

# Simon M Hooker

## List of Publications by Year in descending order

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132  
papers

5,047  
citations

159585

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88630

70  
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136  
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136  
docs citations

136  
times ranked

2317  
citing authors

#	ARTICLE	IF	CITATIONS
1	Demonstration of kilohertz operation of hydrodynamic optical-field-ionized plasma channels. <i>Physical Review Accelerators and Beams</i> , 2022, 25, .	1.6	10
2	A history of high-power laser research and development in the United Kingdom. <i>High Power Laser Science and Engineering</i> , 2021, 9, .	4.6	13
3	Gev-Scale Accelerators Driven by Plasma-Modulated Pulses from Kilohertz Lasers. <i>Physical Review Letters</i> , 2021, 127, 184801.	7.8	12
4	Increasing the brightness of harmonic XUV radiation with spatially-tailored driver beams. <i>Journal of Optics (United Kingdom)</i> , 2021, 23, 015502.	2.2	3
5	Numerical modelling of chromatic effects on axicon-focused beams used to generate HOFI plasma channels. <i>Journal of Physics: Conference Series</i> , 2020, 1596, 012049.	0.4	1
6	Meter-scale conditioned hydrodynamic optical-field-ionized plasma channels. <i>Physical Review E</i> , 2020, 102, 053201.	2.1	17
7	Nonlinear plasma wavelength scalings in a laser wakefield accelerator. <i>Physical Review E</i> , 2020, 101, 023209.	2.1	9
8	Guiding of high-intensity laser pulses in 100-mm-long hydrodynamic optical-field-ionized plasma channels. <i>Physical Review Accelerators and Beams</i> , 2020, 23, .	1.6	18
9	EuPRAXIA Conceptual Design Report. <i>European Physical Journal: Special Topics</i> , 2020, 229, 3675-4284.	2.6	64
10	Electron trapping and reinjection in prepulse-shaped gas targets for laser-plasma accelerators. <i>Physical Review Accelerators and Beams</i> , 2020, 23, .	1.6	1
11	EuPRAXIA – a compact, cost-efficient particle and radiation source. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	7
12	Direct Observation of Plasma Waves and Dynamics Induced by Laser-Accelerated Electron Beams. <i>Physical Review X</i> , 2019, 9, .	8.9	19
13	Status of the Horizon 2020 EuPRAXIA conceptual design study*. <i>Journal of Physics: Conference Series</i> , 2019, 1350, 012059.	0.4	11
14	Eupraxia, A Step Toward A Plasma-Wakefield Based Accelerator With High Beam Quality. <i>Journal of Physics: Conference Series</i> , 2019, 1350, 012068.	0.4	2
15	Low-density hydrodynamic optical-field-ionized plasma channels generated with an axicon lens. <i>Physical Review Accelerators and Beams</i> , 2019, 22, .	1.6	37
16	Optimised XUV holography using spatially shaped high harmonic beams. <i>Optics Express</i> , 2019, 27, 29016.	3.4	3
17	Quasi-phase-matched high-harmonic generation in gas-filled hollow-core photonic crystal fiber. <i>Optica</i> , 2019, 6, 442.	9.3	17
18	Comparison of Strong-field Ionization Models in the Wavelength-scaling of High Harmonic Generation. <i>Optics Express</i> , 2019, 27, 6925.	3.4	4

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19	Overview of the CLEAR plasma lens experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 909, 379-382.	1.6	13
20	Emittance Preservation in an Aberration-Free Active Plasma Lens. Physical Review Letters, 2018, 121, 194801.	7.8	52
21	Hydrodynamic optical-field-ionized plasma channels. Physical Review E, 2018, 97, 053203.	2.1	49
22	Spatially resolved common-path high-order harmonic interferometry. Optics Letters, 2018, 43, 5275.	3.3	5
23	Reconstructing nonlinear plasma wakefields using a generalized temporally encoded spectral shifting analysis. Physical Review Accelerators and Beams, 2018, 21, .	1.6	1
24	Blind digital holographic microscopy. , 2017, , .		0
25	Combined visible and near-infrared OPA for wavelength scaling experiments in strong-field physics. , 2017, , .		1
26	Horizon 2020 EuPRAXIA design study. Journal of Physics: Conference Series, 2017, 874, 012029.	0.4	60
27	Excitation and Control of Plasma Wakefields by Multiple Laser Pulses. Physical Review Letters, 2017, 119, 044802.	7.8	39
28	Multimode quasi-phase-matching of high-order harmonic generation in gas-filled photonic crystal fibers. , 2017, , .		0
29	Improving the resolution obtained in lensless imaging with spatially shaped high-order harmonics. , 2017, , .		0
30	High harmonic generation in gas-filled photonic crystal fibers. , 2017, , .		0
31	Quasi-phase-matched high harmonic generation in gas-filled photonic crystal fibers. , 2017, , .		0
32	A compact, low cost Marx bank for generating capillary discharge plasmas. Review of Scientific Instruments, 2016, 87, 093302.	1.3	5
33	Gaussian-Schell analysis of the transverse spatial properties of high-harmonic beams. Scientific Reports, 2016, 6, 30504.	3.3	10
34	Generation of laser pulse trains for tests of multi-pulse laser wakefield acceleration. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 829, 383-385.	1.6	17
35	Electron bunch profile reconstruction based on phase-constrained iterative algorithm. Physical Review Accelerators and Beams, 2016, 19, .	1.6	8
36	X-ray characterization by energy-resolved powder diffraction. Physical Review Accelerators and Beams, 2016, 19, .	1.6	0

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37	Temporal evolution of longitudinal bunch profile in a laser wakefield accelerator. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2015, 18, .	1.8	35
38	Multi-pulse laser wakefield acceleration: a new route to efficient, high-repetition-rate plasma accelerators and high flux radiation sources. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2014, 47, 234003.	1.5	36
39	Laser and Plasma Accelerator Workshop 2013. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 080301.	2.1	1
40	General analytic solution for far-field phase and amplitude control, with a phase-only spatial light modulator. <i>Optics Letters</i> , 2014, 39, 2137.	3.3	12
41	Quasi-phase-matched high-order harmonic generation using tunable pulse trains. <i>Optics Express</i> , 2014, 22, 7722.	3.4	13
42	Special issue on compact x-ray sources. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2014, 47, 070401.	1.5	0
43	Special issue on compact x-ray sources. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2014, 47, 230301.	1.5	0
44	Two-Pulse Ionization Injection into Quasilinear Laser Wakefields. <i>Physical Review Letters</i> , 2013, 111, 155004.	7.8	41
45	Developments in laser-driven plasma accelerators. <i>Nature Photonics</i> , 2013, 7, 775-782.	31.4	265
46	Quasi-phase-matching of high-order-harmonic generation using multimode polarization beating. <i>Physical Review A</i> , 2013, 87, .	2.5	13
47	Longitudinal electron bunch profile reconstruction by performing phase retrieval on coherent transition radiation spectra. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2013, 16, .	1.8	24
48	Complete spatial characterization of an optical wavefront using a variable-separation pinhole pair. <i>Optics Letters</i> , 2013, 38, 1173.	3.3	14
49	Investigation of GeV-scale electron acceleration in a gas-filled capillary discharge waveguide. <i>New Journal of Physics</i> , 2013, 15, 045024.	2.9	20
50	Complete spatial characterization of an optical wavefront using a variable-separation pinhole Pair. , 2013, , .		0
51	Polarization-controlled quasi-phase matching for linearly and circularly polarized high harmonic generation. , 2013, , .		0
52	Transverse beam profile measurements of laser accelerated electrons using coherent optical radiation. , 2013, , .		1
53	Multiple pulse resonantly enhanced laser plasma wakefield acceleration. , 2013, , .		2
54	Quasi-phase-matching of high harmonic generation using counter-propagating pulses. <i>EPJ Web of Conferences</i> , 2013, 41, 01013.	0.3	0

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55	Polarization-controlled quasi-phase-matching of high harmonic generation. EPJ Web of Conferences, 2013, 41, 01008.	0.3	0
56	Electron acceleration driven in plasma channels at the Astra-Gemini laser facility. , 2013, , .		0
57	Quasi-phase-matching high harmonic generation using trains of pulses produced using an array of birefringent plates. Optics Express, 2012, 20, 6236.	3.4	27
58	Optical rotation quasi-phase-matching for circularly polarized high harmonic generation. Optics Letters, 2012, 37, 2415.	3.3	31
59	Quasi-phase-matching of high-order-harmonic generation using polarization beating in optical waveguides. Physical Review A, 2012, 85, .	2.5	12
60	Simulation of free-electron lasers seeded with broadband radiation. Physical Review Special Topics: Accelerators and Beams, 2011, 14, .	1.8	6
61	Time-resolved plasma temperature measurements in a laser-triggered hydrogen-filled capillary discharge waveguide. Plasma Sources Science and Technology, 2011, 20, 055014.	3.1	3
62	All-Optical Steering of Laser-Wakefield-Accelerated Electron Beams. Physical Review Letters, 2010, 105, 215001.	7.8	94
63	First milestone on the path toward a table-top free-electron laser (FEL). , 2010, , .		0
64	Generation and control of chirped, ultrafast pulse trains. Journal of Optics (United Kingdom), 2010, 12, 015201.	2.2	8
65	Generation and control of ultrafast pulse trains for quasi-phase-matching high-harmonic generation. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 763.	2.1	18
66	Laser-wakefield acceleration of electron beams in a low density plasma channel. Physical Review Special Topics: Accelerators and Beams, 2010, 13, .	1.8	38
67	Investigation of the role of plasma channels as waveguides for laser-wakefield accelerators. New Journal of Physics, 2010, 12, 045008.	2.9	15
68	Stable Laser-Driven Electron Beams from a Steady-State-Flow Gas Cell. , 2009, , .		2
69	Laser-driven soft-X-ray undulator source. Nature Physics, 2009, 5, 826-829.	16.7	324
70	Comparison of Parallel and Perpendicular Polarized Counterpropagating Light for Quasi-Phase-Matching High Harmonic Generation. Springer Series in Chemical Physics, 2009, , 15-17.	0.2	0
71	Chirped Pulse Trains for Quasi-Phase-Matching High Harmonic Generation. , 2009, , .		0
72	Laser-Driven Acceleration of Electrons in a Partially Ionized Plasma Channel. Physical Review Letters, 2008, 100, 105005.	7.8	84

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73	Generation of Stable, Low-Divergence Electron Beams by Laser-Wakefield Acceleration in a Steady-State-Flow Gas Cell. <i>Physical Review Letters</i> , 2008, 101, 085002.	7.8	192
74	Laser wakefield simulations towards development of compact particle accelerators. <i>Journal of Physics: Conference Series</i> , 2007, 78, 012021.	0.4	5
75	Performance of capillary discharge guided laser plasma wakefield accelerator. , 2007, , .		1
76	GeV electron beams from a centimeter-scale channel guided laser wakefield accelerator. <i>Physics of Plasmas</i> , 2007, 14, 056708.	1.9	118
77	Bright Quasi-Phase-Matched Soft-X-Ray Harmonic Radiation from Argon Ions. <i>Physical Review Letters</i> , 2007, 99, 143901.	7.8	109
78	GeV plasma accelerators driven in waveguides. <i>Plasma Physics and Controlled Fusion</i> , 2007, 49, B403-B410.	2.1	12
79	Simple technique for generating trains of ultrashort pulses. <i>Optics Letters</i> , 2007, 32, 2203.	3.3	13
80	Comparison of parallel and perpendicular polarized counterpropagating light for suppressing high harmonic generation. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2007, 24, 2421.	2.1	11
81	Quasi-phasematching of harmonic generation via multimode beating in waveguides. <i>Optics Express</i> , 2007, 15, 7894.	3.4	29
82	Generation of a train of ultrashort pulses from a compact birefringent crystal array. <i>Applied Optics</i> , 2007, 46, 5142.	2.1	67
83	Modeling of a square pulsed capillary discharge waveguide for interferometry measurements. <i>Physics of Plasmas</i> , 2007, 14, 023501.	1.9	10
84	GeV-scale electron acceleration in a gas-filled capillary discharge waveguide. <i>New Journal of Physics</i> , 2007, 9, 415-415.	2.9	132
85	Transverse Interferometry of a Hydrogen-Filled Capillary Discharge Waveguide. <i>Physical Review Letters</i> , 2007, 98, 025002.	7.8	102
86	GeV electron beams from a centimeter-scale laser-driven plasma accelerator. , 2007, , .		0
87	GeV electron beams from a laser-plasma accelerator. , 2006, , .		0
88	Energy extraction from pulsed amplified stimulated emission lasers operating under conditions of strong saturation. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 1057.	2.1	1
89	Inverse free electron lasers and laser wakefield acceleration driven by CO <sub>2</sub> lasers. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2006, 364, 611-622.	3.4	5
90	GeV electron beams from a centimetre-scale accelerator. <i>Nature Physics</i> , 2006, 2, 696-699.	16.7	1,521

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91	Update on Seeded SM-LWFA and Pseudo-Resonant LWFA Experiments " (STELLA-LW). AIP Conference Proceedings, 2006, , .	0.4	4
92	GeV laser-plasma electron acceleration in a cm-scale capillary waveguide. , 2006, , .		0
93	Simulations of recombination lasing in Ar7+ driven by optical field ionization in a capillary discharge waveguide. Optics Communications, 2005, 249, 501-513.	2.1	6
94	Effects of polarization on inverse Bremsstrahlung heating of a plasma. Physical Review E, 2005, 72, 036402.	2.1	5
95	Progress in optical-field-ionization soft X-ray lasers at LOA. Laser and Particle Beams, 2005, 23, .	1.0	7
96	Pseudoresonant laser Wakefield acceleration driven by 10.6-/spl mu/m laser light. IEEE Transactions on Plasma Science, 2005, 33, 3-7.	1.3	8
97	Dramatic enhancement of xuv laser output using a multimode gas-filled capillary waveguide. Physical Review A, 2005, 71, .	2.5	26
98	Lasers collisionnels Å 41.8 nm en rÃ©gime guidÃ©. European Physical Journal Special Topics, 2005, 127, 33-37.	0.2	0
99	41.8Å~nmXe8+laser driven in a plasma waveguide. Physical Review A, 2004, 70, .	2.5	12
100	A Review of Laser Guiding Experiments. AIP Conference Proceedings, 2004, , .	0.4	5
101	Laser Wakefield Acceleration Driven by ATF CO2 Laser (STELLA-LW). AIP Conference Proceedings, 2004, , .	0.4	1
102	Application of the Gas-Filled Capillary Discharge Waveguide to Laser-Plasma Acceleration. AIP Conference Proceedings, 2004, , .	0.4	1
103	Progress on Collisionally Pumped Optical-Field-Ionization Soft X-Ray Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2004, 10, 1351-1362.	2.9	1
104	Molecular-dynamic calculation of the inverse-bremsstrahlung heating of non-weakly-coupled plasmas. Physical Review E, 2004, 70, 056411.	2.1	23
105	Demonstration of a Collisionally Excited Optical-Field-Ionization XUV Laser Driven in a Plasma Waveguide. Physical Review Letters, 2003, 91, 205001.	7.8	74
106	Gas-filled capillary discharge waveguides. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 138.	2.1	67
107	Molecular-dynamic calculation of the relaxation of the electron energy distribution function in a plasma. Physical Review E, 2003, 68, 056401.	2.1	8
108	Demonstration of lasing at 41.8 nm in Xe8+driven in a plasma waveguide. , 2003, , .		0

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109	Guiding of High-Intensity Laser Pulses with a Hydrogen-Filled Capillary Discharge Waveguide. <i>Physical Review Letters</i> , 2002, 89, 185003.	7.8	204
110	Simulations of a hydrogen-filled capillary discharge waveguide. <i>Physical Review E</i> , 2001, 65, 016407.	2.1	163
111	First demonstration of guiding of high-intensity laser pulses in a hydrogen-filled capillary discharge waveguide. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2001, 34, 4103-4112.	1.5	43
112	Inner-shell soft X-ray lasers in Ne-like ions driven by optical field ionization. <i>Optics Communications</i> , 2000, 182, 209-219.	2.1	3
113	Simulations of the propagation of high-intensity laser pulses in discharge-ablated capillary waveguides. , 2000, , .		0
114	Inner-shell soft x-ray lasers driven by optical field ionization. , 2000, , .		0
115	Guiding of high-intensity picosecond laser pulses in a discharge-ablated capillary waveguide. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2000, 17, 90.	2.1	40
116	Simulations of the propagation of high-intensity laser pulses in discharge-ablated capillary waveguides. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2000, 17, 1565.	2.1	16
117	Investigation of a hydrogen plasma waveguide. <i>Physical Review E</i> , 2000, 63, 015401.	2.1	175
118	Measurement of the electron-density profile in a discharge-ablated capillary waveguide. <i>Optics Letters</i> , 1999, 24, 993.	3.3	28
119	Effects of a prepulse in the femtosecond-pulse-driven Xe IX laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1997, 14, 2735.	2.1	16
120	Vacuum ultraviolet gain measurements in optically pumped LiYF <sub>4</sub> :Nd <sup>3+</sup> . <i>Applied Physics B: Lasers and Optics</i> , 1997, 64, 293-300.	2.2	4
121	Femtosecond-pulse-driven electron-excited extreme-ultraviolet lasers in Be-like ions. <i>Optics Letters</i> , 1995, 20, 1994.	3.3	10
122	Laser ablation of polymeric materials at 157 nm. <i>Journal of Applied Physics</i> , 1995, 77, 2343-2350.	2.5	51
123	Progress in vacuum ultraviolet lasers. <i>Progress in Quantum Electronics</i> , 1994, 18, 227-274.	7.0	27
124	Observation of vacuum ultraviolet laser oscillation in nitric oxide. <i>Applied Optics</i> , 1993, 32, 2062.	2.1	3
125	Determination of the gain coefficient of an NO laser at 218 nm. <i>Journal Physics D: Applied Physics</i> , 1992, 25, 593-596.	2.8	2
126	Observation of new laser transitions and saturation effects in optically pumped NO. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , 1992, 54, 119-125.	1.5	3



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127	Influence of cavity configuration on the pulse energy of a high-pressure molecular fluorine laser. Applied Physics B, Photophysics and Laser Chemistry, 1992, 55, 54-59.	1.5	9
128	The absorption of 158 nm radiation in nitric oxide. Applied Physics B, Photophysics and Laser Chemistry, 1990, 51, 127-131.	1.5	3
129	Observation of laser oscillation in nitric oxide at 218 nm. Optics Letters, 1990, 15, 437.	3.3	11
130	F/sub 2/ pumped NO: laser oscillation at 218 nm and prospects for new laser transitions in the 160-250 nm region. IEEE Journal of Quantum Electronics, 1990, 26, 1529-1535.	1.9	6
131	Measurements of transient gain and loss in solid state VUV laser materials. , 0, , .		0
132	Investigation of a discharge-ablated capillary waveguide for high-intensity laser pulses. , 0, , .		0