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	Enhanced intrapulse difference frequency generation in the mid-infrared by a spectrally dependent polarization state. Optics Letters, 2022, 47, 261.	3.3	13
2	Average power scaling of THz spintronic emitters efficiently cooled in reflection geometry. Optics Express, 2022, 30, 20451.	3.4	10
3	Extreme-ultraviolet frequency combs for precision metrology and attosecond science. Nature Photonics, 2021, 15, 175-186.	31.4	67
4	Ultra-rapid electro-optic sampling of octave-spanning mid-infrared waveforms. Optics Express, 2021, 29, 20747.	3.4	13
5	Attosecond-Precision Dual-Oscillator Infrared Field-Resolved Spectroscopy Employing Electro-Optic Delay Tracking. , 2021, , .		4
6	Electro-Optic Sampling with Percent-Level Detection Efficiency. , 2021, , .		2
7	Attosecond intra-valence band dynamics and resonant-photoemission delays in W(110). Nature Communications, 2021, 12, 3404.	12.8	10
8	Sub-Optical-Cycle Light-Matter Energy Transfer Dynamics in Molecular Vibrational Spectroscopy. , 2021, , .		0
9	Fabry-PÃ©rot Based Temporal Standard at 8.5 Âµm for Electro-Optic Delay Tracking. , 2021, , .		2
10	Octave-Spanning Mid-Infrared Passive Optical Resonator. , 2021, , .		0
11	Field-resolved infrared spectroscopy of biological systems. Nature, 2020, 577, 52-59.	27.8	170
12	Phase-Matching for Generation of Isolated Attosecond XUV and Soft-X-Ray Pulses with Few-Cycle Drivers. Physical Review X, 2020, 10, .	8.9	18
13	Optimum Sample Thickness for Trace Analyte Detection with Field-Resolved Infrared Spectroscopy. Analytical Chemistry, 2020, 92, 7508-7514.	6.5	9
14	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
15	Mid-infrared electric field sampling approaching single-photon sensitivity. EPJ Web of Conferences, 2020, 243, 16001.	0.3	5
16	Generation of broadband THz transients via metallic spintronic emitters driven by 20-fs pulses at 1030 nm. , 2020, , .		0
17	Mid-infrared waveform measurement by rapid mechanical scanning. EPJ Web of Conferences, 2020, 243, 16002.	0.3	1
18	Multi-octave spanning, Watt-level ultrafast mid-infrared source. JPhys Photonics, 2019, 1, 044006.	4.6	21

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19	On the Role of the Phase in Field-Resolved Spectroscopy of Molecular Vibrations. , 2019, , .		0
20	Tailoring Caustics in High-Harmonic Generation with Phase-Controlled Multi-Colour Fields. , 2019, , .		0
21	Achromatic Interferometric Subtraction of Optical Fields. , 2019, , .		0
22	Mid-Infrared Broadband Long-Pass Filter Based on Grating Diffraction. , 2019, , .		1
23	High-Power 50-MHz Source of Waveform-Stable, Multi-Octave Infrared Pulses. , 2019, , .		0
24	Train of Ultrashort Mid-Infrared Pulses with Sub-Mrad Carrier-Envelope Phase Stability. , 2019, , .		6
25	Temporal solitons in free-space femtosecond enhancement cavities. Nature Photonics, 2019, 13, 214-218.	31.4	38
26	High-flux ultrafast extreme-ultraviolet photoemission spectroscopy at 18.4â€‰MHz pulse repetition rate. Nature Communications, 2019, 10, 458.	12.8	58
27	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
28	Quantum-Efficiency and Bandwidth Optimized Electro-Optic Sampling. , 2019, , .		5
29	High-Power Single-Cycle Mid-Infrared Transients Generated via Intra-Pulse Difference-Frequency Mixing at 2 Î¼m. , 2019, , .		0
30	Field-Resolved Infrared Spectroscopy of Biological Samples. , 2019, , .		1
31	Field-Resolved Infrared Spectroscopy of Human Blood to Tackle Lung, Prostate and Breast Cancer Detection. , 2019, , .		1
32	Broadband interferometric subtraction of optical fields. Optics Express, 2019, 27, 2432.	3.4	13
33	Interferometric delay tracking for low-noise Mach-Zehnder-type scanning measurements. Optics Express, 2019, 27, 4789.	3.4	13
34	Cavity-enhanced noncollinear high-harmonic generation. Optics Express, 2019, 27, 19675.	3.4	7
35	Watt-scale 50-MHz source of single-cycle waveform-stable pulses in the molecular fingerprint region. Optics Letters, 2019, 44, 1730.	3.3	63
36	Mid-infrared long-pass filter for high-power applications based on grating diffraction. Optics Letters, 2019, 44, 3014.	3.3	5

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37	Broadband dispersive Ge/YbF3 mirrors for mid-infrared spectral range. Optics Letters, 2019, 44, 5210.	3.3	9
38	Grating-Based Mid-Infrared Long-Pass Filter for High-Power Applications. , 2019, , .		0
39	Attosecond Photoemission Spectroscopy at High Photon Energies and MHz Repetition Rate. , 2019, , .		0
40	Broadband, Near Single-Cycle, Waveform-Stable Mid-Infrared Pulses Driven by a 2-Âµm Femtosecond Source. , 2019, , .		0
41	High power frequency comb delivered by a Tm-doped fiber laser. , 2019, , .		0
42	Second-harmonic generation and self-phase modulation of few-cycle mid-infrared pulses. Optics Letters, 2019, 44, 4079.	3.3	0
43	Ultrafast Optomechanical Pulse Picking. , 2018, , 371-387.		1
44	Tailoring the transverse mode of a high-finesse optical resonator with stepped mirrors. Journal of Optics (United Kingdom), 2018, 20, 024003.	2.2	6
45	Watt-scale super-octave mid-infrared intrapulse difference frequency generation. Light: Science and Applications, 2018, 7, 94.	16.6	101
46	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
47	Cumulative plasma effects in cavity-enhanced high-order harmonic generation in gases. APL Photonics, 2018, 3, .	5.7	10
48	Three-octave terahertz pulses from optical rectification of 20 fs, 1 Î¼m, 78 MHz pulses in GaP. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 154002.	1.5	18
49	High-power frequency comb at 2â€‰â€‰Î¼m wavelength emitted by a Tm-doped fiber laser system. Optics Letters, 2018, 43, 5178.	3.3	25
50	High Power Frequency Comb at 1.7-2.2 Î¼m Wavelength. , 2018, , .		1
51	Phase-stable, multi-ÂµJ femtosecond pulses from a repetition-rate tunable Ti:Sa-oscillator-seeded Yb-fiber amplifier. Applied Physics B: Lasers and Optics, 2017, 123, 17.	2.2	27
52	Ultrafast optomechanical pulse picking. Applied Physics B: Lasers and Optics, 2017, 123, 47.	2.2	1
53	Generation of isolated attosecond pulses with enhancement cavitiesâ€”a theoretical study. New Journal of Physics, 2017, 19, 033040.	2.9	16
54	Field-resolved spectroscopy in the molecular fingerprint region. , 2017, , .		12

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55	Nonlinear pulse compression in solid-core fibers for high-average power few-cycle pulses in the MIR. , 2017, , .		0
56	Detection sensitivity of field-resolved spectroscopy in the molecular fingerprint region. , 2017, , .		4
57	Active intensity noise suppression for a broadband mid-infrared laser source. Optics Express, 2017, 25, 22499.	3.4	15
58	Enhancement cavities for few-cycle pulses. Optics Letters, 2017, 42, 271.	3.3	27
59	High-harmonic generation at 250â€‰â€‰MHz with photon energies exceeding 100â€‰â€‰eV. Optica, 2016, 3, 366.	3.3	75
60	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
61	Investigation of a 10 MHz, non-steady state cavity for pulse energy enhancement of ultrafast fiber lasers. Proceedings of SPIE, 2016, , .	0.8	0
62	Broadband mid-infrared time-domain spectrometer for the molecular fingerprint region. , 2016, , .		1
63	Coherent Soft-X-Ray Pulses at Multi MHz Repetition Rates Using Enhancement Cavities. Springer Proceedings in Physics, 2016, , 179-186.	0.2	0
64	Femtosecond Enhancement Cavities in the Nonlinear Regime. Physical Review Letters, 2015, 115, 023902.	7.8	33
65	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
66	Enhancement cavities for zero-offset-frequency pulse trains. Optics Letters, 2015, 40, 2165.	3.3	20
67	Balancing of thermal lenses in enhancement cavities with transmissive elements. Optics Letters, 2015, 40, 843.	3.3	15
68	High-power sub-two-cycle mid-infrared pulses at 100â€…MHz repetition rate. Nature Photonics, 2015, 9, 721-724.	31.4	248
69	Acousto-optic pulse picking scheme with carrier-frequency-to-pulse-repetition-rate synchronization. Optics Express, 2015, 23, 19586.	3.4	33
70	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
71	Approaching TW-peak powers at >10kHz repetition rate by multi-dimensional coherent combining of femtosecond fiber lasers. Proceedings of SPIE, 2014, , .	0.8	0
72	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

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73	Megawatt-scale average-power ultrashort pulses in an enhancement cavity. Optics Letters, 2014, 39, 2595.	3.3	71
74	Cavity-Enhanced High-Harmonic Generation with Spatially Tailored Driving Fields. Physical Review Letters, 2014, 112, 103902.	7.8	27
75	Power-Scalable and Efficient Geometric XUV Output Coupling for Cavity-Enhanced High-Harmonic Generation. , 2014, , .		0
76	Compact high-repetition-rate source of coherent 100ÂeV radiation. Nature Photonics, 2013, 7, 608-612.	31.4	156
77	Large-mode enhancement cavities. Optics Express, 2013, 21, 11606.	3.4	46
78	Laser-manufactured mirrors for geometrical output coupling of intracavity-generated high harmonics. Optics Express, 2013, 21, 26797.	3.4	17
79	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
80	Cavity-Enhanced 196 kW Average-Power Infrared Pulses. , 2013, , .		0
81	Non-steady-state enhancement cavities using pulse-dumping as power scaling concept of femtosecond lasers. , 2013, , .		1
82	Vacuum ultraviolet frequency combs generated by a femtosecond enhancement cavity in the visible. Optics Letters, 2012, 37, 503.	3.3	25
83	Sub-25 nm High-Harmonic Generation with a 78-MHz Repetition Rate Enhancement Cavity. , 2012, , .		1
84	Objectives of the Experiment and Technological Challenges. Springer Theses, 2012, , 41-46.	0.1	0
85	Experimental Setup and Results. Springer Theses, 2012, , 47-72.	0.1	0
86	Power Scaling of Enhancement Cavities for Nonlinear Optics. Springer Theses, 2012, , .	0.1	5
87	Power Scaling Limitations for Cavity-Assisted High-Harmonic Generation. , 2012, , .		1
88	Optimization and characterization of a highly-efficient diffraction nanograting for MHzâ€ˆXUV pulses. Optics Express, 2011, 19, 1954.	3.4	20
89	Transverse mode tailoring in a quasi-imaging high-finesse femtosecond enhancement cavity. Optics Express, 2011, 19, 9551.	3.4	32
90	Low-loss VIS/IR-XUV beam splitter for high-power applications. Optics Express, 2011, 19, 12108.	3.4	21

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91	Geometrical Output Coupling Method of Harmonics in Enhancement Cavities. , 2011, , .		1
92	Power scaling of femtosecond enhancement cavities and high-power applications. Proceedings of SPIE, 2011, , .	0.8	8
93	Degree of dispersion of polymeric compounds determined with terahertz timeâ€domain spectroscopy. Polymer Engineering and Science, 2011, 51, 109-116.	3.1	19
94	High power enhancement cavities for generation of XUV and X-ray radiation of high brilliance. , 2011, , .		0
95	Confocal THz Laser Microscope. Journal of Infrared, Millimeter, and Terahertz Waves, 2010, 31, 358.	2.2	9
96	A local characterization of smooth projective planes. Proceedings of the American Mathematical Society, 2010, 138, 323-332.	0.8	0
97	Highly sensitive dispersion measurement of a high-power passive optical resonator using spatial-spectral interferometry. Optics Express, 2010, 18, 26184.	3.4	25
98	Power scaling of a high-repetition-rate enhancement cavity. Optics Letters, 2010, 35, 2052.	3.3	93
99	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
100	THz Metrology. Frequenz, 2008, 62, 137-148.	0.9	19
101	Highly precise terahertz time domain spectroscopy of multi-layer samples. , 2007, , .		0
102	Highly accurate optical material parameter determination with THz time-domain spectroscopy. Optics Express, 2007, 15, 4335.	3.4	298
103	Efficient Generation of Interleavers for IDMA. , 2006, , .		73