

# Diagnostics, Control and Performance Parameters for the Petawatt Class Laser

IEEE Journal of Quantum Electronics

53, 1-21

DOI: [10.1109/jqe.2017.2708601](https://doi.org/10.1109/jqe.2017.2708601)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Laser-assisted capillary discharge for enhanced guiding of tightly focused laser pulses at low densities. Proceedings of SPIE, 2017, , .	0.8	0
2	085â€‰PW laser operation at 33â€‰Hz and high-contrast ultrahigh-intensity $\hat{I}$ =400â€‰nm second-harmonic beamline. Optics Letters, 2017, 42, 3828.	1.7	86
3	A viable laser driver for a user plasma accelerator. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 909, 58-66.	0.7	20
4	Single-shot cross-correlator for pulse-contrast characterization of high peak-power lasers. High Power Laser Science and Engineering, 2018, 6, .	2.0	11
5	Beam quality preservation studies in a laser-plasma accelerator with external injection for EuPRAXIA. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 909, 90-94.	0.7	6
6	All-optical structuring of laser-driven proton beam profiles. Nature Communications, 2018, 9, 5292.	5.8	16
7	Electron-seeded ALP production and ALP decay in an oscillating electromagnetic field. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 782, 737-743.	1.5	10
8	Spatiotemporal coherent noise in frequency-domain optical parametric amplification. Optics Express, 2018, 26, 10953.	1.7	2
9	Temporal feedback control of high-intensity laser pulses to optimize ultrafast heating of atomic clusters. Applied Physics Letters, 2018, 112, .	1.5	19
10	High-Power Ultrashort Pulse Lasers to Pump Plasma-Based Soft X-Ray Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-15.	1.9	5
11	Absolute calibration of GafChromic film for very high flux laser driven ion beams. Review of Scientific Instruments, 2019, 90, 053301.	0.6	17
12	Femtosecond Laser Pulses Amplification in Crystals. Crystals, 2019, 9, 347.	1.0	2
13	Ion acceleration in laser generated megatesla magnetic vortex. Physics of Plasmas, 2019, 26, .	0.7	32
14	Petawatt and exawatt class lasers worldwide. High Power Laser Science and Engineering, 2019, 7, .	2.0	574
15	Conceptual Design of a Laser Driver for a Plasma Accelerator User Facility. Instruments, 2019, 3, 40.	0.8	6
16	Spatio-temporal structure of a petawatt femtosecond laser beam. JPhys Photonics, 2019, 1, 035001.	2.2	39
17	Building an Optical Free-Electron Laser in the Traveling-Wave Thomson-Scattering Geometry. Frontiers in Physics, 2019, 6, .	1.0	11
18	Performance demonstration of the PELOPE main amplifier HEPAÎ using broadband nanosecond pulses. High Power Laser Science and Engineering, 2019, 7, .	2.0	13

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20	Tailored laser pulse chirp to maintain optimum radiation pressure acceleration of ions. <i>Physics of Plasmas</i> , 2019, 26, 023103.	0.7	4
21	Laser and electron deflection from transverse asymmetries in laser-plasma accelerators. <i>Physical Review E</i> , 2019, 100, 063208.	0.8	10
22	Lasers for Novel Accelerators. <i>Journal of Physics: Conference Series</i> , 2019, 1350, 012157.	0.3	3
23	High-energy hybrid femtosecond laser system demonstrating 2 Å– 10 PW capability. <i>High Power Laser Science and Engineering</i> , 2020, 8, .	2.0	108
24	Laser-driven x-ray and proton micro-source and application to simultaneous single-shot bi-modal radiographic imaging. <i>Nature Communications</i> , 2020, 11, 6174.	5.8	10
25	Laser-heated capillary discharge plasma waveguides for electron acceleration to 8 GeV. <i>Physics of Plasmas</i> , 2020, 27, 053102.	0.7	21
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30	Radial density profile and stability of capillary discharge plasma waveguides of lengths up to 40 cm. <i>High Power Laser Science and Engineering</i> , 2021, 9, .	2.0	8
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32	Proton beam quality enhancement by spectral phase control of a PW-class laser system. <i>Scientific Reports</i> , 2021, 11, 7338.	1.6	40
33	Realization of laser intensity over $10^{23}$ W/cm <sup>2</sup> . <i>Optica</i> , 2021, 8, 630.	4.8	240
34	Single-shot complete spatiotemporal measurement of terawatt laser pulses. <i>Journal of Optics (United Kingdom)</i> 11, 12, 110101. <a href="#">Tj ETQq1 1 Q.784314 rgBT /Over</a>	1.0	12
35	Cryogenically formed discharge waveguide. <i>Physical Review Accelerators and Beams</i> , 2021, 24, .	0.6	2
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38	Pulse front tilt steering in laser plasma accelerators. <i>Physical Review Accelerators and Beams</i> , 2019, 22, .	0.6	9
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42	Optical steering of electron beam in laser plasma accelerators. <i>Optics Express</i> , 2020, 28, 11609.	1.7	12
43	Description of spatio-temporal couplings from heat-induced compressor grating deformation. <i>Optics Express</i> , 2020, 28, 8257.	1.7	24
44	A novel design of double chirped pulse amplification laser systems for fourth-order dispersion control. <i>Optics Express</i> , 2020, 28, 31743.	1.7	6
45	Improvement in the temporal contrast in the tens of ps range of the multi-PW Apollon laser front-end. <i>Optics Letters</i> , 2020, 45, 4599.	1.7	23
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54	A new platform for ultra-high dose rate radiobiological research using the BELLA PW laser proton beamline. <i>Scientific Reports</i> , 2022, 12, 1484.	1.6	23

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55	Survey of spatio-temporal couplings throughout high-power ultrashort lasers. Optics Express, 2022, 30, 3262.	1.7	22
56	Perspectives of measuring gravitational effects of laser light and particle beams. New Journal of Physics, 2022, 24, 053021.	1.2	5
57	Towards High-Repetition-Rate Fast Neutron Sources Using Novel Enabling Technologies. Instruments, 2021, 5, 38.	0.8	7
58	A novel focal spot positioning method for high peak power lasers. Applied Physics B: Lasers and Optics, 2022, 128, 1.	1.1	0
60	Investigation and suppression of pre-pulses onnanosecond time scale in SULF-1PW laser. Applied Optics, 0, , .	0.9	1
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75	Versatile tape-drive target for high-repetition-rate laser-driven proton acceleration. High Power Laser Science and Engineering, 2023, 11, .	2.0	2
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