

# 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	Pancharatnam-Berry phase in electromagnetic double-pinhole interference. <i>Physical Review A</i> , 2019, 99, .	2.5	13
2	Probing surface plasmons by bare V-shaped tips: modeling by geometrical optics and rigorous diffraction theory. <i>Optical Review</i> , 2017, 24, 97-104.	2.0	1
3	Add-drop filter based on TiO <sub>2</sub> coated shifted Bragg grating. <i>Optics Express</i> , 2016, 24, 26901.	3.4	10
4	Vector-valued Lambertian fields and their sources. <i>Physical Review A</i> , 2016, 93, .	2.5	4
5	Efficient split field FDTD analysis of third-order nonlinear materials in two-dimensionally periodic media. <i>Proceedings of SPIE</i> , 2016, , .	0.8	2
6	Analysis of all-optically tunable functionalities in subwavelength periodic structures by the Fourier modal method.. <i>Proceedings of SPIE</i> , 2016, , .	0.8	0
7	Optical bistability in a silicon nitride waveguide grating. <i>Proceedings of SPIE</i> , 2016, , .	0.8	1
8	Specular and antspecular light beams. <i>Optics Express</i> , 2015, 23, 28718.	3.4	20
9	Imaging with partially coherent light: elementary-field approach. <i>Optics Express</i> , 2015, 23, 28132.	3.4	15
10	Graphene-enhanced waveguide-resonance gratings. <i>Journal of Nanophotonics</i> , 2015, 10, 012518.	1.0	4
11	Geometrical optics in the near field: local plane-interface approach with evanescent waves. <i>Optics Express</i> , 2015, 23, 330.	3.4	2
12	Spatial shaping of spectrally partially coherent pulsed beams. <i>Optics Express</i> , 2015, 23, 12680.	3.4	1
13	Human color vision provides nanoscale accuracy in thin-film thickness characterization. <i>Optica</i> , 2015, 2, 627.	9.3	5
14	Coherence modulation by deterministic rotating diffusers. <i>Optics Express</i> , 2015, 23, 10453.	3.4	12
15	Form birefringence in Kerr media: analytical formulation and rigorous theory. <i>Optics Letters</i> , 2015, 40, 2913.	3.3	2
16	Split-field finite-difference time-domain method for second-harmonic generation in two-dimensionally periodic structures. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2015, 32, 664.	2.1	5
17	Cross-slot waveguide Bragg grating. , 2015, , .		0
18	Beam shaping of supercontinuum pulses. <i>Proceedings of SPIE</i> , 2015, , .	0.8	0

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19	Coherence measurement with digital micromirror device. Optics Letters, 2014, 39, 1034.	3.3	53
20	Solving the inverse grating problem with the naked eye. Optics Letters, 2014, 39, 3547.	3.3	4
21	Modeling the optical Kerr effect in periodic structures by the linear Fourier modal method. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2371.	2.1	10
22	Broadband beam shaping with harmonic diffractive optics. Optics Express, 2014, 22, 22680.	3.4	13
23	Polarization independent integrated filter based on a cross-slot waveguide. Optics Express, 2014, 22, 24149.	3.4	9
24	The influence of a light pipe on the coherence properties in laser projectors. Proceedings of SPIE, 2014, , .	0.8	0
25	Broad Area Laser Diode Coherence Measurement and Modeling. , 2014, , 879-882.		0
26	Partial polarization and electromagnetic spatial coherence of blackbody radiation emanating from an aperture. Physical Review A, 2013, 88, .	2.5	14
27	Elementary-field analysis of partially coherent beam shaping. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2013, 30, 2611.	1.5	13
28	Van Cittertâ€™Zernike theorem with Stokes parameters. Optics Letters, 2013, 38, 2301.	3.3	27
29	Purity of partial polarization in the frequency and time domains. Optics Letters, 2013, 38, 1221.	3.3	11
30	Spatial coherence measurement of polychromatic light with modified Youngâ€™s interferometer. Optics Express, 2013, 21, 4061.	3.4	18
31	Propagation of partially coherent light through a light pipe. Optics Express, 2013, 21, 17007.	3.4	7
32	Spatial coherence of broad-area laser diodes. Applied Optics, 2013, 52, 3221.	1.8	14
33	Enhanced sensitivity in polymer slot waveguides by atomic layer deposited bilayer coatings. Applied Optics, 2013, 52, 8089.	1.8	5
34	Spectral invariance and the scaling law with random electromagnetic fields. Physical Review A, 2013, 88, .	2.5	6
35	Tensorial split-field finite-difference time-domain approach for second- and third-order nonlinear materials. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1711.	2.1	8
36	SPLIT-FIELD FINITE-DIFFERENCE TIME-DOMAIN SCHEME FOR KERR-TYPE NONLINEAR PERIODIC MEDIA. Progress in Electromagnetics Research, 2013, 134, 559-579.	4.4	9

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37	Radiation from Aperturesâ€”Blackbody Field and Electromagnetic van Cittertâ€”Zernike Theorem. , 2013, , .		0
38	High efficiency half-wave retardation in diffracted light by coupled waves. Optics Express, 2012, 20, 4681.	3.4	6
39	Limitations of superoscillation filters in microscopy applications. Optics Letters, 2012, 37, 903.	3.3	26
40	Phase correlations and optical coherence. Optics Letters, 2012, 37, 151.	3.3	20
41	Coherenceâ€”polarization mixing in resonance gratings. Optics Letters, 2012, 37, 314.	3.3	2
42	Determination of the eigenpolarizations in arbitrary diffraction orders of planar periodic structures under arbitrary incidence. Physical Review A, 2012, 85, .	2.5	6
43	Interferometric description for partial polarization. , 2012, , .		0
44	Coherenceâ€”polarization mixing with guided-mode resonance. , 2012, , .		0
45	Interferometric picture of partial electromagnetic coherence and polarization. , 2011, , .		0
46	High phase retardation by waveguiding in slanted photonic nanostructures. Optics Express, 2011, 19, 241.	3.4	9
47	Hanbury Brownâ€”Twiss effect with electromagnetic waves. Optics Express, 2011, 19, 15188.	3.4	36
48	Efficient use of grating theories with partially coherent illumination. , 2011, , .		3
49	Partial coherence and polarization in electromagnetic interference. Proceedings of SPIE, 2011, , .	0.8	0
50	Electromagnetic Hanbury Brown-Twiss phenomenon. Proceedings of SPIE, 2011, , .	0.8	0
51	Cross-spectral purity of the Stokes parameters. Applied Physics B: Lasers and Optics, 2011, 105, 305-308.	2.2	14
52	Impossibility of Stokes decomposition for a class of light beams. Optics Communications, 2010, 283, 4448-4451.	2.1	4
53	Surface-relief polarization gratings for visible light. Optics Express, 2010, 18, 22850.	3.4	13
54	Shifted-elementary-mode representation for partially coherent vectorial fields. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 2004.	1.5	26

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55	A temporal-coherence anisotropy of unpolarized light. Optics Communications, 2009, 282, 1069-1073.	2.1	4
56	Comment on "Can a light beam be considered to be the sum of a completely polarized and a completely unpolarized beam?" Optics Letters, 2009, 34, 1001.	3.3	7
57	Correlation matrices of completely unpolarized beams. Optics Letters, 2009, 34, 1447.	3.3	21
58	Depolarization of quasi-monochromatic light by thin resonant gratings. Optics Letters, 2009, 34, 1648.	3.3	22
59	Two-point Stokes parameters: interpretation and properties. Optics Letters, 2009, 34, 3074.	3.3	50
60	Cross-spectral purity of electromagnetic fields. Optics Letters, 2009, 34, 3866.	3.3	18
61	Low-cost fabrication of form-birefringent quarter-wave plates. Optics Express, 2008, 16, 16334.	3.4	34
62	Minimum number of modulated Stokes parameters in Young's interference experiment. Journal of Optics, 2008, 10, 055002.	1.5	6
63	Achromatic phase retardation by subwavelength gratings in total internal reflection. Journal of Optics, 2008, 10, 015001.	1.5	19
64	Polarization modulation in Young's interference experiment. Journal of Physics: Conference Series, 2008, 139, 012025.	0.4	2
65	Young's Interference Experiment Reloaded. AIP Conference Proceedings, 2007, , .	0.4	1
66	A double-sided grating coupler for thin light guides. Optics Express, 2007, 15, 2008.	3.4	9
67	Polarization conversion in conical diffraction by metallic and dielectric subwavelength gratings. Applied Optics, 2007, 46, 4258.	2.1	22
68	Electromagnetic Coherence and Pancharatnam-Berry Phase in Young's Interference Experiment. , 2007, , .		0
69	Stokes parameters and polarization contrasts in Young's interference experiment. Optics Letters, 2006, 31, 2208.	3.3	122
70	Contrasts of Stokes parameters in Young's interference experiment and electromagnetic degree of coherence. Optics Letters, 2006, 31, 2669.	3.3	134
71	Electromagnetic field computation in semiconductor laser resonators. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 906.	1.5	7
72	Broadband diffractive elements based on polarization gratings. , 2006, 6027, 1029.		0

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73	Polarization conversion in resonant magneto-optic gratings. <i>New Journal of Physics</i> , 2006, 8, 205-205.	2.9	25
74	Electromagnetic Young's Interference Experiment: Stokes Parameters, Polarization Contrasts, and Degree of Coherence. , 2006, , .		0
75	Spectrally partially coherent pulse trains in dispersive media. <i>Optics Communications</i> , 2005, 255, 12-22.	2.1	37
76	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
77	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
78	Theory of spatially and spectrally partially coherent pulses. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2005, 22, 1536.	1.5	106
79	Design of polarization gratings for broadband illumination. <i>Optics Express</i> , 2005, 13, 3055.	3.4	29
80	Electromagnetic approach to laser resonator analysis. <i>Optics Express</i> , 2005, 13, 5994.	3.4	6
81	Unified measures for optical fields: degree of polarization and effective degree of coherence. <i>Journal of Optics</i> , 2004, 6, S41-S44.	1.5	35
82	Geometric approach to the degree of polarization for arbitrary fields. <i>Journal of Modern Optics</i> , 2004, 51, 2039-2045.	1.3	12
83	Theorems on complete electromagnetic coherence in the space-time domain. <i>Optics Communications</i> , 2004, 238, 229-236.	2.1	20
84	Reply to comment on "Radiation from arbitrarily polarized spatially incoherent planar sources". <i>Optics Communications</i> , 2004, 242, 323-325.	2.1	3
85	Rotating correlations in partially coherent fields. <i>Journal of Modern Optics</i> , 2004, 51, 633-643.	1.3	1
86	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
87	Overall coherence and coherent-mode expansion of spectrally partially coherent plane-wave pulses. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2004, 21, 2117.	1.5	55
88	Theory of partially coherent electromagnetic fields in the space-frequency domain. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2004, 21, 2205.	1.5	192
89	Focusing of partially coherent light into planar waveguides. <i>Optics Express</i> , 2004, 12, 4511.	3.4	7
90	Complete electromagnetic coherence in the space-frequency domain. <i>Optics Letters</i> , 2004, 29, 328.	3.3	135

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91	High-efficiency broadband diffractive elements based on polarization gratings. Optics Letters, 2004, 29, 803.	3.3	24
92	Reply to comment on "Complete electromagnetic coherence in the space-frequency domain". Optics Letters, 2004, 29, 1713.	3.3	23
93	Reply to comment on "Complete electromagnetic coherence in the space-frequency domain" erratum. Optics Letters, 2004, 29, 2438.	3.3	0
94	Intensity fluctuations and degree of polarization in three-dimensional thermal light fields. Optics Letters, 2004, 29, 2587.	3.3	24
95	Diffractive Optics. Optics and Photonics News, 2004, 15, 25.	0.5	4
96	Electromagnetic degree of coherence in space-time and space-frequency domains. , 2004, 5456, 466.		0
97	Broadband diffractive elements with high efficiency. , 2004, , .		0
98	Degree of coherence and electromagnetic resonators. , 2004, 5456, 28.		1
99	Polarization modulation by subwavelength-structured space-variant dielectric interfaces. , 2004, , .		0
100	Geometric approach to the degree of polarization for arbitrary fields. Journal of Modern Optics, 2004, 51, 2039-2045.	1.3	6
101	Coherent modes of random electromagnetic fields. , 2004, , .		0
102	BEAM POLARIZATION MODULATION IN WAVE-OPTICAL ENGINEERING. , 2004, , .		0
103	Radiation from arbitrarily polarized spatially incoherent planar sources. Optics Communications, 2003, 221, 257-269.	2.1	6
104	Simulation of light propagation by local spherical interface approximation. Applied Optics, 2003, 42, 6804.	2.1	9
105	Design of space-variant diffractive polarization elements. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2003, 20, 282.	1.5	24
106	Azimuthal polarization and partial coherence. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2003, 20, 1974.	1.5	25
107	Degree of coherence for electromagnetic fields. Optics Express, 2003, 11, 1137.	3.4	336
108	Spectral coherence properties of temporally modulated stationary light sources. Optics Express, 2003, 11, 1894.	3.4	96

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109	On propagation-invariant and self-imaging intensity distributions of electromagnetic fields. Journal of Modern Optics, 2002, 49, 1537-1543.	1.3	19
110	General vectorial decomposition of electromagnetic fields with application to propagation-invariant and rotating fields. Optics Express, 2002, 10, 949.	3.4	34
111	Angular spectrum representation of partially coherent electromagnetic fields. Optics Communications, 2002, 209, 7-16.	2.1	29
112	Deterministic diffractive diffusers for displays. Applied Optics, 2001, 40, 2239.	2.1	36
113	Rotating scale-invariant electromagnetic fields. Optics Express, 2001, 9, 9.	3.4	53
114	Self-imaging of electromagnetic fields. Optics Express, 2001, 9, 622.	3.4	12
115	Transverse and longitudinal periodicities in fields produced by polarization gratings. Optics Communications, 2001, 190, 51-57.	2.1	17
116	Generation of vectorial propagation-invariant fields by polarization-grating axicons. Optics Communications, 2001, 192, 13-18.	2.1	47
117	Efficient Bragg waveguide-grating analysis by quasi-rigorous approach based on Redheffer's star product. Optics Communications, 2001, 198, 265-272.	2.1	26
118	Fourier array illuminators with 100% efficiency: Analytical Jones-matrix construction. Journal of Modern Optics, 2000, 47, 2351-2359.	1.3	30
119	Paraxial-domain diffractive elements with 100% efficiency based on polarization gratings. Optics Letters, 2000, 25, 785.	3.3	160
120	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
121	Polarization conversion by dielectric sub-wavelength gratings in conical mounting. Journal of the European Optical Society-Rapid Publications, 0, 3, .	1.9	6