

Jani Tervo

List of Publications by Year in descending order

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121
papers

2,737
citations

236925

25
h-index

197818

49
g-index

122
all docs

122
docs citations

122
times ranked

1060
citing authors

#	ARTICLE	IF	CITATIONS
1	Degree of coherence for electromagnetic fields. Optics Express, 2003, 11, 1137.	3.4	336
2	Theory of partially coherent electromagnetic fields in the space-frequency domain. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 2205.	1.5	192
3	Paraxial-domain diffractive elements with 100% efficiency based on polarization gratings. Optics Letters, 2000, 25, 785.	3.3	160
4	Complete electromagnetic coherence in the space-frequency domain. Optics Letters, 2004, 29, 328.	3.3	135
5	Contrasts of Stokes parameters in Young's interference experiment and electromagnetic degree of coherence. Optics Letters, 2006, 31, 2669.	3.3	134
6	Stokes parameters and polarization contrasts in Young's interference experiment. Optics Letters, 2006, 31, 2208.	3.3	122
7	Theory of spatially and spectrally partially coherent pulses. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 1536.	1.5	106
8	Spectral coherence properties of temporally modulated stationary light sources. Optics Express, 2003, 11, 1894.	3.4	96
9	Overall coherence and coherent-mode expansion of spectrally partially coherent plane-wave pulses. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 2117.	1.5	55
10	Rotating scale-invariant electromagnetic fields. Optics Express, 2001, 9, 9.	3.4	53
11	Coherence measurement with digital micromirror device. Optics Letters, 2014, 39, 1034.	3.3	53
12	Two-point Stokes parameters: interpretation and properties. Optics Letters, 2009, 34, 3074.	3.3	50
13	Generation of vectorial propagation-invariant fields by polarization-grating axicons. Optics Communications, 2001, 192, 13-18.	2.1	47
14	Spectrally partially coherent pulse trains in dispersive media. Optics Communications, 2005, 255, 12-22.	2.1	37
15	Deterministic diffractive diffusers for displays. Applied Optics, 2001, 40, 2239.	2.1	36
16	Hanbury Brown-Twiss effect with electromagnetic waves. Optics Express, 2011, 19, 15188.	3.4	36
17	Unified measures for optical fields: degree of polarization and effective degree of coherence. Journal of Optics, 2004, 6, S41-S44.	1.5	35
18	General vectorial decomposition of electromagnetic fields with application to propagation-invariant and rotating fields. Optics Express, 2002, 10, 949.	3.4	34

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19	Low-cost fabrication of form-birefringent quarter-wave plates. <i>Optics Express</i> , 2008, 16, 16334.	3.4	34
20	Fourier array illuminators with 100% efficiency: Analytical Jones-matrix construction. <i>Journal of Modern Optics</i> , 2000, 47, 2351-2359.	1.3	30
21	Angular spectrum representation of partially coherent electromagnetic fields. <i>Optics Communications</i> , 2002, 209, 7-16.	2.1	29
22	Design of polarization gratings for broadband illumination. <i>Optics Express</i> , 2005, 13, 3055.	3.4	29
23	Van Cittertâ€™Zernike theorem with Stokes parameters. <i>Optics Letters</i> , 2013, 38, 2301.	3.3	27
24	Efficient Bragg waveguide-grating analysis by quasi-rigorous approach based on Redheffer's star product. <i>Optics Communications</i> , 2001, 198, 265-272.	2.1	26
25	Shifted-elementary-mode representation for partially coherent vectorial fields. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2010, 27, 2004.	1.5	26
26	Limitations of superoscillation filters in microscopy applications. <i>Optics Letters</i> , 2012, 37, 903.	3.3	26
27	Azimuthal polarization and partial coherence. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2003, 20, 1974.	1.5	25
28	Polarization conversion in resonant magneto-optic gratings. <i>New Journal of Physics</i> , 2006, 8, 205-205.	2.9	25
29	Design of space-variant diffractive polarization elements. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2003, 20, 282.	1.5	24
30	High-efficiency broadband diffractive elements based on polarization gratings. <i>Optics Letters</i> , 2004, 29, 803.	3.3	24
31	Intensity fluctuations and degree of polarization in three-dimensional thermal light fields. <i>Optics Letters</i> , 2004, 29, 2587.	3.3	24
32	Exact self-imaging of transversely periodic fields. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2004, 21, 1424.	1.5	23
33	Reply to comment on â€™Complete electromagnetic coherence in the spaceâ€™frequency domainâ€™. <i>Optics Letters</i> , 2004, 29, 1713.	3.3	23
34	Electromagnetic coherence theory of laser resonator modes. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2005, 22, 103.	1.5	23
35	Polarization conversion in conical diffraction by metallic and dielectric subwavelength gratings. <i>Applied Optics</i> , 2007, 46, 4258.	2.1	22
36	Depolarization of quasi-monochromatic light by thin resonant gratings. <i>Optics Letters</i> , 2009, 34, 1648.	3.3	22

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37	Correlation matrices of completely unpolarized beams. <i>Optics Letters</i> , 2009, 34, 1447.	3.3	21
38	Theorems on complete electromagnetic coherence in the space-time domain. <i>Optics Communications</i> , 2004, 238, 229-236.	2.1	20
39	Phase correlations and optical coherence. <i>Optics Letters</i> , 2012, 37, 151.	3.3	20
40	Specular and antispecular light beams. <i>Optics Express</i> , 2015, 23, 28718.	3.4	20
41	On propagation-invariant and self-imaging intensity distributions of electromagnetic fields. <i>Journal of Modern Optics</i> , 2002, 49, 1537-1543.	1.3	19
42	Achromatic phase retardation by subwavelength gratings in total internal reflection. <i>Journal of Optics</i> , 2008, 10, 015001.	1.5	19
43	Cross-spectral purity of electromagnetic fields. <i>Optics Letters</i> , 2009, 34, 3866.	3.3	18
44	Spatial coherence measurement of polychromatic light with modified Young's interferometer. <i>Optics Express</i> , 2013, 21, 4061.	3.4	18
45	Transverse and longitudinal periodicities in fields produced by polarization gratings. <i>Optics Communications</i> , 2001, 190, 51-57.	2.1	17
46	Coherent-mode representation of a statistically homogeneous and isotropic electromagnetic field in spherical volume. <i>Physical Review E</i> , 2005, 71, 036618.	2.1	16
47	Imaging with partially coherent light: elementary-field approach. <i>Optics Express</i> , 2015, 23, 28132.	3.4	15
48	Cross-spectral purity of the Stokes parameters. <i>Applied Physics B: Lasers and Optics</i> , 2011, 105, 305-308.	2.2	14
49	Partial polarization and electromagnetic spatial coherence of blackbody radiation emanating from an aperture. <i>Physical Review A</i> , 2013, 88, .	2.5	14
50	Spatial coherence of broad-area laser diodes. <i>Applied Optics</i> , 2013, 52, 3221.	1.8	14
51	Surface-relief polarization gratings for visible light. <i>Optics Express</i> , 2010, 18, 22850.	3.4	13
52	Elementary-field analysis of partially coherent beam shaping. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2013, 30, 2611.	1.5	13
53	Broadband beam shaping with harmonic diffractive optics. <i>Optics Express</i> , 2014, 22, 22680.	3.4	13
54	Pancharatnam-Berry phase in electromagnetic double-pinhole interference. <i>Physical Review A</i> , 2019, 99, .	2.5	13

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55	Self-imaging of electromagnetic fields. <i>Optics Express</i> , 2001, 9, 622.	3.4	12
56	Geometric approach to the degree of polarization for arbitrary fields. <i>Journal of Modern Optics</i> , 2004, 51, 2039-2045.	1.3	12
57	Coherence modulation by deterministic rotating diffusers. <i>Optics Express</i> , 2015, 23, 10453.	3.4	12
58	Purity of partial polarization in the frequency and time domains. <i>Optics Letters</i> , 2013, 38, 1221.	3.3	11
59	Modeling the optical Kerr effect in periodic structures by the linear Fourier modal method. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, 2371.	2.1	10
60	Add-drop filter based on TiO ₂ coated shifted Bragg grating. <i>Optics Express</i> , 2016, 24, 26901.	3.4	10
61	Simulation of light propagation by local spherical interface approximation. <i>Applied Optics</i> , 2003, 42, 6804.	2.1	9
62	A double-sided grating coupler for thin light guides. <i>Optics Express</i> , 2007, 15, 2008.	3.4	9
63	High phase retardation by waveguiding in slanted photonic nanostructures. <i>Optics Express</i> , 2011, 19, 241.	3.4	9
64	SPLIT-FIELD FINITE-DIFFERENCE TIME-DOMAIN SCHEME FOR KERR-TYPE NONLINEAR PERIODIC MEDIA. <i>Progress in Electromagnetics Research</i> , 2013, 134, 559-579.	4.4	9
65	Polarization independent integrated filter based on a cross-slot waveguide. <i>Optics Express</i> , 2014, 22, 24149.	3.4	9
66	Tensorial split-field finite-difference time-domain approach for second- and third-order nonlinear materials. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 1711.	2.1	8
67	Focusing of partially coherent light into planar waveguides. <i>Optics Express</i> , 2004, 12, 4511.	3.4	7
68	Electromagnetic field computation in semiconductor laser resonators. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2006, 23, 906.	1.5	7
69	Comment on "Can a light beam be considered to be the sum of a completely polarized and a completely unpolarized beam?" <i>Optics Letters</i> , 2009, 34, 1001.	3.3	7
70	Propagation of partially coherent light through a light pipe. <i>Optics Express</i> , 2013, 21, 17007.	3.4	7
71	Radiation from arbitrarily polarized spatially incoherent planar sources. <i>Optics Communications</i> , 2003, 221, 257-269.	2.1	6
72	Electromagnetic approach to laser resonator analysis. <i>Optics Express</i> , 2005, 13, 5994.	3.4	6

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73	Minimum number of modulated Stokes parameters in Young's interference experiment. Journal of Optics, 2008, 10, 055002.	1.5	6
74	Polarization conversion by dielectric sub-wavelength gratings in conical mounting. Journal of the European Optical Society-Rapid Publications, 0, 3, .	1.9	6
75	High efficiency half-wave retardation in diffracted light by coupled waves. Optics Express, 2012, 20, 4681.	3.4	6
76	Determination of the eigenpolarizations in arbitrary diffraction orders of planar periodic structures under arbitrary incidence. Physical Review A, 2012, 85, .	2.5	6
77	Spectral invariance and the scaling law with random electromagnetic fields. Physical Review A, 2013, 88, .	2.5	6
78	Geometric approach to the degree of polarization for arbitrary fields. Journal of Modern Optics, 2004, 51, 2039-2045.	1.3	6
79	Enhanced sensitivity in polymer slot waveguides by atomic layer deposited bilayer coatings. Applied Optics, 2013, 52, 8089.	1.8	5
80	Human color vision provides nanoscale accuracy in thin-film thickness characterization. Optica, 2015, 2, 627.	9.3	5
81	Split-field finite-difference time-domain method for second-harmonic generation in two-dimensionally periodic structures. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 664.	2.1	5
82	Diffractive Optics. Optics and Photonics News, 2004, 15, 25.	0.5	4
83	A general approach to the analysis and description of partially polarized light in rigorous grating theory. Journal of the European Optical Society-Rapid Publications, 0, 3, .	1.9	4
84	A temporal-coherence anisotropy of unpolarized light. Optics Communications, 2009, 282, 1069-1073.	2.1	4
85	Impossibility of Stokes decomposition for a class of light beams. Optics Communications, 2010, 283, 4448-4451.	2.1	4
86	Solving the inverse grating problem with the naked eye. Optics Letters, 2014, 39, 3547.	3.3	4
87	Graphene-enhanced waveguide-resonance gratings. Journal of Nanophotonics, 2015, 10, 012518.	1.0	4
88	Vector-valued Lambertian fields and their sources. Physical Review A, 2016, 93, .	2.5	4
89	Reply to comment on "Radiation from arbitrarily polarized spatially incoherent planar sources". Optics Communications, 2004, 242, 323-325.	2.1	3
90	Efficient use of grating theories with partially coherent illumination. , 2011, , .		3

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91	Polarization modulation in Young's interference experiment. Journal of Physics: Conference Series, 2008, 139, 012025.	0.4	2
92	Coherence's polarization mixing in resonance gratings. Optics Letters, 2012, 37, 314.	3.3	2
93	Geometrical optics in the near field: local plane-interface approach with evanescent waves. Optics Express, 2015, 23, 330.	3.4	2
94	Form birefringence in Kerr media: analytical formulation and rigorous theory. Optics Letters, 2015, 40, 2913.	3.3	2
95	Efficient split field FDTD analysis of third-order nonlinear materials in two-dimensionally periodic media. Proceedings of SPIE, 2016, , .	0.8	2
96	Rotating correlations in partially coherent fields. Journal of Modern Optics, 2004, 51, 633-643.	1.3	1
97	Degree of coherence and electromagnetic resonators. , 2004, 5456, 28.		1
98	Young's Interference Experiment Reloaded. AIP Conference Proceedings, 2007, , .	0.4	1
99	Spatial shaping of spectrally partially coherent pulsed beams. Optics Express, 2015, 23, 12680.	3.4	1
100	Optical bistability in a silicon nitride waveguide grating. Proceedings of SPIE, 2016, , .	0.8	1
101	Probing surface plasmons by bare V-shaped tips: modeling by geometrical optics and rigorous diffraction theory. Optical Review, 2017, 24, 97-104.	2.0	1
102	Reply to comment on "Complete electromagnetic coherence in the space's frequency domain" erratum. Optics Letters, 2004, 29, 2438.	3.3	0
103	Electromagnetic degree of coherence in space-time and space-frequency domains. , 2004, 5456, 466.		0
104	Broadband diffractive elements with high efficiency. , 2004, , .		0
105	Polarization modulation by subwavelength-structured space-variant dielectric interfaces. , 2004, , .		0
106	Broadband diffractive elements based on polarization gratings. , 2006, 6027, 1029.		0
107	Electromagnetic Coherence and Pancharatnam-Berry Phase in Young's Interference Experiment. , 2007, , .		0
108	Interferometric picture of partial electromagnetic coherence and polarization. , 2011, , .		0

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109	Partial coherence and polarization in electromagnetic interference. Proceedings of SPIE, 2011, , .	0.8	0
110	Electromagnetic Hanbury Brown-Twiss phenomenon. Proceedings of SPIE, 2011, , .	0.8	0
111	Radiation from Aperturesâ€™ Blackbody Field and Electromagnetic van Cittertâ€™Zernike Theorem. , 2013, , .		0
112	The influence of a light pipe on the coherence properties in laser projectors. Proceedings of SPIE, 2014, , .	0.8	0
113	Cross-slot waveguide Bragg grating. , 2015, , .		0
114	Beam shaping of supercontinuum pulses. Proceedings of SPIE, 2015, , .	0.8	0
115	Analysis of all-optically tunable functionalities in subwavelength periodic structures by the Fourier modal method.. Proceedings of SPIE, 2016, , .	0.8	0
116	Coherent modes of random electromagnetic fields. , 2004, , .		0
117	BEAM POLARIZATION MODULATION IN WAVE-OPTICAL ENGINEERING. , 2004, , .		0
118	Electromagnetic Youngâ€™s Interference Experiment: Stokes Parameters, Polarization Contrasts, and Degree of Coherence. , 2006, , .		0
119	Interferometric description for partial polarization. , 2012, , .		0
120	Coherenceâ€™polarization mixing with guided-mode resonance. , 2012, , .		0
121	Broad Area Laser Diode Coherence Measurement and Modeling. , 2014, , 879-882.		0