Leonardo Midolo

List of Publications by Year
in descending order

58 papers	2,154 citations	279798 23 h-index	265206 42 g-index
61 all docs	61 docs citations	61 times ranked	2253 citing authors

#	Article	IF	Citations
1	Deterministic photonâ€“emitter coupling in chiral photonic circuits. Nature Nanotechnology, 2015, 10, 775-778.	31.5	466
2	Nano-opto-electro-mechanical systems. Nature Nanotechnology, 2018, 13, 11-18.	31.5	208
3	Single-photon non-linear optics with a quantum dot in a waveguide. Nature Communications, 2015, 6, 8655.	12.8	196
4	Scalable integrated single-photon source. Science Advances, 2020, 6, .	10.3	144
5	Efficient fiber-coupled single-photon source based on quantum dots in a photonic-crystal waveguide. Optica, 2017, 4, 178.	9.3	87
6	Indistinguishable and efficient single photons from a quantum dot in a planar nanobeam waveguide. Physical Review B, 2017, 96, .	3.2	85
7	Spinâ€“photon interface and spin-controlled photon switching in a nanobeam waveguide. Nature Nanotechnology, 2018, 13, 398-403.	31.5	85
8	Quantum-dot-based deterministic photonâ€“emitter interfaces for scalable photonic quantum technology. Nature Nanotechnology, 2021, 16, 1308-1317.	31.5	85
9	Ultrafast non-local control of spontaneous emission. Nature Nanotechnology, 2014, 9, 886-890.	31.5	59
10	Enhanced spontaneous emission from quantum dots in short photonic crystal waveguides. Applied Physics Letters, 2012, 100, 061122.	3.3	50
11	Quantum Optics with Near-Lifetime-Limited Quantum-Dot Transitions in a Nanophotonic Waveguide. Nano Letters, 2018, 18, 1801-1806.	9.1	49
12	Electromechanical wavelength tuning of double-membrane photonic crystal cavities. Applied Physics Letters, 2011, 98, 211120.	3.3	48
13	On-chip deterministic operation of quantum dots in dual-mode waveguides for a plug-and-play single-photon source. Nature Communications, 2020, 11, 3782.	12.8	48
14	Integrated nano-opto-electro-mechanical sensor for spectrometry and nanometrology. Nature Communications, 2017, 8, 2216.	12.8	41
15	Nanomechanical single-photon routing. Optica, 2019, 6, 524.	9.3	41
16	Soft-mask fabrication of gallium arsenide nanomembranes for integrated quantum photonics. Nanotechnology, 2015, 26, 484002.	2.6	39
17	High-efficiency shallow-etched grating on GaAs membranes for quantum photonic applications. Applied Physics Letters, 2018, 113, .	3.3	39
18	Widely tunable, efficient on-chip single photon sources at telecommunication wavelengths. Optics Express, 2012, 20, 21758.	3.4	32

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19	Narrow optical linewidths and spin pumping on charge-tunable close-to-surface self-assembled quantum dots in an ultrathin diode. Physical Review B, 2017, 96, .	3.2	29
20	Spontaneous emission control of single quantum dots by electromechanical tuning of a photonic crystal cavity. Applied Physics Letters, 2012, 101, 091106.	3.3	28
21	Near Transform-Limited Quantum Dot Linewidths in a Broadband Photonic Crystal Waveguide. ACS Photonics, 2020, 7, 2343-2349.	6.6	28
22	Efficient coupling of single photons to ridge-waveguide photonic integrated circuits. Applied Physics Letters, 2013, 102, .	3.3	26
23	Electromechanical tuning of vertically-coupled photonic crystal nanobeams. Optics Express, 2012, 20, 19255.	3.4	23
24	Fully tuneable, Purcell-enhanced solid-state quantum emitters. Applied Physics Letters, 2015, 107, .	3.3	23
25	Radiative Auger process in the single-photon limit. Nature Nanotechnology, 2020, 15, 558-562.	31.5	23
26	Electro-optic routing of photons from a single quantum dot in photonic integrated circuits. Optics Express, 2017, 25, 33514.	3.4	21
27	Coherent Optical Control of a Quantum-Dot Spin-Qubit in a Waveguide-Based Spin-Photon Interface. Physical Review Applied, 2019, 11, .	3.8	20
28	A Pure and Indistinguishable Singleâ€Photon Source at Telecommunication Wavelength. Advanced Quantum Technologies, 2022, 5, .	3.9	16
29	Deterministic Single-Phonon Source Triggered by a Single Photon. Physical Review Letters, 2016, 116, 234301.	7.8	15
30	Entangling a Hole Spin with a Time-Bin Photon: A Waveguide Approach for Quantum Dot Sources of Multiphoton Entanglement. Physical Review Letters, 2022, 128, .	7.8	14
31	Design and Optical Properties of Electromechanical Double-Membrane Photonic Crystal Cavities. IEEE Journal of Quantum Electronics, 2014, 50, 404-414.	1.9	11
32	Suppressing phonon decoherence of high performance single-photon sources in nanophotonic waveguides. Quantum Science and Technology, 2019, 4, 015003.	5.8	9
33	Onâ€Chip Nanomechanical Filtering of Quantumâ€Dot Singleâ€Photon Sources. Laser and Photonics Reviews, 2020, 14, 1900404.	8.7	9
34	Wafer-scale epitaxial modulation of quantum dot density. Nature Communications, 2022, 13, 1633.	12.8	9
35	Integrated Whispering-Gallery-Mode Resonator for Solid-State Coherent Quantum Photonics. Nano Letters, 2021, 21, 8707-8714.	9.1	7
36	On-Demand Source of Dual-Rail Photon Pairs Based on Chiral Interaction in a Nanophotonic Waveguide. PRX Quantum, 2022, 3, .	9.2	7

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37	Carrier-mediated optomechanical forces in semiconductor nanomembranes with coupled quantum wells. Physical Review B, 2018, 98, .	3.2	6
38	Suspended Spotâ€Size Converters for Scalable Singleâ€Photon Devices. Advanced Quantum Technologies, 2020, 3, 1900076.	3.9	6
39	In-plane resonant excitation of quantum dots in a dual-mode photonic-crystal waveguide with high Î²-factor. Quantum Science and Technology, 2022, 7, 025023.	5.8	6
40	Coupling of single quantum dots to photonic crystal cavities investigated by low-temperature scanning near-field optical microscopy. Physical Review B, 2013, 88, .	3.2	4
41	Nanomechanical control of optical field and quality factor in photonic crystal structures. Physical Review B, 2018, 97, .	3.2	4
42	Electroabsorption in gated GaAs nanophotonic waveguides. Applied Physics Letters, 2021, 118, .	3.3	3
43	Quantum integrated photonics on GaAs. , 2012, , .		1
44	Suspended Epoxy Polymer Inverted Tapers for Scalable Fibre-Coupled Single-Photon Devices. , 2019, , .		1
45	Active control of the vacuum field in nanomechanical photonic crystal structures. , 2016, , .		1
46	Fully integrated nano-opto-electro-mechanical wavelength and displacement sensor. , 2016, , .		1
47	Fully-tunable, Purcell-enhanced On-chip Quantum Emitters. , 2015, , .		1
48	Electromechanically Tunable Photonic Crystal Cavities. , 2011, , .		0
49	Optical control of the quality factor using coupled photonic crystal cavities. , 2012, , .		0
50	Spontaneous emission control of single quantum dots by electrostatic tuning of a double-slab photonic crystal cavity. , 2013, , .		0
51	Funneling single photons into ridge-waveguide photonic integrated circuits. Proceedings of SPIE, 2013, , .	0.8	0
52	Controlling the emission from single quantum dots with electro-opto-mechanical photonic crystal cavities. , 2013, , .		0
53	Reconfigurable quantum photonic circuits based on nano-electro-mechanical systems. , 2015, , .		0
54	Electromechanically-tunable nanophotonic cavities. , 2015, , .		0

#	Article	IF	Citations
55	Integrated spectrometer and displacement sensor based on mechanically tunable photonic crystals. , 2017, , .		0
56	Single-Photon Radiative Auger Emission from a Quantum Dot. , 2021, , .		0
57	Tunable Cavity-Enhanced Quantum Light Sources for Integrated Quantum Photonics. , 2016, , .		0
58	Fully-integrated nanomechanical wavelength and displacement sensor. , 2016, , .		0