

Ioachim Pupeza

List of Publications by Year in descending order

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103
papers

2,303
citations

279798

23
h-index

223800

46
g-index

114
all docs

114
docs citations

114
times ranked

1783
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly accurate optical material parameter determination with THz time-domain spectroscopy. Optics Express, 2007, 15, 4335.	3.4	298
2	High-power sub-two-cycle mid-infrared pulses at 100â€‰MHz repetition rate. Nature Photonics, 2015, 9, 721-724.	31.4	248
3	Field-resolved infrared spectroscopy of biological systems. Nature, 2020, 577, 52-59.	27.8	170
4	Compact high-repetition-rate source of coherent 100ÂeV radiation. Nature Photonics, 2013, 7, 608-612.	31.4	156
5	Watt-scale super-octave mid-infrared intrapulse difference frequency generation. Light: Science and Applications, 2018, 7, 94.	16.6	101
6	Power scaling of a high-repetition-rate enhancement cavity. Optics Letters, 2010, 35, 2052.	3.3	93
7	High-harmonic generation at 250â€‰MHz with photon energies exceeding 100â€‰eV. Optica, 2016, 3, 366.	3.3	75
8	Efficient Generation of Interleavers for IDMA. , 2006, , .		73
9	Megawatt-scale average-power ultrashort pulses in an enhancement cavity. Optics Letters, 2014, 39, 2595.	3.3	71
10	Extreme-ultraviolet frequency combs for precision metrology and attosecond science. Nature Photonics, 2021, 15, 175-186.	31.4	67
11	Watt-scale 50-MHz source of single-cycle waveform-stable pulses in the molecular fingerprint region. Optics Letters, 2019, 44, 1730.	3.3	63
12	High-flux ultrafast extreme-ultraviolet photoemission spectroscopy at 18.4â€‰MHz pulse repetition rate. Nature Communications, 2019, 10, 458.	12.8	58
13	Large-mode enhancement cavities. Optics Express, 2013, 21, 11606.	3.4	46
14	Temporal solitons in free-space femtosecond enhancement cavities. Nature Photonics, 2019, 13, 214-218.	31.4	38
15	A concept for multiterawatt fibre lasers based on coherent pulse stacking in passive cavities. Light: Science and Applications, 2014, 3, e211-e211.	16.6	37
16	Femtosecond Enhancement Cavities in the Nonlinear Regime. Physical Review Letters, 2015, 115, 023902.	7.8	33
17	Acousto-optic pulse picking scheme with carrier-frequency-to-pulse-repetition-rate synchronization. Optics Express, 2015, 23, 19586.	3.4	33
18	Transverse mode tailoring in a quasi-imaging high-finesse femtosecond enhancement cavity. Optics Express, 2011, 19, 9551.	3.4	32

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19	Cavity-Enhanced High-Harmonic Generation with Spatially Tailored Driving Fields. <i>Physical Review Letters</i> , 2014, 112, 103902.	7.8	27
20	Phase-stable, multi- μJ femtosecond pulses from a repetition-rate tunable Ti:Sa-oscillator-seeded Yb-fiber amplifier. <i>Applied Physics B: Lasers and Optics</i> , 2017, 123, 17.	2.2	27
21	Enhancement cavities for few-cycle pulses. <i>Optics Letters</i> , 2017, 42, 271.	3.3	27
22	Highly sensitive dispersion measurement of a high-power passive optical resonator using spatial-spectral interferometry. <i>Optics Express</i> , 2010, 18, 26184.	3.4	25
23	Vacuum ultraviolet frequency combs generated by a femtosecond enhancement cavity in the visible. <i>Optics Letters</i> , 2012, 37, 503.	3.3	25
24	High-power frequency comb at $2\mu\text{m}$ wavelength emitted by a Tm-doped fiber laser system. <i>Optics Letters</i> , 2018, 43, 5178.	3.3	25
25	Low-loss VIS/IR-XUV beam splitter for high-power applications. <i>Optics Express</i> , 2011, 19, 12108.	3.4	21
26	Multi-octave spanning, Watt-level ultrafast mid-infrared source. <i>JPhys Photonics</i> , 2019, 1, 044006.	4.6	21
27	Optimization and characterization of a highly-efficient diffraction nanograting for MHz XUV pulses. <i>Optics Express</i> , 2011, 19, 1954.	3.4	20
28	Enhancement cavities for zero-offset-frequency pulse trains. <i>Optics Letters</i> , 2015, 40, 2165.	3.3	20
29	THz Metrology. <i>Frequenz</i> , 2008, 62, 137-148.	0.9	19
30	Degree of dispersion of polymeric compounds determined with terahertz time-domain spectroscopy. <i>Polymer Engineering and Science</i> , 2011, 51, 109-116.	3.1	19
31	Three-octave terahertz pulses from optical rectification of 20 fs, $1\mu\text{m}$, 78 MHz pulses in GaP. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 154002.	1.5	18
32	Phase-Matching for Generation of Isolated Attosecond XUV and Soft-X-Ray Pulses with Few-Cycle Drivers. <i>Physical Review X</i> , 2020, 10, .	8.9	18
33	Laser-manufactured mirrors for geometrical output coupling of intracavity-generated high harmonics. <i>Optics Express</i> , 2013, 21, 26797.	3.4	17
34	Generation of isolated attosecond pulses with enhancement cavities—a theoretical study. <i>New Journal of Physics</i> , 2017, 19, 033040.	2.9	16
35	Balancing of thermal lenses in enhancement cavities with transmissive elements. <i>Optics Letters</i> , 2015, 40, 843.	3.3	15
36	Active intensity noise suppression for a broadband mid-infrared laser source. <i>Optics Express</i> , 2017, 25, 22499.	3.4	15

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37	Ultra-rapid electro-optic sampling of octave-spanning mid-infrared waveforms. Optics Express, 2021, 29, 20747.	3.4	13
38	Broadband interferometric subtraction of optical fields. Optics Express, 2019, 27, 2432.	3.4	13
39	Interferometric delay tracking for low-noise Mach-Zehnder-type scanning measurements. Optics Express, 2019, 27, 4789.	3.4	13
40	Enhanced intrapulse difference frequency generation in the mid-infrared by a spectrally dependent polarization state. Optics Letters, 2022, 47, 261.	3.3	13
41	Dielectric Fibres for Low-Loss Transmission of Millimetre Waves and its Application in Couplers and Splitters. Journal of Infrared, Millimeter, and Terahertz Waves, 2009, 31, 214.	2.2	12
42	Field-resolved spectroscopy in the molecular fingerprint region. , 2017, , .		12
43	Geometrical on-axis access to high-finesse resonators by quasi-imaging: a theoretical description. Journal of Optics (United Kingdom), 2015, 17, 025609.	2.2	10
44	Cumulative plasma effects in cavity-enhanced high-order harmonic generation in gases. APL Photonics, 2018, 3, .	5.7	10
45	Attosecond intra-valence band dynamics and resonant-photoemission delays in W(110). Nature Communications, 2021, 12, 3404.	12.8	10
46	Average power scaling of THz spintronic emitters efficiently cooled in reflection geometry. Optics Express, 2022, 30, 20451.	3.4	10
47	Confocal THz Laser Microscope. Journal of Infrared, Millimeter, and Terahertz Waves, 2010, 31, 358.	2.2	9
48	Optimum Sample Thickness for Trace Analyte Detection with Field-Resolved Infrared Spectroscopy. Analytical Chemistry, 2020, 92, 7508-7514.	6.5	9
49	Broadband dispersive Ge/YbF3 mirrors for mid-infrared spectral range. Optics Letters, 2019, 44, 5210.	3.3	9
50	Power scaling of femtosecond enhancement cavities and high-power applications. Proceedings of SPIE, 2011, , .	0.8	8
51	Suppression of individual peaks in two-colour high harmonic generation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 134004.	1.5	7
52	Cavity-enhanced noncollinear high-harmonic generation. Optics Express, 2019, 27, 19675.	3.4	7
53	Tailoring the transverse mode of a high-finesse optical resonator with stepped mirrors. Journal of Optics (United Kingdom), 2018, 20, 024003.	2.2	6
54	Train of Ultrashort Mid-Infrared Pulses with Sub-Mrad Carrier-Envelope Phase Stability. , 2019, , .		6

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55	Extraction of enhanced, ultrashort laser pulses from a passive 10-MHz stack-and-dump cavity. Applied Physics B: Lasers and Optics, 2016, 122, 297.	2.2	5
56	Efficiency of cavity-enhanced high harmonic generation with geometric output coupling. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 075401.	1.5	5
57	Quantum-Efficiency and Bandwidth Optimized Electro-Optic Sampling. , 2019, , .		5
58	Mid-infrared long-pass filter for high-power applications based on grating diffraction. Optics Letters, 2019, 44, 3014.	3.3	5
59	Power Scaling of Enhancement Cavities for Nonlinear Optics. Springer Theses, 2012, , .	0.1	5
60	Mid-infrared electric field sampling approaching single-photon sensitivity. EPJ Web of Conferences, 2020, 243, 16001.	0.3	5
61	Detection sensitivity of field-resolved spectroscopy in the molecular fingerprint region. , 2017, , .		4
62	Attosecond-Precision Dual-Oscillator Infrared Field-Resolved Spectroscopy Employing Electro-Optic Delay Tracking. , 2021, , .		4
63	Stack and dump: Peak-power scaling by coherent pulse addition in passive cavities. European Physical Journal: Special Topics, 2015, 224, 2573-2577.	2.6	3
64	Electro-Optic Sampling with Percent-Level Detection Efficiency. , 2021, , .		2
65	Fabry-Pérot Based Temporal Standard at 8.5 μm for Electro-Optic Delay Tracking. , 2021, , .		2
66	Geometrical Output Coupling Method of Harmonics in Enhancement Cavities. , 2011, , .		1
67	Sub-25 nm High-Harmonic Generation with a 78-MHz Repetition Rate Enhancement Cavity. , 2012, , .		1
68	Generation of Coherent sub-20 nm XUV Radiation at 78 MHz via Cavity-Based HHG. EPJ Web of Conferences, 2013, 41, 10023.	0.3	1
69	Ultrafast optomechanical pulse picking. Applied Physics B: Lasers and Optics, 2017, 123, 47.	2.2	1
70	Ultrafast Optomechanical Pulse Picking. , 2018, , 371-387.		1
71	Mid-Infrared Broadband Long-Pass Filter Based on Grating Diffraction. , 2019, , .		1
72	Field-Resolved Infrared Spectroscopy of Biological Samples. , 2019, , .		1

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73	Field-Resolved Infrared Spectroscopy of Human Blood to Tackle Lung, Prostate and Breast Cancer Detection. , 2019, , .		1
74	Broadband mid-infrared time-domain spectrometer for the molecular fingerprint region. , 2016, , .		1
75	Power Scaling Limitations for Cavity-Assisted High-Harmonic Generation. , 2012, , .		1
76	Non-steady-state enhancement cavities using pulse-dumping as power scaling concept of femtosecond lasers. , 2013, , .		1
77	High Power Frequency Comb at 1.7-2.2 μ m Wavelength. , 2018, , .		1
78	Mid-infrared waveform measurement by rapid mechanical scanning. EPJ Web of Conferences, 2020, 243, 16002.	0.3	1
79	Highly precise terahertz time domain spectroscopy of multi-layer samples. , 2007, , .		0
80	A local characterization of smooth projective planes. Proceedings of the American Mathematical Society, 2010, 138, 323-332.	0.8	0
81	High power enhancement cavities for generation of XUV and X-ray radiation of high brilliance. , 2011, , .		0
82	Approaching TW-peak powers at >10 kHz repetition rate by multi-dimensional coherent combining of femtosecond fiber lasers. Proceedings of SPIE, 2014, , .	0.8	0
83	Power-Scalable and Efficient Geometric XUV Output Coupling for Cavity-Enhanced High-Harmonic Generation. , 2014, , .		0
84	Investigation of a 10 MHz, non-steady state cavity for pulse energy enhancement of ultrafast fiber lasers. Proceedings of SPIE, 2016, , .	0.8	0
85	Nonlinear pulse compression in solid-core fibers for high-average power few-cycle pulses in the MIR. , 2017, , .		0
86	Velocity- and pointing-error measurements of a 300 000-r/min self-bearing permanent-magnet motor for optical applications. Review of Scientific Instruments, 2018, 89, 063110.	1.3	0
87	On the Role of the Phase in Field-Resolved Spectroscopy of Molecular Vibrations. , 2019, , .		0
88	Tailoring Caustics in High-Harmonic Generation with Phase-Controlled Multi-Colour Fields. , 2019, , .		0
89	Achromatic Interferometric Subtraction of Optical Fields. , 2019, , .		0
90	High-Power 50-MHz Source of Waveform-Stable, Multi-Octave Infrared Pulses. , 2019, , .		0

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91	High-Power Single-Cycle Mid-Infrared Transients Generated via Intra-Pulse Difference-Frequency Mixing at 2 μm . , 2019, , .		0
92	Sub-Optical-Cycle Light-Matter Energy Transfer Dynamics in Molecular Vibrational Spectroscopy. , 2021, , .		0
93	Octave-Spanning Mid-Infrared Passive Optical Resonator. , 2021, , .		0
94	Objectives of the Experiment and Technological Challenges. Springer Theses, 2012, , 41-46.	0.1	0
95	Experimental Setup and Results. Springer Theses, 2012, , 47-72.	0.1	0
96	Cavity-Enhanced 196 kW Average-Power Infrared Pulses. , 2013, , .		0
97	Coherent Soft-X-Ray Pulses at Multi MHz Repetition Rates Using Enhancement Cavities. Springer Proceedings in Physics, 2016, , 179-186.	0.2	0
98	Grating-Based Mid-Infrared Long-Pass Filter for High-Power Applications. , 2019, , .		0
99	Attosecond Photoemission Spectroscopy at High Photon Energies and MHz Repetition Rate. , 2019, , .		0
100	Broadband, Near Single-Cycle, Waveform-Stable Mid-Infrared Pulses Driven by a 2- μm Femtosecond Source. , 2019, , .		0
101	High power frequency comb delivered by a Tm-doped fiber laser. , 2019, , .		0
102	Second-harmonic generation and self-phase modulation of few-cycle mid-infrared pulses. Optics Letters, 2019, 44, 4079.	3.3	0
103	Generation of broadband THz transients via metallic spintronic emitters driven by 20-fs pulses at 1030 nm. , 2020, , .		0