Filippo Capolino

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7543926/publications.pdf

Version: 2024-02-01

295 papers	6,133 citations	87723 38 h-index	128067 60 g-index
297 all docs	297 docs citations	297 times ranked	4739 citing authors

#	Article	IF	Citations
1	Low Phase Noise Oscillator Design Using Degenerate Band Edge Ladder Architectures. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 35-39.	2.2	2
2	Metastructures: From physics to application. Applied Physics Letters, 2022, 120, .	1.5	7
3	Triple Ladder Lumped Circuit With Sixth Order Modal Exceptional Degeneracy. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 1910-1918.	3.5	3
4	Exceptional point in a degenerate system made of a gyrator and two unstable resonators. Physical Review A, 2022, 105, .	1.0	5
5	Traveling Wave Tube Eigenmode Solution for Beam-Loaded Slow Wave Structure Based on Particle-in-Cell Simulations. IEEE Transactions on Plasma Science, 2022, 50, 635-648.	0.6	3
6	Experimental demonstration of exceptional points of degeneracy in linear time periodic systems and exceptional sensitivity. Journal of Applied Physics, 2022, 131, .	1.1	9
7	Frozen Mode in an Asymmetric Serpentine Optical Waveguide. Advanced Photonics Research, 2022, 3, .	1.7	9
8	Exceptional Points of Degeneracy in Electromagnetic Periodic Waveguides and the Role of Symmetries. , 2022, , .		0
9	Parity-Time Glide-Symmetry and Third Order Exceptional Degeneracy in a Three-Way Microstrip Waveguide. , 2022, , .		0
10	Third order modal exceptional degeneracy in waveguides with glide-time symmetry. Physical Review A, 2022, 105, .	1.0	2
11	High-Sensitive Parity-Time Symmetric Oscillator in Coupled Transmission Lines With Nonlinear Gain. IEEE Journal of Microwaves, 2022, 2, 389-400.	4.9	2
12	High-sensitivity in various gyrator-based circuits with exceptional points of degeneracy. EPJ Applied Metamaterials, 2022, 9, 8.	0.8	0
13	How to achieve exceptional points in coupled resonators using a gyrator or PT-symmetry, and in a time-modulated single resonator: high sensitivity to perturbations. EPJ Applied Metamaterials, 2022, 9, 14.	0.8	3
14	Sixth-Order Degenerate Band Edge in Coupled Microstrip Waveguides. Physical Review Applied, 2022, 17, .	1.5	2
15	Distributed Degenerate Band Edge Oscillator. IEEE Transactions on Antennas and Propagation, 2021, 69, 1821-1824.	3.1	13
16	Exceptional Points of Degeneracy in a Transmission Line Periodically Loaded with Gain and Radiation Loss. , 2021, , .		0
17	Frozen Mode in Three-Way Periodic Microstrip Coupled Waveguide. IEEE Microwave and Wireless Components Letters, 2021, 31, 229-232.	2.0	23
18	Ultra-Sensitive Radio Frequency Biosensor at an Exceptional Point of Degeneracy Induced by Time Modulation. IEEE Sensors Journal, 2021, 21, 7250-7259.	2.4	13

#	Article	IF	Citations
19	Exceptional degeneracy in a waveguide periodically loaded with discrete gain and radiation loss elements. Applied Physics Letters, 2021, 118, .	1.5	7
20	Exceptional degeneracies in traveling wave tubes with dispersive slow-wave structure including space-charge effect. Applied Physics Letters, 2021, 118, .	1.5	12
21	High-Power <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>X</mml:mi></mml:math> -Band Relativistic Backward-Wave Oscillator with Exceptional Synchronous Regime Operating at an Exceptional Point. Physical Review Applied, 2021, 15, .	1.5	5
22	High-Power Backward-Wave Oscillator Using Folded Waveguide With Distributed Power Extraction Operating at an Exceptional Point. IEEE Transactions on Electron Devices, 2021, 68, 3588-3595.	1.6	4
23	High Power Backward Wave Oscillator using Serpentine Waveguide with Distributed Power Extraction Operating at an Exceptional Point. , 2021, , .		0
24	A Cross-Shaped 2-D Periodic Leaky-Wave Antenna. IEEE Transactions on Antennas and Propagation, 2020, 68, 1289-1301.	3.1	11
25	Degenerate Band Edge Resonances in Air-filled Substrate Integrated Waveguide. , 2020, , .		1
26	Review of Recent Advances in the Leaky-Wave Analysis of 2-D Leaky-Wave Antennas. , 2020, , .		1
27	Exceptional Points of Degeneracy Directly Induced by Spaceâ€"Time Modulation of a Single Transmission Line. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 1906-1910.	2.4	13
28	Exceptional Point of Degeneracy in a Backward-Wave Oscillator with Distributed Power Extraction. Physical Review Applied, 2020, 14, .	1.5	12
29	Helicity maximization below the diffraction limit. Physical Review B, 2020, 102, .	1.1	9
30	Small-Scale Beam Scanning with an Ultrathin High Impedance Surface-Based Leaky Wave Antenna with Multiple Feeds. , 2020, , .		1
31	Experimental Testing of a 3-D-Printed Metamaterial Slow Wave Structure for High-Power Microwave Generation. IEEE Transactions on Plasma Science, 2020, 48, 4356-4364.	0.6	23
32	Optimally Chiral Light: Upper Bound of Helicity Density of Structured Light for Chirality Detection of Matter at Nanoscale. ACS Photonics, 2020, 7, 2682-2691.	3.2	19
33	General Conditions to Realize Exceptional Points of Degeneracy in Two Uniform Coupled Transmission Lines. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 3342-3354.	2.9	11
34	Helicity maximization in a planar array of achiral high-density dielectric nanoparticles. Journal of Applied Physics, 2020, 127, .	1.1	16
35	Simultaneous Perfect Bending and Polarization Rotation of Electromagnetic Wavefront Using Chiral Gradient Metasurfaces. Physical Review Applied, 2020, 13, .	1.5	15
36	Wide Gain-Bandwidth from an Ultrathin High Impedance Surface-Based Leaky Wave Antenna using Multi-Feed Excitation. , 2020, , .		0

#	Article	IF	Citations
37	A Concept for a Leaky Wave Antenna Oscillator With Second Order Degeneracy. , 2020, , .		0
38	Beamsteering Capability of a Leaky Wave-Based Curved High Impedance Surface Antenna. , 2020, , .		1
39	Fabry-PÃ©rot cavity antenna generating multi frequency overlapping apertures. , 2020, , .		0
40	Gain Enhancement of a Wideband Fabry-PÃ©rot Cavity Antenna Using Sparse Array Feed. , 2020, , .		1
41	Exceptional point of sixth-order degeneracy in a modified coupled-resonator optical waveguide. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 2319.	0.9	11
42	Asymmetric surface wave excitation through metasurface-edge diffraction. Optics Letters, 2020, 45, 5420.	1.7	2
43	A 3D-Printed Metamaterial Slow Wave Structure for High-Power Microwave Generation. , 2020, , .		1
44	Backward-Wave Oscillator with Distributed Power Extraction Operating at an Exceptional Point of Degeneracy. , 2020, , .		0
45	Hyperbolic Metamaterials at Microwaves With Stacked Inductive Coiled-Wire Arrays. IEEE Transactions on Antennas and Propagation, 2019, 67, 6494-6507.	3.1	1
46	Exceptional Points of Degeneracy in Periodic Coupled Waveguides and the Interplay of Gain and Radiation Loss: Theoretical and Experimental Demonstration. IEEE Transactions on Antennas and Propagation, 2019, 67, 6909-6923.	3.1	37
47	Backward-Wave Oscillator with Distributed Power Extraction Based on Exceptional Point of Degeneracy and Gain and Radiation-Loss Balance. , 2019, , .		6
48	The Degeneracy of the Dominant Mode in Rectangular Waveguide. , 2019, , .		3
49	High-Q Substrate-Integrated-Waveguide Resonator with Degenerate Band Edge. , 2019, , .		1
50	Linear Time-Periodic Systems with Exceptional Points of Degeneracy. , 2019, , .		0
51	Overview of Wideband Fabry-PÃ©rot Cavity Antennas with Thick Partially Reflective Surface. , 2019, , .		1
52	Illusion mechanisms with cylindrical metasurfaces: A general synthesis approach. Physical Review B, 2019, 100, .	1.1	14
53	Low Starting Current Oscillator Based on the Degenerate Band Edge in a Double Helix Slow Wave Structure. , 2019, , .		0
54	Two-Scale Structure for Giant Field Enhancement: Combination of Rayleigh Anomaly and Colloidal Plasmonic Resonance. Physical Review Applied, 2019, 11, .	1.5	3

#	Article	IF	Citations
55	Leaky-Wave Analysis of Wideband Planar Fabryâ€"PÃ©rot Cavity Antennas Formed by a Thick PRS. IEEE Transactions on Antennas and Propagation, 2019, 67, 5163-5175.	3.1	37
56	Radiation Properties of a 2-D Periodic Leaky-Wave Antenna. IEEE Transactions on Antennas and Propagation, 2019, 67, 3560-3573.	3.1	19
57	Diffraction by a truncated planar array of dipoles:A Wienerâ€"Hopf approach. Wave Motion, 2019, 89, 28-42.	1.0	8
58	Giant Circular Dichroism at Visible Frequencies Enabled by Plasmonic Ramp-Shaped Nanostructures. ACS Photonics, 2019, 6, 924-931.	3.2	60
59	Exceptional Points of Degeneracy induced in Uniform and Periodic Coupled Systems. , 2019, , .		0
60	Pulse Generation using a Degenerate Band Edge Structure. , 2019, , .		0
61	New oscillator concept based on band edge degeneracy in lumped doubleâ€ladder circuits. IET Circuits, Devices and Systems, 2019, 13, 950-957.	0.9	16
62	Analysis of a Wideband Fabry-PÃ©rot Cavity Antenna at 60 GHz using Grid Impedance Approximation. , 2019, , .		1
63	2D Periodic Leaky-Wave Antennas in the Microwave and Optical Regimes. , 2019, , .		1
64	Wiener-Hopf analysis of the diffraction by a half-plane dipole array. , 2019, , .		0
65	Applications and Potentials of Reciprocal Bianisotropic Metasurfaces. , 2019, , .		1
66	Perfect Anomalous Reflection and Refraction Accompanied by an Ideal Polarization Conversion: Potential of a Chiral Metasurface. , 2019, , .		1
67	Exceptional Points of Degeneracy Induced by Linear Time-Periodic Variation. Physical Review Applied, 2019, 11, .	1.5	44
68	Exceptional Points of Degeneracy and Branch Points for Coupled Transmission Linesâ€"Linear-Algebra and Bifurcation Theory Perspectives. IEEE Transactions on Antennas and Propagation, 2019, 67, 1025-1034.	3.1	21
69	Empowering structured light to enhance chirality detection and characterization at nanoscale. , 2019, , .		2
70	Optical magnetic field enhancement at nanoscale: a nanoantenna comparative study. Optics Letters, 2019, 44, 4957.	1.7	9
71	Revisiting Orbital Angular Momentum Beams: Fundamentals, Reflectarray Generation, and Novel Antenna Applications. IEEE Antennas and Propagation Magazine, 2018, 60, 68-81.	1.2	67
72	A New Amplification Regime for Traveling Wave Tubes With Third-Order Modal Degeneracy. IEEE Transactions on Plasma Science, 2018, 46, 43-56.	0.6	18

#	Article	IF	Citations
73	Longitudinal Monitoring of Biofilm Formation via Robust Surface-Enhanced Raman Scattering Quantification of Pseudomonas aeruginosa-Produced Metabolites. ACS Applied Materials & Interfaces, 2018, 10, 12364-12373.	4.0	51
74	Theory of Double Ladder Lumped Circuits With Degenerate Band Edge. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 3-13.	3.5	19
75	Sharply Focused Azimuthally Polarized Beams with Magnetic Dominance: Near-Field Characterization at Nanoscale by Photoinduced Force Microscopy. ACS Photonics, 2018, 5, 390-397.	3.2	34
76	Realization of Fourth Order Exceptional Points of Degeneracy in Uniform Coupled-Waveguides. , 2018, , .		0
77	Exceptional Points of Degeneracy in a Linear Array Oscillator with Gain and Loss Balance. , 2018, , .		0
78	Wiener-Hopf analysis of the scattering by a two dimensional periodic semi - infinite array of dipoles. , 2018, , .		0
79	Microwave Circuits with Exceptional Points and Applications in Oscillators and Sensors. , 2018, , .		3
80	Various Topologies of Coupled-Mode Structures Exhibiting Exceptional Points of Degeneracy. , 2018, , .		3
81	Analyze and Design of Thin Planar High Impedance Surface as an Antenna. , 2018, , .		8
82	Exclusive Magnetic Excitation Enabled by Structured Light Illumination in a Nanoscale Mie Resonator. ACS Nano, 2018, 12, 12159-12168.	7.3	30
83	Unscrambling Structured Chirality with Structured Light at the Nanoscale Using Photoinduced Force. ACS Photonics, 2018, 5, 4360-4370.	3.2	20
84	Giant Resonance and Anomalous Quality Factor Scaling in Degenerate Band Edge Coupled Resonator Optical Waveguides. Journal of Lightwave Technology, 2018, 36, 3030-3039.	2.7	24
85	Cylindrical to rectangular coordinate transformation for planar phase front synthesis. IET Microwaves, Antennas and Propagation, 2018, 12, 814-819.	0.7	0
86	In pursuit of photo-induced magnetic and chiral microscopy. EPJ Applied Metamaterials, 2018, 5, 7.	0.8	5
87	Electron-Beam-Driven Devices With Synchronous Multiple Degenerate Eigenmodes. IEEE Transactions on Plasma Science, 2018, 46, 3126-3138.	0.6	18
88	Degenerate band edge laser. Physical Review B, 2018, 97, .	1.1	33
89	Exceptional Points of Degeneracy in lossless Periodic Coupled Waveguides. , 2018, , .		0
90	Demonstration of a Plasmo-Thermomechanical Radiation Detector with Si3N4 Waveguide Optical Readout Circuit. , 2018, , .		1

#	Article	IF	Citations
91	Electric Field Enhancement by Two-scale Structure. , 2018, , .		0
92	Enantio-specific Detection of Chirality at Nanoscale Using Photo-induced Force. , 2018, , .		0
93	Nanoscale Field Mapping of Interfering Beams from Nomarski Prism Using Photo-Induced Force Microscopy. , 2018, , .		0
94	Wideband single-layer Fabry-PÃ©rot cavity antenna with a radial variation of the cavity permittivity. , 2017, , .		0
95	Driving Chemical Reactions in Plasmonic Nanogaps with Electrohydrodynamic Flow. ACS Nano, 2017, 11, 11317-11329.	7.3	25
96	Exceptional points of degeneracy and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="script">P</mml:mi><mml:mi mathvariant="script">T</mml:mi></mml:mrow></mml:math>symmetry in photonic coupled chains of scatterers. Physical Review B, 2017, 95, .	1.1	27
97	Magnetic Nanoantennas Made of Plasmonic Nanoclusters for Photoinduced Magnetic Field Enhancement. Physical Review Applied, 2017, 8, .	1.5	20
98	Giant field enhancement in longitudinal epsilon-near-zero films. Physical Review B, 2017, 95, .	1.1	29
99	Experimental Demonstration of Degenerate Band Edge in Metallic Periodically Loaded Circular Waveguide. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 4037-4045.	2.9	36
100	Theory of coupled resonator optical waveguides exhibiting high-order exceptional points of degeneracy. Physical Review B, 2017, 96, .	1.1	73
101	Theory of Optical Leaky-Wave Antenna Integrated in a Ring Resonator for Radiation Control. Journal of Lightwave Technology, 2017, 35, 10-18.	2.7	6
102	Theory of Exceptional Points of Degeneracy in Uniform Coupled Waveguides and Balance of Gain and Loss. IEEE Transactions on Antennas and Propagation, 2017, 65, 5289-5302.	3.1	48
103	Third order modal degeneracy in waveguids: Features and application in amplifiers. , 2017, , .		1
104	Enantiospecific Detection of Chiral Nanosamples Using Photoinduced Force. Physical Review Applied, 2017, 8, .	1.5	26
105	Self-assembled plasmonic nanogaps: Enabling early detection of biofilm formation. , 2017, , .		0
106	Functional metasurfaces: Do we need normal polarizations?. , 2017, , .		2
107	Efficient Generation of High Power Microwaves using the Degenerate Band Edge Oscillators. , 2017, , .		0
108	Reflective metasurface lens with an elongated needle-shaped focus. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 374.	0.9	14

#	Article	IF	Citations
109	Experimental Verification of Degenerate Band Edge Dispersion in Metallic Waveguides. , 2017, , .		0
110	Templated electrokinetic directed chemical assembly for the fabrication of close-packed plasmonic metamolecules. , 2017, , .		1
111	Electric field enhancement with plasmonic colloidal nanoantennas excited by a silicon nitride waveguide. Optics Express, 2016, 24, 28337.	1.7	20
112	Focused azimuthally polarized vector beam and spatial magnetic resolution below the diffraction limit. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 2265.	0.9	28
113	Theory of coupled waveguides with modal degeneracies and gain. , 2016, , .		0
114	High-gain single-layer radial line slot array designed for V-band applications. , 2016, , .		1
115	Exceptional points of degeneracy in coupled-mode periodic structures. , 2016, , .		2
116	Giant amplification in degenerate band edge slow-wave structures interacting with an electron beam. Physics of Plasmas, 2016, 23, .	0.7	35
117	V-band planar single-layer circularly-polarized Fabry-PÃ©rot cavity antennas. , 2016, , .		0
118	Super synchronous operation of traveling wave tubes based on band edge degeneracy. , 2016, , .		0
119	Parity-time symmetry in chain of scatterers. , 2016, , .		0
120	Degenerate band edge electron beam oscillators: Low starting current. , 2016, , .		1
121	Plasmon optical trapping using silicon nitride trench waveguides. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 1182.	0.9	8
122	Design Formulas for Planar Fabryâ€“PÃ©rot Cavity Antennas Formed by Thick Partially Reflective Surfaces. IEEE Transactions on Antennas and Propagation, 2016, 64, 5487-5491.	3.1	15
123	Experimental Demonstration of Directive Si3N4 Optical Leaky Wave Antennas With Semiconductor Perturbations. Journal of Lightwave Technology, 2016, 34, 4864-4871.	2.7	16
124	1-D Periodic Greenâ€™s Function for Leaky and Complex Waves Using the Ewald Method. IEEE Transactions on Antennas and Propagation, 2016, 64, 4703-4712.	3.1	3
125	Giant gain enhancement in photonic crystals with a degenerate band edge. Physical Review B, 2016, 93, .	1.1	55
126	Time domain analysis of coupled-waveguides with modal degeneracies and gain. , 2016, , .		0

#	Article	IF	Citations
127	Photoinduced Magnetic Nanoprobe Excited by an Azimuthally Polarized Vector Beam. ACS Photonics, 2016, 3, 2049-2058.	3.2	46
128	V-band wideband Fabry-PÃ©rot cavity antenna made of thick partially-reflective surface. , 2016, , .		2
129	Theory and New Amplification Regime in Periodic Multimodal Slow Wave Structures With Degeneracy Interacting With an Electron Beam. IEEE Transactions on Plasma Science, 2016, 44, 594-611.	0.6	40
130	Low Starting Electron Beam Current in Degenerate Band Edge Oscillators. IEEE Transactions on Plasma Science, 2016, 44, 918-929.	0.6	35
131	Concept for Pulse Compression Device Using Structured Spatial Energy Distribution. IEEE Transactions on Microwave Theory and Techniques, 2016, , 1-14.	2.9	15
132	Electromagnetic coupling and array packing induce exchange of dominance on complex modes in 3D periodic arrays of spheres with large permittivity. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 261.	0.9	6
133	Artificial Magnetism via Nanoantennas under Azimuthally Polarized Vector Beam Illumination. , 2016, , .		5
134	Photoinduced magnetic force between nanostructures. Physical Review B, 2015, 92, .	1.1	17
135	Generalized Lorentz-Lorenz homogenization formulas for binary lattice metamaterials. Physical Review B, 2015, 91, .	1.1	10
136	Time domain power flow in hyperbolic metmaterial excited by a pulsed dipole. , 2015, , .		0
137	Vector vortex beam transmitarrays composed of split-ring slot elements. , 2015, , .		1
138	Degenerate band edge in periodically-loaded circular waveguides. , 2015, , .		0
139	Theory and simulation of the interaction between periodic multi-transmission lines with a degenerate band edge and electron beams. , 2015, , .		0
140	Leaky-wave explanation of gain-bandwidth-enhanced Fabry-Pérot Cavity antennas formed by a thick multilayer partially-reflective surface. , 2015, , .		12
141	Uniform and non uniform optical leaky-wave antennas for field shaping. , 2015, , .		0
142	Vortex beams with strong longitudinally polarized magnetic field and their generation by using metasurfaces. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 345.	0.9	47
143	Gain Enhancement of a V-Band Antenna Using a Fabry-PÃ©rot Cavity With a Self-Sustained All-Metal Cap With FSS. IEEE Transactions on Antennas and Propagation, 2015, 63, 909-921.	3.1	71
144	Experimental demonstration of directive Si3N4optical leaky wave antennas with semiconductor perturbations at near infrared frequencies. , 2015, , .		3

#	Article	IF	Citations
145	A 60 GHz simpleâ€toâ€fabricate singleâ€layer planar Fabryâ€"PÃ©rot cavity antenna. IET Microwaves, Antennas and Propagation, 2015, 9, 313-318.	0.7	22
146	Sub-micron silicon nitride waveguide fabrication using conventional optical lithography. Optics Express, 2015, 23, 6780.	1.7	43
147	Cooperative plasmon-mediated effects and loss compensation by gain dyes near a metal nanoparticle. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 188.	0.9	15
148	Thin anisotropic metasurfaces for simultaneous light focusing and polarization manipulation. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 318.	0.9	51
149	Large magnetic to electric field contrast in azimuthally polarized vortex beams generated by a metasurface (Presentation Recording). Proceedings of SPIE, 2015, , .	0.8	4
150	Surface enhanced Raman scattering for detection ofPseudomonas aeruginosaquorum sensing compounds. , 2015, , .		3
151	Demonstration of a Degenerate Band Edge in Periodically-Loaded Circular Waveguides. IEEE Microwave and Wireless Components Letters, 2015, 25, 700-702.	2.0	34
152	Optical Leaky Wave Antenna Experiment Demonstration and Electronic Modulation Investigation. , 2015, , .		2
153	Plasmon Optical Trapping in Silicon Nitride Trench Waveguide. , 2015, , .		0
154	Q-BAND SINGLE-LAYER PLANAR FABRY-PEROT CAVITY ANTENNA WITH SINGLE INTEGRATED-FEED. Progress in Electromagnetics Research C, 2014, 52, 135-144.	0.6	20
155	Gain-bandwidth enhancement of 60GHz single-layer Fabry-Pérot cavity antennas using sparse-array. , 2014, , .		10
156	Sub-micron silicon nitride waveguide fabrication using conventional optical lithography. , 2014, , .		3
157	Fano collective resonance as complex mode in a two-dimensional planar metasurface of plasmonic nanoparticles. Applied Physics Letters, 2014, 105, .	1.5	18
158	Optical leaky-wave antenna integrated in ring resonator. , 2014, , .		2
159	Array of dipoles near a hyperbolic metamaterial: Evanescent-to-propagating Floquet wave transformation. Physical Review B, 2014, 89, .	1.1	10
160	Phase-gradient gap-plasmon metasurface based blazed grating for real time dispersive imaging. Applied Physics Letters, 2014, 104, .	1.5	46
161	Second-harmonic double-resonance cones in dispersive hyperbolic metamaterials. Physical Review B, 2014, 89, .	1.1	39
162	Second harmonic generation from metamaterials strongly coupled to intersubband transitions in quantum wells. Applied Physics Letters, 2014, 104, .	1.5	61

#	Article	IF	Citations
163	Infrared polarizing reflectarray metasurfaces. , 2014, , .		2
164	Electrodynamic modeling of strong coupling between a metasurface and intersubband transitions in quantum wells. Physical Review B, 2014, 89, .	1.1	24
165	Closed-form expressions of local effective bianisotropic constitutive parameters for reciprocal metamaterials. , 2014, , .		1
166	Metamaterials strongly coupled to intersubband transitions: Circuit model and second order nonlinear processes. , 2014, , .		0
167	Extension of the Pierce Model to Multiple Transmission Lines Interacting With an Electron Beam. IEEE Transactions on Plasma Science, 2014, 42, 899-910.	0.6	28
168	Artificial magnetism at terahertz frequencies from three-dimensional lattices of TiO_2 microspheres accounting for spatial dispersion and magnetoelectric coupling. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 1078.	0.9	21
169	Theory of a Directive Optical Leaky Wave Antenna Integrated into a Resonator and Enhancement of Radiation Control. Journal of Lightwave Technology, 2014, 32, 1741-1749.	2.7	21
170	Critical excitation-rate enhancement of a dipolar scatterer close to a plasmonic nanosphere and importance of multipolar self-coupling. Physical Review B, 2014, 90, .	1.1	5
171	Radiative emission enhancement using nano-antennas made of hyperbolic metamaterial resonators. Applied Physics Letters, 2014, 105, .	1.5	36
172	Gyrotropic effects in hyperbolic metamaterials. , 2014, , .		0
173	Optical leaky wave antennas integrated with resonator topologies. , 2014, , .		0
174	A 94-GHz Extremely Thin Metasurface-Based BiCMOS On-Chip Antenna. IEEE Transactions on Antennas and Propagation, 2014, 62, 4439-4451.	3.1	42
175	Effects of dipolar scatterer orientation beside a plasmonic nanosphere in excitation rate enhancement. , 2014, , .		0
176	Improved Bandwidth Formulas for Fabry-PÃ©rot Cavity Antennas Formed by Using a Thin Partially-Reflective Surface. IEEE Transactions on Antennas and Propagation, 2014, 62, 2361-2367.	3.1	19
177	Enhanced Magnetic and Electric Fields via Fano Resonances in Metasurfaces of Circular Clusters of Plasmonic Nanoparticles. ACS Photonics, 2014, 1, 254-260.	3.2	73
178	Millimeter-wave massive MIMO: the next wireless revolution?. , 2014, 52, 56-62.		657
179	Design and Analysis of a W-band 9-Element Imaging Array Receiver Using Spatial-Overlapping Super-Pixels in Silicon. IEEE Journal of Solid-State Circuits, 2014, 49, 1317-1332.	3.5	36
180	Maximizing Strong Coupling between Metasurface Resonators and Intersubband Transitions. , 2014, , .		0

#	Article	IF	Citations
181	Plasmonic sub-wavelength phase-gradient meta-surfaces for real time dispersive imaging. , 2014, , .		0
182	Enhancement of Radiative Emission using a Hyperbolic Metamaterial Nano-antenna. , 2014, , .		0
183	Magnetoinductive Waves and Complex Modes in Two-Dimensional Periodic Arrays of Split Ring Resonators. IEEE Transactions on Antennas and Propagation, 2013, 61, 3554-3563.	3.1	19
184	Effective medium representation and complex modes in 3D periodic metamaterials made of cubic resonators with large permittivity at mid-infrared frequencies. Photonics and Nanostructures - Fundamentals and Applications, 2013, 11, 423-435.	1.0	17
185	Grapheneâ€"dielectric composite metamaterials: evolution from elliptic to hyperbolic wavevector dispersion and the transverse epsilon-near-zero condition. Journal of Nanophotonics, 2013, 7, 073089.	0.4	88
186	Strong coupling in the sub-wavelength limit using metamaterial nanocavities. Nature Communications, 2013, 4, 2882.	5.8	96
187	Time-Domain UTD Vertex Diffraction Coefficient for the Scattering by Perfectly Conducting Faceted Structures. IEEE Transactions on Antennas and Propagation, 2013, 61, 4204-4213.	3.1	6
188	Wideband Planar Transmission Line Hyperbolic Metamaterial for Subwavelength Focusing and Resolution. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 4110-4117.	2.9	20
189	Conditions for electric field enhancement in ε-near-zero Slabs under TM-polarized oblique incidence. , 2013, , .		0
190	Equivalent Transmission Line Model With a Lumped X-Circuit for a Metalayer Made of Pairs of Planar Conductors. IEEE Transactions on Antennas and Propagation, 2013, 61, 852-861.	3.1	25
191	Electric field enhancement in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>É</mml:mi></mml:math>-near-zero slabs under TM-polarized oblique incidence. Physical Review B, 2013, 87, .	1.1	102
192	A 93-to-113GHz BiCMOS 9-element imaging array receiver utilizing spatial-overlapping pixels with wideband phase and amplitude control. , 2013, , .		11
193	Low-damping epsilon-near-zero slabs: Nonlinear and nonlocal optical properties. Physical Review B, 2013, 87, .	1.1	72
194	Directing Cluster Formation of Au Nanoparticles from Colloidal Solution. Langmuir, 2013, 29, 4242-4251.	1.6	22
195	Investigation of a Wideband BiCMOS Fully On-Chip W-Band Bowtie Slot Antenna. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 706-709.	2.4	23
196	Graphene-based hyperbolic metamaterial. , 2013, , .		0
197	Graphene-based Hyperbolic Metamaterial at Terahertz Frequencies. , 2013, , .		0
198	Fano resonances in metasurfaces made of linear trimers of plasmonic nanoparticles. Optics Letters, 2013, 38, 5216.	1.7	18

#	Article	IF	Citations
199	Effect of irregularities of nanosatellites position and size on collective electric and magnetic plasmonic resonances in spherical nanoclusters. Optics Express, 2013, 21, 7667.	1.7	13
200	Comparison of electric field enhancements: Linear and triangular oligomers versus hexagonal arrays of plasmonic nanospheres. Optics Express, 2013, 21, 7957.	1.7	25
201	Studying dipole moment modification in a single fluorescent dye beside metallic Nano-Particle based on the Green's function theory. , 2013, , .		0
202	Subwavelength focusing and resolution with hyperbolic transmission line metamaterial. , 2013, , .		0
203	Artificial magnetism at terahertz frequencies in 3D arrays of TiO<inf>2</inf> microspheres including spatial dispersion and magnetoelectric coupling. , 2013, , .		0
204	Graphene-based tunable hyperbolic metamaterials and enhanced near-field absorption. Optics Express, 2013, 21, 7614.	1.7	246
205	A 63 GHz single-feed low-profile Fabry-Pérot cavity antenna using a thick metallic FSS. , 2013, , .		1
206	Analytic impulsive time-domain UTD coefficient for pyramid-vertex diffraction. , 2013, , .		0
207	Concept of an optical leaky-wave antenna embedded in a Fabry-Pérot resonator. , 2013, , .		1
208	Wave dynamics in a hyperbolic metamaterial excited by a two-dimensional periodic array of sources at its surface. , 2013, , .		0
209	Complex modes and artificial magnetism in three-dimensional periodic arrays of titanium dioxide microspheres at millimeter waves. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 1697.	0.9	12
210	Influence of disorder on the optical properties of spherical plasmonic nanoclusters. , 2012, , .		0
211	An optical leaky wave antenna with Si perturbations inside a resonator for enhanced optical control of the radiation. Optics Express, 2012, 20, 21305.	1.7	31
212	An on-chip W-band bowtie slot antenna in silicon. , 2012, , .		3
213	Hiding and absorbing the power emitted by a dipole at the interface of an indefinite medium. , 2012, , .		0
214	Possible feeds of the HIS antenna without dipole on top. , 2012, , .		1
215	Radiation properties of an integrated optical leaky wave antenna with periodic silicon perturbations. , 2012, , .		0
216	Numerical modeling of nanostructured metamaterials. , 2012, , .		0

#	Article	IF	Citations
217	Educating students on metamaterials - The story of the EUProMeta. , 2012, , .		1
218	Enhancing radiation control of an optical leaky wave antenna in a resonator. Proceedings of SPIE, 2012, , .	0.8	2
219	Metamaterials based on plasmonic nanoshells and loss-compensation using fluorescent dye molecules and quantum dots. Proceedings of SPIE, 2012, , .	0.8	0
220	A highly-efficient single-feed planar Fabry-Pérot cavity antenna for 60 GHz technology. , 2012, , .		7
221	Hyperbolic metamaterial as super absorber for scattered fields generated at its surface. Physical Review B, 2012, 86, .	1.1	98
222	Magnetoinductive waves in 2D periodic arrays of split ring resonators. , 2012, , .		1
223	Ewald method for 3D periodic dyadic Green's functions and complex modes in composite materials made of spherical particles under the dual dipole approximation. Radio Science, 2012, 47, .	0.8	34
224	Low Profile Fully Planar Folded Dipole Antenna on a High Impedance Surface. IEEE Transactions on Antennas and Propagation, 2012, 60, 51-62.	3.1	139
225	Composite material made of plasmonic nanoshells with quantum dot cores: loss-compensation and Îµ-near-zero physical properties. Nanotechnology, 2012, 23, 235703.	1.3	33
226	Designs of fully on-chip antennas in (Bi)CMOS technology. , 2012, , .		4
227	Gain-assisted harmonic generation in near-zero permittivity metamaterials made of plasmonic nanoshells. New Journal of Physics, 2012, 14, 103016.	1.2	41
228	Nonâ€lithographic SERS Substrates: Tailoring Surface Chemistry for Au Nanoparticle Cluster Assembly. Small, 2012, 8, 2239-2249.	5.2	68
229	Electromagnetic Metamaterials as Artificial Composite Structures. The Electrical Engineering Handbook, 2012, , 595-682.	0.2	1
230	Effective model and investigation of the near-field enhancement and subwavelength imaging properties of multilayer arrays of plasmonic nanospheres. Physical Review E, 2011, 84, 016607.	0.8	37
231	High impedance layer for CMOS on-chip antenna at millimeter waves. , 2011, , .		6
232	Design of a CMOS On-Chip Slot Antenna With Extremely Flat Cavity at 140 GHz. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 827-830.	2.4	68
233	Description and characterization of the complex modes in a linear chain of gold nanospheres. , 2011, , .		2
234	Metamaterial waveguide with loss compensation. , 2011, , .		0

#	Article	IF	Citations
235	Direct Use of the High Impedance Surface as an Antenna Without Dipole on Top. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 1536-1539.	2.4	24
236	Novel high efficiency CMOS on-chip antenna structures at millimeter waves. , 2011, , .		3
237	Characterization of complex plasmonic modes in two-dimensional periodic arrays of metal nanospheres. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 1446.	0.9	34
238	Wave dynamics by a plane wave on a half-space metamaterial made of plasmonic nanospheres: a discrete Wienerâ€"Hopf formulation. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 2174.	0.9	14
239	High impedance surface as an antenna without a dipole on top. , 2011, , .		6
240	3D Isotropic magnetic and negative index nanocluster metamaterials. , 2011, , .		0
241	Collective electric and magnetic plasmonic resonances in spherical nanoclusters. Optics Express, 2011, 19, 2754.	1.7	64
242	Silicon-based optical leaky wave antenna with narrow beam radiation. Optics Express, 2011, 19, 8735.	1.7	69
243	Complex bound and leaky modes in chains of plasmonic nanospheres. Optics Express, 2011, 19, 18345.	1.7	45
244	Dual polarized near-field focusing plate for near-field optical focusing in two dimensions. Optics Express, 2011, 19, 24483.	1.7	2
245	Complex modes and effective refractive index in 3D periodic arrays of plasmonic nanospheres. Optics Express, 2011, 19, 26027.	1.7	31
246	Complex modes and near-zero permittivity in 3D arrays of plasmonic nanoshells: loss compensation using gain [Invited]. Optical Materials Express, 2011, 1, 1077.	1.6	101
247	The Fundamental Physics of Directive Beaming at Microwave and Optical Frequencies and the Role of Leaky Waves. Proceedings of the IEEE, 2011, 99, 1780-1805.	16.4	125
248	LINEAR AND PLANAR PERIODIC ARRAYS OF METALLIC NANOSPHERES: FABRICATION, OPTICAL PROPERTIES AND APPLICATIONS. , 2011, , 141-194.		3
249	A dual polarized near-field focusing plate at microwave frequencies providing sub-wavelength focusing in two dimensions. , 2011, , .		1
250	Characterization of the optical modes in 3D-periodic arrays of metallic nanospheres. , 2011, , .		3
251	Control of the radiation of a silicon-based optical leaky wave antenna through optical pumping. , 2011, , .		3
252	An optical leaky wave antenna with silicon perturbations for electronic control. Proceedings of SPIE, 2011, , .	0.8	5

#	Article	IF	Citations
253	Erbium-based plasmonic-assisted vertical emitter. , 2011, , .		0
254	A comparison of metalayers based on arrayed pairs of planar conductors. , 2011, , .		0
255	Closed form formulas and tunability of resonances in pairs of gold-dielectric nanoshells. Proceedings of SPIE, 2010, , .	0.8	3
256	Narrow Beam Radiation from a CMOS Compatible Leaky Wave Optical Antenna. , 2010, , .		1
257	Artificial magnetic conductor from a layer of dogbone-shaped conductors over a ground plane. , 2010, , .		1
258	Characterization of metamaterials made of stacked layers of dogbone conductor pairs. , 2010, , .		1
259	Single-feed highly-directive Fabry-Perot Cavity antenna for 60 GHz wireless systems: Design and fabrication. , 2010, , .		4
260	Highly Polarized, Directive Radiation From a Fabry-PÃ©rot Cavity Leaky-Wave Antenna Based on a Metal Strip Grating. IEEE Transactions on Antennas and Propagation, 2010, 58, 3873-3883.	3.1	36
261	Design of a single-feed all-metal 63 GHz Fabry-Perot cavity antenna using a TL and a wideband circuit model. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	12
262	Directive emission from defect-free dodecagonal photonic quasicrystals: A leaky wave characterization. Physical Review B, 2009, 79, .	1.1	19
263	Design of a single-feed 60 GHz planar metallic Fabry-Perot cavity antenna with 20 dB gain. , 2009, , .		5
264	Frequency dependent steering with backward leaky waves via photonic crystal interface layer. Optics Express, 2009, 17, 9879.	1.7	8
265	Tightly coupled tripole conductor pairs as constituents for a planar 2D-isotropic negative refractive index metamaterial. Optics Express, 2009, 17, 15216.	1.7	10
266	Metamaterials Based on Pairs of Tightly Coupled Scatterers. , 2009, , .		9
267	Enhancement of Directivity by Using Metamaterial Substrates. , 2009, , .		0
268	Super-Resolution and Near-Field Enhancement with Layers of Resonant Arrays of Nanoparticles. , 2009, , .		0
269	Choosing splitting parameters and summation limits in the numerical evaluation of 1â€Ð and 2â€Ð periodic Green's functions using the Ewald method. Radio Science, 2008, 43, .	0.8	41
270	Directive Leaky-Wave Radiation From a Dipole Source in a Wire-Medium Slab. IEEE Transactions on Antennas and Propagation, 2008, 56, 1329-1339.	3.1	66

#	Article	IF	Citations
271	Modal Propagation and Excitation on a Wire-Medium Slab. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 1112-1124.	2.9	27
272	Aperiodic-Tiling-Based Mushroom-Type High-Impedance Surfaces. IEEE Antennas and Wireless Propagation Letters, 2008, 7, 54-57.	2.4	2
273	Effective analysis of arrays of nanospheres for near-field enhancement and subwavelength imaging in the optical region. , 2008, , .		0
274	A comparative study of directive emission from photonic quasicrystals. Proceedings of SPIE, 2008, , .	0.8	0
275	The array scanning method (ASM)-FDTD algorithm and its application to the excitation of two-dimensional EBG materials and waveguides. , 2007, , .		1
276	Directive emission from a single subwavelength aperture in a periodically corrugated silver film. , 2007, , .		0
277	Comparison of Methods for Calculating the Field Excited by a Dipole Near a 2-D Periodic Material. IEEE Transactions on Antennas and Propagation, 2007, 55, 1644-1655.	3.1	66
278	Elimination of Scan Blindness in Phased Array Antennas Using a Grounded-Dielectric EBG Material. IEEE Antennas and Wireless Propagation Letters, 2007, 6, 106-109.	2.4	26
279	ASMâ€"FDTD: A Technique for Calculating the Field of a Finite Source in the Presence of an Infinite Periodic Artificial Material. IEEE Microwave and Wireless Components Letters, 2007, 17, 271-273.	2.0	32
280	High-Impedance Surfaces with Aperiodically-Ordered Textures. , 2007, , .		0
281	Leaky Modes on a Grounded Wire-Medium Slab. IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium, 2007, , .	0.0	2
282	Simulations and Measurements of Dual-Band 2-D Periodic Leaky Wave Antenna. , 2007, , .		8
283	Network Oriented Dyadic Time Domain Green's Function for a Sequentially Excited Infinite Planar Array of Dipoles in Free Space. IEEE Transactions on Antennas and Propagation, 2007, 55, 2228-2238.	3.1	2
284	High-gain omnidirectional radiation patterns from a metal strip grating leaky-wave antenna. , 2007, , .		8
285	EIGERâ„¢: An open-source frequency-domain electromagnetics code. , 2007, , .		19
286	Development of micro-structured metamaterials for innovative antenna layouts. , 2007, , .		0
287	Bandwidth analysis of highly-directive planar radiators based on partially-reflecting surfaces. , 2006, , .		7
288	Array thinning by using antennas in a Fabryâ€"Perot cavity for gain enhancement. IEEE Transactions on Antennas and Propagation, 2006, 54, 1979-1990.	3.1	248

#	Article	IF	Citations
289	Localized modes in photonic quasicrystals with Penrose-type lattice. Optics Express, 2006, 14, 10021.	1.7	53
290	High directivity in low-permittivity metamaterial slabs: Ray-optic vs. leaky-wave models. Microwave and Optical Technology Letters, 2006, 48, 2542-2548.	0.9	20
291	Floquet wave-based analysis of transient scattering from doubly periodic, discretely planar, perfectly conducting structures. Radio Science, 2005, 40, n/a-n/a.	0.8	19
292	A Combined Floquet- Wave â€" FDTD Algorithm for the Modeling of Transient Radiation from Infinite Periodic Structures. Springer Proceedings in Physics, 2004, , 249-257.	0.1	4
293	Short-pulse radiation by a sequentially excited semi-infinite periodic planar array of dipoles. Radio Science, 2003, 38, n/a-n/a.	0.8	7
294	Applications of Metamaterials. , 0, , .		105
295	Theory and Phenomena of Metamaterials. , 0, , .		291