Rick Trebino

List of Publications by Year
in descending order

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118 papers	7,688 citations	87888 38 h-index	49909 87 g-index
120 all docs	120 docs citations	120 times ranked	3483 citing authors

#	Article	IF	Citations
1	Characterization of two-color ultrashort laser pulses using polarization-gating and transient-grating frequency-resolved optical gating. Journal of the Optical Society of America B: Optical Physics, 2022, 39, 683.	2.1	3
2	Measuring an ultrashort, ultraviolet pulse in a slowly responding, absorbing medium. Optics Express, 2021, 29, 11394.	3.4	7
3	Simulations of wavelength-multiplexed holography for single-shot spatiotemporal characterization of NIFâ€™s advanced radiographic capability (ARC) laser. Review of Scientific Instruments, 2021, 92, 053003.	1.3	0
4	Single-shot complete spatiotemporal measurement of terawatt laser pulses. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.2	12
5	Rapid retrieval of first-order spatiotemporal distortions for ultrashort laser pulses. Plasma Physics and Controlled Fusion, 2021, 63, 124005.	2.1	2
6	Ultrashort Pulse Measurement at 1.9 Âµm Using GRENOUILLE Technique. , 2021, , .		0
7	All-fiber ultrafast amplifier at 1.9ÂÎ¼m based on thulium-doped normal dispersion fiber and LMA fiber compressor. Scientific Reports, 2021, 11, 23693.	3.3	6
8	Extremely Robust Pulse Retrieval From Even Noisy Second-Harmonic-Generation Frequency-Resolved Optical Gating Traces. IEEE Journal of Quantum Electronics, 2020, 56, 1-8.	1.9	7
9	Highly reliable measurement of ultrashort laser pulses. Journal of Applied Physics, 2020, 128, .	2.5	31
10	Crystal-Configuration Considerations for Higher-Sensitivity Picosecond-Pulse SHG FROG. IEEE Journal of Quantum Electronics, 2020, 56, 1-8.	1.9	2
11	High-Sensitivity, Simple Frequency-Resolved-Optical-Gating Device. IEEE Journal of Quantum Electronics, 2020, 56, 1-6.	1.9	26
12	Highly Reliable Frequency-Resolved Optical Gating Pulse-Retrieval Algorithmic Approach. IEEE Journal of Quantum Electronics, 2019, 55, 1-7.	1.9	14
13	100% reliable algorithm for second-harmonic-generation frequency-resolved optical gating. Optics Express, 2019, 27, 2112.	3.4	32
14	Retrieving the coherent artifact in frequency-resolved optical gating. Optics Letters, 2019, 44, 3142.	3.3	11
15	High-speed â€œmulti-gridâ€•pulse-retrieval algorithm for frequency-resolved optical gating. Optics Express, 2018, 26, 2643.	3.4	11
16	Pulse-Chirp Instability and Issues for Its Measurement. , 2018, , .		2
17	Complete measurement of spatiotemporally complex multi-spatial-mode ultrashort pulses from multimode optical fibers using delay-scanned wavelength-multiplexed holography. Optics Express, 2017, 25, 24015.	3.4	21
18	Measuring spatiotemporal ultrafast field structures of pulses from multimode optical fibers. Applied Optics, 2017, 56, 3319.	2.1	25

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19	Unstable and Multiple Pulsing Can Be Invisible to Ultrashort Pulse Measurement Techniques. Applied Sciences (Switzerland), 2017, 7, 40.	2.5	22
20	Visualizing spatiotemporal pulse propagation: first-order spatiotemporal couplings in laser pulses. Applied Optics, 2017, 56, 3024.	2.1	14
21	Measurement of the ultrafast lighthouse effect using a complete spatiotemporal pulse-characterization technique. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 1955.	2.1	21
22	Numerical simulations of holographic spatiospectral traces of spatiotemporally distorted ultrashort laser pulses. Applied Optics, 2015, 54, 6640.	2.1	14
23	Coherent artifact study of two-dimensional spectral shearing interferometry. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1881.	2.1	18
24	Standards for ultrashort-laser-pulse-measurement techniques and their consideration for self-referenced spectral interferometry. Applied Optics, 2014, 53, D1.	1.8	35
25	Complete characterization of a spatiotemporally complex pulse by an improved single-frame pulse-measurement technique. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2736.	2.1	47
26	Pulse-shape instabilities and their measurement. Laser and Photonics Reviews, 2013, 7, 557-565.	8.7	82
27	Single-frame measurement of complex laser pulses tens of picoseconds long using pulse-front tilt in cross-correlation frequency-resolved optical gating. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2781.	2.1	20
28	The coherent artifact in modern pulse measurements. , 2013, , .		0
29	Recent Developments in Experimental Techniques for Measuring Two Pulses Simultaneously. Applied Sciences (Switzerland), 2013, 3, 299-313.	2.5	5
30	Simultaneously measuring two ultrashort laser pulses on a single-shot using double-blind frequency-resolved optical gating. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 1237.	2.1	26
31	Simultaneous measurement of two different-color ultrashort pulses on a single shot. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 1889.	2.1	6
32	Coherent artifact in modern pulse measurements. Optics Letters, 2012, 37, 2874.	3.3	89
33	Using phase diversity for the measurement of the complete spatiotemporal electric field of ultrashort laser pulses. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 244.	2.1	18
34	Extending Femtosecond Metrology to Longer, More Complex Laser Pulses in Time and Space. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 218-227.	2.9	3
35	Complete single-shot measurement of arbitrary nanosecond laser pulses in time. Optics Express, 2011, 19, 1367.	3.4	24
36	Single-shot multiple-delay crossed-beam spectral interferometry for measuring extremely complex pulses. Optics Communications, 2011, 284, 3785-3794.	2.1	6

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37	Directly recording diffraction phenomena in time domain. Laser Physics, 2010, 20, 948-953.	1.2	3
38	Distortion-Free Single-Prism/Grating Ultrashort Laser Pulse Compressor. IEEE Journal of Quantum Electronics, 2010, 46, 1726-1731.	1.9	4
39	Simple dispersion law for arbitrary sequences of dispersive optics. Applied Optics, 2010, 49, 6840.	2.1	7
40	Measuring temporally complex ultrashort pulses using multiple-delay crossed-beam spectral interferometry. Optics Express, 2010, 18, 6583.	3.4	21
41	Basic diffraction phenomena in time domain. Optics Express, 2010, 18, 11083.	3.4	22
42	Highly simplified device for measuring the intensity and phase of picosecond pulses. Optics Express, 2010, 18, 17484.	3.4	10
43	Measuring extremely complex pulses with time-bandwidth products exceeding 65,000 using multiple-delay crossed-beam spectral interferometry. Optics Express, 2010, 18, 24451.	3.4	7
44	Extreme pulse-front tilt from an etalon. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 2322.	2.1	8
45	Spatio-temporal couplings in ultrashort laser pulses. Journal of Optics (United Kingdom), 2010, 12, 093001.	2.2	186
46	Directly recording diffraction phenomena in the time domain. Lithuanian Journal of Physics, 2010, 50, 69-74.	0.4	3
47	Time-and-space-domain study of diffracting and non-diffracting light pulses. Lithuanian Journal of Physics, 2010, 50, 121-127.	0.4	2
48	Propagation dependence of chirp in Gaussian pulses and beams due to angular dispersion. Optics Letters, 2009, 34, 962.	3.3	9
49	Measuring the spatiotemporal field of ultrashort Bessel-X pulses. Optics Letters, 2009, 34, 2276.	3.3	88
50	Measurement of the Spatiotemporal Electric Field of Ultrashort Superluminal Bessel-X Pulses. Optics and Photonics News, 2009, 20, 42.	0.5	12
51	Characterizing isolated attosecond pulses from hollow-core waveguides using multi-cycle driving pulses. Optics Express, 2009, 17, 4611.	3.4	71
52	Direct spatiotemporal measurements of accelerating ultrashort Bessel-type light bullets. Optics Express, 2009, 17, 14948.	3.4	57
53	Single-frame measurement of the complete spatiotemporal intensity and phase of ultrashort laser pulses using wavelength-multiplexed digital holography. Journal of the Optical Society of America B: Optical Physics, 2008, 25, A25.	2.1	69
54	Simulations of frequency-resolved optical gating for measuring very complex pulses. Journal of the Optical Society of America B: Optical Physics, 2008, 25, A70.	2.1	38

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55	Measuring the spatiotemporal electric field of ultrashort pulses with high spatial and spectral resolution. Journal of the Optical Society of America B: Optical Physics, 2008, 25, A81.	2.1	63
56	Measuring the spatiotemporal electric field of tightly focused ultrashort pulses with sub-micron spatial resolution. Optics Express, 2008, 16, 13663.	3.4	86
57	Temporal characterization of attosecond wave forms in the sub-optical-cycle regime. Physical Review A, 2008, 78, .	2.5	8
58	The effect (or lack of it) of an ultrashort pulse’s spatial profile on the single-shot measurement of its temporal profile. , 2008, , .		0
59	Measuring the spatio-temporal electric field of tightly focused ultrashort pulses. , 2008, , .		1
60	Polarization state characterization of ultrashort laser pulses by self-referenced tomographic reconstruction. , 2008, , .		0
61	Numerical simulations of the ultrasimple ultrashort-laser-pulse measurement technique, GRENOUILLE. , 2007, , .		1
62	Everything You've Always Wanted to Know About an Ultrashort Pulse But Thought Was Immeasurable. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
63	Directly measuring the spatio-temporal electric field of ultrashort pulses in and near a focus. , 2007, , .		0
64	Numerical Simulations of the Ultrasimple Ultrashort-Laser-Pulse Measurement Technique, GRENOUILLE. , 2007, , .		0
65	Describing first-order spatio-temporal distortions in ultrashort pulses using normalized parameters. Optics Express, 2007, 15, 242.	3.4	31
66	Directly measuring the spatio-temporal electric field of focusing ultrashort pulses. Optics Express, 2007, 15, 10219.	3.4	120
67	Directly measuring the spatio-temporal electric field of ultrashort pulses in and near a focus. , 2007, , .		0
68	Single-shot measurement of the full spatio-temporal field of ultrashort pulses with multi-spectral digital holography. Optics Express, 2006, 14, 11460.	3.4	127
69	Crossed-beam spectral interferometry: a simple, high-spectral-resolution method for completely characterizing complex ultrashort pulses in real time. Optics Express, 2006, 14, 11892.	3.4	170
70	The Measurement of Ultrashort Light Pulses in Microfabrication Applications. , 2006, , 57-84.		0
71	Numerical Simulations of an Ultrasimple Ultrashort-Laser-Pulse Measurement DeviceÂ¿GRENOUILLE. , 2006, , .		0
72	Spatially resolved spectral interferometry: A simple method for measuring the spectral phase with high resolution. , 2006, , .		0

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73	FROG measurement of femtosecond pulses propagating through water. , 2006, , .		0
74	Simultaneous visualization of spatial and chromatic aberrations by 2D Spectral Interferometry. , 2006, , .		0
75	Supercontinuum generation and pulse compression in sub-wavelength-sized waveguides. , 2005, , .		1
76	Nonlinear pulse propagation and supercontinuum generation in photonic nanowires: experiment and simulation. Applied Physics B: Lasers and Optics, 2005, 81, 363-367.	2.2	62
77	The general theory of first-order spatio-temporal distortions of Gaussian pulses and beams. Optics Express, 2005, 13, 8642.	3.4	165
78	The Measurement of Ultrashort Light Pulses?Simple Devices, Complex Pulses. Optical Review, 2004, 11, 141-152.	2.0	15
79	Practical issues in ultra-short-pulse measurements with â€˜GRENOUILLEâ€™. Applied Physics B: Lasers and Optics, 2004, 79, 683-691.	2.2	25
80	Extremely simple device for measuring 20-fs pulses. Optics Letters, 2004, 29, 1025.	3.3	43
81	Measurement of the intensity and phase of supercontinuum from an 8-mm-long microstructure fiber. Applied Physics B: Lasers and Optics, 2003, 77, 239-244.	2.2	43
82	Measuring spatial chirp in ultrashort pulses using single-shot Frequency-Resolved Optical Gating. Optics Express, 2003, 11, 68.	3.4	123
83	Measuring pulse-front tilt in ultrashort pulses using GRENOUILLE. Optics Express, 2003, 11, 491.	3.4	168
84	Measurement of the intensity and phase of attojoule femtosecond light pulses using Optical-Parametric-Amplification Cross-Correlation Frequency-Resolved Optical Gating. Optics Express, 2003, 11, 601.	3.4	54
85	Frequency-resolved optical gating and single-shot spectral measurements reveal fine structure in microstructure-fiber continuum. Optics Letters, 2002, 27, 1174.	3.3	213
86	Simultaneous automatic calibration and direction-of-time removal in frequency-resolved optical gating. Applied Physics B: Lasers and Optics, 2002, 74, s265-s271.	2.2	23
87	Optical pulse propagation through metallic nano-apertures. Applied Physics B: Lasers and Optics, 2002, 74, s69-s73.	2.2	30
88	Highly simplified device for ultrashort-pulse measurement. Optics Letters, 2001, 26, 932.	3.3	314
89	Ultra-broadband IR continuum generation and its phase measurement using cross-correlation FROG. , 2001, , .		0
90	Increased phase-matching bandwidth in GRENOUILLE measurements. , 2001, , .		0

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91	The problem of collimating ultra-broadband continuum from microstructure fiber. , 2001, , .		0
92	Extremely simple intensity-and-phase ultrashort-pulse measurement device with no spectrometer, thin crystal, or delay line. , 2000, , .		2
93	Pulse propagation in air-silica microstructure optical fibers. , 2000, , .		0
94	Measuring ultrashort laser pulses in the time-frequency domain using frequency-resolved optical gating. Review of Scientific Instruments, 1997, 68, 3277-3295.	1.3	1,265
95	Temporal characterization of mid-IR free-electron-laser pulses by frequency-resolved optical gating. Optics Letters, 1997, 22, 721.	3.3	32
96	Measurement of the intensity and phase of ultraweak, ultrashort laser pulses. Optics Letters, 1996, 21, 884.	3.3	223
97	Practical issues in ultrashort-laser-pulse measurement using frequency-resolved optical gating. IEEE Journal of Quantum Electronics, 1996, 32, 1253-1264.	1.9	94
98	Measurement of 10-fs laser pulses. IEEE Journal of Selected Topics in Quantum Electronics, 1996, 2, 575-585.	2.9	89
99	Phase and intensity characterization of femtosecond pulses from a chirped-pulse amplifier by frequency-resolved optical gating. Optics Letters, 1995, 20, 483.	3.3	64
100	Ultrashort-pulse measurement using noninstantaneous nonlinearities: Raman effects in frequency-resolved optical gating. Optics Letters, 1995, 20, 486.	3.3	42
101	Noise sensitivity in frequency-resolved optical-gating measurements of ultrashort pulses. Journal of the Optical Society of America B: Optical Physics, 1995, 12, 1955.	2.1	97
102	Single-shot measurement of the intensity and phase of a femtosecond UV laser pulse with frequency-resolved optical gating. Optics Letters, 1994, 19, 1061.	3.3	61
103	Pulse retrieval in frequency-resolved optical gating based on the method of generalized projections. Optics Letters, 1994, 19, 2152.	3.3	150
104	Improved ultrashort pulse-retrieval algorithm for frequency-resolved optical gating. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1994, 11, 2429.	1.5	97
105	Comparison of ultrashort-pulse frequency-resolved-optical-gating traces for three common beam geometries. Journal of the Optical Society of America B: Optical Physics, 1994, 11, 1595.	2.1	172
106	Frequency-resolved optical gating with the use of second-harmonic generation. Journal of the Optical Society of America B: Optical Physics, 1994, 11, 2206.	2.1	358
107	Characterization of arbitrary femtosecond pulses using frequency-resolved optical gating. IEEE Journal of Quantum Electronics, 1993, 29, 571-579.	1.9	667
108	Using phase retrieval to measure the intensity and phase of ultrashort pulses: frequency-resolved optical gating. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 1101.	1.5	540

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109	Single-shot measurement of the intensity and phase of an arbitrary ultrashort pulse by using frequency-resolved optical gating. Optics Letters, 1993, 18, 823.	3.3	494
110	Fourth-order partial-coherence effects in the formation of integrated-intensity gratings with pulsed light sources. Journal of the Optical Society of America B: Optical Physics, 1986, 3, 1295.	2.1	70
111	Single-shot measurements of the ultrabroadband continuum from microstructure fiber. , 0, , .		0
112	Frequency-resolved optical gating: the state of the art. , 0, , .		0
113	Error bars in frequency-resolved-optical-gating measurements of ultrashort laser pulses. , 0, , .		3
114	Including the nonlinear medium's dispersion in frequency-resolved optical gating. , 0, , .		1
115	Ultrasimple FROG device for measuring ultrashort pulses at ~ 1.5-micron wavelengths. , 0, , .		0
116	Completely characterizing ultrashort pulses using spectral interferometry at large crossing angles. , 0, , .		0
117	Using FROG to measure spatio-temporal distortions in ultrafast laser beams. , 0, , .		0
118	Practical devices for measuring extremely short and extremely long pulses. , 0, , .		0