

# Caterina Ciminelli

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

66

papers

1,163

citations

17

h-index

33

g-index

79

ext. papers

1,470

ext. citations

3.1

avg, IF

4.48

L-index

#	Paper	IF	Citations
66	Photonic technologies for angular velocity sensing. <i>Advances in Optics and Photonics</i> , <b>2010</b> , 2, 370	16.7	151
65	Label-free optical resonant sensors for biochemical applications. <i>Progress in Quantum Electronics</i> , <b>2013</b> , 37, 51-107	9.1	134
64	High performance InP ring resonator for new generation monolithically integrated optical gyroscopes. <i>Optics Express</i> , <b>2013</b> , 21, 556-64	3.3	82
63	High performance SOI microring resonator for biochemical sensing. <i>Optics and Laser Technology</i> , <b>2014</b> , 59, 60-67	4.2	65
62	Phononic and photonic band gap structures: modelling and applications. <i>Physics Procedia</i> , <b>2010</b> , 3, 357-364		64
61	Efficient Chemical Sensing by Coupled Slot SOI Waveguides. <i>Sensors</i> , <b>2009</b> , 9, 1012-32	3.8	50
60	A High-Q InP Resonant Angular Velocity Sensor for a Monolithically Integrated Optical Gyroscope. <i>IEEE Photonics Journal</i> , <b>2016</b> , 8, 1-19	1.8	45
59	. <i>IEEE Photonics Journal</i> , <b>2012</b> , 4, 1844-1854	1.8	40
58	New ultrasensitive resonant photonic platform for label-free biosensing. <i>Optics Express</i> , <b>2015</b> , 23, 28593-604	3.6	33
57	A new integrated optical angular velocity sensor <b>2005</b> ,		33
56	Ultra-high Q/V hybrid cavity for strong light-matter interaction. <i>APL Photonics</i> , <b>2017</b> , 2, 086101	5.2	30
55	Advances in Gyroscope Technologies <b>2011</b> ,		30
54	Low-loss passive waveguides in a generic InP foundry process via local diffusion of zinc. <i>Optics Express</i> , <b>2015</b> , 23, 25143-57	3.3	29
53	Fast light generation through velocity manipulation in two vertically-stacked ring resonators. <i>Optics Express</i> , <b>2010</b> , 18, 2973-86	3.3	25
52	Optimized Design of Integrated Optical Angular Velocity Sensors Based on a Passive Ring Resonator. <i>Journal of Lightwave Technology</i> , <b>2009</b> , 27, 2658-2666	4	22
51	Photonic and Plasmonic Nanotweezing of Nano- and Microscale Particles. <i>Applied Spectroscopy</i> , <b>2017</b> , 71, 367-390	3.1	18
50	Design of an ultra-compact graphene-based integrated microphotonic tunable delay line. <i>Optics Express</i> , <b>2018</b> , 26, 4593-4604	3.3	18

49	Three-dimensional modelling of scattering loss in InGaAsP/InP and silica-on-silicon bent waveguides. <i>Journal of the European Optical Society-Rapid Publications</i> , <b>2009</b> , 4,	2.5	17
48	Modeling and design of two-dimensional guided-wave photonic band-gap devices. <i>Journal of Lightwave Technology</i> , <b>2005</b> , 23, 886-901	4	17
47	Ultra-Compact Tuneable Notch Filter Using Silicon Photonic Crystal Ring Resonator. <i>Journal of Lightwave Technology</i> , <b>2019</b> , 37, 2970-2980	4	16
46	Theoretical investigation of indium phosphide buried ring resonators for new angular velocity sensors. <i>Optical Engineering</i> , <b>2013</b> , 52, 024601	1.1	16
45	Fully three-dimensional accurate modeling of scattering loss in optical waveguides. <i>Optical and Quantum Electronics</i> , <b>2009</b> , 41, 285-298	2.4	16
44	Photonics in Space <b>2016</b> ,		15
43	Monitoring of individual bacteria using electro-photonic traps. <i>Biomedical Optics Express</i> , <b>2019</b> , 10, 3463-3471	3.71	15
42	Comprehensive mathematical modelling of ultra-high Q grating-assisted ring resonators. <i>Journal of Optics (United Kingdom)</i> , <b>2020</b> , 22, 035802	1.7	13
41	Design of a New Ultracompact Resonant Plasmonic Multi-Analyte Label-Free Biosensing Platform. <i>Sensors</i> , <b>2017</b> , 17,	3.8	11
40	Design, fabrication, and preliminary test results of a new InGaAsP/InP high-Q ring resonator for gyro applications <b>2012</b> ,		10
39	Photonic crystal and photonic wire nano-photonics based on silicon-on-insulator. <i>New Journal of Physics</i> , <b>2006</b> , 8, 256-256	2.9	10
38	Silicon photonic biosensors. <i>IET Optoelectronics</i> , <b>2019</b> , 13, 48-54	1.5	8
37	System test of an optoelectronic gyroscope based on a high Q -factor InP ring resonator. <i>Optical Engineering</i> , <b>2014</b> , 53, 127104	1.1	8
36	Quality factor and finesse optimization in buried InGaAsP/InP ring resonators. <i>Journal of the European Optical Society-Rapid Publications</i> , <b>2009</b> , 4,	2.5	8
35	Measured radiation effects on InGaAsP/InP ring resonators for space applications. <i>Optics Express</i> , <b>2019</b> , 27, 24434-24444	3.3	8
34	Rigorous model for the design of ultra-high Q-factor resonant cavities <b>2016</b> ,		6
33	Parametric analysis of 2D guided-wave photonic band gap structures. <i>Optics Express</i> , <b>2005</b> , 13, 9729-46	3.3	6
32	Modeling and Design of a New Flexible Graphene-on-Silicon Schottky Junction Solar Cell. <i>Electronics (Switzerland)</i> , <b>2016</b> , 5, 73	2.6	6

31	Integrated Photonic and Plasmonic Resonant Devices for Label-Free Biosensing and Trapping at the Nanoscale. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2019</b> , 216, 1800561	1.6	6
30	Design of a large bandwidth 2 D interferometric switching cell based on a sub-wavelength grating. <i>Journal of Optics (United Kingdom)</i> , <b>2021</b> , 23, 085801	1.7	6
29	Novel Micro-Nano Optoelectronic Biosensor for Label-Free Real-Time Biofilm Monitoring. <i>Biosensors</i> , <b>2021</b> , 11,	5.9	6
28	Performance enhancement of nonlinear lithium niobate couplers via double titanium and magnesium diffusion. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>1999</b> , 5, 84-97	3	5
27	High performance and tunable optical pump-rejection filter for quantum photonic systems. <i>Optics and Laser Technology</i> , <b>2021</b> , 139, 106978	4.2	5
26	Exploring the Limit of Multiplexed Near-Field Optical Trapping. <i>ACS Photonics</i> , <b>2021</b> , 8, 2060-2066	6.3	5
25	Role of magnetic skyrmions for the solution of the shortest path problem. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2021</b> , 532, 167977	2.8	4
24	Structural polarization conversion in integrated optical vertically stacked ring resonators. <i>Optics and Laser Technology</i> , <b>2013</b> , 48, 294-301	4.2	3
23	Planar photonic gyroscopes for satellite attitude control <b>2017</b> ,		3
22	Effect of fabrication tolerances on the performance of two-dimensional polymer photonic crystal channel drop filters: a theoretical investigation based on the finite element method. <i>Optical Engineering</i> , <b>2013</b> , 52, 097104	1.1	3
21	Simulation and fabrication of a new photonic biosensor <b>2010</b> ,		3
20	Optical switching technologies and their applications <b>2001</b> ,		3
19	Exact analysis of cascaded second-order nonlinearity in rotated Ti:LiNbO3 Couplers. <i>Optical and Quantum Electronics</i> , <b>1999</b> , 31, 655-674	2.4	3
18	. <i>IEEE Photonics Journal</i> , <b>2018</b> , 10, 1-11	1.8	3
17	Chip-Scaled Ka-Band Photonic Linearly Chirped Microwave Waveform Generator. <i>Frontiers in Physics</i> , <b>2022</b> , 10,	3.9	3
16	Design of passive ring resonators to be used for sensing applications. <i>Journal of the European Optical Society-Rapid Publications</i> , <b>2009</b> , 4,	2.5	2
15	High Coupling Efficiency in 2D Guided-Wave Photonic Band Gap Extended Microcavities for Sensing Applications. <i>Current Analytical Chemistry</i> , <b>2008</b> , 4, 362-370	1.7	2
14	. <i>Journal of Lightwave Technology</i> , <b>2006</b> , 24, 470-476	4	2

13	Optical and structural characterization of Z-cut LiNbO <sub>3</sub> /optical waveguides formed in a mixed proton source. <i>Journal of Lightwave Technology</i> , <b>2004</b> , 22, 820-826	4	2
12	PHOTONIC CRYSTALS: TOWARDS A NOVEL GENERATION OF INTEGRATED OPTICAL DEVICES FOR CHEMICAL AND BIOLOGICAL DETECTION. <i>Series in Optics and Photonics</i> , <b>2009</b> , 146-172		2
11	A Multi-objective Genetic Algorithm Based Approach to the Optimization of Oligonucleotide Microarray Production Process. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 1039-1046	0.9	2
10	Integrated Microphotonic Switching Matrices for Flexible and Broadband Telecom Satellite Payloads <b>2019</b> ,		2
9	Coupled ring resonators: Physical effects and potential applications <b>2012</b> ,		1
8	Investigation of a point-like and plane-wave excitation in 2D photonic bandgap microcavities using Green's function method. <i>Optical and Quantum Electronics</i> , <b>2009</b> , 41, 255-265	2.4	1
7	Photonic crystal and photonic wire device structures <b>2005</b> ,		1
6	Innovative Integrated-Optic Resonator for Angular Rate Sensing: Design and Experimental Characterization. <i>Lecture Notes in Electrical Engineering</i> , <b>2011</b> , 345-349	0.2	1
5	New microphotonic resonant devices for label-free biosensing <b>2016</b> ,		1
4	Fast and Accurate Investigation of 2-D Multilayered Photonic Crystals by a 3-D Model Based on the Green's Function. <i>IEEE Journal of Quantum Electronics</i> , <b>2010</b> , 46, 1549-1560	2	0
3	Electro-Photonic Chip-Scale Microsystem for Label-Free Single Bacteria Monitoring. <i>Lecture Notes in Electrical Engineering</i> , <b>2019</b> , 53-58	0.2	
2	Special Issue on the Third Mediterranean Photonics Conference (MePhoCo2014). <i>IEEE Photonics Journal</i> , <b>2014</b> , 6, 1-2	1.8	
1	Design of a Label-Free Multiplexed Biosensing Platform Based on an Ultracompact Plasmonic Resonant Cavity. <i>Lecture Notes in Electrical Engineering</i> , <b>2019</b> , 263-267	0.2	