

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
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98
all docs

98
docs citations

98
times ranked

1900
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct Visualization of Laser-Driven Electron Multiple Scattering and Tunneling Distance in Strong-Field Ionization. <i>Physical Review Letters</i> , 2012, 109, 073004.	7.8	172
2	A source of 2 terawatt, 2.7 cycle laser pulses based on noncollinear optical parametric chirped pulse amplification. <i>Optics Express</i> , 2006, 14, 8168.	3.4	154
3	Label-free live brain imaging and targeted patching with third-harmonic generation microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 5970-5975.	7.1	150
4	Deep-Ultraviolet Quantum Interference Metrology with Ultrashort Laser Pulses. <i>Science</i> , 2005, 307, 400-403.	12.6	142
5	Ultrafast Optical Parametric Chirped-Pulse Amplification. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2012, 18, 296-307.	2.9	121
6	Generation of few-cycle terawatt light pulses using optical parametric chirped pulse amplification. <i>Optics Express</i> , 2005, 13, 4903.	3.4	109
7	Lensless diffractive imaging with ultra-broadband table-top sources: from infrared to extreme-ultraviolet wavelengths. <i>Light: Science and Applications</i> , 2014, 3, e163-e163.	16.6	89
8	High-power parametric amplification of 118-fs laser pulses with carrier-envelope phase control. <i>Optics Letters</i> , 2005, 30, 78.	3.3	77
9	Frequency metrology on the $F_{g+1}^{(0,0)}$ transition in H_2 , HD , and D_2 . <i>Physical Review A</i> , 2006, 74, .	2.5	51
10	Frequency comb laser spectroscopy in the vacuum-ultraviolet region. <i>Physical Review A</i> , 2006, 73, .	2.5	50
11	Lensless phase contrast microscopy based on multiwavelength Fresnel diffraction. <i>Optics Letters</i> , 2014, 39, 193.	3.3	49
12	Efficient Generation of Extreme Ultraviolet Light From $Nd:YAG$ -Driven Microdroplet-Tin Plasma. <i>Physical Review Applied</i> , 2019, 12, .	3.8	45
13	Control and precise measurement of carrier-envelope phase dynamics. <i>Applied Physics B: Lasers and Optics</i> , 2004, 78, 5-12.	2.2	44
14	High-Precision Spectroscopy with Counterpropagating Femtosecond Pulses. <i>Physical Review Letters</i> , 2013, 111, 023007.	7.8	41
15	High harmonics with spatially varying ellipticity. <i>Optica</i> , 2018, 5, 479.	9.3	38
16	Spatially resolved Fourier transform spectroscopy in the extreme ultraviolet. <i>Optica</i> , 2016, 3, 1122.	9.3	37
17	Numerical simulations for performance optimization of a few-cycle terawatt NOPCPA system. <i>Applied Physics B: Lasers and Optics</i> , 2007, 87, 677-684.	2.2	36
18	High-energy, high-repetition-rate picosecond pulses from a quasi-CW diode-pumped $Nd:YAG$ system. <i>Optics Letters</i> , 2013, 38, 3021.	3.3	36

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19	High-speed multi-wavelength Fresnel diffraction imaging. <i>Optics Express</i> , 2014, 22, 30504.	3.4	36
20	Phase stability of terawatt-class ultrabroadband parametric amplification. <i>Optics Letters</i> , 2007, 32, 2363.	3.3	33
21	Spatial and spectral coherent control with frequency combs. <i>Nature Photonics</i> , 2013, 7, 38-42.	31.4	33
22	Laser-induced periodic surface structures: Arbitrary angles of incidence and polarization states. <i>Physical Review B</i> , 2020, 101, .	3.2	33
23	Short-coherence off-axis holographic phase microscopy of live cell dynamics. <i>Biomedical Optics Express</i> , 2012, 3, 2184.	2.9	32
24	High-energy Nd:YAG laser system with arbitrary sub-nanosecond pulse shaping capability. <i>Optics Letters</i> , 2017, 42, 2758.	3.3	32
25	Tailoring spatial entropy in extreme ultraviolet focused beams for multispectral ptychography. <i>Optica</i> , 2021, 8, 130.	9.3	32
26	Extreme ultraviolet light from a tin plasma driven by a 2- μm -wavelength laser. <i>Optics Express</i> , 2021, 29, 4475.	3.4	32
27	Expansion Dynamics after Laser-Induced Cavitation in Liquid Tin Microdroplets. <i>Physical Review Applied</i> , 2018, 10, .	3.8	30
28	zPIE: an autofocusing algorithm for ptychography. <i>Optics Letters</i> , 2020, 45, 2030.	3.3	29
29	Advances in laboratory-scale ptychography using high harmonic sources [Invited]. <i>Optics Express</i> , 2022, 30, 4133.	3.4	29
30	Spectrally resolved single-shot wavefront sensing of broadband high-harmonic sources. <i>Optics Express</i> , 2018, 26, 6860.	3.4	25
31	Radiation transport and scaling of optical depth in Nd:YAG laser-produced microdroplet-tin plasma. <i>Applied Physics Letters</i> , 2019, 115, 124101.	3.3	25
32	Measuring laser beam quality, wavefronts, and lens aberrations using ptychography. <i>Optics Express</i> , 2020, 28, 5022.	3.4	25
33	Frequency metrology on the $\text{Mg } 3s^2S_1 + 3s4pP_1$ line for comparison with quasar data. <i>Physical Review A</i> , 2006, 74, .	2.5	24
34	Ultrafast double-pulse parametric amplification for precision Ramsey metrology. <i>Optics Express</i> , 2008, 16, 7071.	3.4	24
35	Single-shot two-dimensional full-range optical coherence tomography achieved by dispersion control. <i>Optics Express</i> , 2009, 17, 11335.	3.4	23
36	Generation and characterization of focused helical x-ray beams. <i>Science Advances</i> , 2020, 6, eaax8836.	10.3	21

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37	Sn ion energy distributions of ns- and ps-laser produced plasmas. Plasma Sources Science and Technology, 2018, 27, 045001.	3.1	20
38	Unraveling Phononic, Optoacoustic, and Mechanical Properties of Metals with Light-Driven Hypersound. Physical Review Applied, 2020, 13, .	3.8	20
39	Third-harmonic generation of a continuous-wave Ti:Sapphire laser in external resonant cavities. Applied Physics Letters, 2003, 82, 4423-4425.	3.3	18
40	Detection of periodic structures through opaque metal layers by optical measurements of ultrafast electron dynamics. Optics Express, 2018, 26, 23380.	3.4	16
41	Diffraction-based overlay metrology using angular-multiplexed acquisition of dark-field digital holograms. Optics Express, 2020, 28, 37419.	3.4	16
42	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
43	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
44	Detection of Hidden Gratings through Multilayer Nanostructures Using Light and Sound. Physical Review Applied, 2020, 14, .	3.8	15
45	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
46	Fourier transform holography with extended references using a coherent ultra-broadband light source. Optics Express, 2014, 22, 25397.	3.4	12
47	Diffraction-based shear interferometry for extreme ultraviolet high-resolution lensless imaging. Optics Express, 2018, 26, 12479.	3.4	12
48	Laser-induced vaporization of a stretching sheet of liquid tin. Journal of Applied Physics, 2021, 129, .	2.5	11
49	Ptychographic optical coherence tomography. Optics Letters, 2021, 46, 1337.	3.3	11
50	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
51	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
52	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
53	Optical parametric chirped pulse amplifier producing ultrashort 105 mJ pulses at 155 nm. Optics Express, 2019, 27, 29829.	3.4	9
54	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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55	aPIE: an angle calibration algorithm for reflection ptychography. <i>Optics Letters</i> , 2022, 47, 1949.	3.3	9
56	Hyperfine structure and isotope shift measurements on $4d^{10} 1S_0 \hat{\rightarrow} 4d^9 5p J=1$ transitions in Pd I using deep-UV cw laser spectroscopy. <i>European Physical Journal D</i> , 2002, 19, 25-29.	1.3	8
57	Photoacoustic detection of low duty cycle gratings through optically opaque layers. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	8
58	High-resolution microscopy through optically opaque media using ultrafast photoacoustics. <i>Optics Express</i> , 2020, 28, 33937.	3.4	8
59	Ultrafast laser-induced guided elastic waves in a freestanding aluminum membrane. <i>Physical Review B</i> , 2021, 103, .	3.2	6
60	Role of scattering by surface roughness in the photoacoustic detection of hidden micro-structures. <i>Applied Optics</i> , 2020, 59, 9499.	1.8	6
61	Broadband extreme ultraviolet dispersion measurements using a high-harmonic source. <i>Optics Letters</i> , 2019, 44, 3625.	3.3	6
62	The transition from short- to long-timescale pre-pulses: Laser-pulse impact on tin microdroplets. <i>Journal of Applied Physics</i> , 2022, 131, .	2.5	6
63	Spatial coherence control and analysis via micromirror-based mixed-state ptychography. <i>New Journal of Physics</i> , 2021, 23, 053016.	2.9	5
64	Diffraction-based overlay metrology from visible to infrared wavelengths using a single sensor. <i>Journal of Micro-nanopatterning, Materials, and Metrology</i> , 2022, 21, .	0.8	5
65	ptyLab: a cross-platform inverse modeling toolbox for conventional and Fourier ptychography. , 2021, , .		4
66	Impact of coherence length on the field of view in dark-field holographic microscopy for semiconductor metrology: theoretical and experimental comparisons. <i>Applied Optics</i> , 2020, 59, 3498.	1.8	4
67	Pupil apodization in digital holographic microscopy for reduction of coherent imaging effects. , 2022, 1, 1202.		4
68	Spall-Velocity Reduction in Double-Pulse Impact on Tin Microdroplets. <i>Physical Review Applied</i> , 2021, 16, .	3.8	3
69	Interference probe ptychography for computational amplitude and phase microscopy. <i>Optics Express</i> , 2018, 26, 31372.	3.4	3
70	Laser-induced ultrasonics for detection of low-amplitude grating through metal layers with finite roughness. <i>Optics Express</i> , 2020, 28, 23374.	3.4	3
71	Phase retrieval algorithms for lensless imaging using diffractive shearing interferometry. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2020, 37, 914.	1.5	3
72	Extreme ultraviolet lensless imaging without object support through rotational diversity in diffractive shearing interferometry. <i>Optics Express</i> , 2020, 28, 5257.	3.4	3

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73	Enhancing the detection of laser-excited strain waves via transparent nanolayers. Physical Review B, 2021, 104, .	3.2	3
74	Computational-imaging-based optical coherence tomography in time- and frequency-domain. OSA Continuum, 2019, 2, 3141.	1.8	2
75	Characterization of Thin Metal Films by Ultrafast Laser Induced Ultrasound. , 2019, , .		1
76	Broadband extreme ultraviolet interferometry and imaging. EPJ Web of Conferences, 2019, 205, 02004.	0.3	1
77	Demonstration of quantum interference metrology with amplified ultrashort laser pulses. , 0, , .		0
78	Generation of terawatt sub-10 fs laser pulses using optical parametric chirped pulse amplification. , 2006, , .		0
79	Demonstration of frequency comb laser spectroscopy in the vacuum-ultraviolet. , 2006, , .		0
80	Combining coherent imaging and nonlinear microscopy for early-stage cancer detection. , 2009, , .		0
81	Doppler-Free Two-Photon Direct Frequency Comb Spectroscopy With Coherent Control. , 2012, , .		0
82	Lensless Phase Contrast Microscopy of Live Cells Using Fresnel Diffraction at Multiple Wavelengths. , 2014, , .		0
83	Ion Energy and Charge State Distribution in Pico- and Femtosecond Laser-Produced Plasmas. , 2019, , .		0
84	A Spectrally Resolved Single-Shot Wavefront Sensor for Broadband High-Harmonic Generation Sources. , 2019, , .		0
85	Tailoring spatial entropy in extreme ultraviolet focused beams for multispectral ptychography. , 2021, , .		0
86	Towards High-Order Harmonic Generation in Laser Produced Plasmas. , 2021, , .		0
87	Fast and robust diffraction based overlay metrology using dark-field digital holographic microscopy. , 2021, , .		0
88	Demonstration of Frequency Comb Laser Spectroscopy in the Vacuum-Ultraviolet. , 2006, , .		0
89	Arbitrary Temporal Shaping of Nanosecond Pulses at the Joule Level. , 2016, , .		0
90	Depth-resolved Lensless Imaging. , 2018, , .		0

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91	Comparison of propagation-based and ptychographic phase retrieval. , 2019, , .		0
92	An Extreme Ultraviolet Spin Grating for Spatially Resolved, Hyperspectral Magnetic Dichroism Spectroscopies. , 2019, , .		0
93	Towards High Harmonic Generation in Laser-Produced Plasma. , 2020, , .		0
94	Ptychography-based characterization of wavelength-tunable vortex beams. , 2021, , .		0
95	Optical Parametric Chirped Pulse Amplifier Producing Ultrashort 10.5 mJ Pulses at 1.55 Åµm. , 2020, , .		0
96	Ptychographic optical coherence tomography. , 2021, , .		0
97	aPIE: Angle calibration algorithm for reflection ptychography. , 2021, , .		0
98	Tailoring Spatial Entropy in Extreme Ultraviolet Focused Beams for Multispectral Ptychography. , 2021, , .		0