

# Frank Setzpfandt

## List of Publications by Year in descending order

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138  
papers

2,064  
citations

279798

23  
h-index

243625

44  
g-index

140  
all docs

140  
docs citations

140  
times ranked

2322  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear quantum spectroscopy with parityâ€“time-symmetric integrated circuits. Photonics Research, 2022, 10, 1763.	7.0	2
2	Subdiffraction Quantum Imaging with Undetected Photons. Physical Review Letters, 2022, 128, 173601.	7.8	6
3	Hybrid Dielectric Metasurfaces for Enhancing Second-Harmonic Generation in Chemical Vapor Deposition Grown MoS <sub>2</sub> Monolayers. ACS Photonics, 2021, 8, 218-227.	6.6	41
4	Enhancement of Spontaneous Parametric Down-Conversion in Nonlinear Metasurfaces. , 2021, , .		0
5	Broadband Adiabatic Couplers in Thin-Film Lithium Niobate On Insulator. , 2021, , .		0
6	Mie Resonances in the Spectrum of Spontaneous Parametric Down-Conversion. , 2021, , .		1
7	Periodic poling with a micrometer-range period in thin-film lithium niobate on insulator. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 685.	2.1	12
8	Modeling of surface-induced second-harmonic generation from multilayer structures by the transfer matrix method. Optics Express, 2021, 29, 9098.	3.4	2
9	Photon Pairs from Resonant Metasurfaces. Nano Letters, 2021, 21, 4423-4429.	9.1	91
10	Classical Ghost Imaging: A Comparative Study of Algorithmic Performances for Image Reconstruction in Prospect of Plenoptic Imaging. IEEE Photonics Journal, 2021, 13, 1-14.	2.0	4
11	Spontaneous Parametric Down-Conversion in Nonlinear Metasurfaces. , 2021, , .		0
12	Dispersion engineered sum-frequency generation in a periodically poled thin-film LiNbO <sub>3</sub> nanowaveguide. , 2021, , .		0
13	Sub-Diffraction Near-Field Imaging with Undetected Photons using Thin Sources of Photon Pairs. , 2021, , .		0
14	Describing SPDC at the Nanoscale: A Quasinormal Mode Approach. , 2021, , .		0
15	Ultra-compact, broadband adiabatic passage optical couplers in thin-film lithium niobate on insulator waveguides. Optics Express, 2021, 29, 27362.	3.4	9
16	Lithium Niobate on Insulator: An Emerging Platform for Integrated Quantum Photonics. Advanced Optical Materials, 2021, 9, 2100789.	7.3	62
17	Integrated Photonic Sources and Circuits in Lithium Niobate Platform. , 2021, , .		1
18	Investigation of dipole emission near a dielectric metasurface using a dual-tip scanning near-field optical microscope. Nanophotonics, 2021, .	6.0	3

#	ARTICLE	IF	CITATIONS
19	Modelling Photon-pair Generation in Nanoresonators Using Quasinormal Mode Expansions. , 2021, , .		0
20	Resolution of two-color quantum imaging with undetected photons. , 2021, , .		0
21	Subwavelength-resolution Imaging with Undetected Photons using Thin Sources of Photon Pairs. , 2021, , .		0
22	Metasurface-Assisted Quantum Ghost Discrimination of Polarization Objects. Physical Review Applied, 2021, 16, .	3.8	11
23	Mid-infrared photon pair generation in AgGaS <sub>2</sub> . Applied Physics Letters, 2021, 119, .	3.3	7
24	Far-field polarization signatures of surface optical nonlinearity in noncentrosymmetric semiconductors. Scientific Reports, 2020, 10, 10545.	3.3	4
25	Second-Harmonic Generation in Resonant Nonlinear Metasurfaces Based on Lithium Niobate. Nano Letters, 2020, 20, 8608-8614.	9.1	99
26	Pinhole quantum ghost imaging. Applied Physics Letters, 2020, 117, 094003.	3.3	4
27	Micrometer-range periodic poling of thin-film lithium niobate on insulator. , 2020, , .		0
28	Integrated induced-coherence spectroscopy in a single nonlinear waveguide. Physical Review A, 2020, 101, .	2.5	7
29	Direct and High-Throughput Fabrication of Mie-Resonant Metasurfaces <i>via</i> Single-Pulse Laser Interference. ACS Nano, 2020, 14, 6138-6149.	14.6	34
30	Laser-induced spatially-selective tailoring of high-index dielectric metasurfaces. Optics Express, 2020, 28, 1539.	3.4	14
31	Nanostructure-modulated planar high spectral resolution spectro-polarimeter. Optics Express, 2020, 28, 19818.	3.4	10
32	Generating path entangled states in waveguide systems with second-order nonlinearity. Optics Express, 2020, 28, 28792.	3.4	4
33	Surface domain engineering in lithium niobate. OSA Continuum, 2020, 3, 345.	1.8	11
34	Nonperiodic optical superlattice lithium niobate waveguides for the generation of polarization entanglement. , 2020, , .		0
35	Non-Degenerate Nonlinear Frequency Mixing in (110)-Grown GaAs Nanoresonators. , 2020, , .		0
36	Discerning Polarization Objects using Non-local Measurements with Metasurfaces. , 2020, , .		0

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37	Engineering Photon Pair Generation in Microstructured Liquid-Core Fibers. , 2020, , .		0
38	Non-Degenerate Sum-Frequency Generation in (110)-Grown GaAs Nanoresonators. , 2020, , .		0
39	MoS <sub>2</sub> monolayer coupled to a multi-resonant dielectric metasurface exhibiting enhanced second-harmonic generation. , 2020, , .		0
40	Perspectives for Applications of Quantum Imaging. Laser and Photonics Reviews, 2019, 13, 1900097.	8.7	86
41	Quantum Imaging: Perspectives for Applications of Quantum Imaging (Laser Photonics Rev. 13(10)/2019). Laser and Photonics Reviews, 2019, 13, 1970042.	8.7	5
42	Periodic Poling with Short Period for Thin Film Lithium Niobate Waveguides. , 2019, , .		2
43	Second-Harmonic Generation in Lithium Niobate Metasurfaces. , 2019, , .		1
44	The Role of Detector Position in Quantum Ghost Diffraction. , 2019, , .		0
45	Nonlinear Quantum Spectroscopy Enhanced by Parity-Time Symmetry. , 2019, , .		0
46	Towards Optimized Photon-Pair Sources for Two-Photon Transitions. , 2019, , .		0
47	Resonant dielectric metasurfaces: active tuning and nonlinear effects. Journal Physics D: Applied Physics, 2019, 52, 373002.	2.8	42
48	A fully automated dual-tip scanning near-field optical microscope for localized optical excitation and detection in the visible and near-infrared. Review of Scientific Instruments, 2019, 90, 053705.	1.3	4
49	Tailoring Photoluminescence from MoS <sub>2</sub> Monolayers by Mie-Resonant Metasurfaces. ACS Photonics, 2019, 6, 1002-1009.	6.6	82
50	Submicrometer Nanostructure-Based RGB Filters for CMOS Image Sensors. ACS Photonics, 2019, 6, 1018-1025.	6.6	51
51	Nanostructured MoS <sub>2</sub> Monolayers for Spatial Control of Second-Harmonic Generation. , 2019, , .		0
52	Mapping the Near-Field Interaction of Silicon Nanodisc Arrays by Automated Dual-Tip Scanning Near-Field Optical Microscopy. , 2019, , .		0
53	Mid-Infrared Sensing by Induced Coherence in a Single Nonlinear Waveguide. , 2019, , .		0
54	Dielectric metasurfaces for distance measurements and three-dimensional imaging. Advanced Photonics, 2019, 1, 1.	11.8	41

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55	Broadband on-chip polarization mode splitters in lithium niobate integrated adiabatic couplers. Optics Express, 2019, 27, 1632.	3.4	21
56	Controlling second-harmonic diffraction by nano-patterning MoS <sub>2</sub> monolayers. Optics Express, 2019, 27, 35475.	3.4	20
57	Photonic crystal waveguides as sources of counterpropagating factorizable biphoton states. Optics Letters, 2019, 44, 69.	3.3	8
58	Semiconducting 2D-Materials: nano-sandbox for fundamental physics and new platform for optical coatings, light emission and quantum light sources. , 2019, , .		0
59	Incoherence and Lens-less Imaging in Quantum Ghost Diffraction. , 2019, , .		0
60	Broadband On-Chip Adiabatic-Coupling Polarization Mode Splitters in Lithium Niobate Waveguides. , 2019, , .		0
61	Akhmediev Breathers and Modulation Instability's Growth-Decay Cycle in Slab Waveguides. , 2019, , .		0
62	Spectral mapping of an integrated type-II photon-pair source using quantum-classical correspondence. , 2019, , .		0
63	Atom-mediated nonlinear photon-pair generation using photonic band-gap modes. , 2019, , .		0
64	Second-Harmonic Diffraction from Periodically Structured MoS <sub>2</sub> Monolayer. , 2019, , .		0
65	Optical metagrating for one-shot polarization measurements. , 2019, , .		0
66	LiNbO <sub>3</sub> waveguides for integrated SPDC spectroscopy. APL Photonics, 2018, 3, .	5.7	32
67	Polarization-Dependent Second Harmonic Diffraction from Resonant GaAs Metasurfaces. ACS Photonics, 2018, 5, 1786-1793.	6.6	74
68	Dual-Probe SNOM for the Near-Field Study of Nanostructures. , 2018, , .		0
69	Color filter arrays based on dielectric metasurface elements. , 2018, , .		3
70	Photonic Crystal Waveguides As Integrated Sources of Counterpropagating Factorizable Photon Pairs. , 2018, , .		3
71	Atom-mediated Spontaneous Parametric Down-conversion Using Bandgap Modes in Nonlinear Periodic Waveguides. , 2018, , .		0
72	Atom-mediated Spontaneous Parametric Down-conversion Using Evanescent Modes in Nonlinear Periodic Waveguides. , 2018, , .		0

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73	Spatial Rogue Waves in Quadratic Optical Slab Waveguides. , 2018, , .		0
74	Generation of Spectrally Factorizable Counterpropagating Photon Pairs in Photonic Crystal Waveguides. , 2018, , .		0
75	Towards SPDC Spectroscopy on a LiNbO3 Chip. , 2018, , .		0
76	High-bit rate ultra-compact light routing with mode-selective on-chip nanoantennas. Science Advances, 2017, 3, e1700007.	10.3	64
77	Surface domain engineering in bulk and thin film lithium niobate: A systematic experimental study. , 2017, , .		0
78	Generation of Counterpropagating Path-Entangled Photon Pairs in a Single Periodic Waveguide. Physical Review Letters, 2017, 118, 183603.	7.8	26
79	Towards on-chip photon-pair bell tests: Spatial pump filtering in a LiNbO3 adiabatic coupler. Applied Physics Letters, 2017, 111, .	3.3	6
80	Polarization dependence of second-harmonic generation in GaAs metasurfaces. , 2017, , .		0
81	Atom-mediated spontaneous parametric down-conversion in periodic waveguides. Optics Letters, 2017, 42, 4724.	3.3	16
82	Quantum spectroscopy on a nonlinear photonic chip. , 2017, , .		0
83	A Fully Automated Dual-Probe Scanning Near-Field Optical Microscopy Technique. , 2017, , .		1
84	Integrated Quantum Spectroscopy on a Nonlinear Chip. , 2017, , .		0
85	Periodic Waveguides for Generation of Engineered Photon-pair States. , 2016, , .		0
86	Enhancement of light-matter interaction in MoS <sub>2</sub> monolayers by resonant nanoparticles. , 2016, , .		0
87	Tunable generation of entangled photons in a nonlinear directional coupler. Laser and Photonics Reviews, 2016, 10, 131-136.	8.7	38
88	Resonantly Enhanced Second-Harmonic Generation Using III-V Semiconductor All-Dielectric Metasurfaces. Nano Letters, 2016, 16, 5426-5432.	9.1	341
89	Effect of loss on slow-light-enhanced second-harmonic generation in periodic nanostructures. Optics Letters, 2016, 41, 3110.	3.3	4
90	Multipolar Third-Harmonic Generation in Fishnet Metamaterials. ACS Photonics, 2016, 3, 1494-1499.	6.6	20

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91	Nonlocal splitting of photons on a nonlinear chip. <i>Optics Letters</i> , 2016, 41, 5604.	3.3	3
92	Multipolar Analysis of the Third Harmonic Radiation Pattern from Fishnet Metamaterials. , 2016, , .		0
93	Multipolar Origin of the Third Harmonic Generation from Fishnet Metamaterials. , 2016, , .		0
94	Ultra-compact Polarization Demultiplexing by a Plasmonic Nanoantenna on a Waveguide. , 2016, , .		0
95	Effect of Loss on Slow-light-enhanced Second Harmonic Generation in Periodic Nanostructures. , 2016, , .		0
96	Ultra-Broadband Adiabatic Light Transfer in Titanium Diffused Lithium Niobate Waveguides. , 2016, , .		0
97	Counter-propagating Spatially Entangled Bell-states Generation in Photonic Crystal Waveguides. , 2016, , .		0
98	How Useful Is Slow Light in Enhancing Nonlinear Interactions in Lossy Periodic Nanostructures?. , 2016, , .		0
99	Nonlinear coupling in discrete optical waveguide arrays with quadratic nonlinearity. <i>Physical Review A</i> , 2015, 92, .	2.5	2
100	Phase-matched second-harmonic generation in slow-light photonic crystal waveguides. <i>Physical Review A</i> , 2015, 92, .	2.5	14
101	Adiabatic light transfer in titanium diffused lithium niobate waveguides. <i>Optics Express</i> , 2015, 23, 30641.	3.4	29
102	Fano nanoantenna for on-chip separation of wavelength-encoded optical signals. , 2015, , .		0
103	Supercontinuum generation in quadratic nonlinear waveguides without quasi-phase matching. <i>Optics Letters</i> , 2015, 40, 629.	3.3	17
104	Plasmonic Fano Nanoantennas for On-Chip Separation of Wavelength-Encoded Optical Signals. <i>Nano Letters</i> , 2015, 15, 3324-3328.	9.1	64
105	Fabrication of nanoscale lithium niobate waveguides for second-harmonic generation. <i>Optics Letters</i> , 2015, 40, 2715.	3.3	103
106	Nonlinear Nearest-Neighbor Coupling in Quadratic Waveguide Arrays. , 2015, , .		0
107	Cubic and Quadratic Nonlinear Susceptibilities in Waveguides. , 2015, , .		0
108	Optically Tunable Entangled Photon State Generation in a Nonlinear Directional Coupler. , 2015, , .		0

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109	Optically tunable entangled photon state generation in a nonlinear directional coupler. , 2015, , .		0
110	Temporal dynamics of spatially localized waves in quadratic nonlinear waveguide arrays. Physical Review A, 2014, 89, .	2.5	3
111	Generation of Nonclassical Biphoton States through Cascaded Quantum Walks on a Nonlinear Chip. Physical Review X, 2014, 4, .	8.9	52
112	Bandstructure measurement in nonlinear optical waveguide arrays. Applied Physics Letters, 2013, 102, .	3.3	11
113	Seeding of picosecond and femtosecond optical parametric amplifiers by weak single mode continuous lasers. Optics Express, 2013, 21, 730.	3.4	9
114	Observation of spontaneous parametric down conversion in LiNbO <sub>3</sub> waveguide arrays. , 2012, , .		0
115	Spatial and Spectral Light Shaping with Metamaterials. Advanced Materials, 2012, 24, 6300-6304.	21.0	167
116	Observation of spontaneous parametric down-conversion in quadratic nonlinear waveguide arrays. , 2012, , .		0
117	Spatial nonlinear effects with higher order modes in LiNbO <sub>3</sub> waveguide arrays. , 2011, , .		0
118	Magnetic properties of asymmetric double-wire structures. , 2011, , .		0
119	Spectral pulse transformations and phase transitions in quadratic nonlinear waveguide arrays. Optics Express, 2011, 19, 23188.	3.4	18
120	Negative Goos-Hänchen shift in periodic media. Optics Letters, 2011, 36, 4446.	3.3	11
121	Bandstructure measurements of lithium niobate waveguide arrays. , 2011, , .		0
122	Nonlinear dynamics with higher-order modes in lithium niobate waveguide arrays. Applied Physics B: Lasers and Optics, 2011, 104, 487-493.	2.2	4
123	Change of the refractive index in PPLN waveguides due to the photorefractive effect. Applied Physics B: Lasers and Optics, 2011, 104, 547-551.	2.2	4
124	Discrete quadratic solitons with competing second-harmonic components. Physical Review A, 2011, 84, .	2.5	4
125	Spatio-temporal dynamics of laser pulses in lithium niobate waveguide arrays. , 2011, , .		0
126	Nonlinear pulse transformation and phase transitions in LiNbO <sub>3</sub> waveguide arrays. , 2011, , .		0



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127	Solitons in waveguide arrays with competing quadratic nonlinearities. , 2011, , .		0
128	Discrete solitons with competing second harmonic components in lithium niobate waveguide arrays. , 2011, , .		0
129	Nonlinear evolution of laser pulses in lithium niobate waveguide arrays. , 2011, , .		0
130	Phase transitions of nonlinear waves in lithium niobate waveguide arrays. , 2010, , .		0
131	Phase Transition of Discrete Quadratic Solitons. , 2010, , .		0
132	Phase Transitions of Nonlinear Waves in Quadratic Waveguide Arrays. Physical Review Letters, 2010, 105, 233905.	7.8	19
133	Experimental determination of the dispersion relation of light in metamaterials by white-light interferometry. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 660.	2.1	28
134	Competing nonlinearities in quadratic nonlinear waveguide arrays. Optics Letters, 2009, 34, 3589.	3.3	20
135	Engineering resonances in nanorod left-handed metamaterials. , 2006, , .		0
136	Configurations of elongated gold nanostructures on silica as metamaterials: theory, technology, and optical properties. , 2006, , .		0
137	Evaluation of gold nanowire pairs as a potential negative index material. Applied Physics B: Lasers and Optics, 2006, 84, 139-148.	2.2	32
138	Dispersion properties of photonic crystal waveguides with a low in-plane index contrast. New Journal of Physics, 2006, 8, 210-210.	2.9	8