

Edoardo Charbon

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/2691683/edoardo-charbon-publications-by-year.pdf>

Version: 2024-04-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

203 papers	4,511 citations	38 h-index	58 g-index
225 ext. papers	5,830 ext. citations	4.3 avg, IF	6.09 L-index

#	Paper	IF	Citations
203	Light detection and ranging with entangled photons.. <i>Optics Express</i> , 2022 , 30, 3675-3683	3.3	2
202	2.5 Hz sample rate time-domain near-infrared optical tomography based on SPAD-camera image tissue hemodynamics.. <i>Biomedical Optics Express</i> , 2022 , 13, 133-146	3.5	0
201	IEEE Open Journal of the Solid-State Circuits Society Special Section on Imagers for 3D Vision. <i>IEEE Open Journal of the Solid-State Circuits Society</i> , 2022 , 2, 1-2		
200	On Analog Silicon Photomultipliers in Standard 55-nm BCD Technology for LiDAR Applications. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2022 , 1-1	3.8	1
199	Guard-Ring-Free InGaAs/InP Single-Photon Avalanche Diode Based on a Novel Zn-diffusion Technique. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2022 , 1-1	3.8	0
198	Back-gate effects on DC performance and carrier transport in 22 nm FDSOI technology down to cryogenic temperatures. <i>Solid-State Electronics</i> , 2022 , 193, 108296	1.7	2
197	A cryo-CMOS chip that integrates silicon quantum dots and multiplexed dispersive readout electronics. <i>Nature Electronics</i> , 2022 , 5, 53-59	28.4	2
196	Toward Super Temporal Resolution by Suppression of Mixing Effects of Electrons. <i>IEEE Transactions on Electron Devices</i> , 2022 , 1-7	2.9	
195	A 1 W radiation-hard front-end in a 0.18 μ m CMOS process for the MALTA2 monolithic sensor. <i>IEEE Transactions on Nuclear Science</i> , 2022 , 1-1	1.7	0
194	A 500 x 500 Dual-Gate SPAD Imager With 100% Temporal Aperture and 1 ns Minimum Gate Length for FLIM and Phasor Imaging Applications. <i>IEEE Transactions on Electron Devices</i> , 2022 , 1-8	2.9	1
193	A Cryo-CMOS Wideband Quadrature Receiver With Frequency Synthesizer for Scalable Multiplexed Readout of Silicon Spin Qubits. <i>IEEE Journal of Solid-State Circuits</i> , 2022 , 1-1	5.5	
192	Pixel super-resolution with spatially entangled photons. <i>Nature Communications</i> , 2022 , 13,	17.4	4
191	A massively scalable Time-to-Digital Converter with a PLL-free calibration system in a commercial 130 nm process. <i>Journal of Instrumentation</i> , 2021 , 16, P11023	1	1
190	Theoretical minimum uncertainty of single-molecule localizations using a single-photon avalanche diode array. <i>Optics Express</i> , 2021 , 29, 39920-39929	3.3	1
189	Cryogenic Characterization of 16 nm FinFET Technology for Quantum Computing 2021 ,		1
188	A Pixel Design of a Branching Ultra-Highspeed Image Sensor. <i>Sensors</i> , 2021 , 21,	3.8	1
187	Full-field quantum imaging with a single-photon avalanche diode camera. <i>Physical Review A</i> , 2021 , 103,	2.6	8

186	CMOS-based cryogenic control of silicon quantum circuits. <i>Nature</i> , 2021 , 593, 205-210	50.4	29
185	A Scaling Law for SPAD Pixel Miniaturization. <i>Sensors</i> , 2021 , 21,	3.8	3
184	A Cryogenic Broadband Sub-1-dB NF CMOS Low Noise Amplifier for Quantum Applications. <i>IEEE Journal of Solid-State Circuits</i> , 2021 , 56, 2040-2053	5.5	3
183	Cryogenic CMOS Circuits and Systems: Challenges and Opportunities in Designing the Electronic Interface for Quantum Processors. <i>IEEE Microwave Magazine</i> , 2021 , 22, 60-78	1.2	5
182	Engineering Breakdown Probability Profile for PDP and DCR Optimization in a SPAD Fabricated in a Standard 55nm BCD Process. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021 , 1-1	3.8	4
181	A Low-noise CMOS SPAD Pixel with 12.1 ps SPTR and 3 ns Dead Time. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021 , 1-1	3.8	7
180	Superluminal Motion-Assisted Four-Dimensional Light-in-Flight Imaging. <i>Physical Review X</i> , 2021 , 11,	9.1	2
179	A Low-Jitter and Low-Spur Charge-Sampling PLL. <i>IEEE Journal of Solid-State Circuits</i> , 2021 , 1-1	5.5	3
178	In Phantom Validation of Time-Domain Near-Infrared Optical Tomography Pioneer for Imaging Brain Hypoxia and Hemorrhage. <i>Advances in Experimental Medicine and Biology</i> , 2021 , 1269, 341-346	3.6	2
177	13.2 A Fully-Integrated 40-nm 5-6.5 GHz Cryo-CMOS System-on-Chip with I/Q Receiver and Frequency Synthesizer for Scalable Multiplexed Readout of Quantum Dots 2021 ,		8
176	The Michelangelo step: removing scalloping and tapering effects in high aspect ratio through silicon vias. <i>Scientific Reports</i> , 2021 , 11, 3997	4.9	4
175	13.3 A 6-to-8GHz 0.17mW/Qubit Cryo-CMOS Receiver for Multiple Spin Qubit Readout in 40nm CMOS Technology 2021 ,		4
174	Light Extraction Enhancement Techniques for Inorganic Scintillators. <i>Crystals</i> , 2021 , 11, 362	2.3	2
173	Towards Quantum 3D Imaging Devices. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 6414	2.6	2
172	Heralded Spectroscopy Reveals Exciton-Exciton Correlations in Single Colloidal Quantum Dots. <i>Nano Letters</i> , 2021 , 21, 6756-6763	11.5	1
171	Single-photon avalanche diode imaging sensor for subsurface fluorescence LiDAR. <i>Optica</i> , 2021 , 8, 11268.6		0
170	Blumino: The First Fully Integrated Analog SiPM With On-Chip Time Conversion. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , 2021 , 5, 671-678	4.2	4
169	Probe Design Optimization for Time-Domain NIROT "Pioneer" System for Imaging the Oxygenation of the Preterm Brain. <i>Advances in Experimental Medicine and Biology</i> , 2021 , 1269, 359-363	3.6	

168	. <i>IEEE Solid-State Circuits Magazine</i> , 2021 , 13, 54-68	1.5	0
167	Scaling silicon-based quantum computing using CMOS technology. <i>Nature Electronics</i> , 2021 , 4, 872-884	28.4	10
166	Measurements and analysis of different front-end configurations for monolithic SiGe BiCMOS pixel detectors for HEP applications. <i>Journal of Instrumentation</i> , 2021 , 16, P12038	1	0
165	Characterization and Analysis of On-Chip Microwave Passive Components at Cryogenic Temperatures. <i>IEEE Journal of the Electron Devices Society</i> , 2020 , 8, 448-456	2.3	17
164	Roadmap toward the 10 ps time-of-flight PET challenge. <i>Physics in Medicine and Biology</i> , 2020 , 65, 21RM018	9.8	63
163	2020 ,		8
162	Characterization and Modeling of Mismatch in Cryo-CMOS. <i>IEEE Journal of the Electron Devices Society</i> , 2020 , 8, 263-273	2.3	15
161	A Wideband Low-Power Cryogenic CMOS Circulator for Quantum Applications. <i>IEEE Journal of Solid-State Circuits</i> , 2020 , 55, 1224-1238	5.5	12
160	Wide-field time-gated SPAD imager for phasor-based FLIM applications. <i>Methods and Applications in Fluorescence</i> , 2020 , 8, 024002	3.1	18
159	Cryo-CMOS for Analog/Mixed-Signal Circuits and Systems 2020 ,		5
158	19.1 A Scalable Cryo-CMOS 2-to-20GHz Digitally Intensive Controller for 4B2 Frequency Multiplexed Spin Qubits/Transmons in 22nm FinFET Technology for Quantum Computers 2020 ,		19
157	Cryo-CMOS Interfaces for Large-Scale Quantum Computers 2020 ,		2
156	Quanta burst photography. <i>ACM Transactions on Graphics</i> , 2020 , 39,	7.6	21
155	Image reconstruction for novel time domain near infrared optical tomography: towards clinical applications. <i>Biomedical Optics Express</i> , 2020 , 11, 4723-4734	3.5	5
154	Dynamic time domain near-infrared optical tomography based on a SPAD camera. <i>Biomedical Optics Express</i> , 2020 , 11, 5470-5477	3.5	5
153	Multimodal imaging combining time-domain near-infrared optical tomography and continuous-wave fluorescence molecular tomography. <i>Optics Express</i> , 2020 , 28, 9860-9874	3.3	5
152	High fill-factor miniaturized SPAD arrays with a guard-ring-sharing technique. <i>Optics Express</i> , 2020 , 28, 13068-13080	3.3	14
151	Megapixel time-gated SPAD image sensor for 2D and 3D imaging applications. <i>Optica</i> , 2020 , 7, 346	8.6	89

150	Quantum Transport in 40-nm MOSFETs at Deep-Cryogenic Temperatures. <i>IEEE Electron Device Letters</i> , 2020 , 1-1	4.4	9
149	Cryogenic-CMOS for Quantum Computing. <i>The Frontiers Collection</i> , 2020 , 501-525	0.3	0
148	Time-Resolved NIROT Pioneer System for Imaging Oxygenation of the Preterm Brain: Preliminary Results. <i>Advances in Experimental Medicine and Biology</i> , 2020 , 1232, 347-354	3.6	0
147	A Cryogenic CMOS Parametric Amplifier. <i>IEEE Solid-State Circuits Letters</i> , 2020 , 3, 5-8	2	6
146	Single-Photon, Time-Gated, Phasor-Based Fluorescence Lifetime Imaging through Highly Scattering Medium. <i>ACS Photonics</i> , 2020 , 7, 68-79	6.3	7
145	A 10-to-12 GHz 5 mW Charge-Sampling PLL Achieving 50 fsec RMS Jitter, -258.9 dB FOM and -65 dBc Reference Spur 2020 ,		7
144	A Scalable Cryo-CMOS Controller for the Wideband Frequency-Multiplexed Control of Spin Qubits and Transmons. <i>IEEE Journal of Solid-State Circuits</i> , 2020 , 55, 2930-2946	5.5	16
143	Subthreshold Mismatch in Nanometer CMOS at Cryogenic Temperatures. <i>IEEE Journal of the Electron Devices Society</i> , 2020 , 8, 797-806	2.3	8
142	Fluorescence lifetime imaging with a megapixel SPAD camera and neural network lifetime estimation. <i>Scientific Reports</i> , 2020 , 10, 20986	4.9	18
141	Toward the Super Temporal Resolution Image Sensor with a Germanium Photodiode for Visible Light. <i>Sensors</i> , 2020 , 20,	3.8	3
140	Designing a DDS-Based SoC for High-Fidelity Multi-Qubit Control. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2020 , 67, 5380-5393	3.9	8
139	A Cryo-CMOS Digital Cell Library for Quantum Computing Applications. <i>IEEE Solid-State Circuits Letters</i> , 2020 , 3, 310-313	2	5
138	Introduction to the Special Issue on the 2020 IEEE International Solid-State Circuits Conference (ISSCC). <i>IEEE Journal of Solid-State Circuits</i> , 2020 , 55, 2847-2848	5.5	
137	Time Domain NIRS Optode based on Null/Small Source-Detector Distance for Wearable Applications 2019 ,		4
136	Single-photon avalanche diode imagers in biophotonics: review and outlook. <i>Light: Science and Applications</i> , 2019 , 8, 87	16.7	111
135	. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019 , 25, 1-6	3.8	6
134	Light-In-Flight Imaging by a Silicon Image Sensor: Toward the Theoretical Highest Frame Rate. <i>Sensors</i> , 2019 , 19,	3.8	11
133	Toward a Full-Flexible and Fast-Prototyping TOF-PET Block Detector Based on TDC-on-FPGA. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , 2019 , 3, 538-548	4.2	13

132	Impact of Classical Control Electronics on Qubit Fidelity. <i>Physical Review Applied</i> , 2019 , 12,	4.3	21
131	. <i>IEEE Journal of Solid-State Circuits</i> , 2019 , 54, 3203-3214	5.5	36
130	Phasor-based widefield FLIM using a gated 512B12 single-photon SPAD imager. <i>Proceedings of SPIE</i> , 2019 , 10882,	1.7	5
129	Fluorescence lifetime imaging with a single-photon SPAD array using long overlapping gates: an experimental and theoretical study. <i>Proceedings of SPIE</i> , 2019 , 10882,	1.7	2
128	Optical-stack optimization for improved SPAD photon detection efficiency 2019 ,		5
127	Quantum correlation measurement with single photon avalanche diode arrays. <i>Optics Express</i> , 2019 , 27, 32863-32882	3.3	20
126	The electronic interface for quantum processors. <i>Microprocessors and Microsystems</i> , 2019 , 66, 90-101	2.4	20
125	Voltage References for the Ultra-Wide Temperature Range from 4.2K to 300K in 40-nm CMOS 2019 ,		7
124	Modeling and Analysis of a Direct Time-of-Flight Sensor Architecture for LiDAR Applications. <i>Sensors</i> , 2019 , 19,	3.8	16
123	Cryo-CMOS Electronics for Quantum Computing Applications 2019 ,		1
122	. <i>IEEE Journal of Solid-State Circuits</i> , 2019 , 54, 1137-1151	5.5	87
121	A 512B12 SPAD Image Sensor with Integrated Gating for Widefield FLIM. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019 , 25,	3.8	62
120	Characterization and Compact Modeling of Nanometer CMOS Transistors at Deep-Cryogenic Temperatures. <i>IEEE Journal of the Electron Devices Society</i> , 2018 , 6, 996-1006	2.3	72
119	The Cryogenic Temperature Behavior of Bipolar, MOS, and DTMOS Transistors in Standard CMOS. <i>IEEE Journal of the Electron Devices Society</i> , 2018 , 6, 263-270	2.3	19
118	Design techniques for a stable operation of cryogenic field-programmable gate arrays. <i>Review of Scientific Instruments</i> , 2018 , 89, 014703	1.7	2
117	A 256B56 45/65nm 3D-stacked SPAD-based direct TOF image sensor for LiDAR applications with optical polar modulation for up to 18.6dB interference suppression 2018 ,		15
116	Cryo-CMOS Circuits and Systems for Quantum Computing Applications. <i>IEEE Journal of Solid-State Circuits</i> , 2018 , 53, 309-321	5.5	143
115	A Hybrid Readout Solution for GaN-Based Detectors Using CMOS Technology. <i>Sensors</i> , 2018 , 18,	3.8	5

114	A co-design methodology for scalable quantum processors and their classical electronic interface 2018 ,		6
113	Cryogenic low-dropout voltage regulators for stable low-temperature electronics. <i>Cryogenics</i> , 2018 , 95, 11-17	1.8	6
112	Dynamic range extension for photon counting arrays. <i>Optics Express</i> , 2018 , 26, 22234-22248	3.3	28
111	Multipurpose, Fully Integrated 128 \times 128 Event-Driven MD-SiPM With 512 16-Bit TDCs With 45-ps LSB and 20-ns Gating in 40-nm CMOS Technology. <i>IEEE Solid-State Circuits Letters</i> , 2018 , 1, 241-244 ²		4
110	A CMOS SPAD Imager with Collision Detection and 128 Dynamically Reallocating TDCs for Single-Photon Counting and 3D Time-of-Flight Imaging. <i>Sensors</i> , 2018 , 18,	3.8	25
109	3D-Stacked CMOS SPAD Image Sensors: Technology and Applications 2018 ,		10
108	Characterization and Model Validation of Mismatch in Nanometer CMOS at Cryogenic Temperatures 2018 ,		18
107	Deep-Cryogenic Voltage References in 40-nm CMOS. <i>IEEE Solid-State Circuits Letters</i> , 2018 , 1, 110-113	2	18
106	Mutually Coupled Time-to-Digital Converters (TDCs) for Direct Time-of-Flight (dTOF) Image Sensors. <i>Sensors</i> , 2018 , 18,	3.8	11
105	A Sensor Network Architecture for Digital SiPM-Based PET Systems. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , 2018 , 2, 574-587	4.2	2
104	Progress in single-photon avalanche diode image sensors in standard CMOS: From two-dimensional monolithic to three-dimensional-stacked technology. <i>Japanese Journal of Applied Physics</i> , 2018 , 57, 1002A3	1.4	16
103	Monolithic SPAD Arrays for High-Performance, Time-Resolved Single-Photon Imaging 2018 ,		5
102	High-Performance Back-Illuminated Three-Dimensional Stacked Single-Photon Avalanche Diode Implemented in 45-nm CMOS Technology. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2018 , 24, 1-9	3.8	28
101	Widefield High Frame Rate Single-Photon SPAD Imagers for SPIM-FCS. <i>Biophysical Journal</i> , 2018 , 114, 2455-2464	2.9	12
100	A reconfigurable cryogenic platform for the classical control of quantum processors. <i>Review of Scientific Instruments</i> , 2017 , 88, 045103	1.7	43
99	SPAD imagers for super resolution localization microscopy enable analysis of fast fluorophore blinking. <i>Scientific Reports</i> , 2017 , 7, 44108	4.9	22
98	A High-PDE, Backside-Illuminated SPAD in 65/40-nm 3D IC CMOS Pixel With Cascoded Passive Quenching and Active Recharge. <i>IEEE Electron Device Letters</i> , 2017 , 38, 1547-1550	4.4	42
97	Towards a fully digital state-of-the-art analog SiPM 2017 ,		4

96	Quantum information density scaling and qubit operation time constraints of CMOS silicon-based quantum computer architectures. <i>Npj Quantum Information</i> , 2017 , 3,	8.6	26
95	From the Quantum Moore's Law toward Silicon Based Universal Quantum Computing 2017 ,		3
94	Performance characterization of Altera and Xilinx 28 nm FPGAs at cryogenic temperatures 2017 ,		4
93	LinoSPAD: A Compact Linear SPAD Camera System with 64 FPGA-Based TDC Modules for Versatile 50 ps Resolution Time-Resolved Imaging. <i>Instruments</i> , 2017 , 1, 6	1.2	16
92	Nonuniformity Analysis of a 65-kpixel CMOS SPAD Imager. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 57-64	2.9	31
91	Flexible ultrathin-body single-photon avalanche diode sensors and CMOS integration. <i>Optics Express</i> , 2016 , 24, 3734-48	3.3	6
90	A Cryogenic 1 GSa/s, Soft-Core FPGA ADC for Quantum Computing Applications. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2016 , 63, 1854-1865	3.9	19
89	An order-statistics-inspired, fully-digital readout approach for analog SiPM arrays 2016 ,		5
88	Compact solid-state CMOS single-photon detector array for in vivo NIR fluorescence lifetime oncology measurements. <i>Biomedical Optics Express</i> , 2016 , 7, 1797-814	3.5	20
87	Advances in digital SiPMs and their application in biomedical imaging. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016 , 809, 31-52	1.2	66
86	. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 65-71	2.9	38
85	Single Photon Counting UV Solar-Blind Detectors Using Silicon and III-Nitride Materials. <i>Sensors</i> , 2016 , 16,	3.8	26
84	Photon-Counting Arrays for Time-Resolved Imaging. <i>Sensors</i> , 2016 , 16,	3.8	18
83	Cryo-CMOS for quantum computing 2016 ,		75
82	Characterization of bipolar transistors for cryogenic temperature sensors in standard CMOS 2016 ,		4
81	Time estimation with multichannel digital silicon photomultipliers. <i>Physics in Medicine and Biology</i> , 2015 , 60, 2435-52	3.8	20
80	11.4 A 67,392-SPAD PVTB-compensated multi-channel digital SiPM with 432 column-parallel 48ps 17b TDCs for endoscopic time-of-flight PET 2015 ,		21
79	. <i>IEEE Journal of Solid-State Circuits</i> , 2015 , 50, 2406-2418	5.5	63

78	A first single-photon avalanche diode fabricated in standard SOI CMOS technology with a full characterization of the device. <i>Optics Express</i> , 2015 , 23, 13200-9	3.3	36
77	Fundamentals of a scalable network in SPADnet-based PET systems 2015 ,		3
76	CMOS SPAD Based on Photo-Carrier Diffusion Achieving PDP >40% From 440 to 580 nm at 4 V Excess Bias. <i>IEEE Photonics Technology Letters</i> , 2015 , 27, 2445-2448	2.2	17
75	Fluorescence lifetime imaging to differentiate bound from unbound ICG-cRGD both in vitro and in vivo 2015 ,		4
74	A 1024 \times 8, 700-ps Time-Gated SPAD Line Sensor for Planetary Surface Exploration With Laser Raman Spectroscopy and LIBS. <i>IEEE Journal of Solid-State Circuits</i> , 2014 , 49, 179-189	5.5	72
73	Single-Photon Avalanche Diode Imagers Applied to Near-Infrared Imaging. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014 , 20, 291-298	3.8	14
72	Single-photon imaging in complementary metal oxide semiconductor processes. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014 , 372, 20130100	3	83
71	A Substrate Isolated CMOS SPAD Enabling Wide Spectral Response and Low Electrical Crosstalk. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014 , 20, 299-305	3.8	39
70	A Flexible Ultrathin-Body Single-Photon Avalanche Diode With Dual-Side Illumination. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014 , 20, 276-283	3.8	5
69	. <i>IEEE Transactions on Nuclear Science</i> , 2014 , 61, 44-52	1.7	17
68	SPADnet: Embedded coincidence in a smart sensor network for PET applications. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014 , 734, 122-126	1.2	17
67	SPADnet network modeling, simulation and emulation 2014 ,		2
66	UV-Sensitive Low Dark-Count PureB Single-Photon Avalanche Diode. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 3768-3774	2.9	22
65	A 65k pixel, 150k frames-per-second camera with global gating and micro-lenses suitable for fluorescence lifetime imaging. <i>Proceedings of SPIE</i> , 2014 , 9141,	1.7	6
64	Distributed coincidence detection for multi-ring based PET systems 2014 ,		3
63	Timing optimization utilizing order statistics and multichannel digital silicon photomultipliers. <i>Optics Letters</i> , 2014 , 39, 552-4	3	9
62	Architecture and applications of a high resolution gated SPAD image sensor. <i>Optics Express</i> , 2014 , 22, 17573-89	3.3	73
61	Measurement and modeling of microlenses fabricated on single-photon avalanche diode arrays for fill factor recovery. <i>Optics Express</i> , 2014 , 22, 4202-13	3.3	58

60	(Invited) Fabrication of Pure-GaB Ge-on-Si Photodiodes for Well-Controlled 100-pA-Level Dark Currents. <i>ECS Transactions</i> , 2014 , 64, 737-745	1	2
59	A Preliminary Study on the Environmental Dependences of Avalanche Propagation in Silicon. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 1028-1033	2.9	
58	A 19.6 ps, FPGA-Based TDC With Multiple Channels for Open Source Applications. <i>IEEE Transactions on Nuclear Science</i> , 2013 , 60, 2203-2208	1.7	48
57	The performance of 2D array detectors for light sheet based fluorescence correlation spectroscopy. <i>Optics Express</i> , 2013 , 21, 8652-68	3.3	54
56	Timing optimization of a H-tree based digital silicon photomultiplier. <i>Journal of Instrumentation</i> , 2013 , 8, P09016-P09016	1	13
55	First characterization of the SPADnet sensor: a digital silicon photomultiplier for PET applications. <i>Journal of Instrumentation</i> , 2013 , 8, C12026-C12026	1	7
54	Toward one Giga frames per second--evolution of in situ storage image sensors. <i>Sensors</i> , 2013 , 13, 4640-4658	3.8	39
53	The Topsy single soft photon detector and the Trixy ultrafast tracking detector. <i>Journal of Instrumentation</i> , 2013 , 8, C01036-C01036	1	2
52	A 3.3-to-25V all-digital charge pump based system with temperature and load compensation for avalanche photodiode cameras with fixed sensitivity. <i>Journal of Instrumentation</i> , 2013 , 8, P03013-P03013	1	3
51	EndoTOFPET-US: a novel multimodal tool for endoscopy and positron emission tomography. <i>Journal of Instrumentation</i> , 2013 , 8, C04002-C04002	1	20
50	A 4 \times 416 digital SiPM array with 192 TDCs for multiple high-resolution timestamp acquisition. <i>Journal of Instrumentation</i> , 2013 , 8, P05024-P05024	1	27
49	An Electric Field Volume Integral Equation Approach to Simulate Surface Plasmon Polaritons. <i>Advanced Electromagnetics</i> , 2013 , 2, 15	1.2	2
48	. <i>IEEE Journal of Solid-State Circuits</i> , 2012 , 47, 1394-1407	5.5	111
47	Fluorescent magnetic bead and cell differentiation/counting using a CMOS SPAD matrix. <i>Sensors and Actuators B: Chemical</i> , 2012 , 174, 609-615	8.5	13
46	. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2012 , 59, 604-615	3.9	1
45	A fully-integrated 780800h2 multi-digital silicon photomultiplier with column-parallel time-to-digital converter 2012 ,		3
44	A 128-Channel, 8.9-ps LSB, Column-Parallel Two-Stage TDC Based on Time Difference Amplification for Time-Resolved Imaging. <i>IEEE Transactions on Nuclear Science</i> , 2012 , 59, 2463-2470	1.7	46
43	A wide spectral range single-photon avalanche diode fabricated in an advanced 180 nm CMOS technology. <i>Optics Express</i> , 2012 , 20, 5849-57	3.3	56

42	FPGA implementation of a 32x32 autocorrelator array for analysis of fast image series. <i>Optics Express</i> , 2012 , 20, 17767-82	3.3	30
41	Sensor network architecture for a fully digital and scalable SPAD based PET system 2012 ,		8
40	Multi-channel digital SiPMs: Concept, analysis and implementation 2012 ,		27
39	A Handheld Intra-Operative μ Sensing System. <i>Procedia Engineering</i> , 2011 , 25, 988-991		
38	A 128-channel, 9ps column-parallel two-stage TDC based on time difference amplification for time-resolved imaging 2011 ,		13
37	Fast single-photon avalanche diode arrays for laser Raman spectroscopy. <i>Optics Letters</i> , 2011 , 36, 3672-4		36
36	Hybrid polymer microlens arrays with high numerical apertures fabricated using simple ink-jet printing technique. <i>Optical Materials Express</i> , 2011 , 1, 259	2.6	74
35	A 160 \times 128 single-photon image sensor with on-pixel 55ps 10b time-to-digital converter 2011 ,		47
34	An implementation of a spike-response model with escape noise using an avalanche diode. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2011 , 5, 231-43	5.1	3
33	Reduction of Fixed-Position Noise in Position-Sensitive Single-Photon Avalanche Diodes. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 2354-2361	2.9	12
32	Hybrid small animal imaging system combining magnetic resonance imaging with fluorescence tomography using single photon avalanche diode detectors. <i>IEEE Transactions on Medical Imaging</i> , 2011 , 30, 1265-73	11.7	54
31	Monolithic silicon chip for immunofluorescence detection on single magnetic beads. <i>Analytical Chemistry</i> , 2010 , 82, 49-52	7.8	18
30	Fluorescence lifetime biosensing with DNA microarrays and a CMOS-SPAD imager. <i>Biomedical Optics Express</i> , 2010 , 1, 1302-1308	3.5	25
29	Real-time fluorescence lifetime imaging system with a 32 x 32 0.13microm CMOS low dark-count single-photon avalanche diode array. <i>Optics Express</i> , 2010 , 18, 10257-69	3.3	94
28	A new single-photon avalanche diode in 90nm standard CMOS technology. <i>Optics Express</i> , 2010 , 18, 22158-66	3.3	44
27	System Tradeoffs in Gamma-Ray Detection Utilizing SPAD Arrays and Scintillators. <i>IEEE Transactions on Nuclear Science</i> , 2010 , 57, 2549-2557	1.7	66
26	RTS Noise Characterization in Single-Photon Avalanche Diodes. <i>IEEE Electron Device Letters</i> , 2010 , 31, 692-694	4.4	19
25	A new ethylene glycol-silane monolayer for highly-specific DNA detection on Silicon Chips. <i>Surface Science</i> , 2010 , 604, L71-L74	1.8	10

24	A low-noise single-photon detector implemented in a 130nm CMOS imaging process. <i>Solid-State Electronics</i> , 2009 , 53, 803-808	1.7	81
23	Fast-fluorescence dynamics in nonratiometric calcium indicators. <i>Optics Letters</i> , 2009 , 34, 362-4	3	17
22	On the application of a monolithic array for detecting intensity-correlated photons emitted by different source types. <i>Optics Express</i> , 2009 , 17, 15087-103	3.3	5
21	The gigavision camera 2009 ,		17
20	A 32B2 50ps resolution 10 bit time to digital converter array in 130nm CMOS for time correlated imaging 2009 ,		44
19	Single-Photon Synchronous Detection. <i>IEEE Journal of Solid-State Circuits</i> , 2009 , 44, 1977-1989	5.5	82
18	Inkjet printing of SU-8 for polymer-based MEMS a case study for microlenses. <i>Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS)</i> , 2008 ,		16
17	A Single-Photon Avalanche Diode Array for Fluorescence Lifetime Imaging Microscopy. <i>IEEE Journal of Solid-State Circuits</i> , 2008 , 43, 2546-2557	5.5	71
16	A 128 \$times\$ 128 Single-Photon Image Sensor With Column-Level 10-Bit Time-to-Digital Converter Array. <i>IEEE Journal of Solid-State Circuits</i> , 2008 , 43, 2977-2989	5.5	190
15	Introduction to the Special Issue on the 33rd European Solid-State Circuits Conference (ESSCIRC 2007). <i>IEEE Journal of Solid-State Circuits</i> , 2008 , 43, 1507-1510	5.5	
14	Microparticle photometry in a CMOS microsystem combining magnetic actuation and in situ optical detection. <i>Sensors and Actuators B: Chemical</i> , 2008 , 132, 411-417	8.5	16
13	A Single Photon Avalanche Diode Implemented in 130-nm CMOS Technology. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2007 , 13, 863-869	3.8	108
12	A Cmos Microsystem Combining Magnetic Actuation and In-Situ Optical Detection of Microparticles 2007 ,		3
11	A single photon avalanche diode array fabricated in 0.35-μm CMOS and based on an event-driven readout for TCSPC experiments 2006 , 6372, 212		32
10	Design and characterization of a CMOS 3-D image sensor based on single photon avalanche diodes. <i>IEEE Journal of Solid-State Circuits</i> , 2005 , 40, 1847-1854	5.5	236
9	Toward a 3-D camera based on single photon avalanche diodes. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2004 , 10, 796-802	3.8	33
8	Introduction to the Special Issue on the IEEE 2003 Custom Integrated Circuits Conference. <i>IEEE Journal of Solid-State Circuits</i> , 2004 , 39, 1391-1393	5.5	
7	Introduction to the special issue on the IEEE 2002 custom integrated circuits conference. <i>IEEE Journal of Solid-State Circuits</i> , 2003 , 38, 391-393	5.5	1

6	Watermarking-based copyright protection of sequential functions. <i>IEEE Journal of Solid-State Circuits</i> , 2000 , 35, 434-440	5.5	63
5	Constraint transformation for IC physical design. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 1999 , 12, 386-395	2.6	4
4	Symbolic compaction with analogue constraints. <i>International Journal of Circuit Theory and Applications</i> , 1995 , 23, 433-452	2	8
3	. <i>IEEE Transactions on Applied Superconductivity</i> , 1993 , 3, 2629-2632	1.8	12
2	Humidity-sensitive oscillator fabricated in double poly CMOS technology. <i>Sensors and Actuators B: Chemical</i> , 1990 , 1, 441-445	8.5	7
1	Single Photon, Time-Gated, Phasor-based Fluorescence Lifetime Imaging Through Highly Scattering Medium		1