

# Eugenio Monticone

## List of Publications by Year in descending order

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papers

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all docs

129  
docs citations

129  
times ranked

875  
citing authors

#	ARTICLE	IF	CITATIONS
1	Neutrino physics with the PTOLEMY project: active neutrino properties and the light sterile case. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 047-047.	5.4	85
2	Investigation of Ti/Pd Bilayer for Single Photon Detection. IEEE Transactions on Applied Superconductivity, 2009, 19, 493-495.	1.7	79
3	Self consistent, absolute calibration technique for photon number resolving detectors. Optics Express, 2011, 19, 23249.	3.4	42
4	Effective gap at microwave frequencies in MgB <sub>2</sub> thin films with strong interband scattering. Physical Review B, 2005, 71, .	3.2	31
5	High intrinsic energy resolution photon number resolving detectors. Applied Physics Letters, 2013, 103, .	3.3	31
6	Evidence of rf-driven dendritic vortex avalanches in MgB <sub>2</sub> microwave resonators. Journal of Applied Physics, 2007, 102, 113901.	2.5	26
7	Fabrication of Au/Ti TESs for Optical Photon Counting. Journal of Low Temperature Physics, 2008, 151, 261-265.	1.4	25
8	Photon-number discriminating superconducting transition-edge sensors. Metrologia, 2009, 46, S283-S287.	1.2	24
9	A design for an electromagnetic filter for precision energy measurements at the tritium endpoint. Progress in Particle and Nuclear Physics, 2019, 106, 120-131.	14.4	24
10	Antireflection coatings for superconducting photodetectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 444, 461-464.	1.6	23
11	Status of the SIMP Project: Toward the Single Microwave Photon Detection. Journal of Low Temperature Physics, 2020, 199, 348-354.	1.4	23
12	Impedance measurements on a fast transition-edge sensor for optical and near-infrared range. Superconductor Science and Technology, 2010, 23, 105012.	3.5	21
13	CORRELATION OF CRITICAL TEMPERATURES AND ELECTRICAL PROPERTIES IN TITANIUM FILMS. International Journal of Modern Physics B, 2003, 17, 948-952.	2.0	18
14	MgB <sub>2</sub> thin films on silicon nitride substrates prepared by an in situ method. Superconductor Science and Technology, 2004, 17, 649-652.	3.5	18
15	Local thermal bistability in MgB <sub>2</sub> microwave coplanar resonators: Opposite jumpwise response to weak-link switching and to vortex avalanches. Applied Physics Letters, 2009, 94, .	3.3	18
16	Ti/Au Transition-Edge Sensors Coupled to Single Mode Optical Fibers Aligned by Si V-Groove. IEEE Transactions on Applied Superconductivity, 2011, 21, 215-218.	1.7	18
17	Nb-based SNS junctions with Al and TaO <sub>x</sub> barriers for a programmable Josephson voltage standard. IEEE Transactions on Applied Superconductivity, 1999, 9, 4245-4248.	1.7	17
18	Fabrication and Characterization of Fast TESs With Small Area for Single Photon Counting. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	16

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19	Properties of nickel thin films on polyimide substrata for HF bolometers. Measurement Science and Technology, 1993, 4, 1244-1248.	2.6	15
20	Properties of RF-sputtered Nb/Al-AIO/sub x//Nb Josephson SNAP junctions. IEEE Transactions on Applied Superconductivity, 1996, 6, 24-31.	1.7	15
21	Aluminum-Titanium Bilayer for Near-Infrared Transition Edge Sensors. Sensors, 2016, 16, 953.	3.8	15
22	Iron-Based Superconducting Nanowires: Electric Transport and Voltage-Noise Properties. Nanomaterials, 2020, 10, 862.	4.1	15
23	Properties of metal bolometers fabricated on porous silicon. Applied Surface Science, 1999, 142, 267-271.	6.1	14
24	Point-contact spectroscopy in MgB2: from fundamental physics to thin-film characterization. Superconductor Science and Technology, 2004, 17, S93-S100.	3.5	12
25	Quantitative magneto-optical analysis of macroscopic supercurrent flow in MgB2. Superconductor Science and Technology, 2003, 16, 199-204.	3.5	10
26	Superconducting $\text{MgB}_2$ Nanostructures Fabricated by Electron Beam Lithography. IEEE Transactions on Applied Superconductivity, 2007, 17, 222-224.	1.7	10
27	AFM analysis of MgB2 films and nanostructures. Surface Science, 2007, 601, 58-62.	1.9	10
28	Ti/Au TES AS SUPERCONDUCTING DETECTOR FOR QUANTUM TECHNOLOGIES. International Journal of Quantum Information, 2011, 09, 405-413.	1.1	10
29	E-beam evaporated ZnO thin films: Fabrication and characterization as UV detector. European Physical Journal Plus, 2015, 130, 1.	2.6	10
30	Development of a Josephson junction based single photon microwave detector for axion detection experiments. Journal of Physics: Conference Series, 2020, 1559, 012020.	0.4	10
31	Implementation and optimization of the PTOLEMY transverse drift electromagnetic filter. Journal of Instrumentation, 2022, 17, P05021.	1.2	10
32	Design and fabrication of metal bolometers on high porosity silicon layers. Microelectronics Journal, 1999, 30, 1149-1154.	2.0	9
33	Production by solid/liquid reaction and characterization of high purity MgB2 powders and thick films for superconducting application. Journal of the European Ceramic Society, 2004, 24, 1837-1840.	5.7	8
34	Micro-SQUIDs based on $\text{MgB}_2$ nano-bridges for NEMS readout. Superconductor Science and Technology, 2016, 29, 104008.	3.5	8
35	MgB2 magnetometer with a directly coupled pick-up loop. Superconductor Science and Technology, 2006, 19, S303-S306.	3.5	7
36	Fabrication of superconducting MgB2 nanostructures by an electron beam lithography-based technique. Journal of Applied Physics, 2006, 99, 066115.	2.5	7

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37	Optical Transition-Edge Sensors Single Photon Pulse Analysis. IEEE Transactions on Applied Superconductivity, 2011, 21, 285-288.	1.7	7
38	Tests of SNIS Josephson Arrays Cryocooler Operation. Journal of Superconductivity and Novel Magnetism, 2015, 28, 1181-1184.	1.8	7
39	On the Synthesis of Stepwise Quantum Waves Using a SNIS Programmable Josephson Array in a Cryocooler. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	7
40	Surface characterization of sputtered niobium films by scanning tunneling microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 1734.	1.6	6
41	Structural and morphological properties of evaporated SiO <sub>x</sub> films. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 523-529.	0.6	6
42	Structural and electrical characterisation of Mo films for transition-edge sensors. Physica C: Superconductivity and Its Applications, 2002, 372-376, 440-443.	1.2	6
43	Wideband digital modular system for dynamic characterization of PJVS. , 2014, , .		6
44	Structural and surface properties of sputtered Nb films for multilayer devices. Surface Science, 1997, 377-379, 1042-1045.	1.9	5
45	New Barriers for Fast-Switching SNS Josephson Junctions. International Journal of Modern Physics B, 1999, 13, 1259-1264.	2.0	5
46	Non-equilibrium experiments in LTS Josephson double tunnel devices [Nb/Al/AIO/sub x//Nb]. IEEE Transactions on Applied Superconductivity, 1999, 9, 3974-3977.	1.7	5
47	Recent achievements in MgB <sub>2</sub> physics and applications: A large-area SQUID magnetometer and point-contact spectroscopy measurements. Physica C: Superconductivity and Its Applications, 2006, 435, 59-65.	1.2	5
48	Superconducting MgB <sub>2</sub> nanobridges and meanders obtained by an electron beam lithography-based technique on different substrates. Superconductor Science and Technology, 2008, 21, 034006.	3.5	5
49	Temperature Stability of SNIS Josephson Arrays Between 4.2 K and Critical Temperature in Cryocooler. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	5
50	Cryogen-Free Operation of SNIS for AC Quantum Voltage Standards. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-3.	1.7	5
51	Characterization and performance of BGO crystals for positron emission tomography. Sensors and Actuators A: Physical, 1994, 42, 487-490.	4.1	4
52	Thickness dependence of electrical and structural properties of Nb thin films. Physica Status Solidi A, 1995, 151, 335-344.	1.7	4
53	Analysis of the interfaces of stacked Josephson junctions by atomic force microscopy. IEEE Transactions on Applied Superconductivity, 1997, 7, 2419-2422.	1.7	4
54	Niobium Josephson junction bolometers for optical detection in the visible-infrared region. IEEE Transactions on Applied Superconductivity, 1999, 9, 3866-3869.	1.7	4

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55	High-resistivity superconductor-normal-superconductor junctions for an AC Josephson voltage standard. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 965-971.	0.6	4
56	Properties of bilayers based on Mo films for transition-edge sensors. IEEE Transactions on Applied Superconductivity, 2003, 13, 3292-3294.	1.7	4
57	DEVELOPMENT OF SUPERCONDUCTING SINGLE-PHOTON DETECTORS AT I.N.Ri.M.. International Journal of Quantum Information, 2007, 05, 293-298.	1.1	4
58	Mechanisms Limiting the Performance of $\text{MgB}_2$ Polycrystalline Thin Film Microwave Resonators. IEEE Transactions on Applied Superconductivity, 2011, 21, 579-582.	1.7	4
59	Impedance measurements for photon number resolving Transition-Edge Sensors. European Physical Journal Plus, 2012, 127, 1.	2.6	4
60	Reduced Active Area in Transition-Edge Sensors for Visible-NIR Photon Detection: A Comparison of Experimental Data and Two-Fluid Model. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	4
61	DEVELOPMENT OF TI BASED TRANSITION EDGE SENSORS FOR CRYOGENIC DETECTORS. , 2002, , .		4
62	Thin-film thermopiles in microcalorimeters. Sensors and Actuators A: Physical, 1991, 27, 633-636.	4.1	3
63	Properties of r.f. sputtered niobium thin films for metrological applications. Applied Superconductivity, 1993, 1, 1333-1340.	0.5	3
64	DEVELOPMENT OF A Nb/Al TECHNOLOGY FOR SNS JOSEPHSON JUNCTIONS. International Journal of Modern Physics B, 2000, 14, 3044-3049.	2.0	3
65	Development of an AC-DC thermal converter at millivolt level operating at cryogenic temperature. IEEE Transactions on Instrumentation and Measurement, 2001, 50, 338-341.	4.7	3
66	$\text{MgB}_2$ superconducting films for bolometer applications. IEEE Transactions on Applied Superconductivity, 2003, 13, 3242-3244.	1.7	3
67	Fabrication and characterization of an $\text{MgB}_2$ bolometer. Superconductor Science and Technology, 2007, 20, S403-S407.	3.5	3
68	Effects of Disorder on the Performance of Magnesium Diboride Microwave Resonators. IEEE Transactions on Applied Superconductivity, 2007, 17, 3644-3647.	1.7	3
69	Full characterization of optical Transition-Edge Sensor by impedance spectroscopy measurements in a bandwidth extending to 1 MHz. , 2013, , .		3
70	Co-Doped $\text{BaFeAs}_2$ Superconducting Nanowires for Detector Applications. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-4.	1.7	3
71	Thermal Performances of an Improved Package for Cryocooled Josephson Standards. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 1264-1270.	2.5	3
72	TES Microcalorimeters for PTOLEMY. Journal of Low Temperature Physics, 2020, 199, 138-142.	1.4	3

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73	Ti/Au Ultrathin Films For TES Application. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	3
74	Influence of the Interface Composition to the Superconductivity of Ti/PdAu Films. Nanomaterials, 2021, 11, 39.	4.1	3
75	New development of HgI <sub>2</sub> X-ray and soft gamma ray detector for synchrotron radiation research and dosimetry applications. Sensors and Actuators A: Physical, 1992, 32, 455-463.	4.1	2
76	Surface characterisation of electroformed mirrors for an X-ray telescope. Surface Science, 1997, 377-379, 98-102.	1.9	2
77	Development of fast-switching Nb/Al/Nb SNS junctions for the AC Josephson voltage standard. , 0, , .		2
78	Fabrication of superconducting MgB <sub>2</sub> nanostructures. Journal of Physics Condensed Matter, 2008, 20, 474210.	1.8	2
79	How to avoid reflection losses in superconducting light detectors. Journal of Modern Optics, 2009, 56, 385-389.	1.3	2
80	Experimental Sub-shot Noise Quantum Imaging versus Differential Classical Imaging. , 2010, , .		2
81	Analysis of the Current Noise Produced in Stationary Conditions in MgB <sub>2</sub> Films at Different Stages of the Superconducting Transition. Journal of Superconductivity and Novel Magnetism, 2011, 24, 1111-1115.	1.8	2
82	Hole mobility in HgI <sub>2</sub> . Solid State Communications, 1986, 59, 697-698.	1.9	1
83	Realization of a low noise preamplifier for low capacitance solid state detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1987, 261, 527-532.	1.6	1
84	Resistive power splitter in microwave power standard calibration transfer. Measurement: Journal of the International Measurement Confederation, 1988, 6, 129-134.	5.0	1
85	Thermopile linearity errors in the HF-calorimeter method. Measurement: Journal of the International Measurement Confederation, 1990, 8, 146-152.	5.0	1
86	Effect of vacuum annealing on superconducting properties of niobium films. Applied Superconductivity, 1993, 1, 845-851.	0.5	1
87	Josephson tunnel junctions as highly sensitive photodetectors for radiometry. Metrologia, 1998, 35, 393-396.	1.2	1
88	Analysis of NB Josephson Junction Properties under Optical Irradiation. International Journal of Modern Physics B, 1999, 13, 1283-1288.	2.0	1
89	Antireflection coating for superconducting tunnel junction photodetectors in the visible range. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 531-538.	0.6	1
90	Structural and morphological properties of evaporated SiO <sub>x</sub> films. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 523-529.	0.6	1

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91	Roughness evolution of Nb films with thickness. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 1133-1139.	0.6	1
92	Development of an ac-dc thermal converter at millivolt level operating at cryogenic temperature. , 0, , .		1
93	Thermostatic control for high sensitivity cryogenic AC-DC thermal converters. , 0, , .		1
94	Characterization of Titanium films for low temperature detectors. , 2002, , .		1
95	ELECTRO-THERMAL RESPONSE OF A VOLTAGE-BIASED HIGH-TC BOLOMETER. International Journal of Modern Physics B, 2003, 17, 740-744.	2.0	1
96	Measurements and interpretation of current noise in MgB <sub>2</sub> superconducting thin film during the resistive transition. , 2004, 5469, 374.		1
97	Enhancement of $T_c$ in MgB <sub>2</sub> Thin Films by Laser Local Annealing. IEEE Transactions on Applied Superconductivity, 2005, 15, 3242-3244.	1.7	1
98	MgB <sub>2</sub> Thin Films for Radiation Detectors Operating at Microwave Frequencies. AIP Conference Proceedings, 2006, , .	0.4	1
99	Electrical and optical properties of MgB <sub>2</sub> grown by co-evaporation method. Journal of Physics and Chemistry of Solids, 2006, 67, 305-307.	4.0	1
100	Dual stage resistive transition of MgB <sub>2</sub> evidenced by noise analysis. Journal of Applied Physics, 2011, 110, 013909.	2.5	1
101	Operation of SNIS arrays in a cryocooler. , 2014, , .		1
102	Cryocooled Josephson standards for AC voltage metrology. Journal of Physics: Conference Series, 2017, 841, 012031.	0.4	1
103	Cryocooled programmable and pulse-driven Josephson voltage standards at INRiM. , 2017, , .		1
104	A power supply with temperature and N <sub>2</sub> level test controlled by a PC IBM-XT for a HP-Ge detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1988, 271, 571-573.	1.6	0
105	Construction and performance of diffused and ion-implanted silicon microstrip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1990, 286, 238-242.	1.6	0
106	A low background, large solid angle neutron detector for spectroscopy and dosimetry application. Sensors and Actuators A: Physical, 1994, 42, 497-502.	4.1	0
107	Magnetic field behavior of vertical stacks of Josephson junctions with large idle regions. IEEE Transactions on Applied Superconductivity, 1997, 7, 2442-2445.	1.7	0
108	Superconductive thin-film devices for microwave applications. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1997, 19, 1375-1380.	0.4	0

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109	Magnetic-field dependence of the critical current of single and stacked Josephson junctions with large idle regions. <i>Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics</i> , 1997, 19, 1381-1387.	0.4	0
110	SUPERCONDUCTING-RESISTIVE-TRANSITION DEVICE FOR THE PRECISION MEASUREMENT OF LOW AC VOLTAGE. <i>International Journal of Modern Physics B</i> , 2000, 14, 3116-3121.	2.0	0
111	Antireflection coating for superconducting tunnel junction photodetectors in the visible range. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2000, 80, 531-538.	0.6	0
112	Fabrication and characterization of a cryogenic AC-DC converter. <i>IEEE Transactions on Applied Superconductivity</i> , 2001, 11, 589-592.	1.7	0
113	Improved IEN cryogenic system for AC-DC transfer in the 1 mV range. , 0, , .		0
114	Study of disorder effects on titanium films resistivity. <i>Physica B: Condensed Matter</i> , 2003, 329-333, 1533-1535.	2.7	0
115	Current noise in MgB <sub>2</sub> superconducting thin films. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2004, 520, 351-353.	1.6	0
116	Investigation of the resistive transition of MgB <sub>2</sub> thin film through current noise. <i>Journal of Physics: Conference Series</i> , 2006, 43, 313-316.	0.4	0
117	Analysis And Interpretation Of Current Noise In High T <sub>c</sub> Granular Superconductors During Their Resistive Transition. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	0
118	Characterization of the Resistive Transition of $\text{MgB}_2$ Nanogranular Films by Current Noise Analysis. <i>IEEE Transactions on Applied Superconductivity</i> , 2009, 19, 2827-2830.	1.7	0
119	Analysis Of Current Noise During The Resistive Transition Of MgB <sub>2</sub> Thin Films Produced By The Application Of An External Magnetic Field. , 2009, , .		0
120	Characterization and fabrication of Ti/Pd bilayers for transition-edge sensors. <i>Journal of Physics: Conference Series</i> , 2009, 150, 052168.	0.4	0
121	Current noise in stationary conditions in MgB <sub>2</sub> thin films. , 2011, , .		0
122	Cryocooler operation of SNIS Josephson arrays for AC Voltage standards. <i>Journal of Physics: Conference Series</i> , 2014, 507, 042040.	0.4	0
123	Tests on waveform synthesis in a new cryocooler setup. , 2016, , .		0
124	Towards joint reconstruction of noise and losses in quantum channels. <i>Quantum Measurements and Quantum Metrology</i> , 2016, 3, .	3.3	0
125	Realization and Characterization of Iron-Based Superconducting Nanowires for Detector Applications. , 2017, , .		0
126	Exploring High-Order Shapiro Steps for Staircase-Approximated Josephson Waves with a Dry-Cooled SNIS Programmable Array. , 2017, , .		0



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127	Towards a He-Free Source of Arbitrary Quantum Voltage Signals. , 2017, , .		0
128	Simulation Software for Transition-Edge Sensor Performance Prediction. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-6.	1.7	0
129	Investigation of the Superconducting Ti/PdAu Bilayer Films for Transition Edge Sensors. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-4.	1.7	0