A 9.4-bit, 28.8-mV range inverter based readout circuit for implantable pressure bridge piezo-resistive sensor. , 2014, , .		0
32	Sub-threshold CMOS voltage-multipliers using hybrid RF-piezoelectric energy scavenging. , 2014, , .		0
33	An Energy-Efficient Implantable Transponder for Biomedical Piezo-Resistance Pressure Sensors. IEEE Sensors Journal, 2014, 14, 1836-1843.	2.4	17
34	Bio-Inspired Asynchronous Pixel Event Tricolor Vision Sensor. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 345-357.	2.7	33
35	An energy-efficient implant transponder for continuous glucose monitoring. , 2013, , .		1
36	Single poly non-volatile memory cells for miniaturized sensors in 90nm CMOS technology. , 2013, , .		0

#	Article	IF	Citations
37	A dual operation mode bio-inspired vision sensor. , 2013, , .		2
38	An energy efficient inverter based readout circuit for capacitive sensor. , 2013, , .		4
39	Design and Characterization of an Osmotic Sensor for the Detection of Events Associated With Dehydration and Overhydration. IEEE Journal of Translational Engineering in Health and Medicine, 2013, 1, 2700309-2700309.	2.2	8
40	Flame monitoring with an AER color vision sensor. , 2013, , .		4
41	Guest Editorialâ€"Special Issue on Selected Papers From BioCAS 2012. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 561-562.	2.7	0
42	Live demonstration: A bio-inspired asynchronous pixel event tri-color vision sensor. , 2012, , .		0
43	The third revolution in medicine-the convergence of life sciences with physical sciences, mathematics, and engineering [from the guest editors]. IEEE Circuits and Systems Magazine, 2012, 12, 4-7.	2.6	3
44	Guest Editorialâ€"Special Issue on Selected Papers From BioCAS 2011. IEEE Transactions on Biomedical Circuits and Systems, 2012, 6, 401-402.	2.7	0
45	Inverter based readout circuit for implanted glucose sensor. , 2012, , .		1
46	Bio-inspired asynchronous pixel event tri-color vision sensor. , 2011, , .		3
47	Neuromorphic Silicon Neuron Circuits. Frontiers in Neuroscience, 2011, 5, 73.	1.4	1,004
48	Toward real-time particle tracking using an event-based dynamic vision sensor. Experiments in Fluids, 2011, 51, 1465-1469.	1.1	90
49	250Mb/s to 3Gb/s unilateral continuous rate CDR using precise frequency detector and 1/5-rate linear phase detector. , 2011, , .		0
50	Time domain ADC for blood glucose implant. Electronics Letters, 2011, 47, S18.	0.5	4
51	Interview with Philipp Haì^fliger. Electronics Letters, 2011, 47, S17.	0.5	0
52	Live demonstration: Inductive power and telemetry for micro-implant. , 2010, , .		5
53	Toward an Injectable Continuous Osmotic Glucose Sensor. Journal of Diabetes Science and Technology, 2010, 4, 882-892.	1.3	32
54	Guest Editorial - Special Issue on Selected Papers From ISCAS 2009. IEEE Transactions on Biomedical Circuits and Systems, 2010, 4, 137-138.	2.7	1

#	Article	IF	Citations
55	Live demonstration of an asynchronous integrate-and-fire pixel-event vision sensor. , 2009, , .		0
56	CAVIAR: A 45k Neuron, 5M Synapse, 12G Connects/s AER Hardware Sensoryâ€“Processingâ€“ Learningâ€“Actuating System for High-Speed Visual Object Recognition and Tracking. IEEE Transactions on Neural Networks, 2009, 20, 1417-1438.	4.8	285
57	Novel osmotic sensor for a continuous implantable blood-sugar reader. , 2009, , .		2
58	A Gate Leakage Feedback Element in an Adaptive Amplifier Application. IEEE Transactions on Circuits and Systems II: Express Briefs, 2008, 55, 101-105.	2.2	4
59	Analog to interval encoder with active use of gate leakage for an implanted blood-sugar sensor. , 2008, , .		13
60	Two color asynchronous event photo pixel. , 2008, , .		6
61	Mismatch reduction with relative reset in integrate-and-fire photo-pixel array. , 2008, , .		6
62	Adaptive WTA With an Analog VLSI Neuromorphic Learning Chip. IEEE Transactions on Neural Networks, 2007, 18, 551-572.	4.8	56
63	High-Speed Serial AER on FPGA. , 2007, , .		29
64	Exploiting Gate Leakage in Deep-Submicrometer CMOS for Input Offset Adaptation. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2007, 54, 127-130.	2.3	3
65	An Asynchronous 4-to-4 AER Mapper. Lecture Notes in Computer Science, 2005, , 494-501.	1.0	4
66	A Rank Encoder: Adaptive Analog to Digital Conversion Exploiting Time Domain Spike Signal Processing. Analog Integrated Circuits and Signal Processing, 2004, 40, 39-51.	0.9	1
67	Spike Based Normalizing Hebbian Learning in an Analog VLSI Artificial Neuron. Analog Integrated Circuits and Signal Processing, 1999, 18, 133-139.	0.9	12
68	Floating gate analog memory for parameter and variable storage in a learning silicon neuron. , 0, , .		11
69	Asynchronous event redirecting in bio-inspired communication. , 0, , .		3
70	A multi-level static memory cell. , 0, , .		12
71	Spike based learning with weak multi-level static memory. , 0, , .		9
72	A time domain winner-take-all network of integrate-and-fire neurons. , 0, , .		19

#	Article	IF	Citations
73	A foveated AER imager chip [address event representation]. , 0, , .		31