Roberto Cristiano

List of Publications by Year
in descending order

145 papers	1,877 citations	279798 23 h-index	315739 38 g-index
148 all docs	148 docs citations	148 times ranked	1229 citing authors

#	Article	IF	Citations
1	Large Area SNSPD for Lidar Measurements in the Infrared. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-4.	1.7	5
2	Demonstration of Single Photon Detection in Amorphous Molybdenum Silicide / Aluminium Superconducting Nanostrip. IEEE Instrumentation and Measurement Magazine, 2021, 24, 69-74.	1.6	8
3	Progress towards innovative and energy efficient logic circuits. Journal of Physics: Conference Series, 2020, 1559, 012009.	0.4	0
4	Dark counts double switching rates in NbTiN Superconducting Nanowire Single Photon Detectors. Journal of Physics: Conference Series, 2020, 1559, 012016.	0.4	1
5	Ultrathin superconducting NbRe microstrips with hysteretic voltage-current characteristic. Low Temperature Physics, 2020, 46, 379-382.	0.6	5
6	The Role of Multiple Fluctuation Events in NbN and NbTiN Superconducting Nanostrip Single-Photon Detectors. Journal of Low Temperature Physics, 2020, 199, 6-11.	1.4	11
7	Lidar techniques for a SNSPD-based measurement. Journal of Physics: Conference Series, 2019, 1182, 012014.	0.4	12
8	Superconductor to resistive state switching by multiple fluctuation events in NbTiN nanostrips. Scientific Reports, 2019, 9, 8053.	3.3	26
9	Integrated Joule switches for the control of current dynamics in parallel superconducting strips. Superconductor Science and Technology, 2018, 31, 06LT01.	3.5	3
10	2017 16th International Superconductive Electronics Conference (ISEC). IEEE Transactions on Applied Superconductivity, 2018, 28, 1-2.	1.7	0
11	Proposal for a Nanoscale Superconductive Memory. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.7	6
12	SNSPD with parallel nanowires (Conference Presentation). , 2017, , .		0
13	Investigation of dark counts in innovative materials for superconducting nanowire single-photon detector applications. , 2017, , .		1
14	NanoSQUIDs based on niobium nitride films. Superconductor Science and Technology, 2017, 30, 024009.	3.5	14
15	Observation of dark pulses in 10 nm thick YBCO nanostrips presenting hysteretic current voltage characteristics. Superconductor Science and Technology, 2017, 30, 12LT02.	3.5	24
16	Phase-Slip Phenomena in Proximitized NbN/NiCu Superconducting Nanostripes. Journal of Superconductivity and Novel Magnetism, 2017, 30, 3403-3407.	1.8	2
17	Control of bulk superconductivity in a BCS superconductor by surface charge doping via electrochemical gating. Physical Review B, 2017, 95, .	3.2	28
18	Superconducting Transition Temperature Modulation in NbN via EDL Gating. Journal of Superconductivity and Novel Magnetism, 2016, 29, 587-591.	1.8	18

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19	Characterization of Superconducting Thin Films and nanoSQUIDs for Nanoparticle Investigation at High Magnetic Field. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	2
20	Superconductor/Ferromagnet Nanowires for Optical Photon Detection. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.7	2
21	Thermal fluctuations in superconductor/ferromagnet nanostripes. Physical Review B, 2015, 92, .	3.2	22
22	Experimental evidence of photoinduced vortex crossing in current carrying superconducting strips. Physical Review B, 2015, 92, .	3.2	8
23	Y-Ba-Cu-O nanostripes for optical photon detection. , 2015, , .		0
24	Dark counts in superconducting single-photon NbN/NiCu detectors. , 2015, , .		1
25	Superconducting nano-strip particle detectors. Superconductor Science and Technology, 2015, 28, 124004.	3.5	15
26	High-temperature superconducting nanowires for photon detection. Physica C: Superconductivity and Its Applications, 2015, 509, 16-21.	1.2	30
27	Highly homogeneous YBCO/LSMO nanowires for photoresponse experiments. Superconductor Science and Technology, 2014, 27, 044027.	3.5	29
28	Parallel superconducting strip-line detectors: reset behaviour in the single-strip switch regime. Superconductor Science and Technology, 2014, 27, 044029.	3.5	6
29	Proximitized NbN/NiCu nanostripes as new promising superconducting single-photon detectors. Proceedings of SPIE, 2013, , .	0.8	0
30	Current distribution in a parallel configuration superconducting strip-line detector. Applied Physics Letters, 2013, 103, .	3.3	14
31	Large area single photon detectors based on parallel configuration NbN nanowires. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, .	1.2	7
32	A 2 Ã— 2 mm²superconducting strip-line detector for high-performance time-of-flight mass spectrometry. Superconductor Science and Technology, 2012, 25, 115004.	3.5	14
33	Controlling flux flow dissipation by changing flux pinning in superconducting films. Applied Physics Letters, 2012, 100, .	3.3	35
34	Parallel Superconducting Strip-Line Detectors for Time-of-flight Mass Spectrometry. Journal of Low Temperature Physics, 2012, 167, 979-984.	1.4	3
35	Superconducting Molecule Detectors Overcoming Fundamental Limits of Conventional Mass Spectrometry. Journal of Low Temperature Physics, 2012, 167, 943-948.	1.4	5
36	Operation of superconducting nano-stripline detector (SSLD) mounted on cryogen-free cryostat. Physics Procedia, 2012, 27, 356-359.	1.2	2

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37	Nano-Strip Three-Terminal Superconducting Device for Cryogenic Detector Readout. IEEE Transactions on Applied Superconductivity, 2011, 21, 717-720.	1.7	10
38	Superconducting single photon detectors based on parallel NbN nanowires. Proceedings of SPIE, 2011, , .	0.8	0
39	Superconducting single photon detectors based on multiple cascade switches of parallel NbN nanowires. , 2011, , .		1
40	Non-linear Flux Flow Resistance of Type-II Superconducting Films. Journal of Superconductivity and Novel Magnetism, 2011, 24, 81-87.	1.8	10
41	Superconducting nano-striplines as quantum detectors. Journal of Nanoparticle Research, 2011, 13, 6121-6131.	1.9	3
42	Thicker, more efficient superconducting strip-line detectors for high throughput macromolecules analysis. Applied Physics Letters, 2011, 98, .	3.3	24
43	Characterization of superconducting pulse discriminators based on parallel NbN nanostriplines. Superconductor Science and Technology, 2011, 24, 035018.	3.5	6
44	European roadmap on superconductive electronics â€“ status and perspectives. Physica C: Superconductivity and Its Applications, 2010, 470, 2079-2126.	1.2	131
45	Strong critical current density enhancement in NiCu/NbN superconducting nanostripes for optical detection. Applied Physics Letters, 2010, 97, 092504.	3.3	29
46	Time-resolved observation of fast hotspot dynamics in superconducting nanowires. Physical Review B, 2010, 81, .	3.2	11
47	Reset dynamics and latching in niobium superconducting nanowire single-photon detectors. Journal of Applied Physics, 2010, 108, 084507.	2.5	88
48	Photoresponse experiments on NbN proximized nanostructures. Journal of Physics: Conference Series, 2010, 234, 042027.	0.4	0
49	Properties of Cascade Switch Superconducting Nanowire Single Photon Detectors. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2010, , 150-157.	0.3	1
50	Subnanosecond time response of large-area superconducting stripline detectors for keV molecular ions. Applied Physics Letters, 2009, 94, .	3.3	33
51	Timing jitter of cascade switch superconducting nanowire single photon detectors. Applied Physics Letters, 2009, 95, 132503.	3.3	20
52	Superconductive Three-Terminal Amplifier/Discriminator. IEEE Transactions on Applied Superconductivity, 2009, 19, 367-370.	1.7	8
53	Characterization of parallel superconducting nanowire single photon detectors. Superconductor Science and Technology, 2009, 22, 055006.	3.5	47
54	1 mm ultrafast superconducting stripline molecule detector. Applied Physics Letters, 2009, 95, .	3.3	47

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55	Maximum count rate of large area superconducting single photon detectors. Journal of Modern Optics, 2009, 56, 390-394.	1.3	19
56	Large Signal Amplitude and Bias Range of Cascade Switch Superconducting Nanowire Single Photon Detectors. IEEE Transactions on Applied Superconductivity, 2009, 19, 323-326.	1.7	9
57	Parallel Configuration For Fast Superconducting Strip Line Detectors With Very Large Area In Time Of Flight Mass Spectrometry. , 2009, , .		0
58	Feasibility Investigation of NbN Nanowires as Detector in Time-of-Flight Mass Spectrometers forÂMacromolecules of Interest in Biology (Proteins). Journal of Low Temperature Physics, 2008, 151, 771-776.	1.4	15
59	Experimental characterization of NbN nanowire optical detectors with parallel stripline configuration. Journal of Physics: Conference Series, 2008, 97, 012265.	0.4	1
60	Compositional Analysis by a Superconductor-Based Energy Dispersive Spectrometer. IEEE Transactions on Applied Superconductivity, 2007, 17, 625-628.	1.7	5
61	Injection-Detection Experiments in All Aluminum 1-D Imaging Spectrometers Based on Superconducting Tunnel Junctions. IEEE Transactions on Applied Superconductivity, 2007, 17, 302-305.	1.7	0
62	A cascade switching superconducting single photon detector. Applied Physics Letters, 2007, 91, .	3.3	108
63	A double junction superconductive detector based on a single material. Journal of Physics: Conference Series, 2006, 43, 1307-1310.	0.4	0
64	Advanced superconducting optical detectors. Journal of Physics: Conference Series, 2006, 43, 1338-1341.	0.4	0
65	Recent achievements on annular Josephson structures and their application as radiation detectors. Physica C: Superconductivity and Its Applications, 2006, 435, 118-124.	1.2	1
66	Fabrication and test of Superconducting Single Photon Detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 559, 564-566.	1.6	26
67	Nonequilibrium superconducting detectors. Superconductor Science and Technology, 2006, 19, S152-S159.	3.5	3
68	Static and dynamic properties of annular Josephson junctions with injected current. Physical Review B, 2006, 73, .	3.2	1
69	Dynamics of nonequilibrium quasiparticles in a double superconducting tunnel junction detector. Superconductor Science and Technology, 2005, 18, 953-960.	3.5	11
70	Kinetic Inductance Detectors for Mass Spectroscopy. IEEE Transactions on Applied Superconductivity, 2005, 15, 940-943.	1.7	10
71	The characteristic electronâ€“phonon coupling time of unconventional superconductors and implications for optical detectors. Superconductor Science and Technology, 2005, 18, 1244-1251.	3.5	28
72	New Fluxon Resonant Mechanism in Annular Josephson Tunnel Structures. Physical Review Letters, 2004, 93, 187001.	7.8	11

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73	X-ray energy spectrum measurements by an annular superconducting tunnel junction with trapped magnetic flux quanta. Applied Physics Letters, 2004, 84, 5464-5466.	3.3	6
74	Annular superconducting tunnel junction with injected current as a new configuration of radiation detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 520, 240-242.	1.6	2
75	Progress in fabrication of high quality tantalum film absorber for STJ radiation detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 520, 243-245.	1.6	5
76	Dual-detector for simultaneous time and energy measurements with superconductive detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 520, 41-43.	1.6	2
77	Josephson device for simultaneous time and energy detection. Applied Physics Letters, 2003, 82, 2109-2111.	3.3	6
78	Fraunhofer critical-current diffraction pattern in annular Josephson junctions with injected current. Physical Review B, 2002, 65, .	3.2	10
79	Annular superconducting tunnel junction detectors: Experimental results under X-ray illumination. , 2002, , .		1
80	Aluminum Superconducting Tunnel Junction as X-ray detector: Technological aspects and phonon decoupling from the substrate. , 2002, , .		2
81	Investigations on particular Josephson devices shedding light on more fundamental issues. Physica C: Superconductivity and Its Applications, 2002, 367, 241-248.	1.2	9
82	Fast Josephson cryodetector for time of flight mass spectrometry. Physica C: Superconductivity and Its Applications, 2002, 372-376, 423-426.	1.2	6
83	Dynamical states in annular Josephson junctions: Amplitude dependence of zero field steps on the magnetic field. Physica C: Superconductivity and Its Applications, 2002, 372-376, 42-45.	1.2	2
84	Detection of single x-ray photons by an annular superconducting tunnel junction. Applied Physics Letters, 2001, 79, 2103-2105.	3.3	9
85	SOME ASPECTS OF SUPERCONDUCTIVE JUNCTION RADIATION DETECTORS. , 2000, , .		0
86	Quasiparticle diffusion and edge losses in superconducting tunnel junction detectors with two active electrodes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 444, 15-18.	1.6	7
87	Annular Josephson junctions for radiation detection: fabrication and investigation of the magnetic behaviour. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 444, 476-479.	1.6	1
88	The role of the geometry in superconducting tunnel junction detectors. Superconductor Science and Technology, 2000, 13, 542-545.	3.5	4
89	Fiske resonances in annular Josephson junctions. Physical Review B, 2000, 62, 8683-8686.	3.2	11
90	Magnetic properties of annular Josephson junctions for radiation detection: Experimental results. Applied Physics Letters, 1999, 74, 3389-3391.	3.3	19

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91	Quasiparticle diffusion, edge losses, and back-tunneling in superconducting tunnel junctions under x-ray irradiation. Journal of Applied Physics, 1999, 86, 4580-4587.	2.5	18
92	Abrikosov Monopole Vortices and Their Images in a Circular Josephson Tunnel Junction. International Journal of Modern Physics B, 1999, 13, 1265-1270.	2.0	1
93	Effects of Quasiparticle Diffusion in Nb-Based Superconducting Tunnel Junctions Under X-Rays Irradiation. International Journal of Modern Physics B, 1999, 13, 1247-1252.	2.0	0
94	Traversal Time in Josephson Junctions. Journal of Superconductivity and Novel Magnetism, 1999, 12, 829-833.	0.5	8
95	Development of radiation-hard particle detectors using Josephson tunnel junctions. Nuclear Physics, Section B, Proceedings Supplements, 1998, 61, 570-575.	0.4	1
96	A hotspot size estimate technique by using Abrikosov vortices in Josephson tunnel junctions. Applied Superconductivity, 1998, 6, 331-335.	0.5	0
97	Traversal Time as Deduced from Decay Time Measurements in Josephson Junctions. Physica Scripta, 1998, 58, 538-542.	2.5	11
98	Fiske steps in annular Josephson junctions with trapped flux quanta. Physical Review B, 1998, 58, 11685-11691.	3.2	15
99	Radiation Hardness of Josephson Devices. Japanese Journal of Applied Physics, 1998, 37, 40.	1.5	7
100	X-ray response of Nb-based superconducting tunnel junction. European Physical Journal Special Topics, 1998, 08, Pr3-275-Pr3-278.	0.2	1
101	Role of Special Junction Configurations in the Detection Performances. Japanese Journal of Applied Physics, 1998, 37, 31.	1.5	1
102	Effect of intense proton irradiation on properties of Josephson devices. IEEE Transactions on Applied Superconductivity, 1997, 7, 2917-2920.	1.7	15
103	Experimental estimation of the hot spot size in Nb-based Josephson tunnel junctions using Abrikosov vortices. Journal of Applied Physics, 1997, 82, 5024-5029.	2.5	9
104	The effective dissipation in Nb/AlOx/Nb Josephson tunnel junctions by return current measurements. Journal of Applied Physics, 1997, 81, 7418-7426.	2.5	12
105	Annular Josephson junctions as superconductive nuclear particle detectors. Applied Physics Letters, 1997, 70, 1320-1322.	3.3	16
106	Sidelobe suppression in arbitrarity shaped quadrangle Josephson junctions. Journal of Low Temperature Physics, 1997, 106, 359-364.	1.4	1
107	Proton damage on Nb-based Josephson junctions. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1997, 19, 1397-1404.	0.4	1
108	Fabrication of high-quality Josephson junctions for applications as particle detectors. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1997, 19, 1405-1409.	0.4	0

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109	Estimation of Î±-particle induced hot spot size in Nb film using Abrikosov vortices. European Physical Journal D, 1996, 46, 2881-2882.	0.4	0
110	Investigation of Fiske steps of a josephson tunnel junction with trapped Abrikosov vortices. European Physical Journal D, 1996, 46, 685-686.	0.4	0
111	X-ray response of STJ detectors using NbN absorbing layers. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 370, 95-97.	1.6	0
112	Josephson tunnel junctions as fast nuclear particle position detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 370, 110-111.	1.6	8
113	Direct measurements of relaxation time scales in Josephson junctions. Solid State Communications, 1996, 97, 439-444.	1.9	8
114	Switching dynamics of Nb/AlOx/Nb Josephson junctions: Measurements for an experiment of macroscopic quantum coherence. Journal of Applied Physics, 1996, 80, 2922-2928.	2.5	26
115	On the magnetic field dependence of the critical current in small irregular polygonal Josephson junctions. Journal of Applied Physics, 1996, 80, 3401-3407.	2.5	9
116	X ray response of STJs detectors with different trapping layers: Preliminary results. Nuclear Physics, Section B, Proceedings Supplements, 1995, 44, 682-687.	0.4	1
117	Two-particle tunneling current in Josephson junctions. Journal of Low Temperature Physics, 1995, 99, 81-105.	1.4	4
118	Influence of a NbN overlayer on Nb/Alâ€“AlOx/Nb high quality Josephson tunnel junctions for xâ€ray detection. Applied Physics Letters, 1995, 67, 3340-3342.	3.3	6
119	Two-particle structures in high quality Nb/AlOx/Nb Josephson tunnel junctions. Physica B: Condensed Matter, 1994, 194-196, 1681-1682.	2.7	0
120	Set up of a nuclear radiation experiment with superconducting tunnel junctions in a compact3He cryostat. Cryogenics, 1994, 34, 243-246.	1.7	1
121	Investigation of subgap structures in high-quality Nb/AlOx/Nb tunnel junctions. Physical Review B, 1994, 49, 429-440.	3.2	19
122	Nbâ€based Josephson junction devices for nuclear radiation detection: Design and preliminary experimental results. Journal of Applied Physics, 1994, 75, 5210-5217.	2.5	17
123	X-ray detection by Nb STJs above 1.4 K. Journal of Low Temperature Physics, 1993, 93, 691-696.	1.4	5
124	High quality Nb-based junctions for superconductive detectors. Nuclear Physics, Section B, Proceedings Supplements, 1993, 32, 300-306.	0.4	1
125	High-resolution energy spectroscopy and superconductive Tunnel Junction. Il Nuovo Cimento Della SocietÃ Italiana Di Fisica C, 1993, 16, 735-742.	0.2	1
126	A New Fabrication Process of Superconducting Nb Tunnel Junctions with Ultralow Leakage Current for X-Ray Detection. Japanese Journal of Applied Physics, 1993, 32, 4535-4537.	1.5	33

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127	Investigation of lowâ€temperatureIâ€Vcurves of highâ€quality Nb/Alâ€AlOx/Nb Josephson junctions. Journal of Applied Physics, 1992, 71, 1888-1892.	2.5	35
128	Observation of subgap structures in high-quality Nb/Al-AlOx/Nb Josephson tunnel junctions. Journal of Superconductivity and Novel Magnetism, 1992, 5, 451-455.	0.5	7
129	BCS quasi-particle tunnelling current in Josephson tunnel junctions. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1992, 14, 395-410.	0.4	3
130	Sweep rate effects and quantum energy levels in Josephson junctions. Physica B: Condensed Matter, 1990, 165-166, 947-948.	2.7	0
131	Effects of level quantization on the supercurrent decay in Josephson junctions: The nonstationary case. Physical Review B, 1990, 41, 7341-7344.	3.2	26
132	Aspects of dissipation effects in experiments on macroscopic quantum tunnelling in Josephson junctions. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1989, 11, 187-199.	0.4	2
133	Experimental results on the metastability of the resistive state in Josephson junctions. IEEE Transactions on Magnetics, 1989, 25, 1416-1419.	2.1	2
134	Decay of the running state in Josephson junctions: Preliminary experimental results. Physics Letters, Section A: General, Atomic and Solid State Physics, 1988, 133, 347-352.	2.1	4
135	Effect of dissipation on thermal activation in an underdamped Josephson junction: First evidence of a transition between different damping regimes. Physical Review Letters, 1988, 60, 844-847.	7.8	58
136	Reverse switching current distributions in underdamped Josephson junctions. IEEE Transactions on Magnetics, 1987, 23, 771-774.	2.1	3
137	Aspects of thermal activation theory and applications to the Josephson effect. Journal of Applied Physics, 1986, 60, 3243-3246.	2.5	9
138	Decay of the running state in underdamped Josephson junctions. Journal of Applied Physics, 1986, 59, 1401-1403.	2.5	14
139	THERMAL AND QUANTUM NOISE IN OVERDAMPED JOSEPHSON JUNCTIONS. , 1986, , 289-292.		0
140	Supercurrent decay in underdamped Josephson junctions: Nonstationary case. Journal of Applied Physics, 1985, 58, 3822-3826.	2.5	43
141	Effect of Quantum Fluctuations onIâ^'VCurves of Overdamped Josephson Junctions. Physical Review Letters, 1985, 54, 157-157.	7.8	2
142	Some Aspects of Self-Field Effects in Large Vanadium-Based Josephson Junctions. Physica Scripta, 1984, 29, 257-258.	2.5	1
143	Effect of capacitance onIâ€Vcharacteristics of overdamped Josephson junctions: Classical and quantum limits. Journal of Applied Physics, 1984, 56, 1473-1476.	2.5	8
144	Tunneling characteristics of Pb-CdS-Pb light-sensitive Josephson junctions. IEEE Transactions on Magnetics, 1983, 19, 983-986.	2.1	4

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145	Aspects of the temperature dependence of the maximum supercurrent in vanadium-based Josephson junctions. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1981, 108, 989-990.	0.9	0