

Edoardo Charbon

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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	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
202	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
201	Cryo-CMOS Circuits and Systems for Quantum Computing Applications. <i>IEEE Journal of Solid-State Circuits</i> , 2018 , 53, 309-321	5.5	143
200	Single-photon avalanche diode imagers in biophotonics: review and outlook. <i>Light: Science and Applications</i> , 2019 , 8, 87	16.7	111
199	. <i>IEEE Journal of Solid-State Circuits</i> , 2012 , 47, 1394-1407	5.5	111
198	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
197	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
196	Megapixel time-gated SPAD image sensor for 2D and 3D imaging applications. <i>Optica</i> , 2020 , 7, 346	8.6	89
195	. <i>IEEE Journal of Solid-State Circuits</i> , 2019 , 54, 1137-1151	5.5	87
194	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
193	Single-Photon Synchronous Detection. <i>IEEE Journal of Solid-State Circuits</i> , 2009 , 44, 1977-1989	5.5	82
192	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
191	Cryo-CMOS for quantum computing 2016 ,		75
190	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
189	Architecture and applications of a high resolution gated SPAD image sensor. <i>Optics Express</i> , 2014 , 22, 17573-89	3.3	73
188	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
187	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

186	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
185	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
184	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
183	. <i>IEEE Journal of Solid-State Circuits</i> , 2015 , 50, 2406-2418	5.5	63
182	Roadmap toward the 10 ps time-of-flight PET challenge. <i>Physics in Medicine and Biology</i> , 2020 , 65, 21RM018	0.1	63
181	Watermarking-based copyright protection of sequential functions. <i>IEEE Journal of Solid-State Circuits</i> , 2000 , 35, 434-440	5.5	63
180	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
179	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
178	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
177	The performance of 2D array detectors for light sheet based fluorescence correlation spectroscopy. <i>Optics Express</i> , 2013 , 21, 8652-68	3.3	54
176	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
175	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
174	A 160B128 single-photon image sensor with on-pixel 55ps 10b time-to-digital converter 2011 ,		47
173	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
172	A new single-photon avalanche diode in 90nm standard CMOS technology. <i>Optics Express</i> , 2010 , 18, 22158-66	3.3	44
171	A 32B2 50ps resolution 10 bit time to digital converter array in 130nm CMOS for time correlated imaging 2009 ,		44
170	A reconfigurable cryogenic platform for the classical control of quantum processors. <i>Review of Scientific Instruments</i> , 2017 , 88, 045103	1.7	43
169	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

168	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
167	Toward one Giga frames per second--evolution of in situ storage image sensors. <i>Sensors</i> , 2013 , 13, 4640-58	3.8	39
166	. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 65-71	2.9	38
165	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
164	. <i>IEEE Journal of Solid-State Circuits</i> , 2019 , 54, 3203-3214	5.5	36
163	Fast single-photon avalanche diode arrays for laser Raman spectroscopy. <i>Optics Letters</i> , 2011 , 36, 3672-4	3.5	36
162	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
161	A single photon avalanche diode array fabricated in 0.35- μ m CMOS and based on an event-driven readout for TCSPC experiments 2006 , 6372, 212		32
160	Nonuniformity Analysis of a 65-kpixel CMOS SPAD Imager. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 57-64	2.9	31
159	FPGA implementation of a 32x32 autocorrelator array for analysis of fast image series. <i>Optics Express</i> , 2012 , 20, 17767-82	3.3	30
158	CMOS-based cryogenic control of silicon quantum circuits. <i>Nature</i> , 2021 , 593, 205-210	50.4	29
157	Dynamic range extension for photon counting arrays. <i>Optics Express</i> , 2018 , 26, 22234-22248	3.3	28
156	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
155	A 4 \times 4 \times 16 digital SiPM array with 192 TDCs for multiple high-resolution timestamp acquisition. <i>Journal of Instrumentation</i> , 2013 , 8, P05024-P05024	1	27
154	Multi-channel digital SiPMs: Concept, analysis and implementation 2012 ,		27
153	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
152	Single Photon Counting UV Solar-Blind Detectors Using Silicon and III-Nitride Materials. <i>Sensors</i> , 2016 , 16,	3.8	26
151	Fluorescence lifetime biosensing with DNA microarrays and a CMOS-SPAD imager. <i>Biomedical Optics Express</i> , 2010 , 1, 1302-1308	3.5	25

150	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
149	SPAD imagers for super resolution localization microscopy enable analysis of fast fluorophore blinking. <i>Scientific Reports</i> , 2017 , 7, 44108	4.9	22
148	UV-Sensitive Low Dark-Count PureB Single-Photon Avalanche Diode. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 3768-3774	2.9	22
147	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
146	Impact of Classical Control Electronics on Qubit Fidelity. <i>Physical Review Applied</i> , 2019 , 12,	4.3	21
145	Quanta burst photography. <i>ACM Transactions on Graphics</i> , 2020 , 39,	7.6	21
144	Time estimation with multichannel digital silicon photomultipliers. <i>Physics in Medicine and Biology</i> , 2015 , 60, 2435-52	3.8	20
143	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
142	EndoTOFPET-US: a novel multimodal tool for endoscopy and positron emission tomography. <i>Journal of Instrumentation</i> , 2013 , 8, C04002-C04002	1	20
141	Quantum correlation measurement with single photon avalanche diode arrays. <i>Optics Express</i> , 2019 , 27, 32863-32882	3.3	20
140	The electronic interface for quantum processors. <i>Microprocessors and Microsystems</i> , 2019 , 66, 90-101	2.4	20
139	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
138	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
137	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
136	RTS Noise Characterization in Single-Photon Avalanche Diodes. <i>IEEE Electron Device Letters</i> , 2010 , 31, 692-694	4.4	19
135	Wide-field time-gated SPAD imager for phasor-based FLIM applications. <i>Methods and Applications in Fluorescence</i> , 2020 , 8, 024002	3.1	18
134	Monolithic silicon chip for immunofluorescence detection on single magnetic beads. <i>Analytical Chemistry</i> , 2010 , 82, 49-52	7.8	18
133	Fluorescence lifetime imaging with a megapixel SPAD camera and neural network lifetime estimation. <i>Scientific Reports</i> , 2020 , 10, 20986	4.9	18

132	Photon-Counting Arrays for Time-Resolved Imaging. <i>Sensors</i> , 2016 , 16,	3.8	18
131	Characterization and Model Validation of Mismatch in Nanometer CMOS at Cryogenic Temperatures 2018 ,		18
130	Deep-Cryogenic Voltage References in 40-nm CMOS. <i>IEEE Solid-State Circuits Letters</i> , 2018 , 1, 110-113	2	18
129	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
128	. <i>IEEE Transactions on Nuclear Science</i> , 2014 , 61, 44-52	1.7	17
127	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
126	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
125	Fast-fluorescence dynamics in nonratiometric calcium indicators. <i>Optics Letters</i> , 2009 , 34, 362-4	3	17
124	The gigavision camera 2009 ,		17
123	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
122	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
121	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
120	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
119	Modeling and Analysis of a Direct Time-of-Flight Sensor Architecture for LiDAR Applications. <i>Sensors</i> , 2019 , 19,	3.8	16
118	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, 100243	1.4	16
117	Characterization and Modeling of Mismatch in Cryo-CMOS. <i>IEEE Journal of the Electron Devices Society</i> , 2020 , 8, 263-273	2.3	15
116	A 256x256 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
115	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

114	High fill-factor miniaturized SPAD arrays with a guard-ring-sharing technique. <i>Optics Express</i> , 2020 , 28, 13068-13080	3.3	14
113	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
112	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
111	Timing optimization of a H-tree based digital silicon photomultiplier. <i>Journal of Instrumentation</i> , 2013 , 8, P09016-P09016	1	13
110	A 128-channel, 9ps column-parallel two-stage TDC based on time difference amplification for time-resolved imaging 2011 ,		13
109	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
108	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
107	. <i>IEEE Transactions on Applied Superconductivity</i> , 1993 , 3, 2629-2632	1.8	12
106	Widefield High Frame Rate Single-Photon SPAD Imagers for SPIM-FCS. <i>Biophysical Journal</i> , 2018 , 114, 2455-2464	2.9	12
105	Light-In-Flight Imaging by a Silicon Image Sensor: Toward the Theoretical Highest Frame Rate. <i>Sensors</i> , 2019 , 19,	3.8	11
104	Mutually Coupled Time-to-Digital Converters (TDCs) for Direct Time-of-Flight (dTOF) Image Sensors. <i>Sensors</i> , 2018 , 18,	3.8	11
103	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
102	3D-Stacked CMOS SPAD Image Sensors: Technology and Applications 2018 ,		10
101	Scaling silicon-based quantum computing using CMOS technology. <i>Nature Electronics</i> , 2021 , 4, 872-884	28.4	10
100	Timing optimization utilizing order statistics and multichannel digital silicon photomultipliers. <i>Optics Letters</i> , 2014 , 39, 552-4	3	9
99	Quantum Transport in 40-nm MOSFETs at Deep-Cryogenic Temperatures. <i>IEEE Electron Device Letters</i> , 2020 , 1-1	4.4	9
98	2020 ,		8
97	Sensor network architecture for a fully digital and scalable SPAD based PET system 2012 ,		8

96	Symbolic compaction with analogue constraints. <i>International Journal of Circuit Theory and Applications</i> , 1995 , 23, 433-452	2	8
95	Subthreshold Mismatch in Nanometer CMOS at Cryogenic Temperatures. <i>IEEE Journal of the Electron Devices Society</i> , 2020 , 8, 797-806	2.3	8
94	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
93	Full-field quantum imaging with a single-photon avalanche diode camera. <i>Physical Review A</i> , 2021 , 103,	2.6	8
92	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
91	First characterization of the SPADnet sensor: a digital silicon photomultiplier for PET applications. <i>Journal of Instrumentation</i> , 2013 , 8, C12026-C12026	1	7
90	Humidity-sensitive oscillator fabricated in double poly CMOS technology. <i>Sensors and Actuators B: Chemical</i> , 1990 , 1, 441-445	8.5	7
89	Single-Photon, Time-Gated, Phasor-Based Fluorescence Lifetime Imaging through Highly Scattering Medium. <i>ACS Photonics</i> , 2020 , 7, 68-79	6.3	7
88	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
87	Voltage References for the Ultra-Wide Temperature Range from 4.2K to 300K in 40-nm CMOS 2019 ,		7
86	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
85	. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019 , 25, 1-6	3.8	6
84	Flexible ultrathin-body single-photon avalanche diode sensors and CMOS integration. <i>Optics Express</i> , 2016 , 24, 3734-48	3.3	6
83	A co-design methodology for scalable quantum processors and their classical electronic interface 2018 ,		6
82	Cryogenic low-dropout voltage regulators for stable low-temperature electronics. <i>Cryogenics</i> , 2018 , 95, 11-17	1.8	6
81	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
80	A Cryogenic CMOS Parametric Amplifier. <i>IEEE Solid-State Circuits Letters</i> , 2020 , 3, 5-8	2	6
79	Cryo-CMOS for Analog/Mixed-Signal Circuits and Systems 2020 ,		5

78	An order-statistics-inspired, fully-digital readout approach for analog SiPM arrays 2016 ,		5
77	A Hybrid Readout Solution for GaN-Based Detectors Using CMOS Technology. <i>Sensors</i> , 2018 , 18,	3.8	5
76	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
75	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
74	Phasor-based widefield FLIM using a gated 512B12 single-photon SPAD imager. <i>Proceedings of SPIE</i> , 2019 , 10882,	1.7	5
73	Optical-stack optimization for improved SPAD photon detection efficiency 2019 ,		5
72	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
71	Dynamic time domain near-infrared optical tomography based on a SPAD camera. <i>Biomedical Optics Express</i> , 2020 , 11, 5470-5477	3.5	5
70	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
69	A Cryo-CMOS Digital Cell Library for Quantum Computing Applications. <i>IEEE Solid-State Circuits Letters</i> , 2020 , 3, 310-313	2	5
68	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
67	Monolithic SPAD Arrays for High-Performance, Time-Resolved Single-Photon Imaging 2018 ,		5
66	Time Domain NIRS Optode based on Null/Small Source-Detector Distance for Wearable Applications 2019 ,		4
65	Towards a fully digital state-of-the-art analog SiPM 2017 ,		4
64	Performance characterization of Altera and Xilinx 28 nm FPGAs at cryogenic temperatures 2017 ,		4
63	Fluorescence lifetime imaging to differentiate bound from unbound ICG-cRGD both in vitro and in vivo 2015 ,		4
62	Constraint transformation for IC physical design. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 1999 , 12, 386-395	2.6	4
61	Characterization of bipolar transistors for cryogenic temperature sensors in standard CMOS 2016 ,		4

60	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
59	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
58	13.3 A 6-to-8GHz 0.17mW/Qubit Cryo-CMOS Receiver for Multiple Spin Qubit Readout in 40nm CMOS Technology 2021 ,		4
57	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
56	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
55	Pixel super-resolution with spatially entangled photons. <i>Nature Communications</i> , 2022 , 13,	17.4	4
54	From the Quantum Moore's Law toward Silicon Based Universal Quantum Computing 2017 ,		3
53	Fundamentals of a scalable network in SPADnet-based PET systems 2015 ,		3
52	Distributed coincidence detection for multi-ring based PET systems 2014 ,		3
51	A fully-integrated 780800h ² multi-digital silicon photomultiplier with column-parallel time-to-digital converter 2012 ,		3
50	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 ³		3
49	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
48	A Cmos Microsystem Combining Magnetic Actuation and In-Situ Optical Detection of Microparticles 2007 ,		3
47	Toward the Super Temporal Resolution Image Sensor with a Germanium Photodiode for Visible Light. <i>Sensors</i> , 2020 , 20,	3.8	3
46	A Scaling Law for SPAD Pixel Miniaturization. <i>Sensors</i> , 2021 , 21,	3.8	3
45	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
44	A Low-Jitter and Low-Spur Charge-Sampling PLL. <i>IEEE Journal of Solid-State Circuits</i> , 2021 , 1-1	5.5	3
43	Design techniques for a stable operation of cryogenic field-programmable gate arrays. <i>Review of Scientific Instruments</i> , 2018 , 89, 014703	1.7	2

42	SPADnet network modeling, simulation and emulation 2014 ,		2
41	(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
40	The Topsy single soft photon detector and the Trixy ultrafast tracking detector. <i>Journal of Instrumentation</i> , 2013 , 8, C01036-C01036	1	2
39	Light detection and ranging with entangled photons.. <i>Optics Express</i> , 2022 , 30, 3675-3683	3.3	2
38	Cryo-CMOS Interfaces for Large-Scale Quantum Computers 2020 ,		2
37	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
36	An Electric Field Volume Integral Equation Approach to Simulate Surface Plasmon Polaritons. <i>Advanced Electromagnetics</i> , 2013 , 2, 15	1.2	2
35	Superluminal Motion-Assisted Four-Dimensional Light-in-Flight Imaging. <i>Physical Review X</i> , 2021 , 11,	9.1	2
34	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
33	Light Extraction Enhancement Techniques for Inorganic Scintillators. <i>Crystals</i> , 2021 , 11, 362	2.3	2
32	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
31	Towards Quantum 3D Imaging Devices. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 6414	2.6	2
30	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
29	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
28	. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2012 , 59, 604-615	3.9	1
27	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
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