Davide Massarotti

List of Publications by Year
in descending order

66 papers	1,461 citations	361413 20 h-index	330143 37 g-index
70 all docs	70 docs citations	70 times ranked	1472 citing authors

#	Article	IF	Citations
1	Investigation of the Inverse Magnetic Hysteresis of the Josephson Supercurrent in Magnetic Josephson Junctions. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.7	2
2	Coexistence and tuning of spin-singlet and triplet transport in spin-filter Josephson junctions. Communications Physics, 2022, 5, .	5.3	17
3	Hybrid ferromagnetic transmon qubit: Circuit design, feasibility, and detection protocols for magnetic fluctuations. Physical Review B, 2022, 105, .	3.2	12
4	Aluminum-ferromagnetic Josephson tunnel junctions for high quality magnetic switching devices. Applied Physics Letters, 2022, 120, .	3.3	6
5	Activation Energies in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mi>Mo</mml:mi><mml:mi>Si</mml:mi></mml:mrow><mml:mo>/</mml:mo><mml:mi>Al</mml:mi> Superconducting Nanowire Single-Photon Detectors. Physical Review Applied, 2022, 18, .	4.6	8
6	Inverse magnetic hysteresis of the Josephson supercurrent: Study of the magnetic properties of thin niobium/permalloy <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:msub><mml:mi>Fe</mml:mi><mml:m	3.2	10
7	Demonstration of Single Photon Detection in Amorphous Molybdenum Silicide / Aluminium Superconducting Nanostrip. IEEE Instrumentation and Measurement Magazine, 2021, 24, 69-74.	1.6	8
8	Unconventional magnetic hysteresis of the Josephson supercurrent in magnetic Josephson Junctions. , 2021, , .		1
9	Superconducting Molybdenum Silicide nanostrips for single photon detectors. , 2021, , .		1
10	High efficiency superconducting field effect devices for oxide electronic applications. Superconductor Science and Technology, 2020, 33, 034007.	3.5	5
11	Critical Current Suppression in Spin-Filter Josephson Junctions. Journal of Superconductivity and Novel Magnetism, 2020, 33, 3043-3049.	1.8	2
12	Characterization of scalable Josephson memory element containing a strong ferromagnet. Journal of Applied Physics, 2020, 127, .	2.5	19
13	Electrodynamics of Highly Spin-Polarized Tunnel Josephson Junctions. Physical Review Applied, 2020, 13, .	3.8	17
14	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
15	Low temperature characterization of high efficiency spin-filter Josephson junctions. EPJ Web of Conferences, 2020, 233, 05007.	0.3	0
16	Ferromagnetic Josephson Junctions for High Performance Computation. Proceedings (mdpi), 2019, 12, 16.	0.2	0
17	Superconductor to resistive state switching by multiple fluctuation events in NbTiN nanostrips. Scientific Reports, 2019, 9, 8053.	3.3	26
18	Tuning of Magnetic Activity in Spin-Filter Josephson Junctions Towards Spin-Triplet Transport. Physical Review Letters, 2019, 122, 047002.	7.8	24

#	Article	IF	Citations
19	Depairing Current at High Magnetic Fields in Vortex-Free High-Temperature Superconducting Nanowires. Nano Letters, 2019, 19, 4174-4179.	9.1	10
20	Phase Dynamics and Macroscopic Quantum Tunneling. Springer Series in Materials Science, 2019, , 455-512.	0.6	4
21	Currentâ€“Voltage Characteristics. Springer Series in Materials Science, 2019, , 235-274.	0.6	0
22	RF assisted switching in magnetic Josephson junctions. Journal of Applied Physics, 2018, 123, .	2.5	29
23	The influence of heat treatment on the microstructure, flux pinning and magnetic properties of bulk BSCCO samples prepared by sol-gel route. Ceramics International, 2018, 44, 5209-5218.	4.8	18
24	Electrodynamics of Josephson junctions containing strong ferromagnets. Physical Review B, 2018, 98, .	3.2	16
25	Vortex Lattice Instabilities in YBa2Cu3O7-x Nanowires. Materials, 2018, 11, 211.	2.9	12
26	Properties of Ferromagnetic Josephson Junctions for Memory Applications. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-6.	1.7	24
27	Statistics of localized phase slips in tunable width planar point contacts. Scientific Reports, 2017, 7, 44569.	3.3	17
28	What happens in Josephson junctions at high critical current densities. Low Temperature Physics, 2017, 43, 816-823.	0.6	2
29	Signatures of unconventional superconductivity in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LaAlO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:m / <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SrTiO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:m two-dimensional system. Physical Review B, 2017, 95, .	3.2	43
30	Hysteretic Critical State in Coplanar Josephson Junction with Monolayer Graphene Barrier. Journal of Superconductivity and Novel Magnetism, 2017, 30, 5-14.	1.8	1
31	Low temperature properties of spin filter NbN/GdN/NbN Josephson junctions. Physica C: Superconductivity and Its Applications, 2017, 533, 53-58.	1.2	4
32	10. Josephson and charging effect in mesoscopic superconducting devices. , 2017, , 309-338.		1
33	Geometrical vortex lattice pinning and melting in YBaCuO submicron bridges. Scientific Reports, 2016, 6, 38677.	3.3	14
34	Enhanced localized superconductivity in Sr₂RuO₄thin film by pulsed laser deposition. Superconductor Science and Technology, 2016, 29, 095005.	3.5	19
35	Josephson Coupling in Junctions Made of Monolayer Graphene Grown on SiC. Journal of Superconductivity and Novel Magnetism, 2016, 29, 1145-1150.	1.8	5
36	Incipient Berezinskii-Kosterlitz-Thouless transition in two-dimensional coplanar Josephson junctions. Physical Review B, 2016, 94, .	3.2	6

#	Article	IF	Citations
37	Tunable spin polarization and superconductivity in engineered oxide interfaces. Nature Materials, 2016, 15, 278-283.	27.5	104
38	A simple Arduino-based configuration for SPR sensors in plastic optical fibers. , 2015, , .		5
39	Suspended InAs nanowire Josephson junctions assembled via dielectrophoresis. Nanotechnology, 2015, 26, 385302.	2.6	20
40	Breakdown of the escape dynamics in Josephson junctions. Physical Review B, 2015, 92, .	3.2	26
41	Niobium nanoSQUIDs Based on Sandwich nanojunctions: Performance as a Function of the Temperature. IEEE Transactions on Applied Superconductivity, 2015, , 1-1.	1.7	2
42	Macroscopic quantum tunnelling in spin filter ferromagnetic Josephson junctions. Nature Communications, 2015, 6, 7376.	12.8	44
43	Towards a Hybrid High Critical Temperature Superconductor Junction With a Semiconducting InAs Nanowire Barrier. Journal of Superconductivity and Novel Magnetism, 2015, 28, 3429-3437.	1.8	12
44	Bias current ramp rate dependence of the crossover temperature from Kramers to phase diffusion switching in moderately damped NbN/AlN/NbN Josephson junctions. Journal of Applied Physics, 2014, 116, 043905.	2.5	5
45	Effects of capacitance on phase dynamics of YBa2Cu3O7-x Josephson junctions. IEEE Transactions on Applied Superconductivity, 2014, , 1-1.	1.7	0
46	Weak localization and spin-orbit interaction in side-gate field effect devices at the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">LaAlO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:msub><mml:mi mathvariant="normal">SrTiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>interface. Physical Review B, 2014, 90, .	3.2	47
47	Influence of topological edge states on the properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Al</mml:mi><mml:mo>/</mml:mo><mml:msub><mml:mo>Bi</mml:m Josephson devices. Physical Review B, 2014, 89, .	3.2	81
48	Synthesis and characterization of electrically conductive polyethylene-supported graphene films. Nanoscale Research Letters, 2014, 9, 475.	5.7	11
49	Josephson effect in Al/Bi2Se3/Al coplanar hybrid devices. Physica C: Superconductivity and Its Applications, 2014, 503, 162-165.	1.2	7
50	Phase dynamics of low critical current density YBCO Josephson junctions. Physica C: Superconductivity and Its Applications, 2014, 503, 113-119.	1.2	0
51	Dynamics of vortex matter in YBCO sub-micron bridges. Physica C: Superconductivity and Its Applications, 2014, 506, 188-194.	1.2	20
52	Recent Achievements on the Physics of High-T C Superconductor Josephson Junctions: Background, Perspectives and Inspiration. Journal of Superconductivity and Novel Magnetism, 2013, 26, 21-41.	1.8	43
53	An innovative plastic optical fiber-based biosensor for new bio/applications. The case of celiac disease. Sensors and Actuators B: Chemical, 2013, 176, 1008-1014.	7.8	85
54	Study of Phase Dynamics in Moderately Damped Josephson Junctions. Journal of Superconductivity and Novel Magnetism, 2013, 26, 835-838.	1.8	1

#	Article	IF	Citations
55	Performance Comparison of Two Sensors Based on Surface Plasmon Resonance in a Plastic Optical Fiber. Sensors, 2013, 13, 721-735.	3.8	98
56	Macroscopic quantum tunneling and retrapping processes in moderately damped YBaCuO Josephson junctions. Low Temperature Physics, 2013, 39, 294-298.	0.6	6
57	Resolving the effects of frequency dependent damping and quantum phase diffusion in YBa<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Cu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	3.2	28
58	Publisherâ€™s Note: Direct Transition from Quantum Escape to a Phase Diffusion Regime in YBaCuO Biepitaxial Josephson Junctions [Phys. Rev. Lett.109, 050601 (2012)]. Physical Review Letters, 2012, 109, .	7.8	1
59	Direct Transition from Quantum Escape to a Phase Diffusion Regime in YBaCuO Biepitaxial Josephson Junctions. Physical Review Letters, 2012, 109, 050601.	7.8	43
60	Escape dynamics in moderately damped Josephson junctions (Review Article). Low Temperature Physics, 2012, 38, 263-272.	0.6	24
61	Characterization of Moderately Damped Low Tc Josephsonjunctions through Measurements of Switching Current Distributions. Physics Procedia, 2012, 36, 110-115.	1.2	1
62	Energy scales in YBaCuO grain boundary biepitaxial Josephson junctions. Physica C: Superconductivity and Its Applications, 2012, 479, 74-78.	1.2	0
63	Quantum crossover in moderately damped epitaxial NbN/MgO/NbN junctions with low critical current density. Applied Physics Letters, 2011, 99, 062510.	3.3	27
64	Thermal hopping and retrapping of a Brownian particle in the tilted periodic potential of a NbN/MgO/NbN Josephson junction. Physical Review B, 2011, 84, .	3.2	50
65	High quality factor HTS Josephson junctions on low loss substrates. Superconductor Science and Technology, 2011, 24, 045008.	3.5	21
66	Low Cost Sensors Based on SPR in a Plastic Optical Fiber for Biosensor Implementation. Sensors, 2011, 11, 11752-11760.	3.8	261