

# Gianluca Ruffato

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9094682/publications.pdf>

Version: 2024-02-01

70  
papers

1,165  
citations

361045

20  
h-index

414034

32  
g-index

71  
all docs

71  
docs citations

71  
times ranked

1225  
citing authors

#	ARTICLE	IF	CITATIONS
1	Generation of high-order Laguerre-Gaussian modes by means of spiral phase plates. <i>Optics Letters</i> , 2014, 39, 5094.	1.7	94
2	Design, fabrication and characterization of Computer Generated Holograms for anti-counterfeiting applications using OAM beams as light decoders. <i>Scientific Reports</i> , 2017, 7, 18011.	1.6	75
3	Fabrication and characterization of high-quality spiral phase plates for optical applications. <i>Applied Optics</i> , 2015, 54, 4077.	2.1	74
4	Nanoporous gold plasmonic structures for sensing applications. <i>Optics Express</i> , 2011, 19, 13164.	1.7	58
5	Diffractive optics for combined spatial- and mode- division demultiplexing of optical vortices: design, fabrication and optical characterization. <i>Scientific Reports</i> , 2016, 6, 24760.	1.6	58
6	A compact diffractive sorter for high-resolution demultiplexing of orbital angular momentum beams. <i>Scientific Reports</i> , 2018, 8, 10248.	1.6	55
7	Multiplication and division of the orbital angular momentum of light with diffractive transformation optics. <i>Light: Science and Applications</i> , 2019, 8, 113.	7.7	53
8	Sensitivity enhancement in grating coupled surface plasmon resonance by azimuthal control. <i>Optics Express</i> , 2009, 17, 12145.	1.7	50
9	A surface acoustic wave (SAW)-enhanced grating-coupling phase-interrogation surface plasmon resonance (SPR) microfluidic biosensor. <i>Lab on A Chip</i> , 2016, 16, 1224-1233.	3.1	49
10	Test of mode-division multiplexing and demultiplexing in free-space with diffractive transformation optics. <i>Optics Express</i> , 2017, 25, 7859.	1.7	46
11	Total angular momentum sorting in the telecom infrared with silicon Pancharatnam-Berry transformation optics. <i>Optics Express</i> , 2019, 27, 15750.	1.7	35
12	Compact sorting of optical vortices by means of diffractive transformation optics. <i>Optics Letters</i> , 2017, 42, 551.	1.7	34
13	The role of polarization on surface plasmon polariton excitation on metallic gratings in the conical mounting. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	31
14	Non-paraxial design and fabrication of a compact OAM sorter in the telecom infrared. <i>Optics Express</i> , 2019, 27, 24123.	1.7	27
15	A versatile quantum walk resonator with bright classical light. <i>PLoS ONE</i> , 2019, 14, e0214891.	1.1	24
16	Patterned nanoporous-gold thin layers: Structure control and tailoring of plasmonic properties. <i>Microporous and Mesoporous Materials</i> , 2012, 163, 153-159.	2.2	23
17	Implementation and testing of a compact and high-resolution sensing device based on grating-coupled surface plasmon resonance with polarization modulation. <i>Sensors and Actuators B: Chemical</i> , 2013, 185, 179-187.	4.0	23
18	Spiral phase plates with radial discontinuities for the generation of multiring orbital angular momentum beams: fabrication, characterization, and application. <i>Optical Engineering</i> , 2015, 54, 111307.	0.5	23

#	ARTICLE	IF	CITATIONS
19	Grating-coupled surface plasmon resonance in conical mounting with polarization modulation. <i>Optics Letters</i> , 2012, 37, 2718.	1.7	22
20	Interferential lithography of 1D thin metallic sinusoidal gratings: Accurate control of the profile for azimuthal angular dependent plasmonic effects and applications. <i>Microelectronic Engineering</i> , 2009, 86, 573-576.	1.1	21
21	Sinusoidal plasmonic crystals for bio-detection sensors. <i>Microelectronic Engineering</i> , 2011, 88, 1898-1901.	1.1	20
22	SPR Enhanced molecular imprinted sol-gel film: A promising tool for gas-phase TNT detection. <i>Materials Letters</i> , 2016, 162, 44-47.	1.3	19
23	A novel high sensitive surface plasmon resonance <i>Legionella pneumophila</i> sensing platform. <i>Sensors and Actuators B: Chemical</i> , 2017, 250, 351-355.	4.0	19
24	A peptide nucleic acid label-free biosensor for <i>Mycobacterium tuberculosis</i> DNA detection via azimuthally controlled grating-coupled SPR. <i>Analytical Methods</i> , 2015, 7, 4173-4180.	1.3	18
25	Design, fabrication and characterization of plasmonic gratings for SERS. <i>Microelectronic Engineering</i> , 2011, 88, 2717-2720.	1.1	16
26	Coupled SPP Modes on 1D Plasmonic Gratings in Conical Mounting. <i>Plasmonics</i> , 2014, 9, 867-876.	1.8	15
27	Label-Free Efficient and Accurate Detection of Cystic Fibrosis Causing Mutations Using an Azimuthally Rotated GC-SPR Platform. <i>Analytical Chemistry</i> , 2014, 86, 11773-11781.	3.2	14
28	Nanoporous gold leaves: preparation, optical characterization and plasmonic behavior in the visible and mid-infrared spectral regions. <i>Optical Materials Express</i> , 2015, 5, 2246.	1.6	13
29	Arbitrary Conformal Transformations of Wave Functions. <i>Physical Review Applied</i> , 2021, 15, .	1.5	12
30	OAM-inspired new optics: the angular metalens. <i>Light: Science and Applications</i> , 2021, 10, 96.	7.7	11
31	Quantitative control of poly(ethylene oxide) surface antifouling and biodetection through azimuthally enhanced grating coupled-surface plasmon resonance sensing. <i>Applied Surface Science</i> , 2013, 286, 22-30.	3.1	10
32	FIB lithography of nanoporous gold slits for extraordinary transmission. <i>Microelectronic Engineering</i> , 2012, 98, 419-423.	1.1	9
33	Enhanced sensitivity azimuthally controlled grating-coupled surface plasmon resonance applied to the calibration of thiol-poly(ethylene oxide) grafting. <i>Sensors and Actuators B: Chemical</i> , 2013, 181, 559-566.	4.0	9
34	Design of continuously variant metasurfaces for conformal transformation optics. <i>Optics Express</i> , 2020, 28, 34201.	1.7	9
35	Nano-fabrication and characterization of silicon meta-surfaces provided with Pancharatnam-Berry effect. <i>Optical Materials Express</i> , 2019, 9, 1015.	1.6	8
36	Nanoporous gold Application to extraordinary optical transmission of light. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013, 31, 012601.	0.6	7

#	ARTICLE	IF	CITATIONS
37	Resonance properties of thick plasmonic split ring resonators for sensing applications. Optics Express, 2014, 22, 26476.	1.7	7
38	High-throughput fabrication and calibration of compact high-sensitivity plasmonic lab-on-chip for biosensing. Optofluidics, Microfluidics and Nanofluidics, 2016, 3, .	0.5	7
39	Electrically activated spin-controlled orbital angular momentum multiplexer. Applied Physics Letters, 2018, 113, .	1.5	7
40	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
41	Propagation of grating-coupled surface plasmon polaritons and cosineâ€œGauss beam generation. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1564.	0.9	6
42	Pancharatnamâ€œBerry Optical Elements for Spin and Orbital Angular Momentum Division Demultiplexing. Photonics, 2018, 5, 46.	0.9	6
43	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
44	Multipole-phase division multiplexing. Optics Express, 2021, 29, 38095.	1.7	5
45	Plasmonic platforms for innovative surface plasmon resonance configuration with sensing applications. Microelectronic Engineering, 2013, 111, 348-353.	1.1	4
46	Integrated architecture for the electrical detection of plasmonic resonances based on high electron mobility photo-transistors. Nanoscale, 2014, 6, 1390-1397.	2.8	4
47	Design of Dual-Functional Metaoptics for the Spin-Controlled Generation of Orbital Angular Momentum Beams. Frontiers in Physics, 0, 10, .	1.0	4
48	Fabrication of metamaterials in the optical spectral range. Microelectronic Engineering, 2011, 88, 1951-1954.	1.1	3
49	Innovative Exploitation of Grating-Coupled Surface Plasmon Resonance for Sensing. , 0, , .		3
50	Non-destructive OAM measurement via lightâ€œmatter interaction. Light: Science and Applications, 2022, 11, 55.	7.7	3
51	Plasmonic Platforms for Biodetection Devices. , 2011, , .		2
52	Holographic Silicon Metasurfaces for Total Angular Momentum Demultiplexing Applications in Telecom. Applied Sciences (Switzerland), 2019, 9, 2387.	1.3	2
53	Roulette caustics in transformation optics of structured light beams. Optics Communications, 2021, 490, 126893.	1.0	2
54	Diffraction optics for OAM-mode division multiplexing of optical vortices Design, fabrication and optical characterization. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
55	Novel computer generated holograms for high-security anti-counterfeiting applications. , 2017, , .		1
56	Compact diffractive optics for high-resolution sorting of orbital angular momentum beams. , 2018, , .		1
57	A general conformal framework for regular cusp beams. Optics Communications, 2022, , 128325.	1.0	1
58	Novel compact architecture for high-resolution sensing with plasmonic gratings in conical mounting. Proceedings of SPIE, 2013, , .	0.8	0
59	Nanoporous gold leaves: preparation, optical characterization, and biosensing capabilities. , 2015, , .		0
60	Generation and exploitation of high-order OAM beams for anti-counterfeiting applications. , 2015, , .		0
61	Spiral phase plates for the generation of high-order Laguerre-Gaussian beams with non-zero radial index. , 2015, , .		0
62	Sub-wavelength confinement of the orbital angular momentum of light probed by plasmonic nanoantennae resonances. , 2015, , .		0
63	Novel Diffractive Optics For Mode Division Multiplexing of Optical Vortices. , 2016, , .		0
64	Compact demultiplexing of optical vortices by means of diffractive transformation optics. , 2016, , .		0
65	Nanofabrication and test of novel diffractive optics for OAM-mode division multiplexing in optical fibers. Proceedings of SPIE, 2016, , .	0.8	0
66	Diffractive optics for OAM-mode division multiplexing in optical fibers. , 2017, , .		0
67	3D EBL fabrication of high-quality spiral phase plates and diffractive optical elements. , 2017, , .		0
68	Demultiplexing of Orbital Angular Momentum Beams by Diffractive Optics. , 2018, , .		0
69	Design for a New "Dipole-sorter" for Direct and Dose Effective Magnetic Dipole Measurement. Microscopy and Microanalysis, 2020, 26, 2148-2149.	0.2	0
70	Algebra of light: multiplication and division of orbital angular momentum. , 2020, , .		0