

# Andrea Di Falco

## List of Publications by Year in descending order

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Version: 2024-02-01

84  
papers

2,409  
citations

236612

25  
h-index

205818

48  
g-index

84  
all docs

84  
docs citations

84  
times ranked

3246  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced Nonlinear Refractive Index in $\mu$ -Near-Zero Materials. Physical Review Letters, 2016, 116, 233901.	2.9	348
2	Slotted photonic crystal cavities with integrated microfluidics for biosensing applications. Biosensors and Bioelectronics, 2011, 27, 101-105.	5.3	174
3	Bidirectional Optical Sorting of Gold Nanoparticles. Nano Letters, 2012, 12, 1923-1927.	4.5	124
4	Luneburg lens in silicon photonics. Optics Express, 2011, 19, 5156.	1.7	101
5	Triggering extreme events at the nanoscale in photonic seas. Nature Physics, 2015, 11, 358-363.	6.5	99
6	Patterning Multicolor Hybrid Perovskite Films via Top-Down Lithography. ACS Nano, 2019, 13, 3823-3829.	7.3	95
7	Slotted Photonic Crystal Sensors. Sensors, 2013, 13, 3675-3710.	2.1	83
8	Electro-optic modulation in slotted resonant photonic crystal heterostructures. Applied Physics Letters, 2009, 94, .	1.5	82
9	Enhanced energy storage in chaotic optical resonators. Nature Photonics, 2013, 7, 473-478.	15.6	77
10	Non-obstructive intracellular nanolasers. Nature Communications, 2018, 9, 4817.	5.8	75
11	Flexible metamaterials at visible wavelengths. New Journal of Physics, 2010, 12, 113006.	1.2	71
12	Random super-prism wavelength meter. Optics Letters, 2014, 39, 96.	1.7	53
13	Enhanced nonlinear effects in pulse propagation through epsilon-near-zero media. Laser and Photonics Reviews, 2016, 10, 517-525.	4.4	53
14	Reproducible Surface-Enhanced Raman Quantification of Biomarkers in Multicomponent Mixtures. ACS Nano, 2014, 8, 2575-2583.	7.3	52
15	One-Dimensional Chirality: Strong Optical Activity in Epsilon-Near-Zero Metamaterials. Physical Review Letters, 2015, 115, 057401.	2.9	50
16	Surface Topology Specific Metasurface Holograms. ACS Photonics, 2018, 5, 1762-1766.	3.2	48
17	Optical metasurfaces with robust angular response on flexible substrates. Applied Physics Letters, 2011, 99, .	1.5	47
18	Flexible Nanowire Cluster as a Wearable Colorimetric Humidity Sensor. Small, 2017, 13, 1700109.	5.2	46

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19	Optically induced metal-to-dielectric transition in Epsilon-Near-Zero metamaterials. Scientific Reports, 2016, 6, 27700.	1.6	39
20	Gain assisted nanocomposite multilayers with near zero permittivity modulus at visible frequencies. Applied Physics Letters, 2011, 99, .	1.5	36
21	Optical guided mode resonance filter on a flexible substrate. Optics Express, 2013, 21, 1002.	1.7	35
22	Conformable Holographic Metasurfaces. Scientific Reports, 2017, 7, 4520.	1.6	34
23	Optical parametric oscillations in isotropic photonic crystals. Optics Express, 2004, 12, 823.	1.7	32
24	High Efficiency Interface for Coupling Into Slotted Photonic Crystal Waveguides. IEEE Photonics Journal, 2011, 3, 203-208.	1.0	27
25	Perfect secrecy cryptography via mixing of chaotic waves in irreversible time-varying silicon chips. Nature Communications, 2019, 10, 5827.	5.8	26
26	Spatial Distribution of Phase Singularities in Optical Random Vector Waves. Physical Review Letters, 2016, 117, 093901.	2.9	25
27	Impedance matching in photonic crystal microcavities for second-harmonic generation. Optics Letters, 2006, 31, 250.	1.7	24
28	Quadratic phase matching in slot waveguides. Optics Letters, 2006, 31, 3146.	1.7	23
29	Tunable wavelength-selective add-drop in liquid crystals on a silicon microresonator. Optics Communications, 2007, 279, 210-213.	1.0	23
30	Lifetime statistics of quantum chaos studied by a multiscale analysis. Applied Physics Letters, 2012, 100, .	1.5	23
31	Nanoplasmonic Filters for Hollow Core Photonic Crystal Fibers. ACS Photonics, 2014, 1, 985-989.	3.2	23
32	Propagation Losses of Slotted Photonic Crystal Waveguides. IEEE Photonics Journal, 2012, 4, 1536-1541.	1.0	22
33	Optical shock waves in silica aerogel. Optics Express, 2014, 22, 1667.	1.7	21
34	Electrodeposition of gold templated by patterned thiol monolayers. Applied Surface Science, 2016, 373, 51-60.	3.1	21
35	Flexible patches for mm-wave holography. Applied Physics Letters, 2019, 115, 021104.	1.5	21
36	Terahertz pulse generation via optical rectification in photonic crystal microcavities. Optics Letters, 2005, 30, 1174.	1.7	20

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37	High-efficiency and ultrabroadband flexible absorbers based on transversely symmetrical multi-layer structures. AIP Advances, 2019, 9, .	0.6	16
38	Dicke Phase Transition with Multiple Superradiant States in Quantum Chaotic Resonators. Physical Review X, 2014, 4, .	2.8	15
39	Persistence and Lifelong Fidelity of Phase Singularities in Optical Random Waves. Physical Review Letters, 2017, 119, 203903.	2.9	15
40	Spatial optical solitons in nonlinearly coupled planar waveguides. Optics Letters, 2003, 28, 1031.	1.7	12
41	Holography Using Curved Metasurfaces. Photonics, 2019, 6, 8.	0.9	12
42	Two-tier manipulation of holographic information. Optics Express, 2022, 30, 19145.	1.7	12
43	NIST-certified secure key generation via deep learning of physical unclonable functions in silica aerogels. Nanophotonics, 2020, 10, 457-464.	2.9	11
44	Gravitational parameter estimation in a waveguide. Physical Review D, 2014, 90, .	1.6	10
45	Integrated polymer microprisms for free space optical beam deflecting. Optics Express, 2009, 17, 3424.	1.7	9
46	Perturbation of Transmission Matrices in Nonlinear Random Media. Annalen Der Physik, 2019, 531, 1900091.	0.9	9
47	Three-Dimensional Superprism Effect in Photonic-Crystal Slabs. Journal of Lightwave Technology, 2004, 22, 1748-1753.	2.7	8
48	Twisted by DNA. Nature Materials, 2014, 13, 846-848.	13.3	8
49	Enhanced asymmetric transmission in hyperbolic epsilon-near-zero slabs. Journal of Optics (United Kingdom), 2014, 16, 120701.	1.0	8
50	Second harmonic generation in coupled LiNbO3 waveguides by reverse-proton exchange. IEEE Photonics Technology Letters, 2003, 15, 443-445.	1.3	7
51	Wavelength shifting in photonic bandgap microcavities with isotropic media. Applied Physics Letters, 2004, 85, 4585-4587.	1.5	7
52	Photonic crystal wires for optical parametric oscillators in isotropic media. Applied Physics B: Lasers and Optics, 2004, 79, 9-13.	1.1	7
53	Parametric Oscillations in Photonic Crystal Slabs 3-D Time-Domain Analysis. IEEE Photonics Technology Letters, 2004, 16, 1495-1497.	1.3	7
54	Controlled transmission in the forbidden photonic bandgap via transient nonlinear states. Optics Letters, 2004, 29, 2902.	1.7	7

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55	Conformable optical coatings with epsilon near zero response. APL Photonics, 2019, 4, .	3.0	7
56	Spatial optical solitons in nonlinearly coupled lithium niobate waveguides. IEEE Photonics Technology Letters, 2003, 15, 537-539.	1.3	6
57	Low loss dispersion engineered photonic crystal waveguides for optical delay lines. , 2009, , .		6
58	Valve controlled fluorescence detection system for remote sensing applications. Microfluidics and Nanofluidics, 2011, 11, 529-536.	1.0	6
59	Contra-directional coupling into slotted photonic crystals for spectrometric applications. Optics Letters, 2014, 39, 4345.	1.7	6
60	Optothermal nonlinearity of silica aerogel. Applied Physics Letters, 2016, 109, 041104.	1.5	6
61	All-optical manipulation of photonic membranes. Optics Express, 2021, 29, 14260.	1.7	6
62	Red-Shifted Excitation and Two-Photon Pumping of Biointegrated GaInP/AlGaInP Quantum Well Microlasers. ACS Photonics, 2022, 9, 952-960.	3.2	6
63	Ultrafast all-optical order-to-chaos transition in silicon photonic crystal chips. Laser and Photonics Reviews, 2016, 10, 688-695.	4.4	5
64	Nonlinear optical memory effect. Optics Letters, 2019, 44, 4841.	1.7	5
65	Photonics based perfect secrecy cryptography: Toward fully classical implementations. Applied Physics Letters, 2020, 116, .	1.5	4
66	Effective permittivity of co-evaporated metal-organic mixed films. Journal of Applied Physics, 2021, 129, .	1.1	3
67	Transient-mode excitation, terahertz generation and wavelength shifting in a photonic band gap. Applied Physics B: Lasers and Optics, 2005, 81, 415-420.	1.1	2
68	Tunneling Mediated by 2D+1 Conical Waves in a 1D Lattice. Physical Review Letters, 2008, 101, 013601.	2.9	2
69	Photonic trimming of quantum emitters via direct fabrication of metallic nanostructures. APL Photonics, 2018, 3, 071301.	3.0	2
70	Optical beam-steering for wireless sensor networks. , 2009, , .		1
71	Flexible metamaterials for advanced photonics applications. , 2014, , .		1
72	SERS sensing of cancer biomarkers. , 2014, , .		1

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73	Planar Semiconductor Membranes with Brightness Enhanced Embedded Quantum Dots via Electron Beam Induced Deposition of 3D Nanostructures: Implications for Solid State Lighting. ACS Applied Nano Materials, 2020, 3, 12401-12407.	2.4	1
74	Bi-colour spatial solitons in linearly uncoupled planar waveguides. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S217-S222.	1.4	0
75	Self-transparency mediated by X-waves in Bragg gratings. , 2007, , .		0
76	Electro-optic modulation in hybrid SOI and polymer slotted resonant photonic crystal heterostructures. , 2009, , .		0
77	Route toward perfect imaging in Silicon-on-Insulator platform. , 2011, , .		0
78	Slotted photonic crystals for sensing applications. , 2011, , .		0
79	A mechanically flexible free standing optical filter. , 2013, , .		0
80	Rogue waves generated through quantum chaos. , 2013, , .		0
81	Direct Measurement of Nonlinear Transmission Matrices of Random Scattering Media. , 2019, , .		0
82	All Optical Manipulation of Photonic Metasurfaces in Microfluidic Environments. , 2019, , .		0
83	Optical Metasurfaces Based on Epsilon-Near-Zero Materials: Towards Low Power Nonlinear Optics. , 2020, , .		0
84	Low power nonlinear optical effects in epsilon-near-zero metasurfaces. , 2020, , .		0