Gianluca Ruffato

List of Publications by Year
in descending order

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70	1,165	361045	414034
papers	citations	20 h-index	32 g-index

71	71	71	1225
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Non-destructive OAM measurement via lightâ€“matter interaction. Light: Science and Applications, 2022, 11, 55.	7.7	3
2	A general conformal framework for regular cusp beams. Optics Communications, 2022, , 128325.	1.0	1
3	OAM-inspired new optics: the angular metalens. Light: Science and Applications, 2021, 10, 96.	7.7	11
4	Arbitrary Conformal Transformations of Wave Functions. Physical Review Applied, 2021, 15, .	1.5	12
5	Roulette caustics in transformation optics of structured light beams. Optics Communications, 2021, 490, 126893.	1.0	2
6	Multipole-phase division multiplexing. Optics Express, 2021, 29, 38095.	1.7	5
7	Design for a New â€œDipole-sorterâ€•for Direct and Dose Effective Magnetic Dipole Measurement. Microscopy and Microanalysis, 2020, 26, 2148-2149.	0.2	0
8	Design of continuously variant metasurfaces for conformal transformation optics. Optics Express, 2020, 28, 34201.	1.7	9
9	Algebra of light: multiplication and division of orbital angular momentum. , 2020, , .		0
10	Holographic Silicon Metasurfaces for Total Angular Momentum Demultiplexing Applications in Telecom. Applied Sciences (Switzerland), 2019, 9, 2387.	1.3	2
11	A versatile quantum walk resonator with bright classical light. PLoS ONE, 2019, 14, e0214891.	1.1	24
12	Multiplication and division of the orbital angular momentum of light with diffractive transformation optics. Light: Science and Applications, 2019, 8, 113.	7.7	53
13	Total angular momentum sorting in the telecom infrared with silicon Pancharatnam-Berry transformation optics. Optics Express, 2019, 27, 15750.	1.7	35
14	Non-paraxial design and fabrication of a compact OAM sorter in the telecom infrared. Optics Express, 2019, 27, 24123.	1.7	27
15	Nano-fabrication and characterization of silicon meta-surfaces provided with Pancharatnam-Berry effect. Optical Materials Express, 2019, 9, 1015.	1.6	8
16	Demultiplexing of Orbital Angular Momentum Beams by Diffractive Optics. , 2018, , .		0
17	Pancharatnamâ€“Berry Optical Elements for Spin and Orbital Angular Momentum Division Demultiplexing. Photonics, 2018, 5, 46.	0.9	6
18	Electrically activated spin-controlled orbital angular momentum multiplexer. Applied Physics Letters, 2018, 113, .	1.5	7

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19	A compact diffractive sorter for high-resolution demultiplexing of orbital angular momentum beams. Scientific Reports, 2018, 8, 10248.	1.6	55
20	Compact diffractive optics for high-resolution sorting of orbital angular momentum beams. , 2018, , .		1
21	A novel high sensitive surface plasmon resonance Legionella pneumophila sensing platform. Sensors and Actuators B: Chemical, 2017, 250, 351-355.	4.0	19
22	Design, fabrication and characterization of Computer Generated Holograms for anti-counterfeiting applications using OAM beams as light decoders. Scientific Reports, 2017, 7, 18011.	1.6	75
23	Test of mode-division multiplexing and demultiplexing in free-space with diffractive transformation optics. Optics Express, 2017, 25, 7859.	1.7	46
24	Diffractive optics for OAM-mode division multiplexing in optical fibers. , 2017, , .		0
25	3D EBL fabrication of high-quality spiral phase plates and diffractive optical elements. , 2017, , .		0
26	Novel computer generated holograms for high-security anti-counterfeiting applications. , 2017, , .		1
27	Compact sorting of optical vortices by means of diffractive transformation optics. Optics Letters, 2017, 42, 551.	1.7	34
28	Diffractive optics for combined spatial- and mode- division demultiplexing of optical vortices: design, fabrication and optical characterization. Scientific Reports, 2016, 6, 24760.	1.6	58
29	Diffractive optics for OAM-mode division multiplexing of optical vortices Design, fabrication and optical characterization. , 2016, , .		1
30	Novel Diffractive Optics For Mode Division Multiplexing of Optical Vortices. , 2016, , .		0
31	Compact demultiplexing of optical vortices by means of diffractive transformation optics. , 2016, , .		0
32	Nanofabrication and test of novel diffractive optics for OAM-mode division multiplexing in optical fibers. Proceedings of SPIE, 2016, , .	0.8	0
33	High-throughput fabrication and calibration of compact high-sensitivity plasmonic lab-on-chip for biosensing. Optofluidics, Microfluidics and Nanofluidics, 2016, 3, .	0.5	7
34	A surface acoustic wave (SAW)-enhanced grating-coupling phase-interrogation surface plasmon resonance (SPR) microfluidic biosensor. Lab on A Chip, 2016, 16, 1224-1233.	3.1	49
35	SPR Enhanced molecular imprinted solâ€“gel film: A promising tool for gas-phase TNT detection. Materials Letters, 2016, 162, 44-47.	1.3	19
36	Nanoporous gold leaves: preparation, optical characterization, and biosensing capabilities. , 2015, , .		0

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37	Generation and exploitation of high-order OAM beams for anti-counterfeiting applications. , 2015, , .		0
38	Spiral phase plates for the generation of high-order Laguerre-Gaussian beams with non-zero radial index. , 2015, , .		0
39	A peptide nucleic acid label-free biosensor for Mycobacterium tuberculosis DNA detection via azimuthally controlled grating-coupled SPR. Analytical Methods, 2015, 7, 4173-4180.	1.3	18
40	Nanoporous gold leaves: preparation, optical characterization and plasmonic behavior in the visible and mid-infrared spectral regions. Optical Materials Express, 2015, 5, 2246.	1.6	13
41	Propagation of grating-coupled surface plasmon polaritons and cosineâ€“Gauss beam generation. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1564.	0.9	6
42	Spiral phase plates with radial discontinuities for the generation of multiring orbital angular momentum beams: fabrication, characterization, and application. Optical Engineering, 2015, 54, 111307.	0.5	23
43	Fabrication and characterization of high-quality spiral phase plates for optical applications. Applied Optics, 2015, 54, 4077.	2.1	74
44	Sub-wavelength confinement of the orbital angular momentum of light probed by plasmonic nanoantennae resonances. , 2015, , .		0
45	Resonance properties of thick plasmonic split ring resonators for sensing applications. Optics Express, 2014, 22, 26476.	1.7	7
46	Label-Free Efficient and Accurate Detection of Cystic Fibrosis Causing Mutations Using an Azimuthally Rotated GC-SPR Platform. Analytical Chemistry, 2014, 86, 11773-11781.	3.2	14
47	Coupled SPP Modes on 1D Plasmonic Gratings in Conical Mounting. Plasmonics, 2014, 9, 867-876.	1.8	15
48	Integrated architecture for the electrical detection of plasmonic resonances based on high electron mobility photo-transistors. Nanoscale, 2014, 6, 1390-1397.	2.8	4
49	Generation of high-order Laguerreâ€“Gaussian modes by means of spiral phase plates. Optics Letters, 2014, 39, 5094.	1.7	94
50	Fabrication of multiple large arrays of split ring resonators by X-ray lithographic process for sensing purposes. Microelectronic Engineering, 2014, 127, 68-71.	1.1	6
51	Near-field numerical analysis of surface plasmon polariton propagation on metallic gratings. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2013, 32, 1779-1792.	0.5	5
52	Quantitative control of poly(ethylene oxide) surface antifouling and biodetection through azimuthally enhanced grating coupled-surface plasmon resonance sensing. Applied Surface Science, 2013, 286, 22-30.	3.1	10
53	Plasmonic platforms for innovative surface plasmon resonance configuration with sensing applications. Microelectronic Engineering, 2013, 111, 348-353.	1.1	4
54	Novel compact architecture for high-resolution sensing with plasmonic gratings in conical mounting. Proceedings of SPIE, 2013, , .	0.8	0

#	Article	IF	Citations
55	Implementation and testing of a compact and high-resolution sensing device based on grating-coupled surface plasmon resonance with polarization modulation. Sensors and Actuators B: Chemical, 2013, 185, 179-187.	4.0	23
56	Enhanced sensitivity azimuthally controlled grating-coupled surface plasmon resonance applied to the calibration of thiol-poly(ethylene oxide) grafting. Sensors and Actuators B: Chemical, 2013, 181, 559-566.	4.0	9
57	Nanoporous goldâ€"Application to extraordinary optical transmission of light. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 012601.	0.6	7
58	Grating-coupled surface plasmon resonance in conical mounting with polarization modulation. Optics Letters, 2012, 37, 2718.	1.7	22
59	FIB lithography of nanoporous gold slits for extraordinary transmission. Microelectronic Engineering, 2012, 98, 419-423.	1.1	9
60	Patterned nanoporous-gold thin layers: Structure control and tailoring of plasmonic properties. Microporous and Mesoporous Materials, 2012, 163, 153-159.	2.2	23
61	Nanoporous gold plasmonic structures for sensing applications. Optics Express, 2011, 19, 13164.	1.7	58
62	Sinusoidal plasmonic crystals for bio-detection sensors. Microelectronic Engineering, 2011, 88, 1898-1901.	1.1	20
63	Design, fabrication and characterization of plasmonic gratings for SERS. Microelectronic Engineering, 2011, 88, 2717-2720.	1.1	16
64	Fabrication of metamaterials in the optical spectral range. Microelectronic Engineering, 2011, 88, 1951-1954.	1.1	3
65	Plasmonic Platforms for Biodetection Devices. , 2011, , .		2
66	The role of polarization on surface plasmon polariton excitation on metallic gratings in the conical mounting. Applied Physics Letters, 2010, 96, .	1.5	31
67	Interferential lithography of 1D thin metallic sinusoidal gratings: Accurate control of the profile for azimuthal angular dependent plasmonic effects and applications. Microelectronic Engineering, 2009, 86, 573-576.	1.1	21
68	Sensitivity enhancement in grating coupled surface plasmon resonance by azimuthal control. Optics Express, 2009, 17, 12145.	1.7	50
69	Innovative Exploitation of Grating-Coupled Surface Plasmon Resonance for Sensing. , 0, , .		3
70	Design of Dual-Functional Metaoptics for the Spin-Controlled Generation of Orbital Angular Momentum Beams. Frontiers in Physics, 0, 10, .	1.0	4