

# Ian Coddington

## List of Publications by Year in descending order

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Version: 2024-02-01

72  
papers

4,333  
citations

186265

28  
h-index

265206

42  
g-index

73  
all docs

73  
docs citations

73  
times ranked

2352  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dual-comb spectroscopy. <i>Optica</i> , 2016, 3, 414.	9.3	1,158
2	Coherent Multiheterodyne Spectroscopy Using Stabilized Optical Frequency Combs. <i>Physical Review Letters</i> , 2008, 100, 013902.	7.8	658
3	High-coherence mid-infrared dual-comb spectroscopy spanning 2.6 to 5.2 $\mu\text{m}$ . <i>Nature Photonics</i> , 2018, 12, 202-208.	31.4	250
4	Optical two-way time and frequency transfer over free space. <i>Nature Photonics</i> , 2013, 7, 434-438.	31.4	233
5	Sensitivity of coherent dual-comb spectroscopy. <i>Optics Express</i> , 2010, 18, 7929.	3.4	188
6	Mid-infrared optical frequency combs based on difference frequency generation for molecular spectroscopy. <i>Optics Express</i> , 2015, 23, 26814.	3.4	131
7	Regional trace-gas source attribution using a field-deployed dual frequency comb spectrometer. <i>Optica</i> , 2018, 5, 320.	9.3	129
8	Sub-micron absolute distance measurements in sub-millisecond times with dual free-running femtosecond Er fiber-lasers. <i>Optics Express</i> , 2011, 19, 18501.	3.4	123
9	Comb-calibrated frequency-modulated continuous-wave lidar for absolute distance measurements. <i>Optics Letters</i> , 2013, 38, 2026.	3.3	102
10	High-performance, vibration-immune, fiber-laser frequency comb. <i>Optics Letters</i> , 2009, 34, 638.	3.3	98
11	Ultrabroadband Supercontinuum Generation and Frequency-Comb Stabilization Using On-Chip Waveguides with Both Cubic and Quadratic Nonlinearities. <i>Physical Review Applied</i> , 2017, 8, .	3.8	90
12	Synchronization of Distant Optical Clocks at the Femtosecond Level. <i>Physical Review X</i> , 2016, 6, .	8.9	85
13	Optical Frequency Comb Generation based on Erbium Fiber Lasers. <i>Nanophotonics</i> , 2016, 5, 196-213.	6.0	81
14	Self-referenced frequency combs using high-efficiency silicon-nitride waveguides. <i>Optics Letters</i> , 2017, 42, 2314.	3.3	80
15	Accurate frequency referencing for fieldable dual-comb spectroscopy. <i>Optics Express</i> , 2016, 24, 30495.	3.4	77
16	Time-domain spectroscopy of molecular free-induction decay in the infrared. <i>Optics Letters</i> , 2010, 35, 1395.	3.3	76
17	Mid-infrared dual-comb spectroscopy of volatile organic compounds across long open-air paths. <i>Optica</i> , 2019, 6, 165.	9.3	67
18	Synchronization of clocks through 12 $\text{km}$ of strongly turbulent air over a city. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	61

#	ARTICLE	IF	CITATIONS
19	Intercomparison of open-path trace gas measurements with two dual-frequency-comb spectrometers. Atmospheric Measurement Techniques, 2017, 10, 3295-3311.	3.1	57
20	Tight real-time synchronization of a microwave clock to an optical clock across a turbulent air path. Optica, 2016, 3, 441.	9.3	49
21	Dual-comb photoacoustic spectroscopy. Nature Communications, 2020, 11, 3152.	12.8	41
22	Multifunctional integrated photonics in the mid-infrared with suspended AlGaAs on silicon. Optica, 2019, 6, 1246.	9.3	41
23	Broadband Phase Spectroscopy over Turbulent Air Paths. Physical Review Letters, 2015, 115, 103901.	7.8	40
24	Broadband coherent cavity-enhanced dual-comb spectroscopy. Optica, 2019, 6, 28.	9.3	38
25	Characterization of an actively linearized ultrabroadband chirped laser with a fiber-laser optical frequency comb. Optics Letters, 2011, 36, 1152.	3.3	35
26	Speckle phase noise in coherent laser ranging: fundamental precision limitations. Optics Letters, 2014, 39, 4776.	3.3	33
27	Precise multispecies agricultural gas flux determined using broadband open-path dual-comb spectroscopy. Science Advances, 2021, 7, .	10.3	32
28	Compact mid-infrared dual-comb spectrometer for outdoor spectroscopy. Optics Express, 2020, 28, 14740.	3.4	31
29	Wake mode sidebands and instability in mode-locked lasers with slow saturable absorbers. Optics Letters, 2017, 42, 2362.	3.3	29
30	Estimating vehicle carbon dioxide emissions from Boulder, Colorado, using horizontal path-integrated column measurements. Atmospheric Chemistry and Physics, 2019, 19, 4177-4192.	4.9	25
31	Fully self-referenced frequency comb consuming 5 watts of electrical power. OSA Continuum, 2018, 1, 274.	1.8	21
32	Single-Blind Quantification of Natural Gas Leaks from 1 km Distance Using Frequency Combs. Environmental Science & Technology, 2019, 53, 2908-2917.	10.0	20
33	Open-Path Dual-Comb Spectroscopy for Multispecies Trace Gas Detection in the 4.5-5.5 $\mu\text{m}$ Spectral Region. Laser and Photonics Reviews, 2021, 15, 2000583.	8.7	19
34	Monitoring Methane Emissions from Oil and Gas Operations. , 2022, 1, .		19
35	Speed-dependent Voigt lineshape parameter database from dual frequency comb measurements up to 1305 K. Part I: Pure H <sub>2</sub> O absorption, 6801-7188 $\text{cm}^{-1}$ . Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 210, 240-250.		18
36	Dual-comb spectroscopy with tailored spectral broadening in Si <sub>3</sub> N <sub>4</sub> nanophotonics. Optics Express, 2019, 27, 11869.	3.4	17

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37	Broadband, high-resolution investigation of advanced absorption line shapes at high temperature. Physical Review A, 2017, 96, .	2.5	13
38	Time-domain stabilization of carrier-envelope phase in femtosecond light pulses. Optics Express, 2014, 22, 11788.	3.4	12
39	Bootstrap inversion technique for atmospheric trace gas source detection and quantification using long open-path laser measurements. Atmospheric Measurement Techniques, 2018, 11, 1565-1582.	3.1	12
40	Speed-dependent Voigt lineshape parameter database from dual frequency comb measurements at temperatures up to 1305â€šK. Part II: Argon-broadened H <sub>2</sub> O absorption, 6801â€š7188â€šm <sup>-1</sup> . Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 217, 189-212.	2.3	12
41	Intercomparison of Open-Path Trace Gas Measurements with Two Dual Frequency Comb Spectrometers. , 2017, 10, 3295-3311.		11
42	Obtaining more energetic modelocked pulses from a SESAM-based fiber laser. Optics Express, 2020, 28, 20345.	3.4	5
43	Monitoring methane emissions from oil and gas operations<sup>â€š</sup>. Optics Express, 2022, 30, 24326.	3.4	5
44	Synchronization of optical oscillators over a free-space link at the femtosecond level. , 2015, , .		4
45	Optical two-way time synchronization at the femtosecond level over a 4-km free space link. , 2015, , .		2
46	Spectroscopy with a coherent dual frequency comb interferometer at 3.4 Î¼m. Proceedings of SPIE, 2010, , .	0.8	1
47	Dual comb-based characterization of rapidly tuned lasers. , 2011, , .		1
48	Fiber Laser Based Dual-Comb Spectroscopy with Dynamically Controlled Spectral Resolution. , 2021, , .		1
49	Dual-comb-based characterization of rapidly tuned lasers. , 2011, , .		1
50	Micrometeorological flux measurements using spatially- scanned open-path dual-comb spectroscopy. , 2020, , .		1
51	Precision spectroscopy with frequency combs at 3.4 Î¼m. , 2011, , .		0
52	Optical Combs for Sensor Applications. , 2014, , .		0
53	Femtosecond-Level Synchronization Over Kilometer-Scale Turbulent Air Paths. , 2015, , .		0
54	Free-space time and frequency transfer. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
55	Combustion Diagnostics and Chemical Sensing with Frequency Comb Lasers. , 2016, , .		0
56	Enhanced link availability for free space optical time-frequency transfer using adaptive optic terminals. , 2016, , .		0
57	Novel Uses of Stabilized Optical Frequency Combs: From Regional Methane Leak Source Identification to Diagnostics for Extreme Combustion. , 2018, , .		0
58	Performance of a Coherent Dual Frequency Comb Spectrometer. , 2011, , .		0
59	Dual-Comb Spectroscopy with Difference-Frequency-Generated Mid-Infrared Frequency Combs. , 2015, , .		0
60	Dual Comb Outdoor Spectroscopy for Complex Molecular Response Retrieval. , 2016, , .		0
61	Remote Synchronization of a Microwave Clock to an Optical Clock at the Femtosecond Level. , 2016, , .		0
62	Dual Frequency Comb Spectroscopy for Trace Gas Monitoring Over Open-Air Paths. , 2017, , .		0
63	Compact Fiber Frequency Combs for Precision Measurement Outside the Metrology Lab. , 2018, , .		0
64	Open Path MIR DCS for Chemical Detection. , 2018, , .		0
65	Open-Path Dual Frequency Comb Spectroscopy Applied to Source Quantification. , 2018, , .		0
66	A Compact Mid-infrared Dual-Comb Spectrometer with 1000 nm of Spectral Coverage. , 2019, , .		0
67	Measurement of acetone emission using a compact midinfrared dual-comb spectrometer. , 2019, , .		0
68	Mid-infrared Dual-comb Spectroscopy of Volatile Organic Compounds Across Long Open-air Paths. , 2019, , .		0
69	Atmospheric monitoring in the 4.5 to 4.9 $\mu\text{m}$ region using open-path dual-comb spectroscopy. , 2020, , .		0
70	Comparison of Livestock Emissions Measurements Using Open-Path Dual-Comb Spectroscopy and Closed-Path Cavity Ring-Down Spectroscopy. , 2020, , .		0
71	Agri-combs: Open-path dual-comb spectroscopy of livestock emissions. , 2020, , .		0
72	Broadband dual-comb spectroscopy for open-path field measurement of H <sub>2</sub> O and H <sub>2</sub> O. , 2021, , .		0