

# Khashayar Mehrany

## List of Publications by Year in descending order

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83  
papers

683  
citations

567281

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713466

21  
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all docs

83  
docs citations

83  
times ranked

449  
citing authors

#	ARTICLE	IF	CITATIONS
1	Differential transfer-matrix method for solution of one-dimensional linear nonhomogeneous optical structures. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003, 20, 91.	2.1	41
2	Modified differential-transfer-matrix method for solution of one-dimensional linear inhomogeneous optical structures. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2005, 22, 1521.	2.1	34
3	Analytical solution of non-homogeneous anisotropic wave equations based on differential transfer matrices. <i>Journal of Optics</i> , 2002, 4, 624-635.	1.5	25
4	Novel optical devices based on surface wave excitation at conducting interfaces. <i>Semiconductor Science and Technology</i> , 2003, 18, 582-588.	2.0	23
5	A Distributed Circuit Model for Side-Coupled Nanoplasmonic Structures With Metal-Insulator-Metal Arrangement. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2012, 18, 1692-1699.	2.9	23
6	Analysis and Design of Optical Demultiplexer Based on Arrayed Plasmonic Slot Cavities: Transmission Line Model. <i>IEEE Photonics Technology Letters</i> , 2013, 25, 784-786.	2.5	23
7	Circuit Model for Periodic Array of Slits With Multiple Propagating Diffracted Orders. <i>IEEE Transactions on Antennas and Propagation</i> , 2014, 62, 4041-4048.	5.1	23
8	Geometrical approach in physical understanding of the Goos-Haenchen shift in one- and two-dimensional periodic structures. <i>Optics Letters</i> , 2008, 33, 2940.	3.3	22
9	A heuristic approach to the realization of the wide-band optical diode effect in photonic crystal waveguides. <i>Journal of Optics (United Kingdom)</i> , 2013, 15, 075501.	2.2	21
10	DC to 40-GHz Compact Single-Layer Crossover. <i>IEEE Microwave and Wireless Components Letters</i> , 2018, 28, 642-644.	3.2	20
11	Polynomial expansion for extraction of electromagnetic eigenmodes in layered structures. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003, 20, 2434.	2.1	19
12	Analytical Approach for Analysis of Nonuniform Lossy/Lossless Transmission Lines and Tapered Microstrips. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2006, 54, 4122-4129.	4.6	18
13	Longitudinal Legendre polynomial expansion of electromagnetic fields for analysis of arbitrary-shaped gratings. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2008, 25, 1564.	1.5	18
14	An Efficient Circuit Model for the Analysis and Design of Rectangular Plasmonic Resonators. <i>Plasmonics</i> , 2012, 7, 245-252.	3.4	18
15	Circuit Model for Lamellar Metallic Gratings in the Sub-Wavelength Regime. <i>IEEE Journal of Quantum Electronics</i> , 2011, 47, 1330-1335.	1.9	17
16	Three-dimensional resolvability in an integral imaging system. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2012, 29, 525.	1.5	15
17	Adaptive Spatial Resolution in Fast, Efficient, and Stable Analysis of Metallic Lamellar Gratings at Microwave Frequencies. <i>IEEE Transactions on Antennas and Propagation</i> , 2009, 57, 1115-1121.	5.1	14
18	Optimization of the lens-array structure for performance improvement of integral imaging. <i>Optics Letters</i> , 2011, 36, 3993.	3.3	13

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19	Transmission-line model to design matching stage for light coupling into two-dimensional photonic crystals. <i>Optics Letters</i> , 2010, 35, 115.	3.3	12
20	Non-reciprocity using quadrature-phase time-varying slab resonators. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 88.	2.1	12
21	Creation of Artificial Surface Conductivity on Metallic Metamaterials. <i>Journal of Lightwave Technology</i> , 2012, 30, 1789-1794.	4.6	11
22	General solution to wave propagation in media undergoing arbitrary transient or periodic temporal variations of permittivity. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2018, 35, 2923.	2.1	11
23	Three-dimensional diffraction analysis of gratings based on Legendre expansion of electromagnetic fields. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2007, 24, 2676.	2.1	10
24	Regularization of jump points in applying the adaptive spatial resolution technique. <i>Optics Communications</i> , 2011, 284, 3211-3215.	2.1	10
25	A Circuit Model for Analysis of Metal-Insulator-Metal Plasmonic Complementary Split-Ring Resonators. <i>Journal of Lightwave Technology</i> , 2014, 32, 2659-2665.	4.6	10
26	Optical isolation enabled by two time-modulated point perturbations in a ring resonator. <i>Optics Express</i> , 2020, 28, 16805.	3.4	10
27	Variational approach for extraction of eigenmodes in layered waveguides. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2002, 19, 1978.	2.1	9
28	Novel optical slow wave structure and surface electromagnetic wave coupler with conducting interfaces. <i>Semiconductor Science and Technology</i> , 2004, 19, 890-896.	2.0	9
29	Plasmonic propagation modes of a structured two-dimensional conducting interface. <i>Journal of Optics</i> , 2008, 10, 025202.	1.5	8
30	Transmission line model for extraction of transmission characteristics in photonic crystal waveguides with stubs: optical filter design. <i>Optics Letters</i> , 2012, 37, 1322.	3.3	8
31	Easy-to-Design Nano-Coupler Between Metal-Insulator-Metal Plasmonic and Dielectric Slab Waveguides. <i>Plasmonics</i> , 2013, 8, 1123-1128.	3.4	8
32	Effective medium theory for graphene-covered metallic gratings. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 105005.	2.2	8
33	Study of the numerical artifacts in differential analysis of highly conducting gratings. <i>Optics Letters</i> , 2008, 33, 159.	3.3	7
34	Circuit model for mode extraction in lossy/lossless photonic crystal waveguides. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 170.	2.1	7
35	Circuit model for efficient analysis and design of photonic crystal devices. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 105005.	2.2	7
36	Circuit Model for Extraordinary Transmission Through Periodic Array of Subwavelength Stepped Slits. <i>IEEE Transactions on Antennas and Propagation</i> , 2013, 61, 2019-2024.	5.1	7

#	ARTICLE	IF	CITATIONS
37	Circuit Model in Design of THz Transparent Electrodes Based on Two-Dimensional Arrays of Metallic Square Holes. IEEE Transactions on Terahertz Science and Technology, 2014, 4, 383-390.	3.1	7
38	Analytical expression of giant Goos-Hänchen shift in terms of proper and improper modes in waveguide structures with arbitrary refractive index profile. Optics Letters, 2010, 35, 1759.	3.3	6
39	Analytical Model for the Extraction of Flaw-Induced Current Interactions for SQUID NDE. IEEE Transactions on Applied Superconductivity, 2011, 21, 3442-3446.	1.7	6
40	Improved resolution three-dimensional integral imaging using optimized irregular lens-array structure. Applied Optics, 2012, 51, 6031.	1.8	6
41	Multi-conductor transmission line networks in analysis of side-coupled metal-insulator-metal plasmonic structures. Optics Communications, 2014, 313, 375-381.	2.1	6
42	Corrections to "Circuit Model in Design of THz Transparent Electrodes Based on Two-Dimensional Arrays of Metallic Square Holes". IEEE Transactions on Terahertz Science and Technology, 2015, 5, 655-656.	3.1	6
43	Interface electromagnetic waves between Kronig-Penney photonic crystals. , 2003, , .		5
44	Surface electromagnetic waves on dielectrics with conducting interfaces. , 2003, , .		5
45	Band structures of coupled electromagnetic slow waves. Journal of Optics, 2004, 6, 937-942.	1.5	5
46	A Fast Optimization Method for Extension of Depth-of-Field in Three-Dimensional Task-Specific Imaging Systems. Journal of Display Technology, 2010, 6, 412-421.	1.2	5
47	Approximate expressions for resonant shifts in the reflection of Gaussian wave packets from two-dimensional photonic crystal waveguides. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 683.	2.1	5
48	Coupled Transmission Line Model for Planar Metal-Dielectric-Metal Plasmonic Structures: Inclusion of the First Non-Principal Mode. IEEE Journal of Quantum Electronics, 2013, 49, 777-784.	1.9	5
49	Accurate effective medium theory for arrays of metallic nanowires. Journal of Optics (United Kingdom) , 2007, 11, 074001.	1.0	5
50	Physics of broadband Brewster transmission through square array of rectangular metallic pillars. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1202.	2.1	5
51	Surface wave excitation control by using interface conductivity on one-dimensional photonic crystals. , 2002, , .		4
52	Extension of Unified Formulation for the FDTD Simulation of Nonlinear Dispersive Media. IEEE Photonics Technology Letters, 2010, 22, 1214-1216.	2.5	4
53	Power evolution along phase-sensitive parametric amplifiers: an experimental survey. Optics Letters, 2014, 39, 6114.	3.3	4
54	Asymptotic behaviour of a subwavelength nanoconducting layer. Journal of Optics, 2006, 8, 639-646.	1.5	3

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55	Modified WKB method for solution of wave propagation in inhomogeneous structures with arbitrary permittivity and permeability profiles. , 2007, , .		3
56	Enhanced Reflection in One-Dimensional Mostly-Hollow Metallic Gratings at Terahertz Frequencies. IEEE Transactions on Terahertz Science and Technology, 2011, 1, 435-440.	3.1	3
57	Field of view extension using frequency division multiple access technique: numerical analysis. Proceedings of SPIE, 2011, , .	0.8	3
58	Spatial Frequency Multiple Access Technique in Three-Dimensional Integral Imaging. Journal of Display Technology, 2012, 8, 138-144.	1.2	3
59	Fast and Efficient Analysis of Transmission Lines With Arbitrary Nonuniformities of Sub-Wavelength Scale. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 2378-2384.	4.6	3
60	Transmission enhancement of sharply bent nanoplasmonic slot waveguides. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 458.	2.1	3
61	Diffraction Influence on the Field of View and Resolution of Three-Dimensional Integral Imaging. Journal of Display Technology, 2014, 10, 553-559.	1.2	3
62	Understanding the Role of Slant Angle in Oblique Slit Arrays Made of Metal at Terahertz Frequencies. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 497-504.	3.1	3
63	Tight-Binding Analysis of Coupled Dielectric Waveguide Structures. Fiber and Integrated Optics, 2006, 25, 11-27.	2.5	2
64	Fast convergent and unconditionally stable Galerkin's method with adaptive Hermite-Gauss expansion for guided-mode extraction in two-dimensional photonic crystal based waveguides. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 169.	2.1	2
65	Wideband and Narrowband Circuit Models for Fano-Shape Guided-Mode Resonance. IEEE Journal of Quantum Electronics, 2019, 55, 1-8.	1.9	2
66	Artifact-free analysis of highly conducting binary gratings by using the Legendre polynomial expansion method. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2009, 26, 1467.	1.5	1
67	Stochastic characterization of amplified photons in lightwave systems with optically bistable elements. , 2010, , .		1
68	A transmission line model for extraction of defect modes in two-dimensional photonic crystals. , 2010, , .		1
69	Analytical Approach in Finding the Semi-Optimum Hollow-Core Bragg Fiber With Minimum Loss. IEEE Journal of Quantum Electronics, 2011, 47, 552-560.	1.9	1
70	Analytical study of multiple access interference and beat noise in polarization-wavelength-time optical CDMA systems. , 2011, , .		1
71	Determination of complex modes in photonic crystal waveguides using the phase variation in characteristic coefficients. Optics Letters, 2012, 37, 3078.	3.3	1
72	Sensitive and Accurate Dispersion Map Extraction of HNLFs by Frequency Tuning of a Degenerate FWM. Journal of Lightwave Technology, 2016, 34, 4197-4204.	4.6	1

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73	Modeling of Periodic Array of Cut-Through Slits With Sinusoidal Surface Conductivity at the Interfaces of an Anisotropic Medium. IEEE Transactions on Antennas and Propagation, 2018, 66, 5630-5633.	5.1	1
74	Rigorous Derivation of Temporal Coupled Mode Theory Expressions for Travelling and Standing Wave Resonators Coupled to Optical Waveguides. , 2019, , .		1
75	Recycling forward and backward frequency-multiplexed modes in a waveguide coupled to phased time-perturbed microrings for low-footprint neuromorphic computing. Optical Materials Express, 2022, 12, 1198.	3.0	1
76	Forbidden Spatial Frequencies in Periodic Structures Composed of Subwavelength Nano Conducting Layers. , 2006, , .		0
77	Coupled Surface Electromagnetic Waves Supported by Subwavelength Nano Conducting Layers. , 2006, , .		0
78	Modified WKB method for solution of wave propagation in inhomogeneous structures with arbitrary permittivity and permeability profiles. , 2007, , .		0
79	Generalized Differential Transfer Matrix for Fast and Efficient Analysis of Arbitrary-Shaped Nonlinear Distributed Feedback Structures. IEEE Journal of Quantum Electronics, 2009, 45, 125-131.	1.9	0
80	Study of beam propagation in finite photonic crystals. , 2010, , .		0
81	Transmission line model for one-dimensional metallic grating in TE polarization. , 2010, , .		0
82	General noise considerations of amplified photons in lightwave systems with optically bistable elements. , 2010, , .		0
83	Analysis and optimization of wideband tapered directional couplers by DTM method. Microwave and Optical Technology Letters, 2014, 56, 1795-1798.	1.4	0