

# 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	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
2	Characterization of arbitrary femtosecond pulses using frequency-resolved optical gating. IEEE Journal of Quantum Electronics, 1993, 29, 571-579.	1.9	667
3	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
4	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
5	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
6	Highly simplified device for ultrashort-pulse measurement. Optics Letters, 2001, 26, 932.	3.3	314
7	Measurement of the intensity and phase of ultraweak, ultrashort laser pulses. Optics Letters, 1996, 21, 884.	3.3	223
8	Frequency-resolved optical gating and single-shot spectral measurements reveal fine structure in microstructure-fiber continuum. Optics Letters, 2002, 27, 1174.	3.3	213
9	Spatio-temporal couplings in ultrashort laser pulses. Journal of Optics (United Kingdom), 2010, 12, 093001.	2.2	186
10	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
11	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
12	Measuring pulse-front tilt in ultrashort pulses using GRENOUILLE. Optics Express, 2003, 11, 491.	3.4	168
13	The general theory of first-order spatio-temporal distortions of Gaussian pulses and beams. Optics Express, 2005, 13, 8642.	3.4	165
14	Pulse retrieval in frequency-resolved optical gating based on the method of generalized projections. Optics Letters, 1994, 19, 2152.	3.3	150
15	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
16	Measuring spatial chirp in ultrashort pulses using single-shot Frequency-Resolved Optical Gating. Optics Express, 2003, 11, 68.	3.4	123
17	Directly measuring the spatio-temporal electric field of focusing ultrashort pulses. Optics Express, 2007, 15, 10219.	3.4	120
18	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

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19	Noise sensitivity in frequency-resolved optical-gating measurements of ultrashort pulses. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1995, 12, 1955.	2.1	97
20	Practical issues in ultrashort-laser-pulse measurement using frequency-resolved optical gating. <i>IEEE Journal of Quantum Electronics</i> , 1996, 32, 1253-1264.	1.9	94
21	Measurement of 10-fs laser pulses. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 1996, 2, 575-585.	2.9	89
22	Coherent artifact in modern pulse measurements. <i>Optics Letters</i> , 2012, 37, 2874.	3.3	89
23	Measuring the spatiotemporal field of ultrashort Bessel-X pulses. <i>Optics Letters</i> , 2009, 34, 2276.	3.3	88
24	Measuring the spatiotemporal electric field of tightly focused ultrashort pulses with sub-micron spatial resolution. <i>Optics Express</i> , 2008, 16, 13663.	3.4	86
25	Pulse-shape instabilities and their measurement. <i>Laser and Photonics Reviews</i> , 2013, 7, 557-565.	8.7	82
26	Characterizing isolated attosecond pulses from hollow-core waveguides using multi-cycle driving pulses. <i>Optics Express</i> , 2009, 17, 4611.	3.4	71
27	Fourth-order partial-coherence effects in the formation of integrated-intensity gratings with pulsed light sources. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1986, 3, 1295.	2.1	70
28	Single-frame measurement of the complete spatiotemporal intensity and phase of ultrashort laser pulses using wavelength-multiplexed digital holography. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2008, 25, A25.	2.1	69
29	Phase and intensity characterization of femtosecond pulses from a chirped-pulse amplifier by frequency-resolved optical gating. <i>Optics Letters</i> , 1995, 20, 483.	3.3	64
30	Measuring the spatiotemporal electric field of ultrashort pulses with high spatial and spectral resolution. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2008, 25, A81.	2.1	63
31	Nonlinear pulse propagation and supercontinuum generation in photonic nanowires: experiment and simulation. <i>Applied Physics B: Lasers and Optics</i> , 2005, 81, 363-367.	2.2	62
32	Single-shot measurement of the intensity and phase of a femtosecond UV laser pulse with frequency-resolved optical gating. <i>Optics Letters</i> , 1994, 19, 1061.	3.3	61
33	Direct spatiotemporal measurements of accelerating ultrashort Bessel-type light bullets. <i>Optics Express</i> , 2009, 17, 14948.	3.4	57
34	Measurement of the intensity and phase of attojoule femtosecond light pulses using Optical-Parametric-Amplification Cross-Correlation Frequency-Resolved Optical Gating. <i>Optics Express</i> , 2003, 11, 601.	3.4	54
35	Complete characterization of a spatiotemporally complex pulse by an improved single-frame pulse-measurement technique. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, 2736.	2.1	47
36	Measurement of the intensity and phase of supercontinuum from an 8-mm-long microstructure fiber. <i>Applied Physics B: Lasers and Optics</i> , 2003, 77, 239-244.	2.2	43

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37	Extremely simple device for measuring 20-fs pulses. Optics Letters, 2004, 29, 1025.	3.3	43
38	Ultrashort-pulse measurement using noninstantaneous nonlinearities: Raman effects in frequency-resolved optical gating. Optics Letters, 1995, 20, 486.	3.3	42
39	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
40	Standards for ultrashort-laser-pulse-measurement techniques and their consideration for self-referenced spectral interferometry. Applied Optics, 2014, 53, D1.	1.8	35
41	Temporal characterization of mid-IR free-electron-laser pulses by frequency-resolved optical gating. Optics Letters, 1997, 22, 721.	3.3	32
42	100% reliable algorithm for second-harmonic-generation frequency-resolved optical gating. Optics Express, 2019, 27, 2112.	3.4	32
43	Describing first-order spatio-temporal distortions in ultrashort pulses using normalized parameters. Optics Express, 2007, 15, 242.	3.4	31
44	Highly reliable measurement of ultrashort laser pulses. Journal of Applied Physics, 2020, 128, .	2.5	31
45	Optical pulse propagation through metallic nano-apertures. Applied Physics B: Lasers and Optics, 2002, 74, s69-s73.	2.2	30
46	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
47	High-Sensitivity, Simple Frequency-Resolved-Optical-Gating Device. IEEE Journal of Quantum Electronics, 2020, 56, 1-6.	1.9	26
48	Practical issues in ultra-short-pulse measurements with "GRENOUILLE"™. Applied Physics B: Lasers and Optics, 2004, 79, 683-691.	2.2	25
49	Measuring spatiotemporal ultrafast field structures of pulses from multimode optical fibers. Applied Optics, 2017, 56, 3319.	2.1	25
50	Complete single-shot measurement of arbitrary nanosecond laser pulses in time. Optics Express, 2011, 19, 1367.	3.4	24
51	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
52	Basic diffraction phenomena in time domain. Optics Express, 2010, 18, 11083.	3.4	22
53	Unstable and Multiple Pulsing Can Be Invisible to Ultrashort Pulse Measurement Techniques. Applied Sciences (Switzerland), 2017, 7, 40.	2.5	22
54	Measuring temporally complex ultrashort pulses using multiple-delay crossed-beam spectral interferometry. Optics Express, 2010, 18, 6583.	3.4	21

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55	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
56	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
57	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
58	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
59	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
60	The Measurement of Ultrashort Light Pulses?Simple Devices, Complex Pulses. Optical Review, 2004, 11, 141-152.	2.0	15
61	Numerical simulations of holographic spatio-spectral traces of spatiotemporally distorted ultrashort laser pulses. Applied Optics, 2015, 54, 6640.	2.1	14
62	Highly Reliable Frequency-Resolved Optical Gating Pulse-Retrieval Algorithmic Approach. IEEE Journal of Quantum Electronics, 2019, 55, 1-7.	1.9	14
63	Visualizing spatiotemporal pulse propagation: first-order spatiotemporal couplings in laser pulses. Applied Optics, 2017, 56, 3024.	2.1	14
64	Measurement of the Spatiotemporal Electric Field of Ultrashort Superluminal Bessel-X Pulses. Optics and Photonics News, 2009, 20, 42.	0.5	12
65	Single-shot complete spatiotemporal measurement of terawatt laser pulses. Journal of Optics (United Tj ETQq1 1 0,784314 rgBT /Over	2.2	12
66	High-speed "multi-grid" pulse-retrieval algorithm for frequency-resolved optical gating. Optics Express, 2018, 26, 2643.	3.4	11
67	Retrieving the coherent artifact in frequency-resolved optical gating. Optics Letters, 2019, 44, 3142.	3.3	11
68	Highly simplified device for measuring the intensity and phase of picosecond pulses. Optics Express, 2010, 18, 17484.	3.4	10
69	Propagation dependence of chirp in Gaussian pulses and beams due to angular dispersion. Optics Letters, 2009, 34, 962.	3.3	9
70	Temporal characterization of attosecond wave forms in the sub-optical-cycle regime. Physical Review A, 2008, 78, .	2.5	8
71	Extreme pulse-front tilt from an etalon. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 2322.	2.1	8
72	Simple dispersion law for arbitrary sequences of dispersive optics. Applied Optics, 2010, 49, 6840.	2.1	7

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73	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
74	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
75	Measuring an ultrashort, ultraviolet pulse in a slowly responding, absorbing medium. Optics Express, 2021, 29, 11394.	3.4	7
76	Single-shot multiple-delay crossed-beam spectral interferometry for measuring extremely complex pulses. Optics Communications, 2011, 284, 3785-3794.	2.1	6
77	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
78	All-fiber ultrafast amplifier at 1.9 $\mu$ m based on thulium-doped normal dispersion fiber and LMA fiber compressor. Scientific Reports, 2021, 11, 23693.	3.3	6
79	Recent Developments in Experimental Techniques for Measuring Two Pulses Simultaneously. Applied Sciences (Switzerland), 2013, 3, 299-313.	2.5	5
80	Distortion-Free Single-Prism/Grating Ultrashort Laser Pulse Compressor. IEEE Journal of Quantum Electronics, 2010, 46, 1726-1731.	1.9	4
81	Error bars in frequency-resolved-optical-gating measurements of ultrashort laser pulses. , 0, , .		3
82	Directly recording diffraction phenomena in time domain. Laser Physics, 2010, 20, 948-953.	1.2	3
83	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
84	Directly recording diffraction phenomena in the time domain. Lithuanian Journal of Physics, 2010, 50, 69-74.	0.4	3
85	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
86	Extremely simple intensity-and-phase ultrashort-pulse measurement device with no spectrometer, thin crystal, or delay line. , 2000, , .		2
87	Crystal-Configuration Considerations for Higher-Sensitivity Picosecond-Pulse SHG FROG. IEEE Journal of Quantum Electronics, 2020, 56, 1-8.	1.9	2
88	Time-and-space-domain study of diffracting and non-diffracting light pulses. Lithuanian Journal of Physics, 2010, 50, 121-127.	0.4	2
89	Rapid retrieval of first-order spatiotemporal distortions for ultrashort laser pulses. Plasma Physics and Controlled Fusion, 2021, 63, 124005.	2.1	2
90	Pulse-Chirp Instability and Issues for Its Measurement. , 2018, , .		2

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91	Including the nonlinear medium's dispersion in frequency-resolved optical gating. , 0, , .		1
92	Supercontinuum generation and pulse compression in sub-wavelength-sized waveguides. , 2005, , .		1
93	Numerical simulations of the ultrasimple ultrashort-laser-pulse measurement technique, GRENOUILLE. , 2007, , .		1
94	Measuring the spatio-temporal electric field of tightly focused ultrashort pulses. , 2008, , .		1
95	Pulse propagation in air-silica microstructure optical fibers. , 2000, , .		0
96	Ultra-broadband IR continuum generation and its phase measurement using cross-correlation FROG. , 2001, , .		0
97	Increased phase-matching bandwidth in GRENOUILLE measurements. , 2001, , .		0
98	The problem of collimating ultra-broadband continuum from microstructure fiber. , 2001, , .		0
99	Single-shot measurements of the ultrabroadband continuum from microstructure fiber. , 0, , .		0
100	Frequency-resolved optical gating: the state of the art. , 0, , .		0
101	Ultrasimple FROG device for measuring ultrashort pulses at ~ 1.5-micron wavelengths. , 0, , .		0
102	Completely characterizing ultrashort pulses using spectral interferometry at large crossing angles. , 0, , .		0
103	Using FROG to measure spatio-temporal distortions in ultrafast laser beams. , 0, , .		0
104	Practical devices for measuring extremely short and extremely long pulses. , 0, , .		0
105	The Measurement of Ultrashort Light Pulses in Microfabrication Applications. , 2006, , 57-84.		0
106	Numerical Simulations of an Ultrasimple Ultrashort-Laser-Pulse Measurement DeviceÂ¿GRENOUILLE. , 2006, , .		0
107	Spatially resolved spectral interferometry: A simple method for measuring the spectral phase with high resolution. , 2006, , .		0
108	FROG measurement of femtosecond pulses propagating through water. , 2006, , .		0

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109	Simultaneous visualization of spatial and chromatic aberrations by 2D Spectral Interferometry. , 2006, , .		0
110	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
111	Directly measuring the spatio-temporal electric field of ultrashort pulses in and near a focus. , 2007, , .		0
112	Numerical Simulations of the Ultrasimple Ultrashort-Laser-Pulse Measurement Technique, GRENOUILLE. , 2007, , .		0
113	Directly measuring the spatio-temporal electric field of ultrashort pulses in and near a focus. , 2007, , .		0
114	The effect (or lack of it) of an ultrashort pulse&#x2019;s spatial profile on the single-shot measurement of its temporal profile. , 2008, , .		0
115	The coherent artifact in modern pulse measurements. , 2013, , .		0
116	Simulations of wavelength-multiplexed holography for single-shot spatiotemporal characterization of NIF&#x2019;s advanced radiographic capability (ARC) laser. Review of Scientific Instruments, 2021, 92, 053003.	1.3	0
117	Polarization state characterization of ultrashort laser pulses by self-referenced tomographic reconstruction. , 2008, , .		0
118	Ultrashort Pulse Measurement at 1.9 Åµm Using GRENOUILLE Technique. , 2021, , .		0