Edoardo Charbon

List of Publications by Year
in descending order

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219	7,442	53660	76769
papers	citations	45 h-index	74 g-index

225	225	225	4008
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Engineering Breakdown Probability Profile for PDP and DCR Optimization in a SPAD Fabricated in a Standard 55 nm BCD Process. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-10.	1.9	21
2	A Low-Noise CMOS SPAD Pixel With 12.1 Ps SPTR and 3 Ns Dead Time. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-9.	1.9	33
3	A Low-Jitter and Low-Spur Charge-Sampling PLL. IEEE Journal of Solid-State Circuits, 2022, 57, 492-504.	3.5	15
4	2.5 Hz sample rate time-domain near-infrared optical tomography based on SPAD-camera image tissue hemodynamics. Biomedical Optics Express, 2022, 13, 133.	1.5	7
5	Light detection and ranging with entangled photons. Optics Express, 2022, 30, 3675.	1.7	19
6	IEEE Open Journal of the Solid-State Circuits Society Special Section on Imagers for 3D Vision. IEEE Open Journal of the Solid-State Circuits Society, 2022, 2, 1-2.	2.0	0
7	On Analog Silicon Photomultipliers in Standard 55-nm BCD Technology for LiDAR Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-10.	1.9	9
8	Guard-Ring-Free InGaAs/InP Single-Photon Avalanche Diode Based on a Novel One-Step Zn-Diffusion Technique. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-9.	1.9	6
9	NIR fluorescence lifetime macroscopic imaging with a time-gated SPAD camera. , 2022, , .		0
10	In vitro and in vivo NIR fluorescence lifetime imaging with a time-gated SPAD camera. Optica, 2022, 9, 532.	4.8	15
11	Back-gate effects on DC performance and carrier transport in 22 nm FDSOI technology down to cryogenic temperatures. Solid-State Electronics, 2022, 193, 108296.	0.8	16
12	A cryo-CMOS chip that integrates silicon quantum dots and multiplexed dispersive readout electronics. Nature Electronics, 2022, 5, 53-59.	13.1	32
13	Radiation Hardness Study of Single-Photon Avalanche Diode for Space and High Energy Physics Applications. Sensors, 2022, 22, 2919.	2.1	4
14	Toward Super Temporal Resolution by Suppression of Mixing Effects of Electrons. IEEE Transactions on Electron Devices, 2022, 69, 2879-2885.	1.6	0
15	A 1-Î¼W Radiation-Hard Front-End in a 0.18-Î¼m CMOS Process for the MALTA2 Monolithic Sensor. IEEE Transactions on Nuclear Science, 2022, 69, 1299-1309.	1.2	10
16	Sub-10 ps Minimum Ionizing Particle Detection With Geiger-Mode APDs. Frontiers in Physics, 2022, 10, .	1.0	15
17	A 500 Ã— 500 Dual-Gate SPAD Imager With 100% Temporal Aperture and 1 ns Minimum Gate Length for FLIM and Phasor Imaging Applications. IEEE Transactions on Electron Devices, 2022, 69, 2865-2872.	1.6	6
18	A Cryo-CMOS Wideband Quadrature Receiver With Frequency Synthesizer for Scalable Multiplexed Readout of Silicon Spin Qubits. IEEE Journal of Solid-State Circuits, 2022, 57, 2374-2389.	3.5	12

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19	Cryogenic CMOS for Qubit Control and Readout. , 2022, , .		8
20	Pixel super-resolution with spatially entangled photons. Nature Communications, 2022, 13, .	5.8	21
21	Characterization of a large Gated SPAD camera for in vivo Macroscopic Fluorescence Lifetime Imaging. , 2022, , .		0
22	Cryogenic CMOS Circuits and Systems: Challenges and Opportunities in Designing the Electronic Interface for Quantum Processors. IEEE Microwave Magazine, 2021, 22, 60-78.	0.7	13
23	Superluminal Motion-Assisted Four-Dimensional Light-in-Flight Imaging. Physical Review X, 2021, 11, .	2.8	4
24	In Phantom Validation of Time-Domain Near-Infrared Optical Tomography Pioneer for Imaging Brain Hypoxia and Hemorrhage. Advances in Experimental Medicine and Biology, 2021, 1269, 341-346.	0.8	2
25	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, , .		33
26	The Michelangelo step: removing scalloping and tapering effects in high aspect ratio through silicon vias. Scientific Reports, 2021, 11, 3997.	1.6	12
27	13.3 A 6-to-8GHz 0.17mW/Qubit Cryo-CMOS Receiver for Multiple Spin Qubit Readout in 40nm CMOS Technology. , 2021, , .		19
28	Light Extraction Enhancement Techniques for Inorganic Scintillators. Crystals, 2021, 11, 362.	1.0	8
29	A Pixel Design of a Branching Ultra-Highspeed Image Sensor. Sensors, 2021, 21, 2506.	2.1	3
30	Full-field quantum imaging with a single-photon avalanche diode camera. Physical Review A, 2021, 103, .	1.0	18
31	CMOS-based cryogenic control of silicon quantum circuits. Nature, 2021, 593, 205-210.	13.7	136
32	A Scaling Law for SPAD Pixel Miniaturization. Sensors, 2021, 21, 3447.	2.1	12
33	Towards quantum 3D imaging devices. , 2021, , .		0
34	A Cryogenic Broadband Sub-1-dB NF CMOS Low Noise Amplifier for Quantum Applications. IEEE Journal of Solid-State Circuits, 2021, 56, 2040-2053.	3.5	33
35	Towards Quantum 3D Imaging Devices. Applied Sciences (Switzerland), 2021, 11, 6414.	1.3	7
36	Heralded Spectroscopy Reveals Excitonâ€“Exciton Correlations in Single Colloidal Quantum Dots. Nano Letters, 2021, 21, 6756-6763.	4.5	19

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37	Single-photon avalanche diode imaging sensor for subsurface fluorescence LiDAR. Optica, 2021, 8, 1126.	4.8	8
38	Blumino: The First Fully Integrated Analog SiPM With On-Chip Time Conversion. IEEE Transactions on Radiation and Plasma Medical Sciences, 2021, 5, 671-678.	2.7	6
39	Probe Design Optimization for Time-Domain NIROT â€œPioneerâ€•System for Imaging the Oxygenation of the Preterm Brain. Advances in Experimental Medicine and Biology, 2021, 1269, 359-363.	0.8	0
40	Cryo-CMOS Electronics For Quantum Computing: Bringing Classical Electronics Closer To Qubits In Space And Temperature. IEEE Solid-State Circuits Magazine, 2021, 13, 54-68.	0.5	8
41	Theoretical minimum uncertainty of single-molecule localizations using a single-photon avalanche diode array. Optics Express, 2021, 29, 39920.	1.7	7
42	Cryogenic Characterization of 16 nm FinFET Technology for Quantum Computing. , 2021, , .		7
43	A massively scalable Time-to-Digital Converter with a PLL-free calibration system in a commercial 130 nm process. Journal of Instrumentation, 2021, 16, P11023.	0.5	3
44	Deep cryogenic operation of 55 nm CMOS SPADs for quantum information and metrology applications. , 2021, , .		0
45	Cryogenic Characterization of 16 nm FinFET Technology for Quantum Computing. , 2021, , .		3
46	Scaling silicon-based quantum computing using CMOS technology. Nature Electronics, 2021, 4, 872-884.	13.1	84
47	Measurements and analysis of different front-end configurations for monolithic SiGe BiCMOS pixel detectors for HEP applications. Journal of Instrumentation, 2021, 16, P12038.	0.5	2
48	A Cryogenic CMOS Parametric Amplifier. IEEE Solid-State Circuits Letters, 2020, 3, 5-8.	1.3	15
49	Single-Photon, Time-Gated, Phasor-Based Fluorescence Lifetime Imaging through Highly Scattering Medium. ACS Photonics, 2020, 7, 68-79.	3.2	14
50	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, , .		9
51	A Scalable Cryo-CMOS Controller for the Wideband Frequency-Multiplexed Control of Spin Qubits and Transmons. IEEE Journal of Solid-State Circuits, 2020, 55, 2930-2946.	3.5	65
52	Subthreshold Mismatch in Nanometer CMOS at Cryogenic Temperatures. IEEE Journal of the Electron Devices Society, 2020, 8, 797-806.	1.2	20
53	Fluorescence lifetime imaging with a megapixel SPAD camera and neural network lifetime estimation. Scientific Reports, 2020, 10, 20986.	1.6	44
54	Toward the Super Temporal Resolution Image Sensor with a Germanium Photodiode for Visible Light. Sensors, 2020, 20, 6895.	2.1	4

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55	Designing a DDS-Based SoC for High-Fidelity Multi-Qubit Control. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 5380-5393.	3.5	15
56	A Cryo-CMOS Digital Cell Library for Quantum Computing Applications. IEEE Solid-State Circuits Letters, 2020, 3, 310-313.	1.3	17
57	Introduction to the Special Issue on the 2020 IEEE International Solid-State Circuits Conference (ISSCC). IEEE Journal of Solid-State Circuits, 2020, 55, 2847-2848.	3.5	0
58	Characterization and Analysis of On-Chip Microwave Passive Components at Cryogenic Temperatures. IEEE Journal of the Electron Devices Society, 2020, 8, 448-456.	1.2	45
59	Roadmap toward the 10 ps time-of-flight PET challenge. Physics in Medicine and Biology, 2020, 65, 21RM01.	1.6	136
60	19.3 A 200dB FoM 4-to-5GHz Cryogenic Oscillator with an Automatic Common-Mode Resonance Calibration for Quantum Computing Applications. , 2020, , .		21
61	Characterization and Modeling of Mismatch in Cryo-CMOS. IEEE Journal of the Electron Devices Society, 2020, 8, 263-273.	1.2	50
62	A Wideband Low-Power Cryogenic CMOS Circulator for Quantum Applications. IEEE Journal of Solid-State Circuits, 2020, 55, 1224-1238.	3.5	22
63	Wide-field time-gated SPAD imager for phasor-based FLIM applications. Methods and Applications in Fluorescence, 2020, 8, 024002.	1.1	50
64	Cryo-CMOS for Analog/Mixed-Signal Circuits and Systems. , 2020, , .		14
65	19.1 A Scalable Cryo-CMOS 2-to-20GHz Digitally Intensive Controller for 4Ã—32 Frequency Multiplexed Spin Qubits/Transmons in 22nm FinFET Technology for Quantum Computers. , 2020, , .		47
66	Cryo-CMOS Interfaces for Large-Scale Quantum Computers. , 2020, , .		6
67	Quanta burst photography. ACM Transactions on Graphics, 2020, 39, .	4.9	38
68	Image reconstruction for novel time domain near infrared optical tomography: towards clinical applications. Biomedical Optics Express, 2020, 11, 4723.	1.5	11
69	Dynamic time domain near-infrared optical tomography based on a SPAD camera. Biomedical Optics Express, 2020, 11, 5470.	1.5	15
70	Multimodal imaging combining time-domain near-infrared optical tomography and continuous-wave fluorescence molecular tomography. Optics Express, 2020, 28, 9860.	1.7	13
71	High fill-factor miniaturized SPAD arrays with a guard-ring-sharing technique. Optics Express, 2020, 28, 13068.	1.7	34
72	Megapixel time-gated SPAD image sensor for 2D and 3D imaging applications. Optica, 2020, 7, 346.	4.8	200

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73	Quantum Transport in 40-nm MOSFETs at Deep-Cryogenic Temperatures. IEEE Electron Device Letters, 2020, , 1-1.	2.2	22
74	Cryogenic-CMOS for Quantum Computing. The Frontiers Collection, 2020, , 501-525.	0.1	1
75	Time-Resolved NIROT â€˜Pioneerâ€™ System for Imaging Oxygenation of the Preterm Brain: Preliminary Results. Advances in Experimental Medicine and Biology, 2020, 1232, 347-354.	0.8	2
76	Plug-and-Play High-Speed Communication Protocol for Readout-Systems Network Based on FPGA and Gigabit Optical Fiber Network. , 2020, , .		0
77	CMOS 3D-Stacked FSI Multi-Channel Digital SiPM for Time-of-Flight PET Applications. , 2020, , .		5
78	Hybrid superconductorâ€“semiconductor electronics. Nature Electronics, 2019, 2, 433-434.	13.1	6
79	Impact of Classical Control Electronics on Qubit Fidelity. Physical Review Applied, 2019, 12, .	1.5	55
80	A Modular, Direct Time-of-Flight Depth Sensor in 45/65-nm 3-D-Stacked CMOS Technology. IEEE Journal of Solid-State Circuits, 2019, 54, 3203-3214.	3.5	55
81	Time Domain NIRS Optode based on Null/Small Source-Detector Distance for Wearable Applications. , 2019, , .		5
82	Single-photon avalanche diode imagers in biophotonics: review and outlook. Light: Science and Applications, 2019, 8, 87.	7.7	269
83	First Near-Ultraviolet- and Blue-Enhanced Backside-Illuminated Single-Photon Avalanche Diode Based on Standard SOI CMOS Technology. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-6.	1.9	11
84	Light-In-Flight Imaging by a Silicon Image Sensor: Toward the Theoretical Highest Frame Rate. Sensors, 2019, 19, 2247.	2.1	22
85	Toward a Full-Flexible and Fast-Prototyping TOF-PET Block Detector Based on TDC-on-FPGA. IEEE Transactions on Radiation and Plasma Medical Sciences, 2019, 3, 538-548.	2.7	32
86	The electronic interface for quantum processors. Microprocessors and Microsystems, 2019, 66, 90-101.	1.8	30
87	Plug-and-play TOF-PET Module Readout Based on TDC-on-FPGA and Gigabit Optical Fiber Network. , 2019, , .		7
88	Voltage References for the Ultra-Wide Temperature Range from 4.2K to 300K in 40-nm CMOS. , 2019, , .		17
89	Modeling and Analysis of a Direct Time-of-Flight Sensor Architecture for LiDAR Applications. Sensors, 2019, 19, 5464.	2.1	41
90	Cryo-CMOS Electronics for Quantum Computing Applications. , 2019, , .		0

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91	Cryo-CMOS Electronics for Quantum Computing Applications. , 2019, , .		3
92	A 30-frames/s, $252imes144$ SPAD Flash LiDAR With 1728 Dual-Clock 48.8-ps TDCs, and Pixel-Wise Integrated Histogramming. IEEE Journal of Solid-State Circuits, 2019, 54, 1137-1151.	3.5	142
93	A 512 Ã— 512 SPAD Image Sensor With Integrated Gating for Widefield FLIM. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-12.	1.9	109
94	Phasor-based widefield FLIM using a gated 512Ã—512 single-photon SPAD imager. , 2019, 10882, .		5
95	Fluorescence lifetime imaging with a single-photon SPAD array using long overlapping gates: an experimental and theoretical study. , 2019, 10882, .		2
96	Optical-stack optimization for improved SPAD photon detection efficiency. , 2019, , .		8
97	Quantum correlation measurement with single photon avalanche diode arrays. Optics Express, 2019, 27, 32863.	1.7	42
98	Characterization and Compact Modeling of Nanometer CMOS Transistors at Deep-Cryogenic Temperatures. IEEE Journal of the Electron Devices Society, 2018, 6, 996-1006.	1.2	142
99	The Cryogenic Temperature Behavior of Bipolar, MOS, and DTMOS Transistors in Standard CMOS. IEEE Journal of the Electron Devices Society, 2018, 6, 263-270.	1.2	30
100	Design techniques for a stable operation of cryogenic field-programmable gate arrays. Review of Scientific Instruments, 2018, 89, 014703.	0.6	5
101	A 256Ã—256 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, , .		35
102	Cryo-CMOS Circuits and Systems for Quantum Computing Applications. IEEE Journal of Solid-State Circuits, 2018, 53, 309-321.	3.5	276
103	Multipurpose, Fully Integrated 128 $imes$ 128 Event-Driven MD-SiPM With 512 16-Bit TDCs With 45-ps LSB and 20-ns Gating in 40-nm CMOS Technology. IEEE Solid-State Circuits Letters, 2018, 1, 241-244.	1.3	5
104	A CMOS SPAD Imager with Collision Detection and 128 Dynamically Reallocating TDCs for Single-Photon Counting and 3D Time-of-Flight Imaging. Sensors, 2018, 18, 4016.	2.1	45
105	3D-Stacked CMOS SPAD Image Sensors: Technology and Applications. , 2018, , .		17
106	Characterization and Model Validation of Mismatch in Nanometer CMOS at Cryogenic Temperatures. , 2018, , .		27
107	Deep-Cryogenic Voltage References in 40-nm CMOS. IEEE Solid-State Circuits Letters, 2018, 1, 110-113.	1.3	25
108	Mutually Coupled Time-to-Digital Converters (TDCs) for Direct Time-of-Flight (dTOF) Image Sensors. Sensors, 2018, 18, 3413.	2.1	15

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109	A Sensor Network Architecture for Digital SiPM-Based PET Systems. IEEE Transactions on Radiation and Plasma Medical Sciences, 2018, 2, 574-587.	2.7	2
110	Progress in single-photon avalanche diode image sensors in standard CMOS: From two-dimensional monolithic to three-dimensional-stacked technology. Japanese Journal of Applied Physics, 2018, 57, 1002A3.	0.8	34
111	Monolithic SPAD Arrays for High-Performance, Time-Resolved Single-Photon Imaging. , 2018, , .		5
112	High-Performance Back-Illuminated Three-Dimensional Stacked Single-Photon Avalanche Diode Implemented in 45-nm CMOS Technology. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-9.	1.9	53
113	Widefield High Frame Rate Single-Photon SPAD Imagers for SPIM-FCS. Biophysical Journal, 2018, 114, 2455-2464.	0.2	20
114	A Hybrid Readout Solution for GaN-Based Detectors Using CMOS Technology. Sensors, 2018, 18, 449.	2.1	7
115	A co-design methodology for scalable quantum processors and their classical electronic interface. , 2018, , .		9
116	Cryogenic low-dropout voltage regulators for stable low-temperature electronics. Cryogenics, 2018, 95, 11-17.	0.9	15
117	Dynamic range extension for photon counting arrays. Optics Express, 2018, 26, 22234.	1.7	57
118	A reconfigurable cryogenic platform for the classical control of quantum processors. Review of Scientific Instruments, 2017, 88, 045103.	0.6	58
119	SPAD imagers for super resolution localization microscopy enable analysis of fast fluorophore blinking. Scientific Reports, 2017, 7, 44108.	1.6	29
120	A High-PDE, Backside-Illuminated SPAD in 65/40-nm 3D IC CMOS Pixel With Cascoded Passive Quenching and Active Recharge. IEEE Electron Device Letters, 2017, 38, 1547-1550.	2.2	66
121	Quantum information density scaling and qubit operation time constraints of CMOS silicon-based quantum computer architectures. Npj Quantum Information, 2017, 3, .	2.8	33
122	From the Quantum Moore's Law toward Silicon Based Universal Quantum Computing. , 2017, , .		6
123	Performance characterization of Altera and Xilinx 28 nm FPGAs at cryogenic temperatures. , 2017, , .		4
124	LinoSPAD: A Compact Linear SPAD Camera System with 64 FPGA-Based TDC Modules for Versatile 50 ps Resolution Time-Resolved Imaging. Instruments, 2017, 1, 6.	0.8	23
125	Towards a fully digital state-of-the-art analog SiPM. , 2017, , .		5
126	Single Photon Counting UV Solar-Blind Detectors Using Silicon and III-Nitride Materials. Sensors, 2016, 16, 927.	2.1	37

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127	Photon-Counting Arrays for Time-Resolved Imaging. Sensors, 2016, 16, 1005.	2.1	22
128	Cryo-CMOS for quantum computing. , 2016, , .		157
129	Characterization of bipolar transistors for cryogenic temperature sensors in standard CMOS. , 2016, , .		11
130	Flexible ultrathin-body single-photon avalanche diode sensors and CMOS integration. Optics Express, 2016, 24, 3734.	1.7	7
131	A Cryogenic 1 GSa/s, Soft-Core FPGA ADC for Quantum Computing Applications. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 1854-1865.	3.5	36
132	An order-statistics-inspired, fully-digital readout approach for analog SiPM arrays. , 2016, , .		7
133	Compact solid-state CMOS single-photon detector array for in vivo NIR fluorescence lifetime oncology measurements. Biomedical Optics Express, 2016, 7, 1797.	1.5	32
134	Advances in digital SiPMs and their application in biomedical imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 809, 31-52.	0.7	78
135	A Low Dark Count p-i-n Diode Based SPAD in CMOS Technology. IEEE Transactions on Electron Devices, 2016, 63, 65-71.	1.6	61
136	Nonuniformity Analysis of a 65-kpixel CMOS SPAD Imager. IEEE Transactions on Electron Devices, 2016, 63, 57-64.	1.6	42
137	Fundamentals of a scalable network in SPADnet-based PET systems. , 2015, , .		6
138	CMOS SPAD Based on Photo-Carrier Diffusion Achieving PDP >40% From 440 to 580 nm at 4 V Excess Bias. IEEE Photonics Technology Letters, 2015, 27, 2445-2448.	1.3	21
139	Fluorescence lifetime imaging to differentiate bound from unbound ICG-cRGD bothin vitroandin vivo. Proceedings of SPIE, 2015, , .	0.8	5
140	Time estimation with multichannel digital silicon photomultipliers. Physics in Medicine and Biology, 2015, 60, 2435-2452.	1.6	26
141	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, , .		26
142	A 1 Ã— 400 Backside-Illuminated SPAD Sensor With 49.7 ps Resolution, 30 pJ/Sample TDCs Fabricated in 3D CMOS Technology for Near-Infrared Optical Tomography. IEEE Journal of Solid-State Circuits, 2015, 50, 2406-2418.	3.5	87
143	A first single-photon avalanche diode fabricated in standard SOI CMOS technology with a full characterization of the device. Optics Express, 2015, 23, 13200.	1.7	47
144	UV-Sensitive Low Dark-Count PureB Single-Photon Avalanche Diode. IEEE Transactions on Electron Devices, 2014, 61, 3768-3774.	1.6	31

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145	A 65k pixel, 150k frames-per-second camera with global gating and micro-lenses suitable for fluorescence lifetime imaging. Proceedings of SPIE, 2014, 9141, .	0.8	6
146	Distributed coincidence detection for multi-ring based PET systems. , 2014, , .		4
147	Timing optimization utilizing order statistics and multichannel digital silicon photomultipliers. Optics Letters, 2014, 39, 552.	1.7	11
148	Architecture and applications of a high resolution gated SPAD image sensor. Optics Express, 2014, 22, 17573.	1.7	94
149	Measurement and modeling of microlenses fabricated on single-photon avalanche diode arrays for fill factor recovery. Optics Express, 2014, 22, 4202.	1.7	70
150	(Invited) Fabrication of Pure-GaB Ge-on-Si Photodiodes for Well-Controlled 100-pA-Level Dark Currents. ECS Transactions, 2014, 64, 737-745.	0.3	3
151	A 1024$,imes,$8, 700-ps Time-Gated SPAD Line Sensor for Planetary Surface Exploration With Laser Raman Spectroscopy and LIBS. IEEE Journal of Solid-State Circuits, 2014, 49, 179-189.	3.5	83
152	Single-Photon Avalanche Diode Imagers Applied to Near-Infrared Imaging. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 291-298.	1.9	18
153	Single-photon imaging in complementary metal oxide semiconductor processes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130100.	1.6	110
154	A Substrate Isolated CMOS SPAD Enabling Wide Spectral Response and Low Electrical Crosstalk. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 299-305.	1.9	54
155	A Flexible Ultrathin-Body Single-Photon Avalanche Diode With Dual-Side Illumination. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 276-283.	1.9	9
156	A $780 imes 800~{mu}hbox{m}^2$ Multichannel Digital Silicon Photomultiplier With Column-Parallel Time-to-Digital Converter and Basic Characterization. IEEE Transactions on Nuclear Science, 2014, 61, 44-52.	1.2	20
157	SPADnet: Embedded coincidence in a smart sensor network for PET applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 734, 122-126.	0.7	17
158	SPADnet network modeling, simulation and emulation. , 2014, , .		2
159	A Preliminary Study on the Environmental Dependences of Avalanche Propagation in Silicon. IEEE Transactions on Electron Devices, 2013, 60, 1028-1033.	1.6	0
160	A 19.6 ps, FPGA-Based TDC With Multiple Channels for Open Source Applications. IEEE Transactions on Nuclear Science, 2013, 60, 2203-2208.	1.2	56
161	The performance of 2D array detectors for light sheet based fluorescence correlation spectroscopy. Optics Express, 2013, 21, 8652.	1.7	66
162	Timing optimization of a H-tree based digital silicon photomultiplier. Journal of Instrumentation, 2013, 8, P09016-P09016.	0.5	14

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163	First characterization of the SPADnet sensor: a digital silicon photomultiplier for PET applications. Journal of Instrumentation, 2013, 8, C12026-C12026.	0.5	7
164	Toward One Giga Frames per Second â€" Evolution of in Situ Storage Image Sensors. Sensors, 2013, 13, 4640-4658.	2.1	56
165	Comparison of digital and analog silicon photomultiplier for positron emission tomography application. , 2013, , .		2
166	The Tipsy single soft photon detector and the Trixy ultrafast tracking detector. Journal of Instrumentation, 2013, 8, C01036-C01036.	0.5	3
167	A 3.3-to-25V all-digital charge pump based system with temperature and load compensation for avalanche photodiode cameras with fixed sensitivity. Journal of Instrumentation, 2013, 8, P03013-P03013.	0.5	3
168	EndoTOFPET-US: a novel multimodal tool for endoscopy and positron emission tomography. Journal of Instrumentation, 2013, 8, C04002-C04002.	0.5	25
169	A 4 Ã— 4 Ã— 416 digital SiPM array with 192 TDCs for multiple high-resolution timestamp acquisition. Journal of Instrumentation, 2013, 8, P05024-P05024.	0.5	36
170	An Electric Field Volume Integral Equation Approach to Simulate Surface Plasmon Polaritons. Advanced Electromagnetics, 2013, 2, 15.	0.7	2
171	A wide spectral range single-photon avalanche diode fabricated in an advanced 180 nm CMOS technology. Optics Express, 2012, 20, 5849.	1.7	66
172	FPGA implementation of a 32x32 autocorrelator array for analysis of fast image series. Optics Express, 2012, 20, 17767.	1.7	39
173	Sensor network architecture for a fully digital and scalable SPAD based PET system. , 2012, , .		14
174	Multi-channel digital SiPMs: Concept, analysis and implementation. , 2012, , .		43
175	A Time-Resolved, Low-Noise Single-Photon Image Sensor Fabricated in Deep-Submicron CMOS Technology. IEEE Journal of Solid-State Circuits, 2012, 47, 1394-1407.	3.5	141
176	Fluorescent magnetic bead and cell differentiation/counting using a CMOS SPAD matrix. Sensors and Actuators B: Chemical, 2012, 174, 609-615.	4.0	14
177	Optically-Clocked Instruction Set Extensions for High Efficiency Embedded Processors. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 604-615.	3.5	1
178	A fully-integrated 780×800μm² multi-digital silicon photomultiplier with column-parallel time-to-digital converter. , 2012, , .		8
179	A 128-Channel, 8.9-ps LSB, Column-Parallel Two-Stage TDC Based on Time Difference Amplification for Time-Resolved Imaging. IEEE Transactions on Nuclear Science, 2012, 59, 2463-2470.	1.2	81
180	A Handheld Intra-Operative Î²+ Sensing System. Procedia Engineering, 2011, 25, 988-991.	1.2	1

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182	Fast single-photon avalanche diode arrays for laser Raman spectroscopy. Optics Letters, 2011, 36, 3672.	1.7	42
183	Hybrid polymer microlens arrays with high numerical apertures fabricated using simple ink-jet printing technique. Optical Materials Express, 2011, 1, 259.	1.6	89
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