Stefan Witte

List of Publications by Year in descending order

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98 papers	2,302 citations	201674 27 h-index	223800 46 g-index
98 all docs	98 docs citations	98 times ranked	1900 citing authors

#	Article	IF	Citations
1	Advances in laboratory-scale ptychography using high harmonic sources [Invited]. Optics Express, 2022, 30, 4133.	3.4	29
2	Diffraction-based overlay metrology from visible to infrared wavelengths using a single sensor. Journal of Micro-nanopatterning, Materials, and Metrology, 2022, 21, .	0.8	5
3	The transition from short- to long-timescale pre-pulses: Laser-pulse impact on tin microdroplets. Journal of Applied Physics, 2022, 131, .	2.5	6
4	Microdroplet-tin plasma sources of EUV radiation driven by solid-state-lasers (Topical Review). Journal of Optics (United Kingdom), 2022, 24, 054014.	2.2	16
5	aPIE: an angle calibration algorithm for reflection ptychography. Optics Letters, 2022, 47, 1949.	3.3	9
6	Pupil apodization in digital holographic microscopy for reduction of coherent imaging effects. , 2022, 1, 1202.		4
7	Tailoring spatial entropy in extreme ultraviolet focused beams for multispectral ptychography. Optica, 2021, 8, 130.	9.3	32
8	Laser-induced vaporization of a stretching sheet of liquid tin. Journal of Applied Physics, 2021, 129, .	2.5	11
9	Ultrafast laser-induced guided elastic waves in a freestanding aluminum membrane. Physical Review B, 2021, 103, .	3.2	6
10	Ptychographic optical coherence tomography. Optics Letters, 2021, 46, 1337.	3.3	11
11	Spatial coherence control and analysis via micromirror-based mixed-state ptychography. New Journal of Physics, 2021, 23, 053016.	2.9	5
12	Tailoring spatial entropy in extreme ultraviolet focused beams for multispectral ptychography. , 2021, , .		0
13	Towards High-Order Harmonic Generation in Laser Produced Plasmas. , 2021, , .		0
14	Fast and robust diffraction based overlay metrology using dark-field digital holographic microscopy. , 2021, , .		0
15	Spall-Velocity Reduction in Double-Pulse Impact on Tin Microdroplets. Physical Review Applied, 2021, 16, .	3.8	3
16	Cylindrically and non-cylindrically symmetric expansion dynamics of tin microdroplets after ultrashort laser pulse impact. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	9
17	Extreme ultraviolet light from a tin plasma driven by a 2-Âµm-wavelength laser. Optics Express, 2021, 29, 4475.	3.4	32
18	Aberration calibration and correction with nano-scatterers in digital holographic microscopy for semiconductor metrology. Optics Express, 2021, 29, 38237.	3.4	9

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19	ptyLab: a cross-platform inverse modeling toolbox for conventional and Fourier ptychography. , 2021, , .		4
20	Ptychography-based characterization of wavelength-tunable vortex beams. , 2021, , .		0
21	Ptychographic optical coherence tomography. , 2021, , .		0
22	aPIE: Angle calibration algorithm for reflection ptychography. , 2021, , .		0
23	Enhancing the detection of laser-excited strain waves via transparent nanolayers. Physical Review B, 2021, 104, .	3.2	3
24	Tailoring Spatial Entropy in Extreme Ultraviolet Focused Beams for Multispectral Ptychography. , 2021, , .		0
25	Photoacoustic detection of low duty cycle gratings through optically opaque layers. Applied Physics Letters, 2020, 117, .	3.3	8
26	Generation and characterization of focused helical x-ray beams. Science Advances, 2020, 6, eaax8836.	10.3	21
27	Detection of Hidden Gratings through Multilayer Nanostructures Using Light and Sound. Physical Review Applied, 2020, 14, .	3.8	15
28	Laser-induced periodic surface structures: Arbitrary angles of incidence and polarization states. Physical Review B, 2020, 101, .	3.2	33
29	Unraveling Phononic, Optoacoustic, and Mechanical Properties of Metals with Light-Driven Hypersound. Physical Review Applied, 2020, 13, .	3.8	20
30	Role of scattering by surface roughness in the photoacoustic detection of hidden micro-structures. Applied Optics, 2020, 59, 9499.	1.8	6
31	Measuring laser beam quality, wavefronts, and lens aberrations using ptychography. Optics Express, 2020, 28, 5022.	3.4	25
32	Laser-induced ultrasonics for detection of low-amplitude grating through metal layers with finite roughness. Optics Express, 2020, 28, 23374.	3.4	3
33	High-resolution microscopy through optically opaque media using ultrafast photoacoustics. Optics Express, 2020, 28, 33937.	3.4	8
34	zPIE: an autofocusing algorithm for ptychography. Optics Letters, 2020, 45, 2030.	3.3	29
35	Towards High Harmonic Generation in Laser-Produced Plasma. , 2020, , .		0
36	Phase retrieval algorithms for lensless imaging using diffractive shearing interferometry. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2020, 37, 914.	1.5	3

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37	Optical Parametric Chirped Pulse Amplifier Producing Ultrashort 10.5 mJ Pulses at 1.55 Âµm. , 2020, , .		0
38	Extreme ultraviolet lensless imaging without object support through rotational diversity in diffractive shearing interferometry. Optics Express, 2020, 28, 5257.	3.4	3
39	Impact of coherence length on the field of view in dark-field holographic microscopy for semiconductor metrology: theoretical and experimental comparisons. Applied Optics, 2020, 59, 3498.	1.8	4
40	Diffraction-based overlay metrology using angular-multiplexed acquisition of dark-field digital holograms. Optics Express, 2020, 28, 37419.	3.4	16
41	Efficient Generation of Extreme Ultraviolet Light From <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Nd</mml:mi></mml:math> :YAG-Driven Microdroplet-Tin Plasma. Physical Review Applied, 2019, 12, .	3.8	45
42	Ion Energy and Charge State Distribution in Pico- and Femtosecond Laser-Produced Plasmas. , 2019, , .		0
43	Characterization of Thin Metal Films by Ultrafast Laser Induced Ultrasound. , 2019, , .		1
44	Broadband extreme ultraviolet interferometry and imaging. EPJ Web of Conferences, 2019, 205, 02004.	0.3	1
45	Radiation transport and scaling of optical depth in Nd:YAG laser-produced microdroplet-tin plasma. Applied Physics Letters, 2019, 115, 124101.	3.3	25
46	A Spectrally Resolved Single-Shot Wavefront Sensor for Broadband High-Harmonic Generation Sources. , 2019, , .		0
47	Optical parametric chirped pulse amplifier producing ultrashort 105 mJ pulses at 155 Î¼m. Optics Express, 2019, 27, 29829.	3.4	9
48	Broadband extreme ultraviolet dispersion measurements using a high-harmonic source. Optics Letters, 2019, 44, 3625.	3.3	6
49	Computational-imaging-based optical coherence tomography in time- and frequency-domain. OSA Continuum, 2019, 2, 3141.	1.8	2
50	Comparison of propagation-based and ptychographic phase retrieval. , 2019, , .		0
51	An Extreme Ultraviolet Spin Grating for Spatially Resolved, Hyperspectral Magnetic Dichroism Spectroscopies. , 2019, , .		0
52	Sn ion energy distributions of ns- and ps-laser produced plasmas. Plasma Sources Science and Technology, 2018, 27, 045001.	3.1	20
53	Expansion Dynamics after Laser-Induced Cavitation in Liquid Tin Microdroplets. Physical Review Applied, 2018, 10, .	3.8	30
54	Spectrally resolved single-shot wavefront sensing of broadband high-harmonic sources. Optics Express, 2018, 26, 6860.	3.4	25

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55	High harmonics with spatially varying ellipticity. Optica, 2018, 5, 479.	9.3	38
56	Diffractive shear interferometry for extreme ultraviolet high-resolution lensless imaging. Optics Express, 2018, 26, 12479.	3.4	12
57	Controlling ion kinetic energy distributions in laser produced plasma sources by means of a picosecond pulse pair. Journal of Applied Physics, 2018, 124, .	2.5	13
58	Detection of periodic structures through opaque metal layers by optical measurements of ultrafast electron dynamics. Optics Express, 2018, 26, 23380.	3.4	16
59	Interference probe ptychography for computational amplitude and phase microscopy. Optics Express, 2018, 26, 31372.	3.4	3
60	Depth-resolved Lensless Imaging. , 2018, , .		0
61	Ion distribution and ablation depth measurements of a fs-ps laser-irradiated solid tin target. Journal of Applied Physics, 2017, 121, 103301.	2.5	10
62	High-energy Nd:YAG laser system with arbitrary sub-nanosecond pulse shaping capability. Optics Letters, 2017, 42, 2758.	3.3	32
63	Spatially resolved Fourier transform spectroscopy in the extreme ultraviolet. Optica, 2016, 3, 1122.	9.3	37
64	Arbitrary Temporal Shaping of Nanosecond Pulses at the Joule Level. , 2016, , .		0
65	Lensless diffractive imaging with ultra-broadband table-top sources: from infrared to extreme-ultraviolet wavelengths. Light: Science and Applications, 2014, 3, e163-e163.	16.6	89
66	Lensless phase contrast microscopy based on multiwavelength Fresnel diffraction. Optics Letters, 2014, 39, 193.	3.3	49
67	Fourier transform holography with extended references using a coherent ultra-broadband light source. Optics Express, 2014, 22, 25397.	3.4	12
68	High-speed multi-wavelength Fresnel diffraction imaging. Optics Express, 2014, 22, 30504.	3.4	36
69	Lensless Phase Contrast Microscopy of Live Cells Using Fresnel Diffraction at Multiple Wavelengths. , 2014, , .		0
70	High-Precision Spectroscopy with Counterpropagating Femtosecond Pulses. Physical Review Letters, 2013, 111, 023007.	7.8	41
71	Spatial and spectral coherent control with frequency combs. Nature Photonics, 2013, 7, 38-42.	31.4	33
72	High-energy, high-repetition-rate picosecond pulses from a quasi-CW diode-pumped Nd:YAG system. Optics Letters, 2013, 38, 3021.	3.3	36

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73	Short-coherence off-axis holographic phase microscopy of live cell dynamics. Biomedical Optics Express, 2012, 3, 2184.	2.9	32
74	Doppler-Free Two-Photon Direct Frequency Comb Spectroscopy With Coherent Control. , 2012, , .		0
75	Direct Visualization of Laser-Driven Electron Multiple Scattering and Tunneling Distance in Strong-Field Ionization. Physical Review Letters, 2012, 109, 073004.	7.8	172
76	Ultrafast Optical Parametric Chirped-Pulse Amplification. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 296-307.	2.9	121
77	Label-free live brain imaging and targeted patching with third-harmonic generation microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5970-5975.	7.1	150
78	Combining coherent imaging and nonlinear microscopy for early-stage cancer detection. , 2009, , .		0
79	Single-shot two-dimensional full-range optical coherence tomography achieved by dispersion control. Optics Express, 2009, 17, 11335.	3.4	23
80	Ultrafast double-pulse parametric amplification for precision Ramsey metrology. Optics Express, 2008, 16, 7071.	3.4	24
81	Phase stability of terawatt-class ultrabroadband parametric amplification. Optics Letters, 2007, 32, 2363.	3.3	33
82	Numerical simulations for performance optimization of a few-cycle terawatt NOPCPA system. Applied Physics B: Lasers and Optics, 2007, 87, 677-684.	2.2	36
83	Frequency metrology on theEFÎ£g+1â†ŽÎ£g+1(0,0)transition inH2, HD, andD2. Physical Review A, 2006, 74, .	2.5	51
84	A source of 2 terawatt, 2.7 cycle laser pulses based on noncollinear optical parametric chirped pulse amplification. Optics Express, 2006, 14, 8168.	3.4	154
85	Generation of terawatt sub-10 fs laser pulses using optical parametric chirped pulse amplification. , 2006, , .		0
86	Frequency comb laser spectroscopy in the vacuum-ultraviolet region. Physical Review A, 2006, 73, .	2.5	50
87	Demonstration of frequency comb laser spectroscopy in the vacuum-ultraviolet. , 2006, , .		0
88	Frequency metrology on theMg3s2S1â†'3s4pP1line for comparison with quasar data. Physical Review A, 2006, 74, .	2.5	24
89	Demonstration of Frequency Comb Laser Spectroscopy in the Vacuum-Ultraviolet. , 2006, , .		0
90	Deep-Ultraviolet Quantum Interference Metrology with Ultrashort Laser Pulses. Science, 2005, 307, 400-403.	12.6	142

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91	Generation of few-cycle terawatt light pulses using optical parametric chirped pulse amplification. Optics Express, 2005, 13, 4903.	3.4	109
92	High-power parametric amplification of 118-fs laser pulses with carrier-envelope phase control. Optics Letters, 2005, 30, 78.	3.3	77
93	Control and precise measurement of carrier-envelope phase dynamics. Applied Physics B: Lasers and Optics, 2004, 78, 5-12.	2.2	44
94	Third-harmonic generation of a continuous-wave Ti:Sapphire laser in external resonant cavities. Applied Physics Letters, 2003, 82, 4423-4425.	3.3	18
95	Hyperfine structure and isotope shift of transitions in Yb I using UV and deep-UV cw laser light and the angular distribution of fluorescence radiation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 2693-2701.	1.5	15
96	High-resolution LIF measurements on hyperfine structure and isotope shifts in various states of Lu I using the second and third harmonic of a cw Ti:sapphire laser. European Physical Journal D, 2002, 20, 159-164.	1.3	10
97	Hyperfine structure and isotope shift measurements on 4d10 1S0 â† 4d9 5p J=1 transitions in Pd I using deep-UV cw laser spectroscopy. European Physical Journal D, 2002, 19, 25-29.	1.3	8
98	Demonstration of quantum interference metrology with amplified ultrashort laser pulses. , 0, , .		0