

# Stephane Petit

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7455551/publications.pdf>

Version: 2024-02-01

121  
papers

3,696  
citations

126907  
33  
h-index

138484  
58  
g-index

121  
all docs

121  
docs citations

121  
times ranked

2730  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental and numerical study of laser-induced secondary jetting. Journal of Fluid Mechanics, 2022, 934, .	3.4	3
2	Photoelectron elliptical dichroism spectroscopy of resonance-enhanced multiphoton ionization <i>via</i> the 3s, 3p and 3d Rydberg series in fenchone. Physical Chemistry Chemical Physics, 2022, 24, 6415-6427.	2.8	10
3	Ultrafast polarization-tunable monochromatic extreme ultraviolet source at high-repetition-rate. Journal of Optics (United Kingdom), 2022, 24, 084003.	2.2	4
4	High-order parametric generation of coherent XUV radiation. Optics Express, 2021, 29, 5982.	3.4	7
5	Aromatic Formation Promoted by Ion-Driven Radical Pathways in EUV Photochemical Experiments Simulating Titan's Atmospheric Chemistry. Journal of Physical Chemistry A, 2021, 125, 3159-3168.	2.5	5
6	High-power sub-15â€‰fs nonlinear pulse compression at 515â€‰nm of an ultrafast Yb-doped fiber amplifier. Optics Letters, 2021, 46, 1804.	8.3	11
7	Sub-Picosecond Non-Equilibrium States in the Amorphous Phase of GeTe Phase-Change Material Thin Films. Advanced Materials, 2021, 33, e2102721.	21.0	8
8	Ultrafast relaxation investigated by photoelectron circular dichroism: an isomeric comparison of camphor and fenchone. Physical Chemistry Chemical Physics, 2021, 23, 25612-25628.	2.8	11
9	Revealing the Influence of Molecular Chirality on Tunnel-Ionization Dynamics. Physical Review X, 2021, 11, .	8.9	7
10	On an EUV Atmospheric Simulation Chamber to Study the Photochemical Processes of Titan's Atmosphere. Scientific Reports, 2020, 10, 10009.	3.3	5
11	Laser Generation of Sub-Micrometer Wrinkles in a Chalcogenide Glass Film as Physical Unclonable Functions. Advanced Materials, 2020, 32, e2003032.	21.0	18
12	Using photoelectron elliptical dichroism (PEELD) to determine real-time variation of enantiomeric excess. Chirality, 2020, 32, 1225-1233.	2.6	7
13	Aurore: A platform for ultrafast sciences. Review of Scientific Instruments, 2020, 91, 105104.	1.3	7
14	Bright, polarization-tunable high repetition rate extreme ultraviolet beamline for coincidence electron-ion imaging. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 234003.	1.5	12
15	Single-shot phase-matching free ultrashort pulse characterization based on transient absorption in solids. Optics Express, 2020, 28, 35807.	3.4	4
16	1.9 mW XUV source by cascaded harmonic generation from an Yb: fiber laser. , 2020, , .		0
17	Ultrashort, sub-20fs, high-power visible source. , 2020, , .		0
18	Absolute gas density profiling in high-order harmonic generation: erratum. Optics Express, 2020, 28, 32105.	3.4	0

#	ARTICLE	IF	CITATIONS
19	Controlling Subcycle Optical Chirality in the Photoionization of Chiral Molecules. Physical Review X, 2019, 9, .	8.9	38
20	Hyper-Raman lines emission concomitant with high-order harmonic generation. New Journal of Physics, 2019, 21, 073006.	2.9	3
21	Ultrafast electronic relaxations from the $S_{3/2}$ state of pyrene. Physical Chemistry Chemical Physics, 2019, 21, 14111-14125.	2.8	8
22	Cascaded harmonic generation from a fiber laser: a milliwatt XUV source. Optics Express, 2019, 27, 20383.	3.4	32
23	Phase-matching-free pulse retrieval based on transient absorption in solids. Optics Express, 2019, 27, 28998.	3.4	30
24	Photoexcitation circular dichroism in chiral molecules. Nature Physics, 2018, 14, 484-489.	16.7	145
25	Real-time determination of enantiomeric and isomeric content using photoelectron elliptical dichroism. Nature Communications, 2018, 9, 5212.	12.8	65
26	Multiphoton photoelectron circular dichroism of limonene with independent polarization state control of the bound-bound and bound-continuum transitions. Journal of Chemical Physics, 2018, 149, 134301.	3.0	13
27	Ultrafast changes in optical properties of SiO <sub>2</sub> excited by femtosecond laser at the damage threshold and above. Physical Review B, 2018, 98, .	3.2	6
28	Dynamics of laser-induced defects by multiple femtosecond pulses in potassium dihydrogen phosphate crystals. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 1119.	2.1	3
29	Absolute gas density profiling in high-order harmonic generation. Optics Express, 2018, 26, 6001.	3.4	17
30	Phase-resolved two-dimensional spectroscopy of electronic wave packets by laser-induced XUV free induction decay. Physical Review A, 2017, 95, .	2.5	23
31	Attosecond-resolved photoionization of chiral molecules. Science, 2017, 358, 1288-1294.	12.6	150
32	100â€‰kHz Yb-fiber laser pumped 3â€‰ $\mu$ m optical parametric amplifier for probing solid-state systems in the strong field regime. Optics Letters, 2017, 42, 891.	3.3	28
33	Femtosecond versus picosecond laser pulses for film-free laser bioprinting. Applied Optics, 2017, 56, 8648.	1.8	15
34	Study of middle infrared difference frequency generation using a femtosecond laser source in LGT. Optics Letters, 2017, 42, 3698.	3.3	9
35	High Order Harmonic Generation in ZnSe Driven by 3 $\mu$ m Parametric Laser Source at High Repetition Rate. , 2017, , .		0
36	Universality of photoelectron circular dichroism in the photoionization of chiral molecules. New Journal of Physics, 2016, 18, 102002.	2.9	83

#	ARTICLE	IF	CITATIONS
37	Complex structure of spatially resolved high-order-harmonic spectra. <i>Physical Review A</i> , 2016, 94, .	2.5	38
38	Effective parameters for film-free femtosecond laser assisted bioprinting. <i>Applied Optics</i> , 2016, 55, 3879.	2.1	16
39	Using high harmonic radiation to reveal the ultrafast dynamics of radiosensitiser molecules. <i>Faraday Discussions</i> , 2016, 194, 407-425.	3.2	5
40	Two-Dimensional Frequency Resolved Optomolecular Gating of High-Order Harmonic Generation. <i>Physical Review Letters</i> , 2016, 116, 053002.	7.8	9
41	Collection and spectral control of high-order harmonics generated with a 50 W high-repetition rate Ytterbium femtosecond laser system. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 085601.	1.5	9
42	Role of Excited States In High-order Harmonic Generation. <i>Physical Review Letters</i> , 2016, 117, 203001.	7.8	66
43	Probing ultrafast dynamics of chiral molecules using time-resolved photoelectron circular dichroism. <i>Faraday Discussions</i> , 2016, 194, 325-348.	3.2	65
44	Relaxation Dynamics in Photoexcited Chiral Molecules Studied by Time-Resolved Photoelectron Circular Dichroism: Toward Chiral Femtochemistry. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4514-4519.	4.6	81
45	Laser assisted bioprinting using a femtosecond laser with and without a gold transductive layer: a parametric study. <i>Proceedings of SPIE</i> , 2016, , .	0.8	3
46	Transverse Electromagnetic Mode Conversion for High-Harmonic Self-Probing Spectroscopy. <i>Photonics</i> , 2015, 2, 184-199.	2.0	11
47	Combined high-harmonic interferometries for vectorial spectroscopy. <i>Optics Letters</i> , 2015, 40, 5387.	3.3	8
48	Multi-channel electronic and vibrational dynamics in polyatomic resonant high-order harmonic generation. <i>Nature Communications</i> , 2015, 6, 5952.	12.8	64
49	Probing molecular chirality on a sub-femtosecond timescale. <i>Nature Physics</i> , 2015, 11, 654-658.	16.7	219
50	Postcompression of high-energy terawatt-level femtosecond pulses and application to high-order harmonic generation. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2015, 32, 1055.	2.1	17
51	A table-top ultrashort light source in the extreme ultraviolet for circular dichroism experiments. <i>Nature Photonics</i> , 2015, 9, 93-98.	31.4	217
52	High-order harmonic transient grating spectroscopy of SF <sub>6</sub> molecular vibrations. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2014, 47, 124023.	1.5	11
53	Enhanced high harmonic generation driven by high-intensity laser in argon gas-filled hollow core waveguide. <i>Optics Letters</i> , 2014, 39, 3770.	3.3	11
54	Experimental determination of temperature-dependent electron-electron collision frequency in isochorically heated warm dense gold. <i>Physical Review B</i> , 2014, 89, .	3.2	42

#	ARTICLE	IF	CITATIONS
55	Spatio-temporal spectral structures in high-order harmonic beams generated with Terawatt 10-fs pulses. Nature Communications, 2014, 5, 4637.	12.8	36
56	Ultrafast Short-Range Disorder of Femtosecond-Laser-Heated Warm Dense Aluminum. Physical Review Letters, 2013, 111, 245004.	7.8	41
57	High-energy femtosecond laser pulse compression in single- and multi-ionization regime of rare gases: experiment versus theory. Applied Physics B: Lasers and Optics, 2013, 111, 75-87.	2.2	7
58	Inhomogeneous High Harmonic Generation in Krypton Clusters. Physical Review Letters, 2013, 110, 083902.	7.8	68
59	Sub-picosecond and nanometer scale dynamics of aluminum target surface heated by ultrashort laser pulse. Applied Physics Letters, 2013, 102, 194104.	3.3	10
60	Tunable 1.6- $\mu$ m near infrared few-cycle pulse generation by filamentation. Applied Physics Letters, 2013, 102, .	3.3	17
61	Terawatt Post compression of high energy fs pulses using ionization: A way to overcome the conventional limitation in energy of few optical cycle pulses. EPJ Web of Conferences, 2013, 41, 10021.	0.3	1
62	An interferometric diagnostic for the experimental study of dynamics of solids exposed to intense and ultrashort radiation. , 2013, , .		3
63	Optimized XUV source at 100 kHz repetition rate. EPJ Web of Conferences, 2013, 41, 01015.	0.3	2
64	Generation d'harmoniques d'ordre $\leq 10$ en régime de forte focalisation $\sim 100$ kHz. , 2013, , .		0
65	Dynamique ultra-rapide de la transition de phase solide-liquide-vapeur par spectroscopie XANES résolue en temps. , 2013, , .		0
66	High-harmonic transient grating spectroscopy of NO <sub>2</sub> electronic relaxation. Journal of Chemical Physics, 2012, 137, 224303.	3.0	23
67	Application of optical-field-ionization-induced spectral broadening in helium gas to the postcompression of high-energy femtosecond laser pulses. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 1277.	2.1	10
68	Role of the Ionic Potential in High Harmonic Generation. Physical Review Letters, 2012, 108, 203001.	7.8	33
69	High-order Harmonic Spectroscopy : Experimental and Theoretical study of Cooper Minimum in Argon. Journal of Physics: Conference Series, 2012, 388, 022023.	0.4	1
70	Spatial shaping of intense femtosecond beams for the generation of high-energy attosecond pulses. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 074018.	1.5	13
71	Controlling high harmonics generation by spatial shaping of high-energy femtosecond beam. Optics Letters, 2011, 36, 2486.	3.3	18
72	Phase characterization of the reflection on an extreme UV multilayer: comparison between attosecond metrology and standing wave measurements. Optics Letters, 2011, 36, 3386.	3.3	15

#	ARTICLE	IF	CITATIONS
73	Characterization of 8 fs pulses through wideband SPIRIT. , 2011, , .		0
74	High-order harmonic spectroscopy of the Cooper minimum in argon: Experimental and theoretical study. Physical Review A, 2011, 83, .	2.5	100
75	Unraveling the Solid-Liquid-Vapor Phase Transition Dynamics at the Atomic Level with Ultrafast X-Ray Absorption Near-Edge Spectroscopy. Physical Review Letters, 2011, 107, 245006.	7.8	44
76	Noise performances of a high-power picosecond Nd:YVO 4 oscillator. Proceedings of SPIE, 2011, , .	0.8	0
77	Gas Ionization Induced Post-Compression of High Energy and Super-Intense Femtosecond Pulses. , 2010, , .		0
78	Double conical crystal x-ray spectrometer for high resolution ultrafast x-ray absorption near-edge spectroscopy of Al $\alpha$ K edge. Review of Scientific Instruments, 2010, 81, 063107.	1.3	19
79	High-power passively mode-locked Nd:YVO 4 oscillator with adjustable pulse duration between 46 ps and 12 ps. , 2010, , .		2
80	Post-compression of high-energy femtosecond pulses using gas ionization. Optics Letters, 2010, 35, 253.	3.3	44
81	Picosecond pulses of variable duration from a high-power passively mode-locked Nd:YVO <sub>4</sub> laser free of spatial hole burning. Optics Letters, 2010, 35, 1644.	3.3	10
82	32 ps-45 W to 12 ps-15 W Spatial-Hole-Burning-Free Nd:YVO <sub>4</sub> Oscillator. , 2010, , .		0
83	Broadband, high dynamics and high resolution charge coupled device-based spectrometer in dynamic mode for multi-keV repetitive x-ray sources. Review of Scientific Instruments, 2009, 80, 083505.	1.3	43
84	Broad M-band multi-keV x-ray emission from plasmas created by short laser pulses. Physics of Plasmas, 2009, 16, .	1.9	23
85	High order harmonic generation at ultra high repetition rate from ytterbium doped fiber chirped pulse amplification. Proceedings of SPIE, 2009, , .	0.8	0
86	21 $\mu$ W, 18 $\mu$ s SESAM-passively modelocked Nd:YAG oscillator with diode-side-pumped single laser head. Electronics Letters, 2009, 45, 884.	1.0	3
87	High-order harmonic generation at a megahertz-level repetition rate directly driven by an ytterbium-doped-fiber chirped-pulse amplification system. Optics Letters, 2009, 34, 1489.	3.3	90
88	Ultra-wide parametric amplification at 800 nm toward octave spanning. Optics Express, 2009, 17, 5153.	3.4	13
89	Polarization-Resolved Pump-Probe Spectroscopy with High Order Harmonics. Springer Series in Chemical Physics, 2009, , 24-26.	0.2	0
90	High Order Harmonic Generation Driven By an Yb-doped Fiber Amplifier System at 1 MHz Repetition Rate. , 2009, , .		0

#	ARTICLE	IF	CITATIONS
91	High-contrast pump-probe spectroscopy with high-order harmonics. , 2009, , .		0
92	Particle characterization for the evaluation of the $^{181}\text{Ta}$ excitation yield in millijoule laser induced plasmas. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 145701.	1.5	11
93	Polarization-resolved pump-probe spectroscopy with high harmonics. New Journal of Physics, 2008, 10, 025028.	2.9	29
94	High-power 1 kHz laser-plasma x-ray source for ultrafast x-ray absorption near-edge spectroscopy in the keV range. Applied Physics Letters, 2008, 93, .	3.3	21
95	Energetic electrons produced in the interaction of a kiloHertz femtosecond laser with tantalum targets. Journal of Modern Optics, 2007, 54, 2585-2593.	1.3	2
96	Absolute energy distribution of hard x rays produced in the interaction of a kilohertz femtosecond laser with tantalum targets. Review of Scientific Instruments, 2006, 77, 093302.	1.3	7
97	Hot electron jets from femtosecond heated plasmas at intensities of $10^{16}$ – $10^{17}\text{W/cm}^2$ . European Physical Journal Special Topics, 2006, 133, 271-275.	0.2	1
98	High power Q-switched Yb-doped photonic crystal fiber laser producing sub-10 ns pulses. Applied Physics B: Lasers and Optics, 2005, 81, 19-21.	2.2	31
99	Ultra-broad bandwidth parametric amplification at degeneracy. Optics Express, 2005, 13, 7386.	3.4	63
100	Writing optical waveguides in fused silica using 1 kHz femtosecond infrared pulses. Journal of Applied Physics, 2003, 93, 3724-3728.	2.5	71
101	Writing waveguide in pure fused silica with 1 kHz femtosecond laser. , 2003, , .		0
102	Optical limiting studies in a carbon-black suspension for subnanosecond and subpicosecond laser pulses. Applied Optics, 2002, 41, 2944.	2.1	33
103	Filamentation of femtosecond laser pulses in turbulent air. Applied Physics B: Lasers and Optics, 2002, 74, 67-76.	2.2	108
104	Ultrafast intense laser "explosion" of hardwood. Applied Surface Science, 2002, 191, 328-333.	6.1	6
105	Intensity clamping of a femtosecond laser pulse in condensed matter. Optics Communications, 2002, 202, 189-197.	2.1	235
106	Interference of transverse rings in multifilamentation of powerful femtosecond laser pulses in air. Optics Communications, 2002, 210, 329-341.	2.1	81
107	Transverse ring formation of a focused femtosecond laser pulse propagating in air. Optics Communications, 2001, 188, 181-186.	2.1	58
108	Polarization dependence of the propagation of intense laser pulses in air. Optics Communications, 2000, 175, 323-327.	2.1	52

#	ARTICLE	IF	CITATIONS
109	Fast pulsed electric field created from the self-generated filament of a femtosecond Ti:Sapphire laser pulse in air. Optics Communications, 2000, 174, 305-309.	2.1	60
110	From an intense femtosecond laser pulse to a strongly deformed white-light laser. AIP Conference Proceedings, 2000, , .	0.4	0
111	Femtosecond measurements of the time of flight of photons in a three-dimensional photonic crystal. Physical Review E, 1999, 60, 1030-1035.	2.1	60
112	The White Light Supercontinuum Is Indeed an Ultrafast White Light Laser. Japanese Journal of Applied Physics, 1999, 38, L126-L128.	1.5	70
113	Re-focusing during the propagation of a focused femtosecond Ti:Sapphire laser pulse in air. Optics Communications, 1999, 171, 285-290.	2.1	148
114	Self-Steepening and Self-Compression of Ultrashort Optical Pulses in a Defocusing CdS Crystal. Physical Review Letters, 1999, 82, 1032-1035.	7.8	10
115	FILAMENTATION AND SUPERCONTINUUM GENERATION DURING THE PROPAGATION OF POWERFUL ULTRASHORT LASER PULSES IN OPTICAL MEDIA (WHITE LIGHT LASER). Journal of Nonlinear Optical Physics and Materials, 1999, 08, 121-146.	1.8	130
116	Femtosecond time-resolved spectroscopy of sexithiophene thin single crystals. Chemical Physics Letters, 1998, 283, 201-206.	2.6	7
117	Luminescence and absorption of GaN films under high excitation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 43, 196-200.	3.5	16
118	Optical nonlinearities of gallium nitride. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 50, 197-200.	3.5	5
119	A tunable femtosecond pulses amplifier. Optics Communications, 1996, 124, 49-55.	2.1	9
120	Interferometric detection of crossâ€phase modulation in CdS. Applied Physics Letters, 1994, 65, 959-961.	3.3	4
121	Powerful femtosecond laser pulse propagation in the atmosphere and applications. , 0, , .		0