Lucio Vegni

List of Publications by Year in Descending Order

93 papers	2,158 citations	22 h-index	44 g-index
107 ext. papers	2,528 ext. citations	2 avg, IF	5.1 L-index

#	Paper	IF	Citations
93	Electromagnetic Nanoparticles for Sensing and Medical Diagnostic Applications. *Materials*, **2018**, 11,	3.5	78
92	Near-zero-index wires. *Optics Express*, **2017**, 25, 23699-23708	3.3	61
91	Metamaterial-based wideband electromagnetic wave absorber. *Optics Express*, **2016**, 24, 5763-72	3.3	73
90	Optical Properties of Modified Nanorod Particles for Biomedical Sensing. *IEEE Transactions on Magnetics*, **2014**, 50, 169-172	2	19
89	Surface plasmon resonance of nanoshell particles with PMMA-graphene core. *COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, **2014**, 33, 2016-2029	0.7	17
88	A two-step model to optimise transcutaneous electrical stimulation of the human upper arm. *COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, **2014**, 33, 1329-1345	0.7	6
87	Nanoparticle device for biomedical and optoelectronics applications. *COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, **2013**, 32, 1596-1608	0.7	16
86	Electromagnetic modeling of ellipsoidal nanoparticles for sensing applications. *Optical Engineering*, **2013**, 52, 051205	1.1	16
85	Experimental verification of metamaterial loaded small patch antennas. *COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, **2013**, 32, 1834-1844	0.7	5
84	Characteristic impedance of a microstrip line with a dielectric overlay. *COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, **2013**, 32, 1855-1867	0.7	13
83	Dielectric-free multi-band frequency selective surface for antenna applications. *COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, **2013**, 32, 1868-1875	0.7	14
82	Achieving PMC boundary conditions through metamaterials. *COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, **2013**, 32, 1876-1890	0.7	3
81	Modified Bow-Tie Nanoparticles Operating in the Visible and Near Infrared Frequency Regime. *Advances in Nanoparticles*, **2013**, 02, 21-27	1.4	11
80	Conical Nanoparticles for Blood Disease Detection. *Advances in Nanoparticles*, **2013**, 02, 259-265	1.4	13
79	Possible implementation of epsilon-near-zero metamaterials working at optical frequencies. *Optics Communications*, **2012**, 285, 3412-3418	2	43
78	Extracting power from sub-wavelength apertures by using electrically small resonators: Phenomenology, modeling, and applications **2012**,		2
77	. *IEEE Transactions on Antennas and Propagation*, **2012**, 60, 3583-3593	4.9	13

76	Design of a Waveguide Diplexer Based on Connected Bi-Omega Particles. *IEEE Microwave and Wireless Components Letters*, **2012**, 22, 126-128	2.6	18
75	Sensor design for cancer tissue diagnostics **2012**,		2
74	Overcoming Mutual Blockage Between Neighboring Dipole Antennas Using a Low-Profile Patterned Metasurface. *IEEE Antennas and Wireless Propagation Letters*, **2012**, 11, 1414-1417	3.8	93
73	Design of a waveguide power splitter based on the employment of bi-omega resonators. *Microwave and Optical Technology Letters*, **2012**, 54, 2091-2095	1.2	5
72	Metamaterial-inspired antennas for telecommunication applications **2012**,		2
71	Metamaterial-based sensor for hemoglobin measurements **2012**,		1
70	Nanoparticle Electromagnetic Properties for Sensing Applications. *Advances in Nanoparticles*, **2012**, 01, 9-14	1.4	10
69	Employment of metamaterial cloaks to enhance the resolution of near-field scanning optical microscopy systems based on aperture tips. *Metamaterials*, **2011**, 5, 119-124		11
68	Cloaking apertureless near-field scanning optical microscopy tips. *Optics Letters*, **2011**, 36, 211-3	3	35
67	Metamaterial biosensor for cancer detection **2011**,		17
66	METAMATERIAL-BASED SENSOR DESIGN WORKING IN INFRARED FREQUENCY RANGE. *Progress in Electromagnetics Research B*, **2011**, 34, 205-223	0.7	18
65	Metamaterial resonator arrays for organic and inorganic compound sensing **2011**,		6
64	. *IEEE Transactions on Electromagnetic Compatibility*, **2011**, 53, 63-72	2	62
63	FSS-based approach for the power transmission enhancement through electrically small apertures. *Applied Physics A: Materials Science and Processing*, **2011**, 103, 927-931	2.6	3
62	New metamaterial-inspired antenna concepts based on enhanced microwave transmission through sub-wavelength apertures **2011**,		3
61	Achieving Power Transmission Enhancement by Using Nano-Rings Made of Silver Spheres. *IEEE Photonics Technology Letters*, **2010**, 22, 1595-1597	2.2	8
60	Experimental verification of metamaterial based subwavelength microwave absorbers. *Journal of Applied Physics*, **2010**, 108, 083113	2.5	58
59	Reduction of optical forces exerted on nanoparticles covered by scattering cancellation based plasmonic cloaks. *Physical Review B*, **2010**, 82,	3.3	13

58	Multi-functional dipole antennas based on artificial magnetic metamaterials. *IET Microwaves, Antennas and Propagation*, **2010**, 4, 1026	1.6	16
57	Scattering cancellation by metamaterial cylindrical multilayers. *Journal of the European Optical Society-Rapid Publications*, **2009**, 4,	2.5	13
56	Enhanced transmission through a subwavelength aperture using metamaterials. *Applied Physics Letters*, **2009**, 95, 052103	3.4	28
55	A genetic algorithm based procedure to retrieve effective parameters of planar metamaterial samples **2009**,		1
54	Symmetrical Coupled Microstrip Lines With Epsilon Negative Metamaterial Loading. *IEEE Transactions on Magnetics*, **2009**, 45, 1182-1185	2	7
53	Plasmonic and non-plasmonic layered structures for cloaking applications at visible frequencies. *Microwave and Optical Technology Letters*, **2009**, 51, 2713-2717	1.2	2
52	Design of a meta-screen for near-zone field focalization at optical frequencies. *Microwave and Optical Technology Letters*, **2009**, 51, 2718-2721	1.2	5
51	Optimization and tunability of deep subwavelength resonators for metamaterial applications: complete enhanced transmission through a subwavelength aperture. *Optics Express*, **2009**, 17, 5933-43	3.3	31
50	Split-ring-resonator-coupled enhanced transmission through a single subwavelength aperture. *Physical Review Letters*, **2009**, 102, 013904	7.4	91
49	Enhanced transmission through a sub-wavelength aperture: resonant approaches employing metamaterials. *Journal of Optics*, **2009**, 11, 114029		20
48	Design of Metamaterial-Based Resonant Microwave Absorbers with Reduced Thickness and Absence of a Metallic Backing. *NATO Science for Peace and Security Series B: Physics and Biophysics*, **2009**, 165-174	0.2	5
47	Efficient Modeling of the Crosstalk Between Two Coupled Microstrip Lines Over Nonconventional Materials Using an Hybrid Technique. *IEEE Transactions on Magnetics*, **2008**, 44, 1482-1485	2	7
46	Electromagnetic cloaking devices for TE and TM polarizations. *New Journal of Physics*, **2008**, 10, 115035	2.9	48
45	Miniaturization and Characterization of Metamaterial Resonant Particles **2008**,		3
44	. *IEEE Transactions on Antennas and Propagation*, **2008**, 56, 1640-1647	4.9	141
43	BEM analysis of electromagnetic components filled with unconventional materials. *COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, **2008**, 27, 1273-1285	0.7	
42	Equivalent-Circuit Models for the Design of Metamaterials Based on Artificial Magnetic Inclusions. *IEEE Transactions on Microwave Theory and Techniques*, **2007**, 55, 2865-2873	4.1	174
41	Analysis of LC transmission line metamaterials with coupled inductances. *Microwave and Optical Technology Letters*, **2007**, 49, 94-97	1.2	8

40	Exploring the possibility of enhancing the bandwidth of negative metamaterials by employing tunable varactors. *Microwave and Optical Technology Letters*, **2007**, 49, 55-59	1.2	
39	Dynamic LOS/NLOS Statistical Discrimination of Wireless Mobile Channels. *IEEE Vehicular Technology Conference*, **2007**,	0.1	35
38	. *IEEE Transactions on Antennas and Propagation*, **2007**, 55, 13-25	4.9	160
37	. *IEEE Transactions on Antennas and Propagation*, **2007**, 55, 1698-1708	4.9	51
36	. *IEEE Transactions on Antennas and Propagation*, **2007**, 55, 882-891	4.9	32
35	. *IEEE Transactions on Antennas and Propagation*, **2007**, 55, 2258-2267	4.9	225
34	Miniaturized negative permeability materials. *Applied Physics Letters*, **2007**, 91, 071121	3.4	41
33	An SRR based microwave absorber. *Microwave and Optical Technology Letters*, **2006**, 48, 2171-2175	1.2	82
32	Rome 2006: Third Workshop on "Metamaterials and Special Materials for Electromagnetic Applications and TLC". *IEEE Antennas and Propagation Magazine*, **2006**, 48, 130-132	1.7	5
31	Miniaturized circular patch antenna with metamaterial loading **2006**,		3
30	Polygonal Patch Antennas with Reactive Impedance Surfaces. *Journal of Electromagnetic Waves and Applications*, **2006**, 20, 169-182	1.3	6
29	Electromagnetic wave propagation in rectangular waveguides filled with Omega-medium. *Journal of Modern Optics*, **2005**, 52, 1293-1308	1.1	
28	VCO active integrated antenna with reactive impedance surfaces. *Microwave and Optical Technology Letters*, **2005**, 47, 82-86	1.2	
27	ANOMALOUS PROPERTIES OF SCATTERING FROM CAVITIES PARTIALLY LOADED WITH DOUBLE-NEGATIVE OR SINGLE-NEGATIVE METAMATERIALS. *Progress in Electromagnetics Research*, **2005**, 51, 49-63	3.8	19
26	Asymptotic Evaluation of the Mom Excitation Vector for Probe-fed Microstrip Antennas. *Journal of Electromagnetic Waves and Applications*, **2005**, 19, 1639-1654	1.3	3
25	Efficient numerical evaluation of superconducting microstrip structures with bianisotropic layers. *International Journal of Applied Electromagnetics and Mechanics*, **2004**, 19, 15-18	0.4	5
24	ELECTROMAGNETIC FIELD SOLUTION IN CONFORMAL STRUCTURES: THEORETICAL AND NUMERICAL ANALYSIS. *Progress in Electromagnetics Research*, **2004**, 47, 1-25	3.8	2
23	DESIGN OF BROAD-BAND POLYGONAL PATCH ANTENNAS FOR MOBILE COMMUNICATIONS. *Journal of Electromagnetic Waves and Applications*, **2004**, 18, 61-72	1.3	3

22	. *IEEE Transactions on Vehicular Technology*, **2004**, 53, 1434-1440	6.8	11
21	SPECTRAL DYADIC GREEN\'S FUNCTION OF INTEGRATED STRUCTURES WITH HIGH IMPEDANCE GROUND PLANES. *Journal of Electromagnetic Waves and Applications*, **2003**, 17, 1461-1484	1.3	2
20	On EBG Structures for Cellular Phone Applications. *AEU - International Journal of Electronics and Communications*, **2003**, 57, 403-408	2.8	5
19	Radiating features of capacitive and inductive impedance surfaces. *Microwave and Optical Technology Letters*, **2003**, 39, 117-121	1.2	1
18	BROAD-BAND TUNING OF AN AIA AMPLIFIER USING 1-D PBG TRANSMISSION LINES. *Journal of Electromagnetic Waves and Applications*, **2003**, 17, 571-584	1.3	4
17	Fast ray-tracing technique for electromagnetic field prediction in mobile communications. *IEEE Transactions on Magnetics*, **2003**, 39, 1238-1241	2	14
16	Synthesis of patch antennas loaded by inhomogeneous substrates via a combined spectral domain: Genetic algorithm approach. *Microwave and Optical Technology Letters*, **2003**, 39, 464-468	1.2	2
15	U-patch antenna loaded by complex substrates for multifrequency operation. *Microwave and Optical Technology Letters*, **2002**, 32, 3-5	1.2	3
14	Design of chiral planar integrated antennas with cover via the method of lines. *Microwave and Optical Technology Letters*, **2002**, 32, 143-145	1.2	1
13	Propagation characteristics of a plane wave in an unbounded nonlocal omega medium. *Microwave and Optical Technology Letters*, **2002**, 32, 183-186	1.2	
12	Numerical analysis of uniform rectangular waveguides filled by inhomogeneous dielectrics. *Microwave and Optical Technology Letters*, **2002**, 34, 313-316	1.2	1
11	Multi-frequency patch antenna design via the method of moment and genetic algorithm. *Microwave and Optical Technology Letters*, **2002**, 35, 184-186	1.2	2
10	A new efficient method of analysis for inhomogeneous media shields and filters. *IEEE Transactions on Electromagnetic Compatibility*, **2001**, 43, 394-399	2	30
9	Tapered stripline embedded in inhomogeneous media as microwave matching line. *IEEE Transactions on Microwave Theory and Techniques*, **2001**, 49, 970-978	4.1	3
8	Analysis of cavity backed rectangular patch antennas with inhomogeneous chiral substrates via a FEM-BEM formulation. *IEEE Transactions on Magnetics*, **2001**, 37, 3260-3263	2	4
7	A novel design method for tapered strip lines as microwave filters. *Microwave and Optical Technology Letters*, **2000**, 24, 67-71	1.2	2
6	Mutual coupling between two circular patch antennas integrated in an inhomogeneous grounded slab. *Microwave and Optical Technology Letters*, **2000**, 25, 294-297	1.2	1
5	Very fast design formulas for microwave nonhomogeneous media filters. *Microwave and Optical Technology Letters*, **1999**, 22, 218-221	1.2	22

4	Polarization properties for the electromagnetic field in an unbounded n-type semiconductor medium. *Microwave and Optical Technology Letters*, **1998**, 17, 332-335	1.2	
3	Scattering and radiation analysis of cavity-backed microstrip patch antennae with anisotropic slabs via a variational formulation. *Journal of Modern Optics*, **1997**, 44, 1651-1660	1.1	1
2	Efficient moment-method analysis of a magnetic dipole. *Microwave and Optical Technology Letters*, **1996**, 13, 335-339	1.2	1
1	Effects of chirality admittance on the propagating modes in a parallel-plate waveguide partially filled with a chiral slab. *Microwave and Optical Technology Letters*, **1993**, 6, 806-809	1.2	6