

Journal Articles

- [1] Melissa M. Wu et al. "Autocorrelation Bias in Diffuse Correlation Spectroscopy Observable via SPAD Arrays". In: *IEEE Journal of Selected Topics in Quantum Electronics* 32.4: Adv. Biophoton. in Emerg. (July 2026), pp. 1–13. ISSN: 1558-4542. DOI: 10.1109/JSTQE.2025.3637165.
- [2] Till Dieminger et al. "An ultrafast plenoptic-camera system for high-resolution 3D particle tracking in unsegmented scintillators". In: *Nature Communications* (Mar. 2026). ISSN: 2041-1723. DOI: 10.1038/s41467-026-70918-x.
- [3] Christopher Moore et al. "Characterization of a fiber-coupled SPAD camera system for deep-tissue blood-flow measurement using diffuse correlation spectroscopy". In: *Biomedical Optics Express* (Mar. 2026). ISSN: 2156-7085. DOI: 10.1364/B0E.588814.
- [4] Halil Kerim Yildirim et al. "Room-temperature, 96×96 pixel 3D-stacked InGaAs/InP SPAD sensor with complementary gating for flash LiDAR". In: *Optics Express* 34.3 (Feb. 2026), p. 5064. ISSN: 1094-4087. DOI: 10.1364/OE.585267.
- [5] Faraneh Fathi et al. "Time-resolved Laser Speckle Contrast Imaging (TR-LSCI) of Cerebral Blood Flow". In: *IEEE Transactions on Medical Imaging* 44.3 (2025), pp. 1206–1217. ISSN: 1558-254X. DOI: 10.1109/TMI.2024.3486084.
- [6] Shantanu Gupta et al. "Predicting Important Photons for Energy-Efficient Single-Photon Videography". In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* (2025), pp. 1–17. ISSN: 1939-3539. DOI: 10.1109/TPAMI.2025.3598767.
- [7] Vikas Pandey et al. "Real-time wide-field fluorescence lifetime imaging via single-snapshot acquisition for biomedical applications". In: *Photonix* 6.1 (Dec. 2025). ISSN: 2662-1991. DOI: 10.1186/s43074-025-00216-0.
- [8] Faraneh Fathi et al. "Using Latent Diffusion Model to Enhance Time-Resolved Laser Speckle Contrast Imaging (TR-LSCI) of Cerebral Blood Flow". In: *Biomedical Optics Express* 16.10 (Sept. 2025), p. 3895. ISSN: 2156-7085. DOI: 10.1364/B0E.567377.
- [9] Nathan Ronceray et al. "Wide-field fluorescence lifetime imaging of single molecules with a gated single-photon camera". In: *Light: Science & Applications* 14.1 (Aug. 2025). ISSN: 2047-7538. DOI: 10.1038/s41377-025-01901-2.
- [10] Audrey Eshun et al. "3D quantum ghost imaging microscope". In: *Optica* 12.7 (July 2025), p. 1109. ISSN: 2334-2536. DOI: 10.1364/OPTICA.565248.
- [11] Duncan P. Ryan et al. "Time-resolved detectors for quantum ghost imaging". In: *The European Physical Journal Plus* 140.6 (June 2025). ISSN: 2190-5444. DOI: 10.1140/epjp/s13360-025-06393-y.

- [12] Samira Frey et al. "Optimizing photon capture: advancements in amorphous silicon-based microchannel plates". In: *Communications Engineering* 4.1 (Apr. 2025). ISSN: 2731-3395. DOI: 10.1038/s44172-025-00394-6.
- [13] Lucas Kreiss et al. "Beneath the surface: revealing deep-tissue blood flow in human subjects with massively parallelized diffuse correlation spectroscopy". In: *Neurophotonics* 12.02 (Apr. 2025). ISSN: 2329-423X. DOI: 10.1117/1.NPh.12.2.025007.
- [14] Shay Elmalem et al. "Massively multiplexed wide-field photon correlation sensing". In: *Optica* 12.4 (Mar. 2025), p. 451. ISSN: 2334-2536. DOI: 10.1364/OPTICA.550498.
- [15] Joseph Ferrantini et al. "Multifrequency-resolved Hanbury Brown–Twiss effect". In: *APL Photonics* 10.2 (Feb. 2025). ISSN: 2378-0967. DOI: 10.1063/5.0226069.
- [16] Jakub Jirsa et al. "Fast data-driven spectrometer with direct measurement of time and frequency for multiple single photons". In: *Optics Express* 33.5 (Feb. 2025), p. 9962. ISSN: 1094-4087. DOI: 10.1364/OE.543511.
- [17] Sergei Kulkov et al. "Inter-pixel cross-talk as background to two-photon interference effects in SPAD arrays". In: *Journal of Instrumentation* 19.12 (Dec. 2024), P12015. ISSN: 1748-0221. DOI: 10.1088/1748-0221/19/12/P12015.
- [18] Francesca Santoro et al. "GPU-based data processing for speeding-up correlation plenoptic imaging". In: *The European Physical Journal Plus* 139.12 (Dec. 2024). ISSN: 2190-5444. DOI: 10.1140/epjp/s13360-024-05791-y.
- [19] Clémence Gentner et al. "Toward video-rate compressive spontaneous Raman imaging via single-photon avalanche diode arrays". In: *Optics Letters* 49.22 (Nov. 2024), p. 6573. ISSN: 1539-4794. DOI: 10.1364/OL.538993.
- [20] Utku Karaca et al. "A new double multiplication region method to design high sensitivity and wide spectrum SPADs in standard CMOS technologies". In: *Scientific Reports* 14.1 (Nov. 2024). ISSN: 2045-2322. DOI: 10.1038/s41598-024-78070-6.
- [21] Vikas Pandey et al. "Deep learning-based temporal deconvolution for photon time-of-flight distribution retrieval". In: *Optics Letters* 49.22 (Nov. 2024), p. 6457. ISSN: 1539-4794. DOI: <https://doi.org/10.1364/OL.533923>.
- [22] Yayao Ma et al. "Light-field tomographic fluorescence lifetime imaging microscopy". In: *Proceedings of the National Academy of Sciences* 121.40 (Sept. 2024). ISSN: 1091-6490. DOI: 10.1073/pnas.2402556121.
- [23] Dominique Davenport et al. "Quantum ghost imaging microscopy depth-of-field study". In: *Optics Express* (Aug. 2024). DOI: 10.1364/opticaopen.26524138.
- [24] Clément Majorel et al. "Bio-inspired flat optics for directional 3D light detection and ranging". In: *npj Nanophotonics* 1.1 (Aug. 2024). ISSN: 2948-216X. DOI: 10.1038/s44310-024-00017-6.
- [25] Yatao Peng et al. "A 0.32×0.12 mm² Cryogenic BiCMOS 0.1–8.8 GHz Low Noise Amplifier Achieving 4 K Noise Temperature for SNWD Readout". In: *IEEE Transactions on Microwave Theory and Techniques* 72.4 (Apr. 2024), pp. 2179–2192. ISSN: 1557-9670. DOI: 10.1109/TMTT.2024.3354828.
- [26] Matthew Franks et al. "Demonstration of particle tracking with scintillating fibres read out by a SPAD array sensor and application as a neutrino active target". In: *The European Physical Journal C* 84.2 (Feb. 2024). ISSN: 1434-6052. DOI: 10.1140/epjc/s10052-024-12509-y.

- [27] Yang Lin et al. "Coupling a recurrent neural network to SPAD TCSPC systems for real-time fluorescence lifetime imaging". In: *Scientific Reports* 14.1 (Feb. 2024). ISSN: 2045-2322. DOI: 10.1038/s41598-024-52966-9.
- [28] Adrian Makowski et al. "Large reconfigurable quantum circuits with SPAD arrays and multimode fibers". In: *Optica* 11.3 (Feb. 2024), p. 340. ISSN: 2334-2536. DOI: 10.1364/OPTICA.506943.
- [29] Won-Yong Ha et al. "SPAD Developed in 55 nm Bipolar-CMOS-DMOS Technology Achieving Near 90% Peak PDP". In: *IEEE Journal of Selected Topics in Quantum Electronics* 30.1: Single-Photon Technologies (Jan. 2024), pp. 1–10. ISSN: 1558-4542. DOI: 10.1109/JSTQE.2023.3303678.
- [30] Myung-Jae Lee et al. "A 73% Peak PDP Single-Photon Avalanche Diode Implemented in 110 nm CIS Technology With Doping Compensation". In: *IEEE Journal of Selected Topics in Quantum Electronics* 30.1: Single-Photon Technologies (Jan. 2024), pp. 1–10. ISSN: 1558-4542. DOI: 10.1109/JSTQE.2023.3288674.
- [31] Feng Liu et al. "Doping Engineering for PDP Optimization in SPADs Implemented in 55-nm BCD Process". In: *IEEE Journal of Selected Topics in Quantum Electronics* 30.1: Single-Photon Technologies (Jan. 2024), pp. 1–7. ISSN: 1558-4542. DOI: 10.1109/JSTQE.2024.3351676.
- [32] Andrada Muntean et al. "On-Chip Fully Reconfigurable Artificial Neural Network in 16 nm FinFET for Positron Emission Tomography". In: *IEEE Journal of Selected Topics in Quantum Electronics* 30.1: Single-Photon Technologies (Jan. 2024), pp. 1–13. ISSN: 1558-4542. DOI: 10.1109/JSTQE.2023.3346957.
- [33] Arthur F. Petusseau et al. "Subsurface fluorescence time-of-flight imaging using a large-format single-photon avalanche diode sensor for tumor depth assessment". In: *Journal of Biomedical Optics* 29.01 (Jan. 2024). ISSN: 1083-3668. DOI: 10.1117/1.JBO.29.1.016004.
- [34] Tommaso Milanese et al. "LinoSPAD2: an FPGA-based, hardware-reconfigurable 512×1 single-photon camera system". In: *Optics Express* 31.26 (Dec. 2023), p. 44295. ISSN: 1094-4087. DOI: 10.1364/OE.505748.
- [35] Marcel Strauß et al. "Highly sensitive single-molecule detection of macromolecule ion beams". In: *Science Advances* 9.48 (Dec. 2023). ISSN: 2375-2548. DOI: 10.1126/sciadv.adj2801.
- [36] Gianlorenzo Massaro et al. "Correlated-photon imaging at 10 volumetric images per second". In: *Scientific Reports* 13.1 (Aug. 2023). ISSN: 2045-2322. DOI: 10.1038/s41598-023-39416-8.
- [37] Sizhuo Ma et al. "Seeing Photons in Color". In: *ACM Transactions on Graphics* 42.4 (July 2023), pp. 1–16. ISSN: 1557-7368. DOI: 10.1145/3592438.
- [38] Claudio Bruschini et al. "Challenges and prospects for multi-chip microlens imprints on front-side illuminated SPAD imagers". In: *Optics Express* 31.13 (June 2023), p. 21935. ISSN: 1094-4087. DOI: 10.1364/OE.488177.
- [39] Won-Yong Ha et al. "Single-photon avalanche diode fabricated in standard 55 nm bipolar-CMOS-DMOS technology with sub-20 V breakdown voltage". In: *Optics Express* 31.9 (Apr. 2023), p. 13798. ISSN: 1094-4087. DOI: 10.1364/OE.485424.
- [40] Michael A. Wayne et al. "Massively parallel, real-time multispeckle diffuse correlation spectroscopy using a 500×500 SPAD camera". In: *Biomedical Optics Express* 14.2 (Jan. 2023), p. 703. DOI: 10.1364/BOE.473992.

- [41] Ekin Kizilkan et al. “Guard-Ring-Free InGaAs/InP Single-Photon Avalanche Diode Based on a Novel One-Step Zn-Diffusion Technique”. In: *IEEE Journal of Selected Topics in Quantum Electronics* 28.5: Lidars and Photonic Radars (Sept. 2022), pp. 1–9. DOI: 10.1109/JSTQE.2022.3162527.
- [42] Michael Wayne et al. “A 500×500 Dual-Gate SPAD Imager With 100% Temporal Aperture and 1 ns Minimum Gate Length for FLIM and Phasor Imaging Applications”. In: *IEEE Transactions on Electron Devices* 69.6 (June 2022), pp. 2865–2872. DOI: 10.1109/TED.2022.3168249.
- [43] Francesco Gramuglia et al. “Sub-10 ps Minimum Ionizing Particle Detection With Geiger-Mode APDs”. In: *Frontiers in Physics* 10 (May 2022). Equally contributing last authorship. DOI: 10.3389/fphy.2022.849237.
- [44] Jason T. Smith et al. “In vitro and in vivo NIR fluorescence lifetime imaging with a time-gated SPAD camera”. In: *Optica* 9.5 (May 2022), p. 532. DOI: 10.1364/OPTICA.454790.
- [45] Francesco Gramuglia et al. “A Low-noise CMOS SPAD Pixel with 12.1 ps SPTR and 3 ns Dead Time”. In: *IEEE Journal of Selected Topics in Quantum Electronics* (2021), pp. 1–1. DOI: 10.1109/JSTQE.2021.3088216.
- [46] Francesco Gramuglia et al. “Engineering Breakdown Probability Profile for PDP and DCR Optimization in a SPAD Fabricated in a Standard 55nm BCD Process”. In: *IEEE Journal of Selected Topics in Quantum Electronics* (2021), pp. 1–1. DOI: 10.1109/JSTQE.2021.3114346.
- [47] Quint Houwink et al. “Theoretical minimum uncertainty of single-molecule localizations using a single-photon avalanche diode array”. In: *Optics Express* 29.24 (Nov. 2021), p. 39920. DOI: 10.1364/OE.439340.
- [48] Gur Lubin et al. “Resolving the Controversy in Biexciton Binding Energy of Cesium Lead Halide Perovskite Nanocrystals through Heralded Single-Particle Spectroscopy”. In: *ACS Nano* 15.12 (Nov. 2021), pp. 19581–19587. DOI: 10.1021/acsnano.1c06624.
- [49] Petr Bruza et al. “Single-photon avalanche diode imaging sensor for subsurface fluorescence LiDAR”. In: *Optica* 8.8 (Aug. 2021), p. 1126. DOI: 10.1364/OPTICA.431521.
- [50] Gur Lubin et al. “Heralded Spectroscopy Reveals Exciton-Exciton Correlations in Single Colloidal Quantum Dots”. In: *Nano Letters* 21.16 (Aug. 2021), pp. 6756–6763. DOI: 10.1021/acs.nanolett.1c01291.
- [51] Cristoforo Abbattista et al. “Towards Quantum 3D Imaging Devices”. In: *Applied Sciences* 11.14 (July 2021), p. 6414. DOI: 10.3390/app11146414.
- [52] Francesco Gramuglia et al. “Light Extraction Enhancement Techniques for Inorganic Scintillators”. In: *Crystals* 11.4 (Mar. 2021), p. 362. DOI: 10.3390/cryst11040362.
- [53] Vytautas Zickus et al. “Fluorescence lifetime imaging with a megapixel SPAD camera and neural network lifetime estimation”. In: *Scientific Reports* 10.1 (Dec. 2020). DOI: 10.1038/s41598-020-77737-0.
- [54] Sizhuo Ma et al. “Quanta burst photography”. In: *ACM Transactions on Graphics* 39.4 (July 2020). DOI: 10.1145/3386569.3392470.
- [55] Kazuhiro Morimoto et al. “A megapixel time-gated SPAD image sensor for 2D and 3D imaging applications”. In: *Optica* 4 (Apr. 2020), p. 346. DOI: 10.1364/OPTICA.386574.

- [56] Arin Ulku et al. "Wide-field time-gated SPAD imager for phasor-based FLIM applications". In: *Methods and Applications in Fluorescence* 8.2 (Feb. 2020), p. 024002. DOI: 10.1088/2050-6120/ab6ed7.
- [57] Myung-Jae Lee et al. "First Near-Ultraviolet- and Blue-Enhanced Backside-Illuminated Single-Photon Avalanche Diode Based on Standard SOI CMOS Technology". In: *IEEE Journal of Selected Topics in Quantum Electronics* 25.5 (2019), pp. 1–6. DOI: 10.1109/jstqe.2019.2918930.
- [58] Rinat Ankri et al. "Single-Photon, Time-Gated, Phasor-Based Fluorescence Lifetime Imaging through Highly Scattering Medium". In: *ACS Photonics* 7.1 (Dec. 2019), pp. 68–79. DOI: 10.1021/acsp Photonics.9b00874.
- [59] Gur Lubin et al. "Quantum correlation measurement with single photon avalanche diode arrays". In: *Optics Express* 27.23 (Oct. 2019), p. 32863. DOI: 10.1364/OE.27.032863.
- [60] Claudio Bruschini et al. "Single-photon avalanche diode imagers in biophotonics: review and outlook". In: *Light: Science & Applications* 8.1 (Sept. 2019). DOI: 10.1038/s41377-019-0191-5.
- [61] A. C. Ulku et al. "A 512×512 SPAD Image Sensor With Integrated Gating for Widefield FLIM". In: *IEEE Journal of Selected Topics in Quantum Electronics* 25.1 (Jan. 2019), pp. 1–12. ISSN: 1077-260X. DOI: 10.1109/JSTQE.2018.2867439.
- [62] Jan Buchholz et al. "Widefield High Frame Rate Single-Photon SPAD Imagers for SPIM-FCS". In: *Biophysical Journal* 114.10 (2018), pp. 2455–2464. ISSN: 0006-3495. DOI: 10.1016/j.bpj.2018.04.029. URL: <http://www.sciencedirect.com/science/article/pii/S000634951830523X>.
- [63] C. Bruschini et al. "A Sensor Network Architecture for Digital SiPM-Based PET Systems". In: *IEEE Transactions on Radiation and Plasma Medical Sciences* 2.6 (Nov. 2018), pp. 574–587. ISSN: 2469-7311. DOI: 10.1109/TRPMS.2018.2866953.
- [64] Ivan Michel Antolovic, Claudio Bruschini, and Edoardo Charbon. "Dynamic range extension for photon counting arrays". In: *Opt. Express* 26.17 (Aug. 2018), pp. 22234–22248. DOI: 10.1364/OE.26.022234. URL: <http://www.opticsexpress.org/abstract.cfm?URI=oe-26-17-22234>.
- [65] Huaiqi Huang et al. "Automatic hand phantom map generation and detection using decomposition support vector machines". In: *BioMedical Engineering OnLine* 17.1 (June 2018), p. 74. ISSN: 1475-925X. DOI: 10.1186/s12938-018-0502-8. URL: <https://doi.org/10.1186/s12938-018-0502-8>.
- [66] Samuel Burri, Claudio Bruschini, and Edoardo Charbon. "LinoSPAD: A Compact Linear SPAD Camera System with 64 FPGA-Based TDC Modules for Versatile 50 ps Resolution Time-Resolved Imaging". In: *Instruments* 1.1 (2017). ISSN: 2410-390X. DOI: 10.3390/instruments1010006. URL: <http://www.mdpi.com/2410-390X/1/1/6>.
- [67] C. Zhang et al. "Characterization of GigaRad Total Ionizing Dose and Annealing Effects on 28-nm Bulk MOSFETs". In: *IEEE Transactions on Nuclear Science* 64.10 (Oct. 2017), pp. 2639–2647. ISSN: 0018-9499. DOI: 10.1109/TNS.2017.2746719.
- [68] Ivan Michel Antolovic et al. "SPAD imagers for super resolution localization microscopy enable analysis of fast fluorophore blinking". In: *Scientific Reports* 7 (Mar. 2017), p. 44108. DOI: 10.1038/srep44108. URL: <https://doi.org/10.1038/srep44108>.

- [69] I. Antolovic et al. "Photon-Counting Arrays for Time-Resolved Imaging". In: *Sensors* 16.7 (June 2016), p. 1005. DOI: 10.3390/s16071005. URL: <https://doi.org/10.3390/s16071005>.
- [70] H. A. R. Homulle et al. "Compact solid-state CMOS single-photon detector array for in vivo NIR fluorescence lifetime oncology measurements". In: *Biomedical Optics Express* 7.5 (Apr. 2016), p. 1797. DOI: 10.1364/boe.7.001797. URL: <https://doi.org/10.1364/BOE.7.001797>.
- [71] Ivan Michel Antolovic et al. "Nonuniformity Analysis of a 65-kpixel CMOS SPAD Imager". In: *IEEE Trans. Electron Devices* 63.1 (Jan. 2016), pp. 57–64. DOI: 10.1109/ted.2015.2458295. URL: <https://doi.org/10.1109/TED.2015.2458295>.
- [72] Samuel Burri et al. "Architecture and applications of a high resolution gated SPAD image sensor". In: *Opt. Express* 22.14 (July 2014), p. 17573. DOI: 10.1364/oe.22.017573. URL: <https://doi.org/10.1364/OE.22.017573>.
- [73] C. Bruschini et al. "SPADnet: Embedded coincidence in a smart sensor network for PET applications". In: *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 734 (Jan. 2014), pp. 122–126. DOI: 10.1016/j.nima.2013.09.001. URL: <https://doi.org/10.1016/j.nima.2013.09.001>.
- [74] C. Mester et al. "A Handheld Intra-Operative $\beta+$ Sensing System". In: *Procedia Engineering* 25 (2011), pp. 988–991. DOI: 10.1016/j.proeng.2011.12.243. URL: <https://doi.org/10.1016/j.proeng.2011.12.243>.
- [75] C. Bruschini. "On the low-frequency EMI response of coincident loops over a conductive and permeable soil and corresponding background reduction schemes". In: *IEEE Trans. Geosci. Remote Sensing* 42.8 (Aug. 2004), pp. 1706–1719. DOI: 10.1109/tgrs.2004.830164. URL: <https://doi.org/10.1109/TGRS.2004.830164>.
- [76] K. De Bruyn et al. "EUDEM2: Overview and some early findings". In: *Journal of Mine Action* Issue 7.2 (Aug. 2003), pp. 92–95 & 103. URL: <http://commons.lib.jmu.edu/cisr-journal/vol7/iss2/40>.
- [77] Claudio Bruschini. "Commercial systems for the Direct Detection of Explosives for Explosive Ordnance Disposal Tasks". In: *Subsurface Sensing Technologies and Applications* 2.3 (2001), pp. 299–336. DOI: 10.1023/a:1011934523126. URL: <https://doi.org/10.1023/A:1011934523126>.
- [78] K. de Bruyn et al. "EUDEM: The European Union in Humanitarian Demining". In: *Journal of Mine Action* Issue 4.1 (2000), pp. 4–7, 73. URL: <http://commons.lib.jmu.edu/cisr-journal/vol4/iss1/3>.
- [79] Claudio Bruschini. "Metal Detectors in Civil Engineering and Humanitarian Demining: Overview and Tests of a Commercial Visualizing System". In: *INSIGHT – Non-Destructive Testing and Condition Monitoring* 42.2 (Feb. 2000), pp. 89–97. URL: <https://infoscience.epfl.ch/record/256980>.
- [80] Claudio Bruschini and Bertrand Gros. "A Survey of Research on Sensor Technology for Landmine Detection". In: *Journal of Humanitarian Demining* 2.1 (Dec. 1998), pp. 172–187. URL: <http://commons.lib.jmu.edu/cisr-journal/vol2/iss1/3>.
- [81] Claudio Bruschini et al. "Ground penetrating radar and imaging metal detector for antipersonnel mine detection". In: *Journal of Applied Geophysics* 40.1-3 (Oct. 1998), pp. 59–71. DOI: 10.1016/S0926-9851(97)00038-4. URL: [https://doi.org/10.1016/S0926-9851\(97\)00038-4](https://doi.org/10.1016/S0926-9851(97)00038-4).

- [82] M. Adamovich et al. "Measurement of the beauty production cross section in 350 GeV/c π -Cu interactions". In: *Nuclear Physics B* 519.1-2 (May 1998), pp. 19–36. DOI: 10.1016/S0550-3213(98)00209-0. URL: [https://doi.org/10.1016/S0550-3213\(98\)00209-0](https://doi.org/10.1016/S0550-3213(98)00209-0).
- [83] M. Adamovich et al. "A study of kinematical correlations between charmed particles produced in π -Cu interactions at $\sqrt{s} = 26$ GeV". In: *Physics Letters B* 385.1-4 (Sept. 1996), pp. 487–492. DOI: 10.1016/0370-2693(96)01024-6. URL: [https://doi.org/10.1016/0370-2693\(96\)01024-6](https://doi.org/10.1016/0370-2693(96)01024-6).
- [84] M Adamovich et al. "WA92: a fixed target experiment to trigger on and identify beauty particle decays". In: *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 379.2 (Sept. 1996), pp. 252–270. DOI: 10.1016/0168-9002(96)00480-9. URL: [https://doi.org/10.1016/0168-9002\(96\)00480-9](https://doi.org/10.1016/0168-9002(96)00480-9).
- [85] C. Baldanza et al. "Results from a MA16-based neural trigger in an experiment looking for beauty". In: *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 376.3 (July 1996), pp. 411–419. DOI: 10.1016/0168-9002(96)00159-3. URL: [https://doi.org/10.1016/0168-9002\(96\)00159-3](https://doi.org/10.1016/0168-9002(96)00159-3).
- [86] G.D. Barr et al. "Performance of an electromagnetic liquid krypton calorimeter based on a ribbon electrode tower structure". In: *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 370.2-3 (Feb. 1996), pp. 413–424. DOI: 10.1016/0168-9002(95)00800-4. URL: [https://doi.org/10.1016/0168-9002\(95\)00800-4](https://doi.org/10.1016/0168-9002(95)00800-4).
- [87] M. Adamovich et al. "Search for the decay $D_0 \rightarrow \mu^+ \mu^-$ ". In: *Physics Letters B* 353.4 (July 1995), pp. 563–570. DOI: 10.1016/0370-2693(95)00593-a. URL: [https://doi.org/10.1016/0370-2693\(95\)00593-a](https://doi.org/10.1016/0370-2693(95)00593-a).
- [88] C Baldanza et al. "Results from an on-line non-leptonic neural trigger implemented in an experiment looking for beauty". In: *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 361.3 (July 1995), pp. 506–518. DOI: 10.1016/0168-9002(95)00211-1. URL: [https://doi.org/10.1016/0168-9002\(95\)00211-1](https://doi.org/10.1016/0168-9002(95)00211-1).
- [89] M. Adamovich et al. "Study of Charm Correlations in π -N Interactions at $\sqrt{s} \approx 26$ GeV". In: *Physics Letters B* 348.1-2 (Mar. 1995). See also CERN-PPE-94-214, <https://cds.cern.ch/record/275060>, pp. 256–262. DOI: 10.1016/0370-2693(95)00205-y. URL: [https://doi.org/10.1016/0370-2693\(95\)00205-y](https://doi.org/10.1016/0370-2693(95)00205-y).
- [90] A. Beer et al. "The beauty contiguity trigger of the BEATRICE experiment: detector, readout and processor overview". In: *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 337.2-3 (Jan. 1994), pp. 280–294. DOI: 10.1016/0168-9002(94)91096-0. URL: [https://doi.org/10.1016/0168-9002\(94\)91096-0](https://doi.org/10.1016/0168-9002(94)91096-0).

Conference Proceedings

- [1] Luis Chavez et al. "Mesoscopic light-sheet fluorescence imaging for drug delivery and target engagement assessment". In: *Multimodal Biomedical Imaging XXI*. Ed. by Xavier Intes, Marien Ochoa, and Mohammad A. Yaseen. SPIE, Mar. 2026, p. 11. DOI: 10.1117/12.3080933.
- [2] Linlin Li et al. "High resolution SPAD array-based diffuse optical tomography facilitates longitudinal monitoring of osteosarcoma growth in mice". In: *Multimodal Biomedical Imaging XXI*. Ed. by Xavier Intes, Marien Ochoa, and Mohammad A. Yaseen. SPIE, Mar. 2026, p. 19. DOI: 10.1117/12.3079703.
- [3] Shantanu Gupta et al. "Predicting Important Photons for Energy-Efficient Single-Photon Videography". In: *Proceedings of the International Conference on Computational Photography (ICCP)*. 2025.
- [4] Sergei Kulkov et al. "Characterizing and exploiting cross-talk effect in SPAD arrays for two-photon interference". In: *Quantum Optics and Photon Counting 2025*. Ed. by Ivan Prochazka, Roman Sobolewski, and Josef Vojtech. Vol. 13525. International Society for Optics and Photonics. SPIE, 2025, p. 1352502. DOI: 10.1117/12.3058261.
- [5] Duncan Ryan et al. "Quantum Ghost Imaging for Live Bioimaging". In: *Optica Quantum 2.0 Conference and Exhibition*. Optica Publishing Group, 2025, QTu4C.6. DOI: 10.1364/QUANTUM.2025.QTu4C.6.
- [6] S. Bisi et al. "Achieving Sub-20 ps Resolution in Large Arrays of μ SiPMs for the DIGILOG Project". In: *2025 IEEE Nuclear Science Symposium (NSS), Medical Imaging Conference (MIC) and Room Temperature Semiconductor Detector Conference (RTSD)*. IEEE, Nov. 2025, pp. 1–2. DOI: 10.1109/nss/mic/rtsd57106.2025.11287428.
- [7] C. Bruschini and E. Charbon. "Digital and Hybrid Silicon Photomultipliers for High-Energy and Nuclear Physics Detectors". In: *2025 IEEE Nuclear Science Symposium (NSS), Medical Imaging Conference (MIC) and Room Temperature Semiconductor Detector Conference (RTSD)*. IEEE, Nov. 2025, pp. 1–2. DOI: 10.1109/nss/mic/rtsd57106.2025.11287371.
- [8] R. Dolenc et al. "Cryogenic Operation of Cmos Spads as Candidate Photodetectors for Lhcb Rich Upgrade II". In: *2025 IEEE Nuclear Science Symposium (NSS), Medical Imaging Conference (MIC) and Room Temperature Semiconductor Detector Conference (RTSD)*. IEEE, Nov. 2025, pp. 1–2. DOI: 10.1109/nss/mic/rtsd57106.2025.11286951.
- [9] K. Herweg et al. "The Influence of Depth of Interaction and External Cross-Talk on the Timing of BGO-Based Detectors with μ SiPMs for TOF-PET". In: *2025 IEEE Nuclear Science Symposium (NSS), Medical Imaging Conference (MIC) and Room Temperature Semiconductor Detector Conference (RTSD)*. IEEE, Nov. 2025, pp. 1–2. DOI: 10.1109/NSS/MIC/RTSD57106.2025.11286914.

- [10] Rok Dolenc et al. "SiPM and CMOS SPAD characterization at liquid nitrogen temperatures". In: vol. 20. 06. IOP Publishing, June 2025, P06052. DOI: 10.1088/1748-0221/20/06/P06052.
- [11] Kodai Kaneyasu et al. "PlatonSPAD: A novel SPAD sensor for high resolution neutrino detection". In: *2025 International Image Sensor Workshop (IISW), 2-5 June, 2025, Hyogo, Japan*. Paper P36. International Image Sensors Society, June 2025. URL: <https://imagesensors.org/2025-international-image-sensor-workshop/>.
- [12] Ekin Kizilkan et al. "Small Diameter SAG-based InGaAs/InP SPAD for 1550nm photon counting". In: *2025 International Image Sensor Workshop (IISW), 2-5 June, 2025, Hyogo, Japan*. Paper P22. International Image Sensors Society, June 2025. URL: <https://imagesensors.org/2025-international-image-sensor-workshop/>.
- [13] Yang Lin, Claudio Bruschini, and Edoardo Charbon. "Transporter: A 128x4 SPAD Imager with On-chip Encoder for Spiking Neural Network-based Processing". In: *2025 International Image Sensor Workshop (IISW), 2-5 June, 2025, Hyogo, Japan*. Paper P40. International Image Sensors Society, June 2025. URL: <https://imagesensors.org/2025-international-image-sensor-workshop/>.
- [14] Tommaso Milanese et al. "Reconfigurable, large-format D-ToF/photon-counting SPAD image sensors with embedded FPGA for scene adaptability". In: *2025 International Image Sensor Workshop (IISW), 2-5 June, 2025, Hyogo, Japan*. Paper R09.5. International Image Sensors Society, June 2025. URL: <https://imagesensors.org/2025-international-image-sensor-workshop/>.
- [15] Claudio E. Bruschini et al. "Teaching single-photon detection metrology with off-the-shelf CMOS SPAD detectors". In: *Quantum Sensing, Imaging, and Precision Metrology III*. Ed. by Selim M. Shahriar. SPIE, Mar. 2025, p. 81. DOI: 10.1117/12.3039867.
- [16] Luis Chavez et al. "Mesoscopic light-sheet imaging set-up for 3D SWIR fluorescence intensity and NIR fluorescence lifetime imaging". In: *Multimodal Biomedical Imaging XX*. Ed. by Xavier Intes, Marien Ochoa, and Mohammad A. Yaseen. SPIE, Mar. 2025, p. 3. DOI: 10.1117/12.3043453.
- [17] Paul Mos et al. "Interleaved gate acquisition: a low-frequency noise-immune approach to wide field FLIM with time-gated SPAD cameras". In: *Multiphoton Microscopy in the Biomedical Sciences XXV*. Ed. by Ammasi Periasamy, Peter T. So, and Karsten König. SPIE, Mar. 2025, p. 26. DOI: 10.1117/12.3043876.
- [18] Gregor Taylor et al. "Developing photodetectors for future RICH particle detector applications". In: *Photonic Instrumentation Engineering XII*. Ed. by Yakov Soskind and Lynda E. Busse. SPIE, Mar. 2025, p. 17. DOI: 10.1117/12.3041096.
- [19] Vikas Pandey et al. "Temporal Point Spread Function Deconvolution in Time-resolved Fluorescence Lifetime Imaging using Deep Learning Model". In: *Optica Biophotonics Congress: Biomedical Optics 2024 (Translational, Microscopy, OCT, OTS, BRAIN)*. OTS. Optica Publishing Group, 2024, OM1D.4. DOI: 10.1364/OTS.2024.OM1D.4.
- [20] Melissa M. Wu et al. "Efficient signal extraction for diffuse correlation spectroscopy with SPAD arrays at low photon regimes". In: *Optica Biophotonics Congress: Biomedical Optics 2024 (Translational, Microscopy, OCT, OTS, BRAIN)*. Translational. Optica Publishing Group, 2024, JS4A.40. DOI: 10.1364/translational.2024.js4a.40.

- [21] K. Herweg et al. "Investigating μ SiPMs to overcome the limits of BGO in ToF-PET". In: *2024 IEEE Nuclear Science Symposium (NSS), Medical Imaging Conference (MIC) and Room Temperature Semiconductor Detector Conference (RTSD)*. IEEE, Oct. 2024, pp. 1–2. DOI: 10.1109/NSS/MIC/RTSD57108.2024.10654922.
- [22] Utku Karaca et al. "10- μ m InGaAsP/InP SPADs for 1064 nm detection with 36% PDP and 118 ps timing jitter". In: *2024 International SPAD Sensor Workshop (ISSW), 4-6 June, Trento, Italy*. Paper R02.2. International Image Sensors Society, June 2024. URL: <https://imagesensors.org/2024-international-spad-sensor-workshop/>.
- [23] Varun Sundar et al. "Generalized Event Cameras". In: *2024 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. IEEE, June 2024, pp. 25007–25017. DOI: 10.1109/CVPR52733.2024.02362.
- [24] Claudio E. Bruschini and Edoardo Charbon. "A review of recent developments on CMOS single-photon avalanche diode-based cameras for biomedical time-resolved applications". In: *Reporters, Markers, Dyes, Nanoparticles, and Molecular Probes for Biomedical Applications XV*. Ed. by Ramesh Raghavachari and Mikhail Y. Berezin. Invited. SPIE, Mar. 2024, p. 25. DOI: 10.1117/12.3005151.
- [25] Dominique Davenport et al. "Ghost imaging using two SPAD array detectors: a parameter study towards the realization of a 3D quantum microscope". In: *Quantum Effects and Measurement Techniques in Biology and Biophotonics*. Ed. by Clarice Aiello, Sergey V. Polyakov, and Paige Derr. SPIE, Mar. 2024, p. 18. DOI: 10.1117/12.3002965.
- [26] Paul Mos et al. "SwissSPAD2/3: a family of natively digital, time gated SPAD cameras with continuous streaming at up to 100 kfps and picosecond system-level synchronization for quantum imaging applications". In: *Quantum Sensing, Imaging, and Precision Metrology II*. Ed. by Selim M. Shahriar and Jacob Scheuer. SPIE, Mar. 2024, p. 97. DOI: 10.1117/12.2692931.
- [27] Paul Mos et al. "Piccolo gated: a CMOS 32x32 SPAD camera with all-solid-state nanosecond time gating and PCIe readout for single-photon time-domain DCS and near-infrared optical tomography". In: *Quantum Sensing and Nano Electronics and Photonics XX*. Ed. by Manijeh Razeghi, Giti A. Khodaparast, and Miriam S. Vitiello. SPIE, Mar. 2024, p. 10. DOI: 10.1117/12.2692934.
- [28] Andrei Nomerotski et al. "Fast Two-Photon Interferometer Capable of Spectral Binning for Quantum Telescopy". In: *Optica Quantum 2.0 Conference and Exhibition*. QUANTUM. Optica Publishing Group, 2023, QM2B.4. DOI: 10.1364/QUANTUM.2023.QM2B.4.
- [29] R. Dolenc et al. "Neutron radiation hardness of single-photon avalanche diodes for future RICH detectors". In: *2023 IEEE Nuclear Science Symposium, Medical Imaging Conference and International Symposium on Room-Temperature Semiconductor Detectors (NSS MIC RTSD)*. IEEE, Nov. 2023, pp. 1–1. DOI: 10.1109/NSSMICRTSD49126.2023.10337871.
- [30] S. Gundacker et al. "DIGILOG: A digital-analog SiPM towards 10 ps prompt-photon tagging in TOF-PET". In: *2023 IEEE Nuclear Science Symposium, Medical Imaging Conference and International Symposium on Room-Temperature Semiconductor Detectors (NSS MIC RTSD)*. IEEE, Nov. 2023, pp. 1–1. DOI: 10.1109/NSSMICRTSD49126.2023.10338522.
- [31] A. Muntean et al. "On-chip artificial neural network for PET source position reconstruction". In: *2023 IEEE Nuclear Science Symposium, Medical Imaging Conference and International Symposium on Room-Temperature Semiconductor Detectors (NSS MIC RTSD)*. IEEE, Nov. 2023, pp. 1–1. DOI: 10.1109/NSSMICRTSD49126.2023.10338009.

- [32] Felipe Gutierrez-Barragan et al. "Learned Compressive Representations for Single-Photon 3D Imaging". In: *2023 IEEE/CVF International Conference on Computer Vision (ICCV)*. IEEE, Oct. 2023, pp. 10722–10732. DOI: 10.1109/ICCV51070.2023.00987.
- [33] Varun Sundar et al. "SoDaCam: Software-defined Cameras via Single-Photon Imaging". In: *2023 IEEE/CVF International Conference on Computer Vision (ICCV)*. IEEE, Oct. 2023, pp. 8131–8142. DOI: 10.1109/ICCV51070.2023.00750.
- [34] E. Kizilkan et al. "Extended Temperature Modeling of InGaAs/InP SPADs". In: *ESSDERC 2023 - IEEE 53rd European Solid-State Device Research Conference (ESSDERC)*. IEEE, Sept. 2023, pp. 140–143. DOI: 10.1109/ESSDERC59256.2023.10268545.
- [35] Ming-Lo Wu et al. "Single-Photon Avalanche Diode for Scalable Particle Detection". In: *IEEE EUROCON 2023 - 20th International Conference on Smart Technologies*. IEEE, July 2023, pp. 123–127. DOI: 10.1109/EUROCON56442.2023.10199085.
- [36] Utku Karaca et al. "A NIR Enhanced SPAD Fabricated in 110 nm CIS Technology with 78% PDP at 500 nm". In: *2023 International Image Sensor Workshop (IISW), 21-25 May, Crieff Hydro, Scotland, United Kingdom*. Paper R8.3. International Image Sensors Society, May 2023. URL: <https://imagesensors.org/>.
- [37] Feng Liu et al. "Doping Engineering for PDP Optimization in SPADs Implemented in 55-nm BCD Process". In: *2023 International Image Sensor Workshop (IISW), 21-25 May, Crieff Hydro, Scotland, United Kingdom*. Paper R8.6. International Image Sensors Society, May 2023. URL: <https://imagesensors.org/>.
- [38] Xavier Michalet et al. "NIR fluorescence lifetime macroscopic imaging with a novel time-gated SPAD camera". In: *Multiphoton Microscopy in the Biomedical Sciences XXIII*. Ed. by Ammasi Periasamy, Peter T. So, and Karsten König. SPIE, Apr. 2023, p. 23. DOI: 10.1117/12.2649227.
- [39] Claudio E. Bruschini et al. "LinoSPAD2: a 512x1 linear SPAD camera with system-level 135-ps SPTR and a reconfigurable computational engine for time-resolved single-photon imaging". In: *Quantum Sensing and Nano Electronics and Photonics XIX*. Ed. by Manijeh Razeghi, Giti A. Khodaparast, and Miriam S. Vitiello. Invited presentation. SPIE, Mar. 2023, p. 58. DOI: 10.1117/12.2652248.
- [40] Claudio E. Bruschini et al. "High-efficiency fill factor recovery using refractive microlens arrays imprinted on 0.5–256 kpixel front-side illuminated SPAD imagers". In: *Advanced Fabrication Technologies for Micro/Nano Optics and Photonics XVI*. Ed. by Georg von Freymann, Eva Blasco, and Debashis Chanda. SPIE, Mar. 2023, p. 48. DOI: 10.1117/12.2652962.
- [41] Gur Lubin et al. "Heralded spectroscopy: a new single-particle probe for nanocrystal photophysics". In: *Single Molecule Spectroscopy and Superresolution Imaging XVI*. Ed. by Ingo Gregor, Rainer Erdmann, and Felix Koberling. SPIE, Mar. 2023, p. 3. DOI: 10.1117/12.2650463.
- [42] Marcel Strauß et al. "Superconducting quantum detectors and single photon charge control for mass spectrometry". In: *Quantum Sensing, Imaging, and Precision Metrology*. Ed. by Selim M. Shahriar and Jacob Scheuer. SPIE, Mar. 2023, p. 66. DOI: 10.1117/12.2657258.
- [43] Jason T. Smith et al. "Characterization of a large Gated SPAD camera for in vivo Macroscopic Fluorescence Lifetime Imaging". In: *Biophotonics Congress: Biomedical Optics 2022 (Translational, Microscopy, OCT, OTS, BRAIN)*. Optica Publishing Group, 2022. DOI: 10.1364/TRANSLATIONAL.2022.TW4B.5.

- [44] Ming-Lo Wu et al. “CMOS SPADs for High Radiation Environments”. In: *IEEE Nuclear Science Symposium, Milan, Italy*. Nov. 2022. DOI: 10.1109/NSS/MIC44845.2022.10399335.
- [45] Pouyan Keshavarzian et al. “Low-noise high-dynamic-range single-photon avalanche diodes with integrated PQAR circuit in a standard 55nm BCD process”. In: *Advanced Photon Counting Techniques XVI*. Ed. by Mark A. Itzler, K. Alex McIntosh, and Joshua C. Bienfang. SPIE, May 2022. DOI: 10.1117/12.2618349.
- [46] Xavier Michalet et al. “NIR fluorescence lifetime macroscopic imaging with a time-gated SPAD camera”. In: *Multiphoton Microscopy in the Biomedical Sciences XXII*. Ed. by Ammasi Periasamy, Peter T. So, and Karsten König. SPIE, Mar. 2022. DOI: 10.1117/12.2607833.
- [47] A. Morelle et al. “Deep cryogenic operation of 55 nm CMOS SPADs for quantum information and metrology applications”. In: *Quantum Information and Measurement VI 2021*. Optica Publishing Group, 2021. DOI: 10.1364/QIM.2021.M2B.7.
- [48] Giancarlo Sportelli et al. “Towards the ideal PET detector: a scalable architecture with high intrinsic spatial resolution, DOI and sub-200 ps TOF capability”. In: *IEEE Nuclear Science Symposium, Yokohama, Japan (virtual event)*. Oct. 2021.
- [49] Francesco Gramuglia et al. “SPAD Microcells with 12.1 ps SPTR for SiPMs in TOF-PET Applications”. In: *IEEE Nuclear Science Symposium, Yokohama, Japan (virtual event)*. IEEE, Oct. 2021. DOI: 10.1109/NSS/MIC44867.2021.9875811.
- [50] Francesco Gramuglia et al. “Architecture and Characterization of a CMOS 3D-Stacked FSI Multi-Channel Digital SiPM for Time-of-Flight PET Applications”. In: *IEEE Nuclear Science Symposium, Yokohama, Japan (virtual event)*. IEEE, Oct. 2021. DOI: 10.1109/NSS/MIC44867.2021.9875625.
- [51] N. Lusardi et al. “FPGA-based SiPM Timestamp Detection Setup for High Timing Resolution TOF-PET Application”. In: *IEEE Nuclear Science Symposium, Yokohama, Japan (virtual event)*. IEEE, Oct. 2021. DOI: 10.1109/NSS/MIC44867.2021.9875636.
- [52] Francesco Gramuglia et al. “CMOS 3D-Stacked FSI Multi-Channel Digital SiPM for Time-of-Flight Vision Applications”. In: *2021 International Image Sensor Workshop (IISW), 20-23 September 2021, Online*. Paper R19. International Image Sensors Society, Sept. 2021, pp. 69–72. URL: <https://imagesensors.org/>.
- [53] Sizhuo Ma et al. “Quanta Burst Photography”. In: *2021 International Image Sensor Workshop (IISW), 20-23 September 2021, Online*. Paper R12. International Image Sensors Society, Sept. 2021, pp. 41–44. URL: <https://imagesensors.org/>.
- [54] Mario Stipcevic et al. “Random flip-flop: adding quantum randomness to digital circuits for improved cyber security, artificial intelligence and more”. In: *Emerging Imaging and Sensing Technologies for Security and Defence VI*. Ed. by Richard C. Hollins et al. SPIE, Sept. 2021. DOI: 10.1117/12.2597842.
- [55] Arin Can Ulku et al. “A 500×500 Dual-Gate SPAD Imager with 100% Temporal Aperture and 1 ns Minimum Gate Width for FLIM and Phasor Imaging Applications”. In: *2021 International Image Sensor Workshop (IISW), 20-23 September 2021, Online*. Paper R46. International Image Sensors Society, Sept. 2021, pp. 304–307. URL: <https://imagesensors.org/>.
- [56] Gianlorenzo Massaro et al. “Towards quantum 3D imaging devices”. In: *Photonics for Quantum*. SPIE, July 2021. DOI: 10.1117/12.2600791.

- [57] Ron Tenne et al. "SPAD array technology enables fluctuation-contrast super-resolution in a confocal microscope". In: *Advances in Microscopic Imaging III*. Ed. by Emmanuel Beaupaire, Adela Ben-Yakar, and YongKeun Park. Optical Society of America, June 2021, ES2A.1. DOI: 10.1117/12.2615683. URL: <http://www.osapublishing.org/abstract.cfm?URI=ECBO-2021-ES2A.1>.
- [58] Francesco Gramuglia et al. "Light Extraction Enhancement Techniques for Inorganic Scintillators". In: *IEEE Nuclear Science Symposium, Boston, USA (virtual event)*. First Place NSS Student Paper Award. Nov. 2020. DOI: 10.1109/NSS/MIC42677.2020.9507921.
- [59] Francesco Gramuglia et al. "CMOS 3D-Stacked FSI Multi-Channel Digital SiPM for Time-of-Flight PET Applications". In: *IEEE Nuclear Science Symposium, Boston, USA (virtual event)*. Nov. 2020. DOI: 10.1109/NSS/MIC42677.2020.9507833.
- [60] Ivan Michel Antolovic et al. "Optical-stack optimization for improved SPAD photon detection efficiency". In: *Quantum Sensing and Nano Electronics and Photonics XVI*. Vol. 10926. 2019. DOI: 10.1117/12.2511301.
- [61] Andrei Ardelean et al. "Fluorescence lifetime imaging with a single-photon SPAD array using long overlapping gates: an experimental and theoretical study". In: *Multiphoton Microscopy in the Biomedical Sciences XIX*. Vol. 10882. 2019. DOI: 10.1117/12.2511287.
- [62] Arin Can Ulku et al. "Phasor-based widefield FLIM using a gated 512 × 512 single-photon SPAD imager". In: *Multiphoton Microscopy in the Biomedical Sciences XIX*. Vol. 10882. 2019. DOI: 10.1117/12.2511148.
- [63] Scott Lindner et al. "A Close-in LiDAR for Diffusive Media based on a 32 × 32 CMOS SPAD Image Sensor". In: *2019 International Image Sensor Workshop (IISW), 23-27 June 2019, Snowbird, Utah, USA*. June 2019. URL: <https://imagesensors.org/2019-papers/>.
- [64] Paramanand Chandramouli et al. "A Bit Too Much? High Speed Imaging from Sparse Photon Counts". In: *2019 IEEE International Conference on Computational Photography (ICCP)*. IEEE, May 2019. DOI: 10.1109/ICCPHOT.2019.8747325.
- [65] Sreenil Saha et al. "Time Domain NIRS Optode based on Null/Small Source-Detector Distance for Wearable Applications". In: *2019 IEEE Custom Integrated Circuits Conference (CICC)*. Invited Presentation. IEEE, Apr. 2019. DOI: 10.1109/CICC.2019.8780320.
- [66] E. Charbon, C. Bruschini, and M. Lee. "3D-Stacked CMOS SPAD Image Sensors: Technology and Applications". In: *2018 25th IEEE International Conference on Electronics, Circuits and Systems (ICECS)*. Invited Review Paper. Dec. 2018, pp. 1–4. DOI: 10.1109/ICECS.2018.8617983.
- [67] Francesco Gramuglia et al. "Light Extraction Enhancement in Scintillation Crystals Using Thin Film Coatings". In: *IEEE Nuclear Science Symposium, Sydney, Australia*. Nov. 2018. DOI: 10.1109/NSSMIC.2018.8824270.
- [68] Andrada Muntean et al. "Tradeoffs in Cherenkov Detection for Positron Emission Tomography". In: *IEEE Nuclear Science Symposium, Sydney, Australia*. Nov. 2018. DOI: 10.1109/NSSMIC.2018.8824430.
- [69] Claudio Bruschini et al. "Monolithic SPAD Arrays for High-Performance, Time-Resolved Single-Photon Imaging". In: *2018 International Conference on Optical MEMS and Nanophotonics (OMN)*. Lausanne, Switzerland: IEEE, July 2018, pp. 1–5. DOI: 10.1109/OMN.2018.8454654. URL: <https://omn2018.epfl.ch/>.

- [70] Myung-Jae Lee, Claudio Bruschini, and Edoardo Charbon. "CMOS-Based Single-Photon Detectors: Technology and Applications". In: *23rd OptoElectronics and Communications Conference (OECC2018), 2-6 July, Jeju, Korea*. Invited Presentation. July 2018. DOI: 10.1109/OECC.2018.8730044. URL: <http://oecc2018.org/>.
- [71] Piotr M. Wargocki et al. "Imaging Free and Bound NADH Towards Cancer Tissue Detection Using FLIM System Based on SPAD Array". In: *2017 European Conference on Lasers and Electro-Optics and European Quantum Electronics Conference*. Optical Society of America, 2017, JSIII-2-1. DOI: 10.1109/CLEOE-EQEC.2017.8087784. URL: http://www.osapublishing.org/abstract.cfm?URI=CLEO_Europe-2017-JSIII_2_1.
- [72] Francesco Gramuglia et al. "Towards 10ps SPTR and Ultra-Low DCR in SiPMs Through the Combination of Microlenses and Photonic Crystals". In: *IEEE Nuclear Science Symposium, Atlanta, GA, USA*. Oct. 2017. DOI: 10.1109/NSSMIC.2017.8532951.
- [73] Arnout Beckers et al. "Cryogenic Characterization of 28 nm Bulk CMOS Technology for Quantum Computing". In: *2017 47th European Solid-State Device Research Conference (ESSDERC)*. Leuven, Belgium: IEEE, Sept. 2017. DOI: 10.1109/ESSDERC.2017.8066592.
- [74] Huaiqi Huang et al. "Multi-modality Sensory Feedback System for Upper Limb Amputees". In: *First New Generation of Circuits and Systems Conference (NGCAS), Genova, Italy*. IEEE, Sept. 2017, pp. 193-196. DOI: 10.1109/NGCAS.2017.62. URL: <https://ngcas2017.org/>.
- [75] C.-M. Zhang et al. "Total Ionizing Dose Effects on Analog Performance of 28 nm bulk MOSFETs". In: *2017 47th European Solid-State Device Research Conference (ESSDERC)*. Leuven, Belgium: IEEE, Sept. 2017, pp. 30-33. DOI: 10.1109/ESSDERC.2017.8066584.
- [76] Arin Ulku et al. "A 512×512 SPAD Image Sensor with Built-In Gating for Phasor Based Real-Time siFLIM". In: *2017 International Image Sensor Workshop (IISW), 30 May - 2 June 2017, Hiroshima, Japan*. May 2017. URL: <http://www.imagesensors.org/Past%20Workshops/2017%20Workshop/2017%20Papers/R20.pdf>.
- [77] Claudio Bruschini, Harald Homulle, and Edoardo Charbon. "Ten years of biophotonics single-photon SPAD imager applications: retrospective and outlook". In: *Multiphoton Microscopy in the Biomedical Sciences XVII*. Ed. by Ammasi Periasamy et al. SPIE, Feb. 2017. DOI: 10.1117/12.2256247. URL: <https://doi.org/10.1117/12.2256247>.
- [78] C.-M. Zhang et al. "GigaRad Total Ionizing Dose and Post-Irradiation Effects on 28 nm Bulk MOSFETs". In: *IEEE Nuclear Science Symposium, Strasbourg, France*. Oct. 2016, pp. 1-4. DOI: 10.1109/NSSMIC.2016.8069869.
- [79] A. Pezzotta et al. "Impact of GigaRad Ionizing Dose on 28 nm bulk MOSFETs for future HL-LHC". In: *2016 46th European Solid-State Device Research Conference (ESSDERC)*. IEEE, Sept. 2016. DOI: 10.1109/ESSDERC.2016.7599608. URL: <https://doi.org/10.1109/essderc.2016.7599608>.
- [80] Huaiqi Huang et al. "EMG pattern recognition using decomposition techniques for constructing multiclass classifiers". In: *2016 6th IEEE International Conference on Biomedical Robotics and Biomechatronics (BioRob)*. IEEE, June 2016. DOI: 10.1109/BIOROB.2016.7523810. URL: <https://doi.org/10.1109/biorob.2016.7523810>.

- [81] Samuel Burri et al. "LinoSPAD: a time-resolved 256×1 CMOS SPAD line sensor system featuring 64 FPGA-based TDC channels running at up to 8.5 giga-events per second". In: *Optical Sensing and Detection IV*. Ed. by Francis Berghmans and Anna G. Mignani. SPIE-Intl Soc Optical Eng, Apr. 2016. DOI: 10.1117/12.2227564. URL: <https://doi.org/10.1117/12.2227564>.
- [82] Ivan Michel Antolovic et al. "Analyzing blinking effects in super resolution localization microscopy with single-photon SPAD imagers". In: *Single Molecule Spectroscopy and Super-resolution Imaging IX*. Ed. by Jörg Enderlein et al. San Francisco, CA, USA: SPIE-Intl Soc Optical Eng, Mar. 2016. DOI: 10.1117/12.2211430. URL: <https://doi.org/10.1117/12.2211430>.
- [83] D. Cortinovis. "EndoTOFPET-US: an endoscopic Positron Emission Tomography detector for a novel multimodal medical imaging tool". In: *Proc. 53rd International Winter Meeting on Nuclear Physics, 26-30 January 2015, Bormio, Italy*. On behalf of the EndoTOFPET-US collaboration. PoS (Bormio2015), 2015. URL: https://pos.sissa.it/archive/conferences/238/045/Bormio2015_045.pdf.
- [84] Martijn Bijwaard et al. "Fundamentals of a scalable network in SPADnet-based PET systems". In: *2015 IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), 31 Oct - 7 Nov 2015, San Diego, CA, USA*. IEEE, Oct. 2015. DOI: 10.1109/NSSMIC.2015.7581985. URL: <https://doi.org/10.1109/nssmic.2015.7581985>.
- [85] L. Gasparini et al. "A 5×5 SPADnet Digital SiPM Tile for PET Applications". In: *2015 IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), 31 Oct - 7 Nov 2015, San Diego, CA, USA*. N1CP-33. IEEE, Oct. 2015, N1CP-33. URL: <http://ewh.ieee.org/soc/nps/nss-mic/2015/program/ListProgramDB2070.html?session=N1CP>.
- [86] Huaqi Huang et al. "Automatic hand phantom map detection methods". In: *2015 IEEE Biomedical Circuits and Systems Conference (BioCAS)*. Institute of Electrical & Electronics Engineers (IEEE), Oct. 2015. DOI: 10.1109/biocas.2015.7348315. URL: <https://doi.org/10.1109/BioCAS.2015.7348315>.
- [87] Paulien L. Stegehuis et al. "Fluorescence lifetime imaging to differentiate bound from unbound ICG-cRGD both in vitro and in vivo". In: *Advanced Biomedical and Clinical Diagnostic and Surgical Guidance Systems XIII*. Ed. by Anita Mahadevan-Jansen et al. SPIE-Intl Soc Optical Eng, Mar. 2015. DOI: 10.1117/12.2078644. URL: <https://doi.org/10.1117/12.2078644>.
- [88] Milan Zvolosky. "EndoTOFPET-US - A Miniaturised Calorimeter for Endoscopic Time-of-Flight Positron Emission Tomography". In: *Proc. of 16th International Conference on Calorimetry in High Energy Physics (CALOR 2014)*. Vol. 587. On behalf of the EndoTOFPET-US collaboration. IOP Publishing, Feb. 2015, p. 012068. DOI: 10.1088/1742-6596/587/1/012068. URL: <https://doi.org/10.1088/1742-6596/587/1/012068>.
- [89] C. Zorraquino. "EndoTOFPET-US a High Resolution Endoscopic PET-US Scanner Used for Pancreatic and Prostatic Clinical Exams". In: *IFMBE Proceedings*. On behalf of the EndoTOFPET-US collaboration. Springer International Publishing, 2014, pp. 451-454. DOI: 10.1007/978-3-319-00846-2_112. URL: https://doi.org/10.1007/978-3-319-00846-2_112.

- [90] Joao Varela. "EndoTOFPET-US: Multi-modal endoscope for Ultrasound and Time of Flight PET". In: *2014 IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC)*. On behalf of the EndoTOFPET-US collaboration. IEEE, Nov. 2014. DOI: 10.1109/NSSMIC.2014.7430747. URL: <https://doi.org/10.1109/nssmic.2014.7430747>.
- [91] Claudio Bruschini et al. "SPADnet: a fully digital, scalable, and networked photonic component for time-of-flight PET applications". In: *Biophotonics: Photonic Solutions for Better Health Care IV*. Ed. by Jürgen Popp et al. SPIE, May 2014. DOI: 10.1117/12.2051952. URL: <https://doi.org/10.1117/12.2051952>.
- [92] Samuel Burri et al. "A 65k pixel, 150k frames-per-second camera with global gating and micro-lenses suitable for fluorescence lifetime imaging". In: *Optical Sensing and Detection III*. Ed. by Francis Berghmans, Anna G. Mignani, and Piet De Moor. SPIE-Intl Soc Optical Eng, May 2014. DOI: 10.1117/12.2052862. URL: <https://doi.org/10.1117/12.2052862>.
- [93] F. Powolny et al. "Time-resolved imaging system for fluorescence-guided surgery with lifetime imaging capability". In: *Biophotonics: Photonic Solutions for Better Health Care IV*. Ed. by Jürgen Popp et al. Brussels, Belgium: SPIE-Intl Soc Optical Eng, May 2014. DOI: 10.1117/12.2052411. URL: <https://doi.org/10.1117/12.2052411>.
- [94] Chockalingam Veerappan et al. "SPADnet network modeling, simulation and emulation". In: *2014 19th IEEE-NPSS Real Time Conference, Nara, Japan*. IEEE, May 2014. DOI: 10.1109/RTC.2014.7097553. URL: <https://doi.org/10.1109/rtc.2014.7097553>.
- [95] Chockalingam Veerappan, Claudio Bruschini, and Edoardo Charbon. "Distributed coincidence detection for multi-ring based PET systems". In: *2014 19th IEEE-NPSS Real Time Conference, Nara, Japan*. IEEE, May 2014. DOI: 10.1109/RTC.2014.7097478. URL: <https://doi.org/10.1109/rtc.2014.7097478>.
- [96] M Pizzichemi. "Development of EndoTOFPET-US, a multi-modal endoscope for ultrasound and time of flight positron emission tomography". In: *Proc. 13th Topical Seminar on Innovative Particle and Radiation Detectors, 7–10 Oct. 2013, Siena, Italy*. Vol. 9. 02. On behalf of the EndoTOFPET-US collaboration. IOP Publishing, Feb. 2014, pp. C02002–C02002. DOI: 10.1088/1748-0221/9/02/C02002. URL: <https://doi.org/10.1088/1748-0221/9/02/c02002>.
- [97] Samuel Burri et al. "SPADs for quantum random number generators and beyond". In: *2014 19th Asia and South Pacific Design Automation Conference (ASP-DAC)*. Invited Paper. Institute of Electrical & Electronics Engineers (IEEE), Jan. 2014. DOI: 10.1109/aspdac.2014.6742986. URL: <https://doi.org/10.1109/ASPDAC.2014.6742986>.
- [98] M Zvolnsky. "EndoTOFPET-US - A Miniaturised Calorimeter for Endoscopic Time-of-Flight Positron Emission Tomography". In: *Proc. of Calorimetry for High Energy Frontiers (CHEF 2013), Paris, France*. On behalf of the EndoTOFPET-US collaboration. Eds. J.-C. Brient, R. Salerno, and Y. Sirois, 2013, pp. 433–444. URL: https://inspirehep.net/record/1393843/files/CHEF2013_Milan_Zvolnsky.pdf.
- [99] Benjamin Frisch. "Combining endoscopic ultrasound with Time-Of-Flight PET: The EndoTOFPET-US Project". In: *Proc. Vienna Conference on Instrumentation 2013*. Vol. 732. On behalf of the EndoTOFPET-US collaboration. Elsevier BV, Dec. 2013, pp. 577–580. DOI: 10.1016/j.nima.2013.05.027. URL: <https://doi.org/10.1016/j.nima.2013.05.027>.

- [100] E Gros d'Aillon et al. "First characterization of the SPADnet sensor: a digital silicon photomultiplier for PET applications". In: *Proc. 15th International Workshop on Radiation Imaging Detectors, 23-27 June 2013, Paris, France*. Vol. 8. 12. IOP Publishing, Dec. 2013, pp. C12026–C12026. DOI: 10.1088/1748-0221/8/12/C12026. URL: <https://doi.org/10.1088/1748-0221/8/12/c12026>.
- [101] Edoardo Charbon et al. "SPADnet: A fully digital, networked approach to MRI compatible PET systems based on deep-submicron CMOS technology". In: *2013 IEEE Nuclear Science Symposium and Medical Imaging Conference (2013 NSS/MIC), Seoul, Korea*. IEEE, Oct. 2013. DOI: 10.1109/NSSMIC.2013.6829025. URL: <https://doi.org/10.1109/nssmic.2013.6829025>.
- [102] T.C. Meyer. "Endo-TOFPET-US: A multimodal ultrasonic probe featuring time of flight PET in diagnostic and therapeutic endoscopy". In: *Proc. 12th Pisa Meeting on Advanced Detectors: Frontier Detector for Frontier Physics, La Biodola, Isola d'Elba, Italy, 20 - 26 May 2012*. Vol. 718. On behalf of the EndoTOFPET-US collaboration. Elsevier BV, Aug. 2013, pp. 121–125. DOI: 10.1016/j.nima.2012.08.066. URL: <https://doi.org/10.1016/j.nima.2012.08.066>.
- [103] François Powlony et al. "Comparison of Two Cameras based on Single Photon Avalanche Diodes (SPADs) for Fluorescence Lifetime Imaging Application with Picosecond Resolution". In: *International Image Sensor Workshop (IISW)*. Snowbird Resort, Utah, USA, June 2013. URL: http://www.imagesensors.org/Past%20Workshops/2013%20Workshop/2013%20Papers/07-21_103_Powlony_paper.pdf.
- [104] Samuel Burri et al. "Jailbreak Imagers: Transforming a Single-Photon Image Sensor into a True Random Number Generator". In: *International Image Sensor Workshop (IISW)*. Snowbird Resort, Utah, USA, June 2013. URL: http://www.imagesensors.org/Past%20Workshops/2013%20Workshop/2013%20Papers/07-20_099_regazzoni_paper_revised.pdf.
- [105] F. Powlony et al. "Compact imaging system with single-photon sensitivity and picosecond time resolution for fluorescence-guided surgery with lifetime imaging capability". In: *Clinical and Biomedical Spectroscopy and Imaging III*. Ed. by Volker Deckert and Nirmala Ramanujam. SPIE-Intl Soc Optical Eng, June 2013. DOI: 10.1117/12.2032537. URL: <https://doi.org/10.1117/12.2032537>.
- [106] Erika Garutti. "EndoTOFPET-US a novel multimodal tool for endoscopy and Positron Emission Tomography". In: *2012 IEEE Nuclear Science Symposium and Medical Imaging Conference Record (NSS/MIC)*. On behalf of the EndoTOFPET-US collaboration. IEEE, Oct. 2012. DOI: 10.1109/NSSMIC.2012.6551481. URL: <https://doi.org/10.1109/nssmic.2012.6551481>.
- [107] Chockalingam Veerappan, Claudio Bruschini, and Edoardo Charbon. "Sensor network architecture for a fully digital and scalable SPAD based PET system". In: *2012 IEEE Nuclear Science Symposium and Medical Imaging Conference Record (NSS/MIC)*. Institute of Electrical & Electronics Engineers (IEEE), Oct. 2012. DOI: 10.1109/nssmic.2012.6551280. URL: <https://doi.org/10.1109/NSSMIC.2012.6551280>.
- [108] Christian Mester et al. "A Compact Probe for β^+ -Emitting Radiotracer Detection in Surgery, Biopsy and Medical Diagnostics based on Silicon Photomultipliers". In: *Imaging and Applied Optics*. The Optical Society, 2011. DOI: 10.1364/aio.2011.jwb3. URL: <https://doi.org/10.1364/AIO.2011.JWB3>.

- [109] Christian Mester et al. "A handheld β^+ probe for intra-operative detection of radiotracers". In: *2011 IEEE SENSORS Proceedings*. Institute of Electrical & Electronics Engineers (IEEE), Oct. 2011. DOI: 10.1109/icsens.2011.6127141. URL: <https://doi.org/10.1109/ICSENS.2011.6127141>.
- [110] Christian Mester et al. "A handheld probe for β^+ -emitting radiotracer detection in surgery, biopsy and medical diagnostics based on Silicon Photomultipliers". In: *2011 IEEE Nuclear Science Symposium Conference Record*. Institute of Electrical & Electronics Engineers (IEEE), Oct. 2011. DOI: 10.1109/nssmic.2011.6154491. URL: <https://doi.org/10.1109/NSSMIC.2011.6154491>.
- [111] C. Veerappan et al. "Characterization of large-scale non-uniformities in a 20k TDC/SPAD array integrated in a 130nm CMOS process". In: *2011 Proceedings of the European Solid-State Device Research Conference (ESSDERC)*. Institute of Electrical & Electronics Engineers (IEEE), Sept. 2011. DOI: 10.1109/essderc.2011.6044167. URL: <https://doi.org/10.1109/ESSDERC.2011.6044167>.
- [112] Alain Berthoud et al. "A Disdrometer based on ultra-fast SPAD Cameras". In: *International Image Sensor Workshop (IISW) 2011, Hokkaido, Japan*. June 2011. URL: http://www.imagesensors.org/Past%20Workshops/2011%20Workshop/2011%20Papers/R44_Berthoud_Disdrometer.pdf.
- [113] Alain Berthoud et al. "A Disdrometer based on ultra-fast SPAD Cameras". In: *Imaging Systems Applications (ISA) Topical Meeting, Toronto, Canada*. The Optical Society, June 2011. DOI: 10.1364/isa.2011.ima2. URL: <https://doi.org/10.1364/ISA.2011.IMA2>.
- [114] C. Bruschini et al. "Technology Transfer Bottlenecks and Lessons Learned in Humanitarian Demining EU-funded Research: Analysis & Results from the EC DELVE Project". In: *IAEA STI/PUB/1441*. ISBN 978-92-0-152010-4, ISSN 1991-2374. 2008. URL: http://www-pub.iaea.org/MTCD/publications/PDF/P1441_CD/Papers2007/bruschini.pdf.
- [115] Hichem Sahli et al. "Achievements and bottlenecks in humanitarian demining EU-funded research: final results from the EC DELVE project". In: *Detection and Sensing of Mines, Explosive Objects, and Obscured Targets XIII*. Ed. by Russell S. Harmon, Jr. John H. Holloway, and J. Thomas Broach. SPIE-Intl Soc Optical Eng, Apr. 2008. DOI: 10.1117/12.790417. URL: <https://doi.org/10.1117/12.790417>.
- [116] C. Bruschini, H. Sahli, and A. Carruthers. "Detection Technologies and Systems for Humanitarian Demining: Overview of the GICHD Guidebook and Review of Conclusions". In: *IAEA/INFN Technical Meeting on Combined Devices for Humanitarian Demining and Explosive Detection, Padova*. Vol. IAEA STI/PUB/1300. Invited Presentation; ISBN 978-92-0-157007-9, ISSN 1991-2374 November 13–17, 2006. 2006. URL: <http://www-naweb.iaea.org/napc/physics/meetings/TM29225/prcdngs/papers/B-09.pdf>.
- [117] E. E. Cepolina, C. Bruschini, and K. De Bruyn. "Providing demining technology end-users need". In: *IARP International Workshop on Robotics and Mechanical Assistance in Humanitarian Demining (HUDEM2005), Tokyo*. June 2005, pp. 9–14. URL: https://www.gichd.org/fileadmin/pdf/LIMA/Hudem2005_Cepolina.pdf.

- [118] C. Bruschini, L. van Kempen, and J. Lochy. "Metal Target Discrimination with a Commercial Two Frequency Sensor - Part II: Quantitative Aspects". In: *International Conference on Requirements and Technologies for the Detection, Removal and Neutralization of Landmines and UXO (EUDEM2-SCOT 2003), Brussels, Belgium, 2003*. Vol. 1. Vrije Universiteit Brussel, Brussels, Belgium, 2003, pp. 304–311.
- [119] Claudio Bruschini. "Metal Target Discrimination with a Commercial Two Frequency Sensor—Part I: Raw Data Analysis in the Complex Plane". In: *EUDEM2-SCOT International Conference on Requirements and Technologies for the Detection, Removal and Neutralization of Landmines and UXO', Brussels, Belgium*. Sept. 2003.
- [120] P. Szyngiera, C. Bruschini, and Z. Filus. "3D EMI Trajectories for the Visualisation of Metal Object Properties". In: *EUDEM2-SCOT International Conference on Requirements and Technologies for the Detection, Removal and Neutralization of Landmines and UXO, Brussels, Belgium*. Sept. 2003.
- [121] Karin De Bruyn et al. "EUDEM2: The European Union in humanitarian DEMining. State-of-the-art on Humanitarian Demining Technologies, Products, Services and Practices in Europe". In: *First National Conference on Information Technology, Gdansk, Poland*. Ed. by Telecommunication Scientific Papers of Electronics and Informatics Faculty (GUT). Vol. 2. 2. May 2003, pp. 597–604.
- [122] Claudio Bruschini and Hichem Sahli. "Phase-angle-based EMI object discrimination and analysis of data from a commercial differential two-frequency system". In: *Detection and Remediation Technologies for Mines and Minelike Targets V*. Ed. by Abinash C. Dubey et al. SPIE-Intl Soc Optical Eng, Aug. 2000. DOI: 10.1117/12.396229. URL: <https://doi.org/10.1117/12.396229>.
- [123] C. Bruschini and H. Sahli. "Phase angle based clutter reduction and 2D Imaging using data from a commercial differential two frequency EMI system". In: *Euro EM 2000 (EuroElectromagnetics), Edinburgh, Scotland*. June 2000.
- [124] V. Cattin et al. "Landmine Detection System with NMR Gradiometer". In: *Euro EM 2000 (EuroElectromagnetics), Edinburgh, Scotland*. June 2000.
- [125] Claudio Bruschini. "Metal Detectors for Humanitarian Demining: from Basic Principles to Modern Tools and Advanced Developments". In: *MINE'99 (Mine Identification Novelties Euroconference), Florence, Italy*. Invited Presentation. Oct. 1999, pp. 24–30.
- [126] Claudio Bruschini. "Evaluation of a Commercial Visualizing Metal Detector for UXO/Mine Detection: the HILTI Ferrosan System". In: *Sustainable Humanitarian Demining: Trends, Techniques and Technologies*. Mid Valley Press, Verona, VA, USA, Dec. 1998, pp. 314–325.
- [127] Claudio Bruschini and Bertrand Gros. "A Survey of Current Sensor Technology Research for the Detection of Landmines". In: *Sustainable Humanitarian Demining: Trends, Techniques and Technologies*. Mid Valley Press, Verona, VA, USA, Dec. 1998, pp. 172–187.
- [128] Claudio Bruschini and B. Gros. "A Survey of Current Sensor Technology Research for the Detection of Landmines". In: *SusDem'97, Zagreb, Croatia*. Oct. 1997, pp. 6.18–6.27.
- [129] Claudio Bruschini. "Evaluation of a Commercial Visualizing Metal Detector for UXO/Mine Detection: the HILTI Ferrosan System". In: *SusDem'97, Zagreb, Croatia*. Oct. 1997.

- [130] J. Apostolakis et al. "General-purpose parallel computing in a high-energy physics experiment at CERN". In: *High-Performance Computing and Networking*. Springer Science + Business Media, 1996, pp. 251–257. DOI: 10.1007/3-540-61142-8_555. URL: https://doi.org/10.1007/3-540-61142-8_555.
- [131] C. Bruschini et al. "Ground penetrating radar and induction coil sensor imaging for antipersonnel mines detection". In: *Ground Penetrating Radar 1996 (GPR'96)*. ISBN: 4925056018. Sendai, Japan, Sept. 1996, pp. 211–216.
- [132] B. Gros and C. Bruschini. "Sensor Technologies for the Detection of Antipersonnel mines. A survey of current research and system developments". In: *ISMCR'96 conference, Brussels, Belgium*. May 1996, pp. 564–569.
- [133] L. Malferrari. "Results from the WA92 experiment". In: *Nucl. Instr. Methods Phys. Res.* Vol. 368. 1. Proceedings of the Third International Workshop on B-Physics at Hadron Machines. 1995, pp. 185–191. DOI: [https://doi.org/10.1016/0168-9002\(95\)00887-X](https://doi.org/10.1016/0168-9002(95)00887-X). URL: <http://www.sciencedirect.com/science/article/pii/016890029500887X>.
- [134] M I Adamovich et al. "Results on charm and beauty production from the CERN WA92 experiment". In: *29th Rencontres de Moriond: QCD and High Energy Hadronic Interactions', Meribel, France*. Nov. 1995, pp. 417–422. URL: <http://cds.cern.ch/record/295528>.
- [135] M. Adamovich et al. "Trigger for the WA92 fixed-target beauty experiment". In: *4th International Conference on Advanced Technology and Particle Physics, Como, Italy, Oct. 1994*. Vol. 44. 1-3. Elsevier BV, Nov. 1995, pp. 435–440. DOI: 10.1016/S0920-5632(95)80067-0. URL: [https://doi.org/10.1016/S0920-5632\(95\)80067-0](https://doi.org/10.1016/S0920-5632(95)80067-0).
- [136] C. Baldanza et al. "Results from a neural trigger based on the MA16 microprocessor". In: *4-th International Workshop on Software Engineering, Artificial Intelligence and Expert Systems for High Energy and Nuclear Physics, Pisa, Italy, 4-8 April 1995*. Vol. 06. 04. World Scientific Pub Co Pte Lt, Aug. 1995, pp. 567–572. DOI: 10.1142/S0129183195000447. URL: <https://doi.org/10.1142/S0129183195000447>.
- [137] M. Adamovich et al. "Study of Charm Correlations in π -N Interactions at $\sqrt{s} \approx 26$ GeV". In: *Heavy quarks at fixed target. Proceedings, Workshop, HQ'94, Charlottesville, USA*. Vol. 3. 1994.
- [138] C. Baldanza et al. "Application of neural microprocessors to high-energy physics experiments". In: *Proceedings of 1994 IEEE International Conference on Neural Networks (ICNN94)*. Institute of Electrical & Electronics Engineers (IEEE), 1994. DOI: 10.1109/ICNN.1994.374814. URL: <https://doi.org/10.1109/ICNN.1994.374814>.
- [139] C Baldanza et al. "An on-line non-leptonic neural trigger applied to an experiment looking for beauty". In: *29th Rencontres de Moriond : Hadronic Session, Meribel, France*. International Journal of Modern Physics C 5(05):863-870, October 1994. 1994, pp. 863–870. DOI: 10.1142/S0129183194001008. URL: <https://cds.cern.ch/record/295513>.
- [140] M. Adamovich, M. Dameri, and et al. "A measurement of the total beauty cross section in 350 GeV/c π -Cu interactions". In: *Heavy quarks at fixed target. Proceedings, Workshop, HQ'94, Charlottesville, USA*. Vol. 3. 1994, pp. 263–274.
- [141] M I Adamovich et al. "First results from experiment WA92". In: *Europhysics Conference on High Energy Physics (HEP'93), Marseille, France*. ISBN 2863321463, 9782863321461. July 1994, pp. 34–35. URL: <https://cds.cern.ch/record/269471>.

- [142] M. Adamovich et al. "A new limit on the leptonic decay $D^0 \rightarrow \mu^+ \mu^-$ ". In: *International Conference on high Energy Physics (ICHEP)*, Glasgow, U.K. July 1994.
- [143] M. Adamovich et al. "A measurement of Beauty production cross section". In: *International Conference on high Energy Physics (ICHEP)*, Glasgow, U.K. July 1994.
- [144] M. Adamovich et al. "A secondary vertex Trigger for Beauty search: results from the BEATRICE/WA92 Experiment". In: *Workshop on the future of high-sensitivity charm experiments: Charm 2000*, Fermilab, U.S.A. June 1994, p. 213.
- [145] R Odorico et al. "Results from a neural-network application in high-energy physics using the ETANN chip". In: *World Congress on Neural Networks, San Diego, California, U.S.A., June 5-9, 1994*. Vol. 2. ISBN 080581745X. June 1994, p. 506.
- [146] C. Baldanza et al. "A neural network application in high-energy physics using the ETANN and MA16 microprocessors". In: *International Conference on Artificial Neural Networks, Sorrento, Italy, 26-29 May 1994*. May 1994, p. 891.
- [147] J. Apostolakis et al. "First Results from the Parallelisation of CERN's NA48 Simulation Program". In: *High Performance Computing and Networking in Europe 1994 (HPCN'94)*, Munich, Germany, 18-20 April 1994. Vol. 1. Apr. 1994, pp. 371–376. DOI: 10.1007/BFb0020401.
- [148] L Bertolotto et al. "Feasibility studies for a high energy physics MC program on massive parallel platforms". In: *Conference on Computing in High-energy Physics, San Francisco, CA*. ISBN 9813142235, 9789813142237. Apr. 1994, pp. 374–377. URL: <https://cds.cern.ch/record/280113>.
- [149] G Darbo. "A secondary-vertex trigger for a beauty search: results from the WA92 experiment". In: *Nucl. Instr. Methods Phys. Res.* Vol. 351. Apr. 1994, pp. 225–227. DOI: 10.1016/0168-9002(94)91084-7. URL: <https://cds.cern.ch/record/272630>.
- [150] M Verzocchi. "The use of a decay detector in the search for beauty decays in the WA92 experiment". In: *Nucl. Instr. Methods Phys. Res.* Vol. 351. Apr. 1994, pp. 222–224. DOI: 10.1016/0168-9002(94)91083-9. URL: <https://cds.cern.ch/record/266225>.
- [151] C Baldanza et al. "Results from an on-line neural trigger within a fixed target experiment for the production of beauty particles". In: *3rd International Workshop on Software Engineering, Artificial Intelligence and Expert Systems for High Energy and Nuclear Physics, Oberammergau, Germany, 4-8 October 1993*. DFUB-93-16. ISBN 9789810216993, 9810216998. Oct. 1993, 22 p. URL: <https://cds.cern.ch/record/255235>.
- [152] C. Bruschini et al. "The Beauty Contiguity Trigger of the BEATRICE experiment". In: *IEEE Conference on Nuclear Science Symposium and Medical Imaging*. Institute of Electrical & Electronics Engineers (IEEE), 1992. DOI: 10.1109/nssmic.1992.301241. URL: <https://doi.org/10.1109/NSSMIC.1992.301241>.
- [153] C. Bruschini et al. "The beauty contiguity processor of the BEATRICE experiment". In: *1992 Conference on Computing in High Energy Physics (CHEP'92)*, Annecy, France. Vol. CERN 92-07. CERN, Sept. 1992, pp. 234–238. DOI: 10.5170/CERN-1992-007.234. URL: <https://doi.org/10.5170/CERN-1992-007.234>.

- [154] M. Adamovich et al. "WA92: A fixed target experiment to study beauty in hadronic interactions". In: *Heavy Flavours, Third Topical Seminar, San Miniato, Italy, 17-21 June 1991*. Vol. 27. Elsevier BV, June 1992, pp. 251–256. DOI: doi:10.1016/0920-5632(92)90059-2. URL: [https://doi.org/10.1016/0920-5632\(92\)90059-2](https://doi.org/10.1016/0920-5632(92)90059-2).

Conference Presentations

- [1] Claudio Bruschini and Edoardo Charbon. "Noise trade-offs and reduction strategies in SPAD detectors and imagers". In: *Quantum Sensing and Nano Electronics and Photonics XXII*. Ed. by Manijeh Razeghi, Giti A. Khodaparast, and Miriam S. Vitiello. Vol. PC13908. Invited. International Society for Optics and Photonics. SPIE, 2026, PC139080K. DOI: 10.1117/12.3080617. URL: <https://doi.org/10.1117/12.3080617>.
- [2] Claudio E. Bruschini et al. "superSPAD: pushing SPAD timing limits". In: *Quantum Sensing, Imaging, and Precision Metrology IV*. Ed. by Selim M. Shahriar. SPIE, Mar. 2026, p. 138. DOI: 10.1117/12.3080805.
- [3] Claudio Bruschini. "One photon at a time – CMOS SPAD imagers for FLI(M) and beyond". In: *HIGHLIGHT 2026 - FLIM and Photonics Workshop, London, UK*. Invited. Mar. 2026. URL: <https://hilighthorizon.eu/hiligh-2026-flim-photonics-event/>.
- [4] Vikas Pandey et al. "Real-time fluorescence lifetime imaging for multiscale biomedical applications". In: *Multimodal Biomedical Imaging XXI*. Ed. by Xavier Intes, Marien Ochoa, and Mohammad A. Yaseen. SPIE, Mar. 2026, p. 8. DOI: 10.1117/12.3081159.
- [5] Duncan P. Ryan et al. "Adapting quantum imaging for live bioimaging". In: *High-Throughput Biophotonics: Imaging, Spectroscopy, and Beyond XI*. Ed. by Keisuke Goda and Kevin K. Tsia. SPIE, Mar. 2026, p. 11. DOI: 10.1117/12.3084568.
- [6] Melissa M. Wu et al. "Signal extraction framework for parallelized diffuse correlation spectroscopy with SPAD arrays". In: *Dynamics and Fluctuations in Biomedical Photonics XXIII*. Ed. by Valery V. Tuchin, Martin J. Leahy, and Ruikang K. Wang. SPIE, Mar. 2026, p. 22. DOI: 10.1117/12.3078958.
- [7] Claudio Bruschini. "Digital SiPMs and CMOS SPAD imagers beyond particle physics". In: *TIPP 2026 - International Conference on Technology and Instrumentation in Particle Physics, Tata Institute of Fundamental Research, Mumbai, India*. Invited. Feb. 2026. URL: <https://www.tifr.res.in/tipp2026/>.
- [8] Claudio Bruschini. "Status and Perspectives of CMOS SPAD-based single photon detectors". In: *RICH 2025 - XII International Workshop on Ring Imaging Cherenkov Detectors, Mainz, Germany*. Invited. 2025. URL: <https://indico.gsi.de/event/20387/>.
- [9] Rok Dolenc et al. "spadRICH: Developing Digital Analog SiPMs as Candidate Photodetectors for Future RICH Detectors". In: *RICH 2025 - XII International Workshop on Ring Imaging Cherenkov Detectors, Mainz, Germany*. Poster. 2025. URL: <https://indico.gsi.de/event/20387/>.
- [10] Sergei Kulkov et al. "Frequency-resolved observation of the Hanbury Brown-Twiss effect". In: *Quantum Optics and Photon Counting 2025*. Ed. by Valery Zwiller et al. SPIE, June 2025, p. 20. DOI: 10.1117/12.3057416.
- [11] Claudio Bruschini. "CMOS SPAD arrays: a review of recent developments". In: *Qu3D Final Workshop, Olomouc, Czech Republic*. Invited. May 2025.

- [12] Claudio E. Bruschini and Edoardo Charbon. "Digital silicon photomultipliers for high-energy and nuclear physics applications". In: *Quantum Sensing and Nano Electronics and Photonics XXI*. Ed. by Manijeh Razeghi, Giti A. Khodaparast, and Miriam S. Vitiello. Poster. SPIE, Mar. 2025, p. 90. DOI: 10.1117/12.3039863.
- [13] Frieder Conradt et al. "Observing spectral fluctuations in single nanocrystals across multiple time scales". In: *Real-time Measurements, Rogue Phenomena, and Single-Shot Applications X*. Ed. by Georg Herink, Daniel R. Solli, and Serge Bielawski. SPIE, Mar. 2025, p. 17. DOI: 10.1117/12.3049971.
- [14] Dominique Davenport et al. "3D quantum ghost imaging microscope". In: *Quantum Sensing, Imaging, and Precision Metrology III*. Ed. by Selim M. Shahriar. SPIE, Mar. 2025, p. 139. DOI: 10.1117/12.3043888.
- [15] Ismail Erbas et al. "FPGA implementation of sequence-to-sequence encoder-decoder deep learning model for real-time fluorescence parameter estimation through SwissSPAD2 camera". In: *Multimodal Biomedical Imaging XX*. Ed. by Xavier Intes, Marien Ochoa, and Mohammad A. Yaseen. Poster. SPIE, Mar. 2025, p. 41. DOI: 10.1117/12.3049435.
- [16] Faraneh Fathi et al. "Fast, high-density, and depth-sensitive time-resolved laser speckle contrast imaging (TR-LSCI) of cerebral blood flow". In: *Multiscale Imaging and Spectroscopy VI*. Ed. by Alex J. Walsh, Darren M. Roblyer, and Paul J. Campagnola. SPIE, Mar. 2025, p. 21. DOI: 10.1117/12.3041499.
- [17] Vikas Pandey et al. "AI-enhanced rapid lifetime determination method for fast macroscopic and mesoscopic fluorescence lifetime imaging (Conference Presentation)". In: *Multimodal Biomedical Imaging XX*. Ed. by Xavier Intes, Marien Ochoa, and Mohammad A. Yaseen. SPIE, Mar. 2025, p. 17. DOI: 10.1117/12.3043294.
- [18] Vikas Pandey et al. "Integrating time-resolved NIR and SWIR imaging for high-resolution mesoscopic fluorescence lifetime imaging using deep learning (Conference Presentation)". In: *Multimodal Biomedical Imaging XX*. Ed. by Xavier Intes, Marien Ochoa, and Mohammad A. Yaseen. SPIE, Mar. 2025, p. 22. DOI: 10.1117/12.3043354.
- [19] Duncan P. Ryan et al. "Moving quantum ghost imaging from demonstration to application". In: *Photonic Instrumentation Engineering XII*. Ed. by Yakov Soskind and Lynda E. Busse. SPIE, Mar. 2025, p. 4. DOI: 10.1117/12.3040529.
- [20] Melissa M. Wu et al. "Toward efficient signal extraction for deep tissue blood flow using parallelized diffuse correlation spectroscopy (Conference Presentation)". In: *Dynamics and Fluctuations in Biomedical Photonics XXII*. Ed. by Valery V. Tuchin, Martin J. Leahy, and Ruikang K. Wang. SPIE, Mar. 2025, p. 10. DOI: 10.1117/12.3043566.
- [21] Yayao Ma et al. "Light-field tomographic fluorescence lifetime imaging microscopy (LIFT-FLIM)". In: *Computational Optical Imaging and Artificial Intelligence in Biomedical Sciences*. Ed. by Liang Gao, Guoan Zheng, and Seung Ah Lee. Vol. PC12857. International Society for Optics and Photonics. SPIE, 2024, PC1285712. DOI: 10.1117/12.3002375. URL: <https://doi.org/10.1117/12.3002375>.
- [22] Melissa M. Wu et al. "Deep blood flow extraction for diffuse correlation spectroscopy at photon-starved regimes using SPAD arrays". In: *Dynamics and Fluctuations in Biomedical Photonics XXI*. Ed. by Valery V. Tuchin, Martin J. Leahy, and Ruikang K. Wang. Vol. PC12841. International Society for Optics and Photonics. SPIE, 2024, PC128410B. DOI: 10.1117/12.3001940.

- [23] R. Dolenc et al. "SiPM and CMOS SPAD characterization at liquid nitrogen temperatures". In: *6th International Workshop on New Photon-Detectors (PD24)*. Nov. 2024. URL: <https://indico.cern.ch/event/1404192/>.
- [24] Claudio Bruschini. "Digital SiPMs and SPAD arrays: available technologies and implementation challenges for large arrays". In: *IEEE NSS-MIC, Digital SiPM and SPAD based sensor - Part 1 - Tutorial, Tampa, USA*. Invited. Oct. 2024. URL: https://www.eventclass.org/contxt_ieee2024/scientific/online-program/session?s=WS-01a.
- [25] Claudio Bruschini and Edoardo Charbon. "Digital SiPMs and SPAD arrays: architectures and case studies". In: *IEEE NSS-MIC, Digital SiPM and SPAD based sensor - Part 1 - Tutorial, Tampa, USA*. Invited. Oct. 2024. URL: https://www.eventclass.org/contxt_ieee2024/scientific/online-program/session?s=WS-01a.
- [26] Raphael Abrahao et al. "Towards quantum telescopes". In: *55th Annual Meeting of the APS Division of Atomic, Molecular and Optical Physics*. APS (American Physical Society). June 2024. URL: <https://meetings.aps.org/Meeting/DAMOP24/Session/Y07.1>.
- [27] Claudio Bruschini. "Digital SiPM Overview". In: *DRD4 WG1 Meeting, CERN, Geneva, Switzerland*. Invited. June 2024. URL: https://www.eventclass.org/contxt_ieee2024/scientific/online-program/session?s=WS-01a.
- [28] Claudio Bruschini. "Applications of SPAD Arrays". In: *International SPAD Sensors Workshop (ISSW) School, Trento, Italy*. Invited. June 2024. URL: <https://issw2024.fbk.eu/>.
- [29] Hayden Galante et al. "Count-Free Single-Photon LiDAR with Equi-Depth Histograms: An FPGA Implementation". In: *2024 International SPAD Sensor Workshop (ISSW), 4-6 June, Trento, Italy*. Poster P1-15. International Image Sensors Society, June 2024. URL: <https://imagesensors.org/2024-international-spad-sensor-workshop/>.
- [30] Clémence Gentner et al. "Towards video-rate compressive spontaneous Raman imaging using single-photon avalanche diode arrays". In: *Biomedical Spectroscopy, Microscopy, and Imaging III*. Ed. by Jürgen Popp and Csilla Gergely. SPIE, June 2024, p. 20. DOI: 10.1117/12.3021962.
- [31] Lucas A. Kreiss et al. "Towards Surface-Correction of Deep-Tissue Blood Flow Dynamics with Massively Parallelized Diffuse Correlation Spectroscopy". In: *Neurophotonics II*. Ed. by Tommaso Fellin and Tomáš Čížmár. SPIE, June 2024. DOI: 10.1117/12.3022813.
- [32] Navid Ibtehaj Nizam et al. "3D fluorescence molecular tomography utilizing a novel SPAD camera". In: *Multimodal Biomedical Imaging XIX*. Ed. by Fred S. Azar and Xavier Intes. SPIE, Mar. 2024, p. 13. DOI: 10.1117/12.2692977.
- [33] Vikas Pandey et al. "Deep Learning model for efficient instrument response function deconvolution in fluorescence lifetime imaging". In: *Multimodal Biomedical Imaging XIX*. Ed. by Fred S. Azar and Xavier Intes. SPIE, Mar. 2024, p. 35. DOI: 10.1117/12.3002573.
- [34] Duncan P. Ryan et al. "SPAD arrays and crossed-delay line detectors for quantum ghost imaging". In: *Quantum Effects and Measurement Techniques in Biology and Biophotonics*. Ed. by Clarice Aiello, Sergey V. Polyakov, and Paige Derr. SPIE, Mar. 2024, p. 19. DOI: 10.1117/12.3000584.
- [35] Claudio Bruschini. "Introduction to digital SiPMs". In: *IEEE NSS-MIC, The Digital SiPM Revolution workshop, Vancouver, Canada*. Invited. 2023. URL: https://www.eventclass.org/contxt_ieee2023/scientific/online-program/session?s=WS-SPAD+-+I.

- [36] Claudio Bruschini. "SPAD position sensitive detectors: Application in life sciences and biology". In: *PSD13 (Position Sensitive Detectors)*, Oxford, UK. Invited (Keynote). 2023. URL: <https://psd13.web.ox.ac.uk/>.
- [37] Petr Bruza et al. "SPAD imagers in fluorescence-guided surgical navigation". In: *Molecular-Guided Surgery: Molecules, Devices, and Applications IX*. Ed. by Sylvain Gioux, Summer L. Gibbs, and Brian W. Pogue. Vol. PC12361. International Society for Optics and Photonics. SPIE, 2023, PC123610C. DOI: 10.1117/12.2650646.
- [38] Clémence Gentner et al. "Parallelized compressive spontaneous Raman imaging via SPAD arrays (Conference Presentation)". In: *High-Speed Biomedical Imaging and Spectroscopy VIII*. Ed. by Kevin K. Tsia and Keisuke Goda. Vol. PC12390. International Society for Optics and Photonics. SPIE, 2023, PC123900K. DOI: 10.1117/12.2649162. URL: <https://doi.org/10.1117/12.2649162>.
- [39] Y. Lin et al. "Real-time Recurrent Neural Network-based Fluorescence Lifetime Imaging with SPAD Sensors". In: *Focus on Microscopy 2023 (FOM 2023)*. Apr. 2023.
- [40] Francesco Gramuglia et al. "Direct MIP detection with sub-10 ps timing resolution Geiger-Mode APDs". In: *15th Pisa Meeting on Advanced Detectors, La Biodola, Isola d'Elba, Italy, 22-28 May 2022*. Vol. 1047. Poster. Elsevier BV, Feb. 2023, p. 167813. DOI: 10.1016/j.nima.2022.167813.
- [41] Debjit Roy et al. "Towards precise optical measurements of steady state of and small changes in resting membrane potentials". In: vol. 122. 3. Poster. Elsevier BV, Feb. 2023, 176a. DOI: 10.1016/j.bpj.2022.11.1096.
- [42] Yang Lin et al. "Real-time Fluorescence Lifetime Estimation with on-FPGA Recurrent Neural Networks". In: *BMPN Annual Meeting*. Best Talk of a Young Researcher. Biomedical Photonics Network. 2022.
- [43] Ron Tenne et al. "Using Heralded Spectrometry to Measure the Biexciton Binding Energy of an Individual Quantum Dot". In: *Conference on Lasers and Electro-Optics*. Poster. Optica Publishing Group, 2022. DOI: 10.1364/CLEO_AT.2022.JTu3A.3.
- [44] Claudio Bruschini et al. "Large-format SPAD arrays and imagers for molecular imaging". In: *MEDAMI 2022, Portorož, Slovenia*. Invited. Sept. 2022.
- [45] Edoardo Charbon and Claudio Bruschini. "Large-format SPAD image sensors for biomedical and HEP applications". In: *NDIP (9th Conference on new developments in photodetectors)*, Troyes, France. Invited. July 2022.
- [46] Francesco Gramuglia et al. "Detecting photons and MIPs with ultra-fast Geiger mode APDs". In: *NDIP (9th Conference on new developments in photodetectors)*, Troyes, France. Equally contributing last authorship. July 2022.
- [47] Claudio Bruschini et al. "Progress in CMOS SPADs and digital SiPMs for fast timing applications". In: *Fast Timing in Medical Imaging Workshop, Valencia, Spain*. Invited. June 2022.
- [48] Francesco Gramuglia et al. "A 7.5-ps, 60% PDP low-noise SPAD fabricated in CMOS technology". In: *ISSW 2022 (International SPAD Sensor Workshop)*, online. Invited. June 2022.

- [49] Francesco Gramuglia et al. "Light Extraction Enhancement in Inorganic Scintillators for Total-body PET Scanners using Photonic Crystals". In: *9th Conference on PET/MR and SPECT/MR & Total-body PET workshop, La Biodola, Elba, Italy*. Invited. May 2022.
- [50] Andrada Muntean et al. "Blumino: a fully integrated analog SiPM with on-chip time conversion". In: *9th Conference on PET/MR and SPECT/MR & Total-body PET workshop, La Biodola, Elba, Italy*. Invited. May 2022.
- [51] Emanuele Ripiccini et al. "Photon and minimum ionizing particle detection with ultra-fast Geiger-mode APDs". In: *High Energy Physics - Integrated Circuits Workshop 2022 (HEP-IC), FNAL, 2022 (online)*. May 2022.
- [52] Gur Lubin et al. "Heralded spectroscopy of single nanocrystals". In: *Optical and Quantum Sensing and Precision Metrology II*. Ed. by Selim M. Shahriar and Jacob Scheuer. SPIE, Mar. 2022. DOI: 10.1117/12.2616990.
- [53] Arthur Pétusseau et al. "Sub-surface fluorescence time-of-flight imaging using a large format SPAD sensor". In: *Molecular-Guided Surgery: Molecules, Devices, and Applications VIII*. Ed. by Summer L. Gibbs, Brian W. Pogue, and Sylvain Gioux. SPIE, Mar. 2022. DOI: 10.1117/12.2607719.
- [54] Jason T. Smith et al. "Characterization of a large gated SPAD array for in vivo fluorescence lifetime imaging of drug target engagement". In: *Imaging, Manipulation, and Analysis of Biomolecules, Cells, and Tissues XX*. Ed. by James F. Leary, Attila Tarnok, and Jessica P. Houston. SPIE, Mar. 2022. DOI: 10.1117/12.2609888.
- [55] Jason T. Smith et al. "Characterization of a large gated SPAD array for widefield NIR fluorescence lifetime imaging in vitro and in vivo". In: *BPS 2022: 66th Annual Biophysical Society Annual Meeting, San Francisco, CA*. Vol. 121. 3. Poster @ BPS 2022: 66th Annual Biophysical Society Annual Meeting, San Francisco, CA. Elsevier BV, Feb. 2022, 415a. DOI: 10.1016/j.bpj.2021.11.691.
- [56] Claudio Bruschini. "SPAD-based detectors and imagers for biophotonics and other sensing applications". In: *CISMA Colloquia, Edinburgh UK (online)*. Invited. 2021.
- [57] Giancarlo Sportelli et al. "Towards the ideal TOF-PET detector: a scalable architecture with uncompromised performance for clinical and total-body applications". In: *Total-body PET 2021, Online*. Sept. 2021. URL: <https://totalbodypet2021.org/>.
- [58] Gur Lubin et al. "Heralded Spectroscopy Reveals Exciton-Exciton Correlations in Single Colloidal Nanocrystals". In: *Sensing with Quantum Light (SQL), Bad Honnef, 26-29 September 2021*. Sept. 2021. URL: <https://www.we-heraeus-stiftung.de/veranstaltungen/seminare/2021/sensing-with-quantum-light/main/>.
- [59] Sizhuo Ma et al. "Quanta Burst Photography". In: *2021 International Conference on Computational Photography (ICCP), 23-25 May 2021, Haifa/hybrid*. Poster 32. May 2021. URL: <https://www.youtube.com/watch?v=Ya3ahFLi4GY>.
- [60] Gur Lubin et al. "Quantum super-resolved imaging with SPAD arrays". In: *Focus on Microscopy 2021 (FOM 2021)*. Mar. 2021. URL: http://www.focusonmicroscopy.org/2021/PDF/1095_Lubin.pdf.
- [61] Adrian Makowski et al. "Super-resolved confocal fluctuation microscopy using a SPAD array". In: *Focus on Microscopy 2021 (FOM 2021)*. Mar. 2021. URL: http://www.focusonmicroscopy.org/2021/PDF/1142_Makowski.pdf.

- [62] Kazuhiro Morimoto et al. "Megapixel time-gated SPAD image sensor for scientific imaging applications". In: *High-Speed Biomedical Imaging and Spectroscopy VI*. Ed. by Keisuke Goda and Kevin K. Tsia. SPIE, Mar. 2021. DOI: 10.1117/12.2582444.
- [63] Arin Can Ulku et al. "SwissSPAD3 – a dual-gate photon-counting SPAD sensor for widefield FLIM imaging". In: *Focus on Microscopy 2021 (FOM 2021)*. Mar. 2021. URL: http://www.focusonmicroscopy.org/2021/PDF/1234_Ulku.pdf.
- [64] Esther Ciarrocchi et al. "Design of a highly scalable TOF-PET detector: the UTOFPET project". In: *European Molecular Imaging Meeting - EMIM 2020, 24-28 August*. Aug. 2020.
- [65] Sizhuo Ma et al. "Quanta burst photography". In: *SIGGRAPH*. Boston (virtual), Aug. 2020. URL: https://s2020.siggraph.org/presentation/?id=papers_502&sess=sess373.
- [66] Ron Tenne et al. "Image scanning microscopy with quantum and classical correlations". In: *2nd International SPAD Sensor Workshop*. Invited Presentation. Edinburgh (virtual), June 2020. URL: <https://issw.ed.ac.uk/>.
- [67] Rinat Ankri et al. "Wide-field time-gated phasor analysis of visible fluorescence through highly scattering medium". In: *64th Annual Meeting of the Biophysical Society*. San Diego, CA, USA, Mar. 2020.
- [68] Gur Lubin et al. "Quantum imaging with SPAD arrays (Conference Presentation)". In: *Single Molecule Spectroscopy and Superresolution Imaging XIII*. Ed. by Ingo Gregor, Rainer Erdmann, and Felix Koberling. SPIE, Mar. 2020. DOI: 10.1117/12.2544716.
- [69] Arin Ulku et al. "Wide-field time-gated SPAD imager for phasor-based FLIM applications". In: *64th Annual Meeting of the Biophysical Society*. San Diego, CA, USA, Mar. 2020.
- [70] Gur Lubin et al. "Realizing quantum image scanning microscopy with novel detectors". In: *Optical, Opto-Atomic, and Entanglement-Enhanced Precision Metrology II*. Ed. by Selim M. Shahriar and Jacob Scheuer. SPIE, Feb. 2020.
- [71] Ron Tenne et al. "Measuring quantum correlations with an on-chip SPAD array (Conference Presentation)". In: *Single Molecule Spectroscopy and Superresolution Imaging XII*. Vol. 10884. 2019.
- [72] Nicola Belcari et al. "UTOFPET: a highly scalable TOF-PET detector concept". In: *IEEE Nuclear Science Symposium, Manchester, UK*. Nov. 2019.
- [73] Nicola Belcari. "UTOFPET: design of a highly scalable TOF-PET detector concept". In: *FATA2019: FAst Timing Applications for nuclear physics and medical imaging*. On behalf of the UTOFPET collaboration. Accademia degli Zelanti e dei Dafnici, Acireale (Catania), Italy, Sept. 2019. URL: <https://agenda.infn.it/event/18991/timetable/>.
- [74] Gur Lubin et al. "Quantum imaging with SPAD arrays (Conference Presentation)". In: *Optics at the Nanoscale (ONS'19), Capri, Italy, September 9-11*. Sept. 2019.
- [75] Claudio Bruschini, Preethi Padmanabhan, and Edoardo Charbon. "LiDAR Fundamentals". In: *SENSE Detector School*. Invited Presentation. Schloss Ringberg, Kreuth am Tegernsee, Germany, June 2019. URL: <https://indico.cern.ch/event/791832/>.
- [76] Kazuhiro Morimoto et al. "A single-photon camera with 97 kfps time-gated 24 Gphotons/s 512×512 SPAD pixels for computational imaging and time-of-flight vision". In: *2019 IEEE International Conference on Computational Photography (ICCP)*. IEEE, May 2019.

- [77] Ivan Michel Antolovic, Claudio Bruschini, and Edoardo Charbon. "A 23-pixel SPAD array with 45% PDE, 140 cps DCR and 123 ps timing jitter for advanced scanning techniques". In: *Focus on Microscopy 2019 (FOM 2019)*. London, Apr. 2019. URL: http://www.focusonmicroscopy.org/2019/PDF/1374_Antolovic.pdf.
- [78] Ivan Michel Antolovic, Claudio Bruschini, and Edoardo Charbon. "High-dynamic-range imaging with photon-counting arrays". In: *Quantum Sensing and Nano Electronics and Photonics XVI*. Ed. by Manijeh Razeghi and Eric Tournie. Vol. 10926. SPIE, Mar. 2019. DOI: 10.1117/12.2511251.
- [79] Claudio Bruschini, Preethi Padmanabhan, and Edoardo Charbon. "LiDAR and 3D-Stacked Technologies for Automotive, Consumer and Biomedical Applications". In: *Image Sensors Europe, London, Mar 12*. Invited Workshop. London, UK, Mar. 2019. URL: <https://indico.cern.ch/event/791832/>.
- [80] Ivan Michel Antolovic et al. "Hexagonal SPAD arrays for image scanning microscopy using pixel reassignment". In: *Single Molecule Spectroscopy and Superresolution Imaging XI*. 2018. URL: <https://spie.org/PW18B/conferencedetails/single-molecule-spectroscopy>.
- [81] Ivan Michel Antolovic et al. "A 5 Gigaevent-per-second SPAD Array for Super Resolution Microscopy". In: *ICON 2018 (International Conference on Nanoscopy), Bielefeld, Germany*. 2018. URL: <https://www.icon-europe.org/>.
- [82] Samuel Burri, Claudio Bruschini, and Edoardo Charbon. "Applications of a reconfigurable SPAD line imager (Conference Presentation)". In: *Photonic Instrumentation Engineering V*. Vol. 10539. 2018. DOI: 10.1117/12.2289620. URL: <https://doi.org/10.1117/12.2289620>.
- [83] Huaiqi Huang et al. "Single-site Vibrotactile Sensory Feedback System". In: *Swiss Society for Biomedical Engineering (SSBE) Annual Meeting, Aug 28, Biel, Switzerland*. 2018. URL: https://www.ti.bfh.ch/en/service/events/event_details/article/annual-meeting-ssbe.html.
- [84] Myung-Jae Lee, Claudio Bruschini, and Edoardo Charbon. "Single-Photon Detectors for Next-Generation Biomedical Applications". In: *Europe-Korea Conference on Science and Technology (EKC), Aug 20-24 2018, Glasgow (UK)*. Invited Presentation. 2018. URL: <http://www.ekc2018.org/>.
- [85] X. Michalet et al. "SPAD Arrays: from Single-Molecule Detection to Wide-Field Phasor Fluorescence Lifetime Imaging". In: *1st International SPAD Sensor Workshop (ISSW), Les Diablerets, Switzerland*. 2018. URL: <https://issw.epfl.ch/>.
- [86] Arin Can Ulku et al. "A time-gated large-array SPAD camera for picosecond resolution real-time FLIM (Conference Presentation)". In: *Multiphoton Microscopy in the Biomedical Sciences XVIII*. Vol. 10498. 2018. DOI: 10.1117/12.2288170. URL: <https://doi.org/10.1117/12.2288170>.
- [87] Claudio Bruschini, Esteban Venialgo, and Edoardo Charbon. "(Digital) Electronics & Systems for Advanced Time-of-Flight PET". In: *ToM - Topics on Microelectronics lectures*. Invited Course. University of Milan-Bicocca, Italy, Sept. 2018. URL: https://www.unimib.it/sites/default/files/Dottori%20di%20ricerca/ToM18_Cover.pdf.

- [88] C. Bruschini, H. A. R. Homulle, and E. Charbon. "Single-photon SPAD imagers in the biomedical sciences – where do we stand?" In: *EPIC Biophotonics Workshop: Towards In Vivo Imaging, Amsterdam, The Netherlands, 30 Nov-1 Dec 2017*. Invited Presentation. 2017. URL: <http://www.epic-assoc.com/epic-biophotonics-workshop-towards-in-vivo-imaging/>.
- [89] Claudio Bruschini, Harald Homulle, and Edoardo Charbon. "A decade of single-photon SPAD imagers in the biomedical sciences". In: *New Developments In Photodetection (NDIP 2017), Tours, France, July 3-7 2017*. Review Talk. July 2017. URL: <http://ndip.in2p3.fr/tours17/>.
- [90] C. Bruschini, H. A. R. Homulle, and E. Charbon. "All-Digital, Quantum Biomedical Imaging". In: *Emerging Technologies 2017 (ETCMOS 2017), Warsaw, Poland, 28-30 May 2017*. ISBN 1927500842, 9781927500842; Invited Presentation. May 2017.
- [91] P. M. Wargocki et al. "Fluorescence lifetime imaging using a single photon avalanche diode array sensor". In: *Imaging, Manipulation, and Analysis of Biomolecules, Cells, and Tissues XV, SPIE Photonics West*. Pres. 10068-30. Feb. 2017. DOI: 10.1117/12.2253579. URL: <https://doi.org/10.1117/12.2253579>.
- [92] E. Charbon et al. "All-digital, single-photon image sensors for microscopy and biomedical applications". In: *ICON Europe 2016, International Conference on Nanoscopy, June 7-10, Basel, Switzerland*. 2016.
- [93] Claudio Bruschini and Edoardo Charbon. "Advances in (digital) Single-Photon Detectors for PET". In: *MediSens 2016, Dec. 13-14, London, UK*. Invited Presentation, Review. Dec. 2016. URL: <http://medisens-conference.com/>.
- [94] E. Gros d'Aillon et al. "First Characterization of the SPADnet-II Sensor: a Smart Digital Silicon Photomultiplier for ToF-PET Applications". In: *IEEE Nuclear Science Symposium and Medical Imaging Conference, Strasbourg, France*. Pres. M08-6. Oct. 2016. URL: <https://infoscience.epfl.ch/record/257233>.
- [95] E. Gros d'Aillon et al. "Microscale Mapping of the Photon Detection Probability of SPADs". In: *IEEE Nuclear Science Symposium and Medical Imaging Conference, Strasbourg, France*. Pres. N57-2. Oct. 2016. URL: <https://infoscience.epfl.ch/record/257234>.
- [96] Claudio Bruschini and Edoardo Charbon. "Time Correlated Single Photon Counting Imagers for Biomedical Applications". In: *ICFO, Barcelona, Spain, July 29*. Invited Presentation. July 2016.
- [97] Claudio Bruschini and Edoardo Charbon. "(Challenges in) Time Correlated Single Photon Counting Imagers". In: *SIGNAL 2016, June 26-30, Lisbon, Portugal*. Invited Presentation. June 2016.
- [98] I. M. Antolovic et al. "SPAD Imagers for Characterization of Ultra Fast Dyes for Super Resolution Localization Microscopy". In: *Focus on Microscopy 2016 (FOM 2016)*. Taiwan, Mar. 2016. URL: http://www.focusonmicroscopy.org/2016/PDF/16118_Hoebe.pdf.
- [99] P. L. Stegehuis et al. "In-vivo fluorescence lifetime imaging to differentiate bound from unbound cRGD-coupled NIR tracers". In: *European Molecular Imaging Meeting (EMIM 2016)*. EMIM. European Society for Molecular Imaging (EMIM 2016). Utrecht, Mar. 2016. URL: <http://www.e-smi.eu/index.php?id=emim-2016-looking-back>.

- [100] I. M. Antolovic et al. "Super resolution with SPAD imagers". In: *Focus On Microscopy Conference (FOM 2015), Göttingen, Germany*. 2015. URL: http://www.focusonmicroscopy.org/2015/PDF/286_Antolovic.pdf.
- [101] J.W. Krieger et al. "Imaging fluorescence correlation: Novel results on new image sensors (SPAD arrays) and a comprehensive new software package (QuickFit 3.0)". In: *Focus On Microscopy Conference (FOM 2015), Goettingen, Germany*. Mar. 2015. URL: http://www.focusonmicroscopy.org/2015/PDF/700_Krieger.pdf.
- [102] Edoardo Charbon et al. "Updates from the SPADnet project (fully digital, scalable and networked photonic component for Time-of-Flight PET applications)". In: *PSMR 2014 (PET-MR 2014), Kos, Greece, May 2014*. Vol. 1. Suppl 1. Springer Nature, 2014, A11. DOI: 10.1186/2197-7364-1-S1-A11. URL: <https://doi.org/10.1186/2197-7364-1-s1-a11>.
- [103] Laurent Maingault et al. "SPADnet - a Digital Silicon PhotoMultiplier for Positron Emission Tomography: presentation and characterization". In: *New Developments in Photodetection 2014 (NDIP 2014), Tours, France, July 2014*. 2014. URL: http://ndip.in2p3.fr/ndip14/AGENDA/AGENDA-by-DAY/Presentations/5Friday/AM/ID34589_GrosdAillon.pdf.
- [104] J. Buchholz et al. "Single Photon Avalanche Diode Arrays for Single Plane Illumination Fluorescence Correlation Spectroscopy". In: *Focus on Microscopy 2014 (FOM 2014)*. Sydney, Australia, Apr. 2014. URL: http://www.focusonmicroscopy.org/2014/PDF/386_Buchholz.pdf.
- [105] C. Bruschini et al. "SPADnet: from Concept to Realization". In: *NSS-MIC 2013 Special Focus Workshop Towards 10ps single soft photon detectors, Seoul, Korea*. Invited Presentation, on behalf of the SPADnet Consortium. 2013. URL: https://infoscience.epfl.ch/record/191248/files/SPADnet_10psWorkshop_NSS-MIC_v3_released.pdf.
- [106] E. Charbon et al. "SPADnet: Smart Sensor Network with Embedded Coincidence Detection for PET". In: *London Image Sensors, March 2013*. 2013.
- [107] V. Krishnaswami et al. "SPAD array camera for localization based super resolution microscopy". In: *Focus On Microscopy Conference (FOM 2013), March 24-27, 2013, Maastricht, the Netherlands*. Mar. 2013. URL: <https://infoscience.epfl.ch/record/191249>.
- [108] C. Veerappan, C. Bruschini, and E. Charbon. "The Role of FPGAs and Reconfigurable Acquisition in Future PET/SPECT Systems". In: *First Mediterranean Thematic Workshop on Advanced Molecular Brain Imaging with Compact High Performance MRI Compatible PET and SPECT Imagers - Potential for a Paradigm Shift, Giardini di Naxos (Taormina, Sicily, Italy)*. Sept. 2012. URL: <http://infoscience.epfl.ch/record/185762>.
- [109] J. Arlt et al. "MEGAFRAME: a fully integrated, time-resolved 160×128 SPAD pixel array with microconcentrators". In: *SPIE Conf. 8033 Advanced Photon Counting Techniques V, 25-27 Apr 2011, Orlando, USA*. <https://infoscience.epfl.ch/record/178098>, <https://sro.sussex.ac.uk/id/eprint/29999/>. 2011.
- [110] E. Charbon and C. Bruschini. "Facts and myths. What should we expect from integrated SPAD imaging?" In: *Swiss Image and Vision Sensors Workshop 2011 (SIVS 2011), Sept. 8, 2011, Zurich, Switzerland*. Sept. 2011.
- [111] C. Bruschini and H. Sahli. "Detection Technologies and Systems for Humanitarian De-mining". In: *Universidad Carlos III de Madrid, Madrid*. Invited Presentation, 16/10/2008. Oct. 2009.

- [112] C. Bruschini et al. "Success Case Studies & Technology Transfer Bottlenecks in Humanitarian De-mining EU-funded Research: Examples from the EC DELVE Project". In: *EUROEM2008, EPFL, Lausanne*. July 2008.
- [113] C. Bruschini and H. Sahli. "Detection Technologies and Systems for Humanitarian De-mining: An Overview Based on the GICHD Guidebook". In: *EUROEM2008, EPFL, Lausanne*. Invited Presentation, Plenary Session. July 2008.
- [114] C. Bruschini et al. "Achievements & Bottlenecks in Humanitarian Demining EU-funded research: Final Results from the EC DELVE project". In: *IAEA Technical Meeting on Use of Combined Devices for Humanitarian Demining and Explosive Detection, Vienna, Austria*. Invited Presentation; November 26–30, 2007. Nov. 2007.
- [115] C. Bruschini and H. Sahli. "Target discrimination using a commercial differential two frequency metal detector—Part I: Raw data analysis". In: *SPIE Conf. 5089, Detection and Remediation Technologies for Mines and Minelike Targets VIII, SPIE AeroSense 2003, Orlando, FLA, USA*. Apr. 2003.
- [116] C. Bruschini, L. van Kempen, and J. Lochy. "Target discrimination using a commercial differential two frequency metal detector—Part II: Feature extraction and classification opportunities". In: *SPIE Conf. 5089, Detection and Remediation Technologies for Mines and Minelike Targets VIII, SPIE AeroSense 2003, Orlando, FLA, USA*. Apr. 2003.
- [117] H. Sahli et al. "Present and Future of Humanitarian Demining Research". In: *EC 'Concertation meeting for Research and Technological Development projects from the 5th Framework Programme', Brussels, Belgium*. Invited Presentation for the EUDEM2 Project, 24/3/2003. Mar. 2003.
- [118] Claudio Bruschini. "Bulk Explosive and Contraband Detection Technologies and Applications". In: *INFN Legnaro Laboratories, Legnaro, Italy*. Invited Presentation for the EUDEM project, 7/3/2003. Mar. 2003.
- [119] Claudio Bruschini. "Improvements in a mature technology: Metal Detectors". In: *Intelligent Sensors and Data Fusion for Humanitarian De-mining IST Consultation Meeting*. Invited Presentation. 1999.
- [120] Claudio Bruschini. "Overview of DeTeC Activities and AP Mine Detection State of the Art". In: *Brussels ERM (Ecole Royale Militaire) Workshop, Belgium*. Invited Presentation, 5/12/1996. Dec. 1996.

PhD and MSc Thesis

- [1] Claudio Bruschini. "A Multidisciplinary Analysis of Frequency Domain Metal Detectors for Humanitarian Demining". ISBN 389825853X, 978-3898258531. PhD thesis. Vrije Universiteit Brussel (VUB, Belgium), Faculty of Applied Sciences, Sept. 2002. ISBN: 9783898258531. URL: <http://www.gichd.org/resources/publications/detail/publication/a-multidisciplinary-analysis-of-frequency-domain-metal-detectors-for-humanitarian-demining/>.
- [2] Claudio Bruschini. "Studio di un Trigger rapido su vertici secondari per la ricerca di particelle dotate di Beauty" ('Study of a fast trigger on secondary vertices for the search of Beauty flavoured particles'). MA thesis. University of Genova, Italy, 1992.

Technical Reports

- [1] DELVE project team. *Humanitarian Demining R&D project funding in Europe*. Tech. rep. DELVE Deliverable D4.1, v2.2.0, May 2007. URL: http://www.gichd.org/fileadmin/pdf/LIMA/DELVE_HD_R&D.pdf.
- [2] DELVE project team. *Humanitarian Demining R&D Lessons Learned*. Tech. rep. DELVE Deliverable D4.2, v2.3.0, May 2007. URL: http://www.gichd.org/fileadmin/GICHD-resources/rec-documents/DELVE_LL_ExecSummary.pdf.
- [3] H. Sahli, C. Bruschini, and S. Crabbe. *Catalogue of Advanced Technologies and Systems for Humanitarian Demining*. Tech. rep. EUDEM2 Technology Survey Report, Feb. 2005. URL: http://crabbe-consulting.com/wp-content/uploads/2016/04/catalogue_advanced_techn_hd_v1.3.pdf.
- [4] E. E. Cepolina and C. Bruschini. *Catalogue of Technologies in Field Use*. Tech. rep. EUDEM2 Technology Survey Report, 2004. URL: <http://www.gichd.org/fileadmin/GICHD-resources/rec-documents/EUDEM2-FieldSurvey-Catalogue-Techn.pdf>.
- [5] E. E. Cepolina, C. Bruschini, and K. De Bruyn. *Field Survey Results*. Tech. rep. EUDEM2 Technology Survey Report, Nov. 2004. URL: <http://www.gichd.org/fileadmin/GICHD-resources/rec-documents/EUDEM2-FieldSurvey-Results.pdf>.
- [6] E. Crescenzo and C. Bruschini. *Study of Demining Related R&D in France*. Tech. rep. EUDEM2 Technology Survey Report, Nov. 2004.
- [7] C. Gaudin, C. Sigrist, and C. Bruschini. *Metal Detectors for Humanitarian Demining: a Patent Search and Analysis*. Tech. rep. EUDEM2 Technology Survey Report, 2003. URL: <http://www.gichd.org/resources/publications/detail/publication/metal-detectors-for-humanitarian-demining-a-patent-search-and-analysis/>.
- [8] F. Bellan et al. *(Non-Linear) Acoustic Landmine Detection Study*. Tech. rep. EUDEM2 Technology Survey Report, Nov. 2003. URL: http://www.gichd.org/fileadmin/GICHD-resources/rec-documents/Acoustic_Study_V2.5.pdf.
- [9] Claudio Bruschini. *Commercial Systems for the Direct Detection of Explosives (for Explosive Ordnance Disposal Tasks)*. Tech. rep. EPFL-DI-LAP, 2001. URL: <http://www.gichd.org/resources/publications/detail/publication/commercial-systems-for-the-direct-detection-of-explosives-for-explosive-ordnance-disposal-tasks/>.
- [10] C. Bruschini et al. *Study on the State of the Art in the EU related to humanitarian demining technology, products and practice*. Tech. rep. EPFL-LAMI and VUB-ETRO, July 1999. URL: <http://www.gichd.org/fileadmin/GICHD-resources/rec-documents/EUDEM1-final-report1%5B1%5D.pdf>.
- [11] C. Bruschini, D. Cundy, and A. Norton. *Part I: Simulation of a Parallel Scheme for the Online Calibration of the NA48 Electromagnetic Calorimeter; Part II: Review of some Calibration Methods for Electromagnetic Calorimeters*. Tech. rep. 24 pp. tot + figures. NA48 Note 95-xxx, Oct. 1995.
- [12] C. Bruschini et al. *Deliverable 3.1.3.a: Report on Event Simulation on the CS-2*. Tech. rep. EU Project P7255 (GP-MIMD2) Internal Report, Feb. 1995.
- [13] L. Bertolotto and C. Bruschini et al. *Use of the test beam data to improve uniformity of response in the LKr Prototype Calorimeter*. Tech. rep. NA48 Note 94-20, Mar. 1994.

Books

- [1] C. Bruschini, H. Sahli, and A. Carruthers. *Guidebook on Detection Technologies and Systems for Humanitarian Demining*. Geneva International Centre for Humanitarian Demining, Mar. 2006. URL: <https://www.gichd.org/resources/publications/detail/publication/guidebook-on-detection-technologies-and-systems-for-humanitarian-demining/>.

Book Sections

- [1] Claudio Bruschini. "GICHD Metal Detectors and PPE Catalogue 2005". In: ed. by J. Dirscherl (Ed.) Geneva International Centre for Humanitarian Demining, 2005. Chap. Annex 1 – Assessment of detection technologies, pp. 153–160. URL: http://www.gichd.org/fileadmin/pdf/LIMA/MetalDetectors_Catalogue2005.pdf.