

# William Donaldson

## List of Publications by Year in descending order

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63  
papers

1,004  
citations

623734

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434195

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g-index

63  
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63  
docs citations

63  
times ranked

704  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interdigitated electrode geometry variation and external quantum efficiency of GaN/AlGaIn-based metal-semiconductor-metal UV photodetectors. , 2022, , .		2
2	Temporal reflection of an optical pulse from a short soliton: impact of Raman scattering. Journal of the Optical Society of America B: Optical Physics, 2022, 39, 1950.	2.1	5
3	Temporal reflection and refraction of optical pulses inside a dispersive medium: an analytic approach. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 997.	2.1	10
4	Time-domain Fabry-Pérot resonators formed inside a dispersive medium. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 2376.	2.1	9
5	Impact of the boundary's sharpness on temporal reflection in dispersive media. Optics Letters, 2021, 46, 4053.	3.3	5
6	Boosting the External Quantum Efficiency of AlGaIn-Based Metal-Semiconductor-Metal Ultraviolet Photodiodes by Electrode Geometry Variation. IEEE Journal of Quantum Electronics, 2021, 57, 1-8.	1.9	3
7	Ultrafast UV AlGaIn Metal-Semiconductor-Metal Photodetector With a Response Time Below 25 ps. IEEE Journal of Quantum Electronics, 2020, 56, 1-7.	1.9	21
8	Inferred UV fluence focal-spot profiles from soft x-ray pinhole-camera measurements on OMEGA. Review of Scientific Instruments, 2020, 91, 023505.	1.3	3
9	A time-to-frequency converter for measuring the shape of short optical pulses. Review of Scientific Instruments, 2019, 90, 083106.	1.3	1
10	Ultrafast UV Metal-Semiconductor-Metal Photodetector Based on AlGaIn with a Response Time Below 20 ps. , 2019, , .		0
11	Co-timing UV and IR laser pulses on the OMEGA EP laser system. , 2019, , .		0
12	Cross-phase-modulation-induced temporal reflection and waveguiding of optical pulses. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 436.	2.1	19
13	Response analysis on AlGaIn metal-semiconductor-metal photodetectors in a perspective of experiment and theory and the persistent photoconductivity effect. Journal of Materials Research, 2018, 33, 2627-2636.	2.6	11
14	Power balancing the multibeam OMEGA laser. Applied Optics, 2018, 57, 9571.	1.8	11
15	Single-pulse interference caused by temporal reflection at moving refractive-index boundaries. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 2274.	2.1	7
16	Enhancements to the timing of the OMEGA laser system to improve illumination uniformity. , 2016, , .		2
17	A picosecond beam-timing system for the OMEGA laser. Review of Scientific Instruments, 2016, 87, 053511.	1.3	6
18	Temporal waveguides for optical pulses. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 1112.	2.1	35

#	ARTICLE	IF	CITATIONS
19	Spectral Splitting of Optical Pulses Inside a Dispersive Medium at a Temporal Boundary. IEEE Journal of Quantum Electronics, 2016, 52, 1-8.	1.9	15
20	Removing pulse jitter with temporal waveguides. , 2016, , .		0
21	What is the Temporal Analog of Reflection and Refraction of Optical Beams?. Physical Review Letters, 2015, 115, 183901.	7.8	102
22	The multiple-pulse driver line on the OMEGA laser. Proceedings of SPIE, 2015, , .	0.8	2
23	3f <sub>0</sub> beam timing diagnostic for the OMEGA laser facility. , 2015, , .		0
24	Spectral changes induced by a phase modulator acting as a time lens. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1550.	2.1	9
25	A 15-GHz electro-optic measurement system for noisy environments. , 2014, , .		0
26	Mach-Zehnder detector system issues and enhancements for use on the National Ignition Facility DANTE x-ray diagnostic. , 2014, , .		0
27	Mach-Zehnder modulator performance on the NIF South Pole Bang Time diagnostic. Proceedings of SPIE, 2013, , .	0.8	1
28	Mach-Zehnder modulator performance using the Comet laser facility and implications for use on NIF. , 2012, , .		3
29	A single-shot, multiwavelength electro-optic data-acquisition system for inertial confinement fusion applications (invited). Review of Scientific Instruments, 2012, 83, 10D726.	1.3	4
30	Measurement of the self-phase modulation-induced bandwidth in a 30kJ class laser amplifier chain. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 445.	2.1	1
31	An Optical Replicator for Single-Shot Measurements at 10 GHz With a Dynamic Range of 1800:1. IEEE Journal of Quantum Electronics, 2010, 46, 191-196.	1.9	10
32	A Study of Geometry Effects on the Performance of Ballistic Deflection Transistor. IEEE Nanotechnology Magazine, 2010, 9, 723-733.	2.0	23
33	A study of effects of deflector position variation on leakage currents in ballistic deflection transistors. , 2009, , .		2
34	A new electro-optic sampling method using two/multiple wavelengths. , 2009, , .		0
35	Single-shot, electro-optic measurements at 10 GHz with a dynamic range of 2400:1. , 2008, , .		1
36	Multi-eavelength electro-optic pulse characterization. , 2008, , .		0

#	ARTICLE	IF	CITATIONS
37	Measurement of the Self-Phase-Modulation-Induced Bandwidth in a 30-kJ-Class Laser-Amplifier Chain. , 2007, , .		0
38	Femtosecond laser-pumped source of entangled photons for quantum cryptography applications. , 2007, , .		0
39	Enhanced-Dynamic-Range, Single-Shot Measurement of Nanosecond Pulses via Optical Replication. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
40	Averaging of Replicated Pulses for Enhanced-Dynamic-Range Single-Shot Measurement of Nanosecond Optical Pulses. IEEE Photonics Technology Letters, 2007, 19, 1344-1346.	2.5	10
41	8.5-GHz pulse-shape control with a 700:1 Dynamic range on a frequency-tripled multiterawatt solid-state laser. , 2006, , .		0
42	The streak camera development program at LLE. , 2005, , .		9
43	A multichannel, high-resolution, UV spectrometer for laser-fusion applications. Review of Scientific Instruments, 2005, 76, 073106.	1.3	3
44	Performance of 1-THz-bandwidth, two-dimensional smoothing by spectral dispersion and polarization smoothing of high-power, solid-state laser beams. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 998.	2.1	80
45	Picosecond response of gallium-nitride metal-semiconductor-metal photodetectors. Applied Physics Letters, 2004, 84, 2091-2093.	3.3	42
46	Characterization of single and double fiber-coupled diffusing spheres. Applied Optics, 2004, 43, 3967.	2.1	0
47	A self-calibrating, multichannel streak camera for inertial confinement fusion applications. Review of Scientific Instruments, 2002, 73, 2606-2615.	1.3	33
48	Laser and X-Ray Irradiation Diagnostics that have Paved the Path to Significantly Improved ICF Target Performance. , 2002, , 181-188.		1
49	Reverse Intersystem Crossing in Rose Bengal. II. Fluence Dependence of Fluorescence Following 532 nm Laser Excitation. Photochemistry and Photobiology, 2002, 75, 221.	2.5	11
50	<title>Omega experiments and preparation for direct-drive ignition on NIF</title>. , 2001, 4424, 27.		0
51	Experimental investigation of smoothing by spectral dispersion. Journal of the Optical Society of America B: Optical Physics, 2000, 17, 1483.	2.1	101
52	<title>UV power balance on the OMEGA laser</title>. , 1999, 3609, 121.		1
53	OMEGA experimental program and recent results. , 1997, , .		1
54	Subpicosecond Electro-optic Imaging Using Interferometric And Polarimetric Apparatus. , 1997, , .		0

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55	Direct-drive laser-fusion experiments with the OMEGA, 60-beam, >40 kJ, ultraviolet laser system. Physics of Plasmas, 1996, 3, 2108-2112.	1.9	182
56	Rapid flux motion and critical state dynamics in a superconducting disk. Journal of Applied Physics, 1995, 78, 372-379.	2.5	2
57	Picosecond electrical characterization of x-ray microchannel-plate detectors used in diagnosing inertial confinement fusion experiments. Review of Scientific Instruments, 1993, 64, 3285-3288.	1.3	6
58	Optically activated opening switches. , 1992, 1632, 190.		5
59	Electro-optic imaging of the internal fields in a GaAs photoconductive switch. Journal of Applied Physics, 1990, 68, 6453-6457.	2.5	20
60	Sputtered High-Tc Superconducting Films as Fast Optically Triggered Switches. , 1990, , 685-693.		2
61	Interaction of picosecond optical pulses with high-Tc superconducting films. Applied Physics Letters, 1989, 54, 2470-2472.	3.3	78
62	Optical Probes For The Characterization Of Surface Breakdown. Proceedings of SPIE, 1988, 0871, 157.	0.8	2
63	Urea optical parametric oscillator. Applied Physics Letters, 1984, 44, 25-27.	3.3	91