patrice Genevet

List of Publications by Citations

92 papers	14,604 citations	41 h-index	120 g-index
120 ext. papers	18,176 ext. citations	8.6 avg, IF	6.67 L-index

#	Paper	IF	Citations
92	Light propagation with phase discontinuities: generalized laws of reflection and refraction. *Science*, **2011**, 334, 333-7	33.3	4912
91	Aberration-free ultrathin flat lenses and axicons at telecom wavelengths based on plasmonic metasurfaces. *Nano Letters*, **2012**, 12, 4932-6	11.5	1177
90	A broadband, background-free quarter-wave plate based on plasmonic metasurfaces. *Nano Letters*, **2012**, 12, 6328-33	11.5	839
89	Applied optics. Multiwavelength achromatic metasurfaces by dispersive phase compensation. *Science*, **2015**, 347, 1342-5	33.3	667
88	Nanometre optical coatings based on strong interference effects in highly absorbing media. *Nature Materials*, **2013**, 12, 20-4	27	638
87	Recent advances in planar optics: from plasmonic to dielectric metasurfaces. *Optica*, **2017**, 4, 139	8.6	561
86	Broad electrical tuning of graphene-loaded plasmonic antennas. *Nano Letters*, **2013**, 13, 1257-64	11.5	458
85	Ultra-thin perfect absorber employing a tunable phase change material. *Applied Physics Letters*, **2012**, 101, 221101	3.4	418
84	Out-of-plane reflection and refraction of light by anisotropic optical antenna metasurfaces with phase discontinuities. *Nano Letters*, **2012**, 12, 1702-6	11.5	388
83	Ultra-thin plasmonic optical vortex plate based on phase discontinuities. *Applied Physics Letters*, **2012**, 100, 013101	3.4	384
82	Achromatic Metasurface Lens at Telecommunication Wavelengths. *Nano Letters*, **2015**, 15, 5358-62	11.5	290
81	Holographic optical metasurfaces: a review of current progress. *Reports on Progress in Physics*, **2015** , 78, 024401	14.4	202
80	. *IEEE Journal of Selected Topics in Quantum Electronics*, **2013**, 19, 4700423-4700423	3.8	201
79	Holographic detection of the orbital angular momentum of light with plasmonic photodiodes. *Nature Communications*, **2012**, 3, 1278	17.4	200
78	Nanostructured holograms for broadband manipulation of vector beams. *Nano Letters*, **2013**, 13, 4269-74	11.5	195
77	Large enhancement of nonlinear optical phenomena by plasmonic nanocavity gratings. *Nano Letters*, **2010**, 10, 4880-3	11.5	172
76	Independent phase modulation for quadruplex polarization channels enabled by chirality-assisted geometric-phase metasurfaces. *Nature Communications*, **2020**, 11, 4186	17.4	166

75	Metasurface orbital angular momentum holography. *Nature Communications*, **2019**, 10, 2986	17.4	161
74	Thermal tuning of mid-infrared plasmonic antenna arrays using a phase change material. *Optics Letters*, **2013**, 38, 368-70	3	158
73	Giant birefringence in optical antenna arrays with widely tailorable optical anisotropy. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 12364-12368	11.5	139
72	Cosine-Gauss plasmon beam: a localized long-range nondiffracting surface wave. *Physical Review Letters*, **2012**, 109, 093904	7.4	135
71	Vanadium Dioxide as a Natural Disordered Metamaterial: Perfect Thermal Emission and Large Broadband Negative Differential Thermal Emittance. *Physical Review X*, **2013**, 3,	9.1	103
70	Effect of radiation damping on the spectral response of plasmonic components. *Optics Express*, **2011**, 19, 21748-53	3.3	102
69	Aberrations of flat lenses and aplanatic metasurfaces. *Optics Express*, **2013**, 21, 31530-9	3.3	101
68	Controlled steering of Cherenkov surface plasmon wakes with a one-dimensional metamaterial. *Nature Nanotechnology*, **2015**, 10, 804-9	28.7	94
67	Cavity soliton laser based on mutually coupled semiconductor microresonators. *Physical Review Letters*, **2008**, 101, 123905	7.4	93
66	All-optical delay line using semiconductor cavity solitons. *Applied Physics Letters*, **2008**, 92, 011101	3.4	89
65	Outfitting Next Generation Displays with Optical Metasurfaces. *ACS Photonics*, **2018**, 5, 3876-3895	6.3	85
64	Traditional and emerging materials for optical metasurfaces. *Nanophotonics*, **2017**, 6, 452-471	6.3	81
63	Modeling nanoscale V-shaped antennas for the design of optical phased arrays. *Physical Review B*, **2012**, 85,	3.3	81
62	Metasurface-integrated vertical cavity surface-emitting lasers for programmable directional lasing emissions. *Nature Nanotechnology*, **2020**, 15, 125-130	28.7	72
61	Enhancement of absorption and color contrast in ultra-thin highly absorbing optical coatings. *Applied Physics Letters*, **2013**, 103, 101104	3.4	69
60	Quantum-coherence-enhanced surface plasmon amplification by stimulated emission of radiation. *Physical Review Letters*, **2013**, 111, 043601	7.4	68
59	Ptychography retrieval of fully polarized holograms from geometric-phase metasurfaces. *Nature Communications*, **2020**, 11, 2651	17.4	64
58	Measurement of bound states in the continuum by a detector embedded in a photonic crystal. *Light: Science and Applications*, **2016**, 5, e16147	16.7	57

57	Nanophotonics for light detection and ranging technology. *Nature Nanotechnology*, **2021**, 16, 508-524	28.7	52
56	Holographic metalens for switchable focusing of surface plasmons. *Nano Letters*, **2015**, 15, 3585-9	11.5	47
55	Bistable and addressable localized vortices in semiconductor lasers. *Physical Review Letters*, **2010**, 104, 223902	7.4	47
54	Positioning cavity solitons with a phase mask. *Applied Physics Letters*, **2006**, 89, 221111	3.4	47
53	Modelling of free-form conformal metasurfaces. *Nature Communications*, **2018**, 9, 3494	17.4	41
52	Numerical Optimization Methods for Metasurfaces. *Laser and Photonics Reviews*, **2020**, 14, 1900445	8.3	41
51	Twisted Focusing of Optical Vortices with Broadband Flat Spiral Zone Plates. *Advanced Optical Materials*, **2014**, 2, 1193-1198	8.1	40
50	Polarization-insensitive 3D conformal-skin metasurface cloak. *Light: Science and Applications*, **2021**, 10, 75	16.7	39
49	Microresonator defects as sources of drifting cavity solitons. *Physical Review Letters*, **2009**, 102, 163901	7.4	34
48	Reflection and refraction of light from metasurfaces with phase discontinuities. *Journal of Nanophotonics*, **2012**, 6, 063532	1.1	33
47	Freestanding dielectric nanohole array metasurface for mid-infrared wavelength applications. *Optics Letters*, **2017**, 42, 2639-2642	3	29
46	Plasmonic topological metasurface by encircling an exceptional point. *Science*, **2021**, 373, 1133-1137	33.3	29
45	Generation of two-dimensional plasmonic bottle beams. *Optics Express*, **2013**, 21, 10295-300	3.3	28
44	Controlling electromagnetic fields at boundaries of arbitrary geometries. *Physical Review A*, **2016**, 94,	2.6	28
43	Multi-wavelength mid-infrared plasmonic antennas with single nanoscale focal point. *Optics Express* , **2011**, 19, 22113-24	3.3	27
42	Dipolar modeling and experimental demonstration of multi-beam plasmonic collimators. *New Journal of Physics*, **2011**, 13, 053057	2.9	26
41	Mitigating Chromatic Dispersion with Hybrid Optical Metasurfaces. *Advanced Materials*, **2019**, 31, e1805555	24	25
40	An Etching-Free Approach Toward Large-Scale Light-Emitting Metasurfaces. *Advanced Optical Materials*, **2019**, 7, 1801271	8.1	24

39	Stationary localized structures and pulsing structures in a cavity soliton laser. *Physical Review A*, **2009**, 79,	2.6	22
38	Electrically pumped semiconductor laser with monolithic control of circular polarization. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E5623-32	11.5	21
37	Bandwidth-unlimited polarization-maintaining metasurfaces. *Science Advances*, **2021**, 7,	14.3	21
36	Broadband decoupling of intensity and polarization with vectorial Fourier metasurfaces. *Nature Communications*, **2021**, 12, 3631	17.4	19
35	Gate-Tunable Emission of Exciton Plasmon Polaritons in Hybrid MoS2-Gap-Mode Metasurfaces. *ACS Photonics*, **2019**, 6, 1594-1601	6.3	17
34	Room Temperature Electrically Driven Ultraviolet Plasmonic Lasers. *Advanced Optical Materials*, **2019**, 7, 1801681	8.1	17
33	Anisotropic Surface Plasmon Polariton Generation Using Bimodal V-Antenna Based Metastructures. *ACS Photonics*, **2017**, 4, 22-27	6.3	16
32	Global optimization of metasurface designs using statistical learning methods. *Scientific Reports*, **2019**, 9, 17918	4.9	16
31	Broadband mode conversion via gradient index metamaterials. *Scientific Reports*, **2016**, 6, 24529	4.9	14
30	Backward Phase-Matched Second-Harmonic Generation from Stacked Metasurfaces. *Physical Review Letters*, **2021**, 126, 033901	7.4	14
29	High-power low-divergence tapered quantum cascade lasers with plasmonic collimators. *Applied Physics Letters*, **2013**, 102, 191114	3.4	13
28	Mutual coherence of laser solitons in coupled semiconductor resonators. *European Physical Journal D*, **2010**, 59, 109-114	1.3	13
27	Optimization and uncertainty quantification of gradient index metasurfaces [Invited]. *Optical Materials Express*, **2019**, 9, 892	2.6	13
26	Printing polarization and phase at the optical diffraction limit: near- and far-field optical encryption. *Nanophotonics*, **2020**, 10, 697-704	6.3	11
25	Nonlocality Induced Cherenkov Threshold. *Laser and Photonics Reviews*, **2020**, 14, 2000149	8.3	11
24	On-Chip Generation of Structured Light Based on Metasurface Optoelectronic Integration. *Laser and Photonics Reviews*, **2021**, 15, 2000385	8.3	10
23	Optical Phase Transition in Semiconductor Quantum Metamaterials. *Physical Review Letters*, **2019**, 123, 117401	7.4	9
22	Long-lifetime coherence in a quantum emitter induced by a metasurface. *Physical Review A*, **2020**, 101,	2.6	9

21	Reconfigurable Flat Optics with Programmable Reflection Amplitude Using Lithography-Free Phase-Change Material Ultra-Thin Films. *Advanced Optical Materials*, **2021**, 9, 2001291	8.1	9
20	Hybrid MoS2-gap-mode metasurface photodetectors. *Journal Physics D: Applied Physics*, **2019**, 52, 374001	3	8
19	. *IEEE Photonics Journal*, **2014**, 6, 1-4	1.8	8
18	Enhancement of optical processes in coupled plasmonic nanocavities [Invited]. *Applied Optics*, **2011**, 50, G56-62	0.2	8
17	Multistable monochromatic laser solitons. *Physical Review A*, **2010**, 81,	2.6	8
16	Multiobjective Statistical Learning Optimization of RGB Metalens. *ACS Photonics*, **2021**, 8, 2498-2508	6.3	8
15	Metasurface Optical Characterization Using Quadriwave Lateral Shearing Interferometry. *ACS Photonics*, **2021**, 8, 603-613	6.3	7
14	BIFURCATION DIAGRAM AND CONTROL OF LOCALIZED LASER STRUCTURES. *Journal of Nonlinear Optical Physics and Materials*, **2012**, 21, 1250029	0.8	4
13	Space and Time Modulations of Light with Metasurfaces: Recent Progress and Future Prospects. *ACS Photonics*,	6.3	3
12	Achromatic metasurfaces by dispersive phase compensation **2015**,		2
11	Theoretical description of the transverse localised structures in a face to face VCSEL configuration. *European Physical Journal D*, **2010**, 59, 97-107	1.3	2
10	Reconfigurable Flat Optics with Programmable Reflection Amplitude Using Lithography-Free Phase-Change Material Ultra-Thin Films (Advanced Optical Materials 2/2021). *Advanced Optical Materials*, **2021**, 9, 2170006	8.1	2
9	Optimization of metasurfaces under geometrical uncertainty using statistical learning. *Optics Express*, **2021**, 29, 29887-29898	3.3	2
8	Observation of "true" Optical Vortices in a Laser System. *Springer Series in Optical Sciences*, **2012**, 195-205	0.5	1
7	Revealing topological phase in Pancharatnam–Berry metasurfaces using mesoscopic electrodynamics. *Nanophotonics*, **2020**, 9, 4711-4718	6.3	1
6	Vectorial Hologram Based on Pixelated Metasurface **2020**,		1
5	Scattering by lossy anisotropic scatterers: A modal approach. *Journal of Applied Physics*, **2021**, 129, 113104	2.5	1
4	Dynamic phase manipulation of vertical-cavity surface-emitting lasers via on-chip integration of microfluidic channels. *Optics Express*, **2021**, 29, 1481-1491	3.3	0

3	Mid-Infrared Grayscale Metasurface Holograms. *Applied Sciences (Switzerland)*, **2020**, 10, 552	2.6
2	Enhanced Second-Harmonic Generation in a Single Microwire Based on Localized Surface Plasmon. *Physica Status Solidi (B): Basic Research*, **2019**, 256, 1900075	1.3
1	Controlling Light Propagation with Interfacial Phase Discontinuities **2013**, 171-217	