Francesco Monticone

List of Publications by Year
in descending order

88 papers	6,171 citations	147801 31 h-index	102487 66 g-index
89 all docs	89 docs citations	89 times ranked	5183 citing authors

#	Article	IF	Citations
1	Performing Mathematical Operations with Metamaterials. Science, 2014, 343, 160-163.	12.6	757
2	Full Control of Nanoscale Optical Transmission with a Composite Metascreen. Physical Review Letters, 2013, 110, 203903.	7.8	682
3	A Reconfigurable Active Huygens' Metalens. Advanced Materials, 2017, 29, 1606422.	21.0	470
4	Ultrathin Pancharatnamâ€“Berry Metasurface with Maximal Crossâ€Polarization Efficiency. Advanced Materials, 2015, 27, 1195-1200.	21.0	431
5	Experimental observation of a polarization vortex at an optical bound state in the continuum. Nature Photonics, 2018, 12, 397-401.	31.4	325
6	A subwavelength plasmonic metamolecule exhibiting magnetic-based optical Fano resonance. Nature Nanotechnology, 2013, 8, 95-99.	31.5	317
7	Hybrid bilayer plasmonic metasurface efficiently manipulates visible light. Science Advances, 2016, 2, e1501168.	10.3	278
8	Embedded Photonic Eigenvalues in 3D Nanostructures. Physical Review Letters, 2014, 112, .	7.8	268
9	Leaky-Wave Theory, Techniques, and Applications: From Microwaves to Visible Frequencies. Proceedings of the IEEE, 2015, 103, 793-821.	21.3	188
10	Anomalies in light scattering. Advances in Optics and Photonics, 2019, 11, 892.	25.5	161
11	Metamaterial, plasmonic and nanophotonic devices. Reports on Progress in Physics, 2017, 80, 036401.	20.1	157
12	Negative refraction, gain and nonlinear effects in hyperbolic metamaterials. Optics Express, 2013, 21, 15037.	3.4	152
13	Invisibility and Cloaking: Origins, Present, and Future Perspectives. Physical Review Applied, 2015, 4, .	3.8	149
14	Nonlinear Plasmonic Cloaks to Realize Giant All-Optical Scattering Switching. Physical Review Letters, 2012, 108, 263905.	7.8	139
15	Focusing on bandwidth: achromatic metalens limits. Optica, 2020, 7, 624.	9.3	109
16	The quest for optical magnetism: from split-ring resonators to plasmonic nanoparticles and nanoclusters. Journal of Materials Chemistry C, 2014, 2, 9059-9072.	5.5	100
17	Interplay of Magnetic Responses in All-Dielectric Oligomers To Realize Magnetic Fano Resonances. ACS Photonics, 2015, 2, 724-729.	6.6	99
18	Metamaterials and plasmonics: From nanoparticles to nanoantenna arrays, metasurfaces, and metamaterials. Chinese Physics B, 2014, 23, 047809.	1.4	91

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19	Parity-Time Symmetric Nonlocal Metasurfaces: All-Angle Negative Refraction and Volumetric Imaging. Physical Review X, 2016, 6, .	8.9	76
20	Invisibility exposed: physical bounds on passive cloaking. Optica, 2016, 3, 718.	9.3	73
21	Trapping Light in Plain Sight: Embedded Photonic Eigenstates in Zeroâ€Index Metamaterials. Laser and Photonics Reviews, 2018, 12, 1700220.	8.7	70
22	Multilayered Plasmonic Covers for Comblike Scattering Response and Optical Tagging. Physical Review Letters, 2013, 110, 113901.	7.8	64
23	Topological Waveguiding near an Exceptional Point: Defect-Immune, Slow-Light, and Loss-Immune Propagation. Physical Review Letters, 2018, 121, 093901.	7.8	59
24	Can a Nonradiating Mode Be Externally Excited? Nonscattering States versus Embedded Eigenstates. ACS Photonics, 2019, 6, 3108-3114.	6.6	56
25	Do Cloaked Objects Really Scatter Less?. Physical Review X, 2013, 3, .	8.9	55
26	Bound states within the radiation continuum in diffraction gratings and the role of leaky modes. New Journal of Physics, 2017, 19, 093011.	2.9	55
27	Do truly unidirectional surface plasmon-polaritons exist?. Optica, 2019, 6, 1158.	9.3	53
28	Modular assembly of optical nanocircuits. Nature Communications, 2014, 5, 3896.	12.8	51
29	Plasmonic nanoparticles and metasurfaces to realize Fano spectra at ultraviolet wavelengths. Applied Physics Letters, 2013, 103, .	3.3	43
30	Unidirectional and diffractionless surface plasmon polaritons on three-dimensional nonreciprocal plasmonic platforms. Physical Review B, 2019, 99, .	3.2	41
31	Suppressing the Electromagnetic Scattering With an Helical Mantle Cloak. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 1598-1601.	4.0	39
32	A truly one-way lane for surface plasmon polaritons. Nature Photonics, 2020, 14, 461-465.	31.4	31
33	Photonic Inverse Design with Neural Networks: The Case of Invisibility in the Visible. Physical Review Applied, 2020, 14, .	3.8	30
34	Physical Violations of the Bulk-Edge Correspondence in Topological Electromagnetics. Physical Review Letters, 2020, 124, 153901.	7.8	30
35	Dielectric Nonlocal Metasurfaces for Fully Solid-State Ultrathin Optical Systems. ACS Photonics, 2021, 8, 1439-1447.	6.6	30
36	Topologically-protected one-way leaky waves in nonreciprocal plasmonic structures. Journal of Physics Condensed Matter, 2018, 30, 104002.	1.8	27

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37	Fundamental Limits to the Refractive Index of Transparent Optical Materials. Advanced Materials, 2021, 33, e2103946.	21.0	26
38	Non-Reciprocal, Robust Surface Plasmon Polaritons on Gyrotropic Interfaces. IEEE Transactions on Antennas and Propagation, 2020, 68, 3718-3729.	5.1	24
39	Capturing Broadband Light in a Compact Bound State in the Continuum. ACS Photonics, 2021, 8, 813-823.	6.6	24
40	Spectral causality and the scattering of waves. Optica, 2021, 8, 1040.	9.3	23
41	Optical Antennas: Controlling Electromagnetic Scattering, Radiation, and Emission at the Nanoscale. IEEE Antennas and Propagation Magazine, 2017, 59, 43-61.	1.4	21
42	Active Scattering-Cancellation Cloaking: Broadband Invisibility and Stability Constraints. IEEE Transactions on Antennas and Propagation, 2020, 68, 1655-1664.	5.1	19
43	Emulating exceptional-point encirclements using imperfect (leaky) photonic components: asymmetric mode-switching and omni-polarizer action. Optica, 2021, 8, 563.	9.3	19
44	Optical torque on a two-level system near a strongly nonreciprocal medium. Physical Review B, 2018, 98, .	3.2	18
45	Nonreciprocal and Topological Plasmonics. Photonics, 2021, 8, 133.	2.0	17
46	Physical bounds on electromagnetic invisibility and the potential of superconducting cloaks. Photonics and Nanostructures - Fundamentals and Applications, 2014, 12, 330-339.	2.0	16
47	Broadband Field Enhancement and Giant Nonlinear Effects in Terminated Unidirectional Plasmonic Waveguides. Physical Review Applied, 2020, 14, .	3.8	16
48	Topological scattering resonances at ultralow frequencies. Physical Review Research, 2020, 2, .	3.6	16
49	Dissipation-induced topological transitions in continuous Weyl materials. Physical Review Research, 2020, 2, .	3.6	16
50	Magnified imaging based on non-Hermitian nonlocal cylindrical metasurfaces. Physical Review B, 2017, 95, .	3.2	15
51	Molding light with metasurfaces: from far-field to near-field interactions. Nanophotonics, 2018, 7, 1025-1040.	6.0	14
52	Coupled Topological Surface Modes in Gyrotropic Structures: Green's Function Analysis. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 1993-1997.	4.0	13
53	Drifting Electrons: Nonreciprocal Plasmonics and Thermal Photonics. ACS Photonics, 2022, 9, 806-819.	6.6	12
54	Exceptional Points in Flat Optics: A Non-Hermitian Line-Wave Scenario. Physical Review Applied, 2021, 15, .	3.8	11

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55	To what extent can space be compressed? Bandwidth limits of spaceplates. Optica, 2022, 9, 738.	9.3	11
56	Broadband and giant nonreciprocity at the subwavelength scale in magnetoplasmonic materials. Physical Review B, 2020, 102, .	3.2	10
57	Tunable Plasmonic and Hyperbolic Metamaterials Based on Enhanced Nonlinear Response. International Journal of Antennas and Propagation, 2014, 2014, 1-11.	1.2	9
58	Topologically protected broadband rerouting of propagating waves around complex objects. Nanophotonics, 2019, 8, 1371-1378.	6.0	9
59	Exchange splitting and exchange-induced nonreciprocal photonic behavior of graphene in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Cr</mml:mi><mml:msub><mml:mi mathvariant="normal">I</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> -graphene van der Waals heterostructures. Physical Review B, 2020, 102, .	3.2	9
60	Zeeman gyrotropic scatterers. Nanomaterials and Nanotechnology, 2018, 8, 184798041880808.	3.0	8
61	Plasmonic Optical Nanoantennas. Handbook of Surface Science, 2014, 4, 109-136.	0.3	7
62	Physical limitations on broadband invisibility based on fast-light media. Nature Communications, 2021, 12, 3041.	12.8	5
63	Metamaterial-Enhanced Nanophotonics. Optics and Photonics News, 2013, 24, 35.	0.5	4
64	Scattering at the Extreme with Metamaterials and Plasmonics. World Scientific Series in Nanoscience and Nanotechnology, 2017, , 295-335.	0.1	3
65	On Broadband Active Cloaking. , 2019, , .		3
66	Fundamental passivity and causality bounds on metamaterial cloaking. , 2013, , .		2
67	Non-Markovian transient Casimir-Polder force and population dynamics on excited- and ground-state atoms: Weak- and strong-coupling regimes in generally nonreciprocal environments. Physical Review A, 2019, 99, .	2.5	2
68	Molding the optical transmission with a meta-transmitarray. , 2013, , .		1
69	Strong optical magnetism and Fano resonances in asymmetric plasmonic metamolecules. , 2013, , .		1
70	‘Computing metasurfaces’ to perform mathematical operations. , 2014, , .		1
71	MIMO optical wireless at the nanoscale. , 2015, , .		1
72	Linear and nonlinear optical nano-antennas. , 2015, , .		1

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73	Invisible near-field probes at infrared frequencies based on impedance engineering at the nanoscale. , 2017, , .		1
74	Existence of a fundamental tradeoff between absorptivity and omnidirectionality in metasurfaces. , 2021, , .		1
75	Multi-layered plasmonic cloaks to engineer the scattering signature of resonant nanoparticles. , 2012, , .		0
76	Boosting Optical Magnetism with Symmetry Breaking in a Subwavelength Plasmonic Metamolecule. , 2013, , .		0
77	Physical bounds and limitations of cloaking and invisibility using passive metamaterials. , 2013, , .		0
78	Metastructures for signal manipulation. , 2013, , .		0
79	Aberration-free planar focusing based on parity-time symmetric nonlocal metamaterials. , 2015, , .		0
80	Embedded scattering eigenvalues: Light trapping in 2D and 3D systems. , 2015, , .		0
81	Realization and operation of modular 3-D optical nanocircuits. , 2015, , .		0
82	Scattering and radiation singularities in epsilon-near-zero structures. , 2016, , .		0
83	Topologically-Protected One-Way Leaky Waves. , 2018, , .		0
84	Ultra-compact wave-based solvers for fractional-calculus equations. , 2019, , .		0
85	Manipulating Surface Waves and Nanoscale Forces/Torques with Nonreciprocal Platforms. , 2019, , .		0
86	Plasmonic Nanostructures with Well-Controlled Geometry Lead to Designed Properties. , 2015, , .		0
87	Topologically protected embedded eigenstates, leaky modes, and Jordan modes. , 2018, , .		0
88	Broadband Absorption Limits for Ultrathin Solar Cells. , 2020, , .		0