Scott Diddams

List of Publications by Citations

283 papers	18,284 citations	67 h-index	129 g-index
422 ext. papers	23,302 ext. citations	7.5 avg, IF	6.7 L-index

#	Paper	IF	Citations
283	Carrier-envelope phase control of femtosecond mode-locked lasers and direct optical frequency synthesis. *Science*, **2000**, 288, 635-40	33.3	1766
282	Microresonator-based optical frequency combs. *Science*, **2011**, 332, 555-9	33.3	1091
281	Frequency ratio of Al+ and Hg+ single-ion optical clocks; metrology at the 17th decimal place. *Science*, **2008**, 319, 1808-12	33.3	986
280	Direct link between microwave and optical frequencies with a 300 THz femtosecond laser comb. *Physical Review Letters*, **2000**, 84, 5102-5	7.4	789
279	Molecular fingerprinting with the resolved modes of a femtosecond laser frequency comb. *Nature*, **2007**, 445, 627-30	50.4	476
278	An optical clock based on a single trapped 199Hg+ ion. *Science*, **2001**, 293, 825-8	33.3	448
277	Generation of ultrastable microwaves via optical frequency division. *Nature Photonics*, **2011**, 5, 425-429	33.9	419
276	Sr lattice clock at 1 x 10(-16) fractional uncertainty by remote optical evaluation with a Ca clock. *Science*, **2008**, 319, 1805-8	33.3	401
275	The evolving optical frequency comb [Invited]. *Journal of the Optical Society of America B: Optical Physics*, **2010**, 27, B51	1.7	356
274	An optical-frequency synthesizer using integrated photonics. *Nature*, **2018**, 557, 81-85	50.4	297
273	Phase-locked, erbium-fiber-laser-based frequency comb in the near infrared. *Optics Letters*, **2004**, 29, 250-2	3	284
272	Fundamental noise limitations to supercontinuum generation in microstructure fiber. *Physical Review Letters*, **2003**, 90, 113904	7.4	255
271	Microresonator frequency comb optical clock. *Optica*, **2014**, 1, 10	8.6	229
270	Optical frequency synthesis and comparison with uncertainty at the 10(-19) level. *Science*, **2004**, 303, 1843-5	33.3	219
269	Single-atom optical clock with high accuracy. *Physical Review Letters*, **2006**, 97, 020801	7.4	208
268	Absolute frequency measurements of the Hg+ and Ca optical clock transitions with a femtosecond laser. *Physical Review Letters*, **2001**, 86, 4996-9	7.4	196
267	State of the Field: Extreme Precision Radial Velocities. *Publications of the Astronomical Society of the Pacific*, **2016**, 128, 066001	5	191

266	Testing the stability of fundamental constants with the 199Hg+ single-ion optical clock. *Physical Review Letters*, **2003**, 90, 150802	7.4	187
265	Spin-1/2 optical lattice clock. *Physical Review Letters*, **2009**, 103, 063001	7.4	181
264	Observation of the 1S0-->3P0 clock transition in 27Al+. *Physical Review Letters*, **2007**, 98, 220801	7.4	169
263	Standards of time and frequency at the outset of the 21st century. *Science*, **2004**, 306, 1318-24	33.3	169
262	Precision atomic spectroscopy for improved limits on variation of the fine structure constant and local position invariance. *Physical Review Letters*, **2007**, 98, 070801	7.4	164
261	High-coherence mid-infrared dual-comb spectroscopy spanning 2.6 to 5.2 Ìm. *Nature Photonics*, **2018**, 12, 202-208	33.9	158
260	Soliton crystals in Kerr resonators. *Nature Photonics*, **2017**, 11, 671-676	33.9	154
259	Architecture for the photonic integration of an optical atomic clock. *Optica*, **2019**, 6, 680	8.6	153
258	10-GHz self-referenced optical frequency comb. *Science*, **2009**, 326, 681	33.3	150
257	Propagation Dynamics of Intense Femtosecond Pulses: Multiple Splittings, Coalescence, and Continuum Generation. *Physical Review Letters*, **1999**, 82, 1430-1433	7.4	144
256	Stably accessing octave-spanning microresonator frequency combs in the soliton regime. *Optica*, **2017**, 4, 193-203	8.6	134
255	Octave-spanning Ti:sapphire laser with a repetition rate >1 ghz for optical frequency measurements and comparisons. *Optics Letters*, **2006**, 31, 1011-3	3	130
254	Dispersion measurements with white-light interferometry. *Journal of the Optical Society of America B: Optical Physics*, **1996**, 13, 1120	1.7	129
253	Delivery of high-stability optical and microwave frequency standards over an optical fiber network. *Journal of the Optical Society of America B: Optical Physics*, **2003**, 20, 1459	1.7	127
252	Spectral and temporal characterization of a fused-quartz-microresonator optical frequency comb. *Physical Review A*, **2011**, 84,	2.6	116
251	Demonstration of on-sky calibration of astronomical spectra using a 25 GHz near-IR laser frequency comb. *Optics Express*, **2012**, 20, 6631-43	3.3	116
250	The absolute frequency of the87Sr optical clock transition. *Metrologia*, **2008**, 45, 539-548	2.1	114
249	Optical lattice induced light shifts in an yb atomic clock. *Physical Review Letters*, **2008**, 100, 103002	7.4	107

248	Searching for Exoplanets Using a Microresonator Astrocomb. *Nature Photonics*, **2019**, 13, 25-30	33.9	107
247	Femtosecond-laser-based synthesis of ultrastable microwave signals from optical frequency references. *Optics Letters*, **2005**, 30, 667-9	3	100
246	High-resolution spectroscopy with a femtosecond laser frequency comb. *Optics Letters*, **2005**, 30, 1734-63		99
245	. *IEEE Photonics Journal*, **2011**, 3, 140-151	1.8	98
244	Phase-coherent microwave-to-optical link with a self-referenced microcomb. *Nature Photonics*, **2016**, 10, 516-520	33.9	97
243	Molecular fingerprinting with bright, broadband infrared frequency combs. *Optica*, **2018**, 5, 727	8.6	96
242	Passively mode-locked 10 GHz femtosecond Ti:sapphire laser. *Optics Letters*, **2008**, 33, 1905-7	3	96
241	Coherent optical phase transfer over a 32-km fiber with 1 s instability at 10{-17}. *Physical Review Letters*, **2007**, 99, 153601	7.4	94
240	Optical frequency combs: Coherently uniting the electromagnetic spectrum. *Science*, **2020**, 369,	33.3	93
239	Mid-infrared optical frequency combs based on difference frequency generation for molecular spectroscopy. *Optics Express*, **2015**, 23, 26814-24	3.3	92
238	The habitable-zone planet finder: a stabilized fiber-fed NIR spectrograph for the Hobby-Eberly Telescope **2012**,		92
237	Phase-coherent link from optical to microwave frequencies by means of the broadband continuum from a 1-GHz Ti:sapphire femtosecondoscillator. *Optics Letters*, **2002**, 27, 1842-4	3	88
236	Astronomical spectrograph calibration with broad-spectrum frequency combs. *European Physical Journal D*, **2008**, 48, 57-66	1.3	87
235	Impact of dispersion on amplitude and frequency noise in a Yb-fiber laser comb. *Optics Letters*, **2011**, 36, 1578-80	3	85
234	Self-injection locking and phase-locked states in microresonator-based optical frequency combs. *Physical Review Letters*, **2014**, 112, 043905	7.4	84
233	Optical frequency measurements of 6sS1⁄226pP1⁄22(D1) transitions in Cs133 and their impact on the fine-structure constant. *Physical Review A*, **2006**, 73,	2.6	83
232	Optical frequency standards and measurements. *IEEE Journal of Quantum Electronics*, **2001**, 37, 1502-151⁄23		82
231	Probing interactions between ultracold fermions. *Science*, **2009**, 324, 360-3	33.3	81

230	Electronic synthesis of light. *Optica*, **2017**, 4, 406	8.6	80
229	Stabilization of femtosecond laser frequency combs with subhertz residual linewidths. *Optics Letters*, **2004**, 29, 1081-3	3	78
228	Electro-optical frequency division and stable microwave synthesis. *Science*, **2014**, 345, 309-13	33.3	77
227	A 12.5 GHz-spaced optical frequency comb spanning >400 nm for near-infrared astronomical spectrograph calibration. *Review of Scientific Instruments*, **2010**, 81, 063105	1.7	77
226	Observation and absolute frequency measurements of the 1S0-3P0 optical clock transition in neutral ytterbium. *Physical Review Letters*, **2005**, 95, 083003	7.4	77
225	Coherent optical link over hundreds of metres and hundreds of terahertz with subfemtosecond timing jitter. *Nature Photonics*, **2007**, 1, 283-287	33.9	76
224	Fundamental amplitude noise limitations to supercontinuum spectra generated in a microstructured fiber. *Applied Physics B: Lasers and Optics*, **2003**, 77, 269-277	1.9	75
223	High-power broadband laser source tunable from 3.0 μm to 4.4 μm based on a femtosecond Yb:fiber oscillator. *Optics Letters*, **2011**, 36, 4020-2	3	74
222	Improved signal-to-noise ratio of 10 GHz microwave signals generated with a mode-filtered femtosecond laser frequency comb. *Optics Express*, **2009**, 17, 3331-40	3.3	72
221	Dispersion measurements of water with white-light interferometry. *Applied Optics*, **1998**, 37, 5679-86	1.7	72
220	Mid-infrared virtually imaged phased array spectrometer for rapid and broadband trace gas detection. *Optics Letters*, **2012**, 37, 3285-7	3	71
219	Amplitude and phase measurements of femtosecond pulse splitting in nonlinear dispersive media. *Optics Letters*, **1998**, 23, 379-81	3	70
218	Low-noise synthesis of microwave signals from an optical source. *Electronics Letters*, **2005**, 41, 650	1.1	68
217	Dual-microcavity narrow-linewidth Brillouin laser. *Optica*, **2015**, 2, 225	8.6	67
216	Thermal and Nonlinear Dissipative-Soliton Dynamics in Kerr-Microresonator Frequency Combs. *Physical Review Letters*, **2018**, 121, 063902	7.4	66
215	Photonic microwave generation with high-power photodiodes. *Optics Letters*, **2013**, 38, 1712-4	3	66
214	Ultrabroadband Supercontinuum Generation and Frequency-Comb Stabilization Using On-Chip Waveguides with Both Cubic and Quadratic Nonlinearities. *Physical Review Applied*, **2017**, 8,	4.3	65
213	Ultralow phase noise microwave generation with an Er:fiber-based optical frequency divider. *Optics Letters*, **2011**, 36, 3260-2	3	65

212	Broadband dispersion-engineered microresonator on a chip. *Nature Photonics*, **2016**, 10, 316-320	33.9	64
211	Exploiting shot noise correlations in the photodetection of ultrashort optical pulse trains. *Nature Photonics*, **2013**, 7, 290-293	33.9	64
210	Hybrid electro-optically modulated microcombs. *Physical Review Letters*, **2012**, 109, 263901	7.4	61
209	Spiral resonators for on-chip laser frequency stabilization. *Nature Communications*, **2013**, 4, 2468	17.4	61
208	Brillouin-enhanced hyperparametric generation of an optical frequency comb in a monolithic highly nonlinear fiber cavity pumped by a cw laser. *Physical Review Letters*, **2009**, 102, 193902	7.4	61
207	Ultrafast electro-optic light with subcycle control. *Science*, **2018**, 361, 1358-1363	33.3	60
206	Femtosecond-laser-based optical clockwork with instability. *Optics Letters*, **2002**, 27, 58-60	3	59
205	Investigations of nonlinear femtosecond pulse propagation with the inclusion of Raman, shock, and third-order phase effects. *Physical Review A*, **1998**, 58, 3303-3310	2.6	58
204	Photonic chip for laser stabilization to an atomic vapor with 10□1 instability. *Optica*, **2018**, 5, 443	8.6	57
203	Analysis of noise mechanisms limiting the frequency stability of microwave signals generated with a femtosecond laser. *IEEE Journal of Selected Topics in Quantum Electronics*, **2003**, 9, 1059-1065	3.8	57
202	The Habitable-zone Planet Finder: A status update on the development of a stabilized fiber-fed near-infrared spectrograph for the for the Hobby-Eberly telescope **2014**,		56
201	Frequency evaluation of the doubly forbidden S01->P03 transition in bosonic Yb174. *Physical Review A*, **2008**, 77,	2.6	56
200	Heterogeneously Integrated GaAs Waveguides on Insulator for Efficient Frequency Conversion. *Laser and Photonics Reviews*, **2018**, 12, 1800149	8.3	55
199	Phase steps and resonator detuning measurements in microresonator frequency combs. *Nature Communications*, **2015**, 6, 5668	17.4	55
198	Self-referenced frequency combs using high-efficiency silicon-nitride waveguides. *Optics Letters*, **2017**, 42, 2314-2317	3	54
197	Laser-machined ultra-high-Q microrod resonators for nonlinear optics. *Applied Physics Letters*, **2013**, 102, 221119	3.4	54
196	Precision phase control of an ultrawide-bandwidth femtosecond laser: a network of ultrastable frequency marks across the visible spectrum. *Optics Letters*, **2000**, 25, 1675-7	3	54
195	Parametric seeding of a microresonator optical frequency comb. *Optics Express*, **2013**, 21, 17615-24	3.3	53

194	Optical frequency measurement across a 104-THz gap with a femtosecond laser frequency comb. *Optics Letters*, **2000**, 25, 186-8	3	53
193	Coherent ultra-violet to near-infrared generation in silica ridge waveguides. *Nature Communications*, **2017**, 8, 13922	17.4	50
192	Infrared electric field sampled frequency comb spectroscopy. *Science Advances*, **2019**, 5, eaaw8794	14.3	50
191	Supercontinuum generation in an on-chip silica waveguide. *Optics Letters*, **2014**, 39, 1046-8	3	50
190	Optical frequency/wavelength references. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2005**, 38, S469-S495	1.3	49
189	Broadband optical frequency comb generation with a phase-modulated parametric oscillator. *Optics Letters*, **1999**, 24, 1747-9	3	49
188	Ultrasensitive spectroscopy, the ultrastable lasers, the ultrafast lasers, and the seriously nonlinear fiber: a new alliance for physics and metrology. *IEEE Journal of Quantum Electronics*, **2001**, 37, 1482-1492	2	48
187	Mode-locked laser pulse trains with subfemtosecond timing jitter synchronized to an optical reference oscillator. *Optics Letters*, **2003**, 28, 663-5	3	47
186	Stellar spectroscopy in the near-infrared with a laser frequency comb. *Optica*, **2019**, 6, 233	8.6	47
185	Design and control of femtosecond lasers for optical clocks and the synthesis of low-noise optical and microwave signals. *IEEE Journal of Selected Topics in Quantum Electronics*, **2003**, 9, 1072-1080	3.8	46
184	Study of the excess noise associated with demodulation of ultra-short infrared pulses. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2005**, 52, 1068-74	3.2	46
183	Double Gires-Tournois interferometer negative-dispersion mirrors for use in tunable mode-locked lasers. *Optics Letters*, **2000**, 25, 275-7	3	45
182	Frequency comb generation using femtosecond pulses and cross-phase modulation in optical fiber at arbitrary center frequencies. *Optics Letters*, **2000**, 25, 308-10	3	44
181	Optical-Frequency Measurements with a Kerr Microcomb and Photonic-Chip Supercontinuum. *Physical Review Applied*, **2018**, 9,	4.3	42
180	Noise Floor Reduction of an Er:Fiber Laser-Based Photonic Microwave Generator. *IEEE Photonics Journal*, **2011**, 3, 1004-1012	1.8	42
179	Optical-to-microwave frequency comparison with fractional uncertainty of 10-15. *Applied Physics B: Lasers and Optics*, **2007**, 89, 167-176	1.9	41
178	Diode-pumped Yb:KYW femtosecond laser frequency comb with stabilized carrier-envelope offset frequency. *European Physical Journal D*, **2008**, 48, 19-26	1.3	40
177	Generation of 20 GHz, sub-40 fs pulses at 960 nm via repetition-rate multiplication. *Optics Letters*, **2009**, 34, 872-4	3	39

176	Toward a low-jitter 10 GHz pulsed source with an optical frequency comb generator. *Optics Express*, **2008**, 16, 8498-508	3.3	39
175	Kilohertz-resolution spectroscopy of cold atoms with an optical frequency comb. *Physical Review Letters*, **2006**, 97, 163905	7.4	39
174	Single-branch Er:fiber frequency comb for precision optical metrology with 10^−18 fractional instability. *Optica*, **2017**, 4, 879	8.6	37
173	Femtosecond frequency comb measurement of absolute frequencies and hyperfine coupling constants in cesium vapor. *Physical Review A*, **2010**, 81,	2.6	37
172	Demonstration of a near-IR line-referenced electro-optical laser frequency comb for precision radial velocity measurements in astronomy. *Nature Communications*, **2016**, 7, 10436	17.4	37
171	Interlocking Kerr-microresonator frequency combs for microwave to optical synthesis. *Optics Letters*, **2018**, 43, 2933-2936	3	36
170	Attosecond timing in optical-to-electrical conversion. *Optica*, **2015**, 2, 141	8.6	35
169	Compact, thermal-noise-limited reference cavity for ultra-low-noise microwave generation. *Optics Letters*, **2017**, 42, 1277-1280	3	34
168	Optical frequency stabilization of a 10 GHz Ti:sapphire frequency comb by saturated absorption spectroscopy in r87ubidium. *Physical Review A*, **2009**, 80,	2.6	34
167	A deep-UV optical frequency comb at 205 nm. *Optics Express*, **2009**, 17, 9183-90	3.3	33
166	Spectrally resolved optical frequency comb from a self-referenced 5 GHz femtosecond laser. *Optics Letters*, **2007**, 32, 2553-5	3	32
165	420-MHz Cr:forsterite femtosecond ring laser and continuum generation in the 1-2-micrometre range. *Optics Letters*, **2003**, 28, 1368-70	3	32
164	Coherent optical clock down-conversion for microwave frequencies with 10 instability. *Science*, **2020**, 368, 889-892	33.3	31
163	Mid-infrared frequency comb generation via cascaded quadratic nonlinearities in quasi-phase-matched waveguides. *Optics Letters*, **2018**, 43, 1678-1681	3	31
162	High-harmonic generation in periodically poled waveguides. *Optica*, **2017**, 4, 1538	8.6	31
161	Mechanical Control of a Microrod-Resonator Optical Frequency Comb. *Physical Review X*, **2013**, 3,	9.1	31
160	Frequency Uncertainty for Optically Referenced Femtosecond Laser Frequency Combs. *IEEE Journal of Quantum Electronics*, **2007**, 43, 139-146	2	31
159	A HIGH-RESOLUTION ATLAS OF URANIUM-NEON IN THE H BAND. *Astrophysical Journal, Supplement Series*, **2012**, 199, 2	8	30

158	Absolute frequency measurement of the neutral40Ca optical frequency standard at 657 nm based on microkelvin atoms. *Metrologia*, **2007**, 44, 146-151	2.1	30
157	Stabilized frequency comb with a self-referenced femtosecond Cr:forsterite laser. *Optics Letters*, **2005**, 30, 932-4	3	30
156	High-power, hybrid Er:fiber/Tm:fiber frequency comb source in the 2 Ìm wavelength region. *Optics Letters*, **2012**, 37, 1400-2	3	29
155	Broadband mid-infrared frequency upconversion and spectroscopy with an aperiodically poled LiNbO3 waveguide. *Optics Letters*, **2012**, 37, 4332-4	3	29
154	Analysis of shot noise in the detection of ultrashort optical pulse trains. *Journal of the Optical Society of America B: Optical Physics*, **2013**, 30, 1775	1.7	28
153	Mid-infrared upconversion spectroscopy based on a Yb:fiber femtosecond laser. *Applied Physics B: Lasers and Optics*, **2012**, 107, 31-39	1.9	28
152	Generation of a 660-2100 nm laser frequency comb based on an erbium fiber laser. *Optics Letters*, **2012**, 37, 2199-201	3	28
151	Sub-femtosecond absolute timing jitter with a 10 GHz hybrid photonic-microwave oscillator. *Applied Physics Letters*, **2012**, 100, 231111	3.4	28
150	Photonic-Chip Supercontinuum with Tailored Spectra for Counting Optical Frequencies. *Physical Review Applied*, **2017**, 8,	4.3	28
149	Self-organized nonlinear gratings for ultrafast nanophotonics. *Nature Photonics*, **2019**, 13, 494-499	33.9	27
148	Versatile silicon-waveguide supercontinuum for coherent mid-infrared spectroscopy. *APL Photonics* , **2018**, 3, 036102	5.2	27
147	The measurement of optical frequencies. *Metrologia*, **2005**, 42, S105-S124	2.1	27
146	Multifunctional integrated photonics in the mid-infrared with suspended AlGaAs on silicon. *Optica*, **2019**, 6, 1246	8.6	27
145	Noise properties of microwave signals synthesized with femtosecond lasers. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2007**, 54, 736-45	3.2	26
144	Differential intracavity phase spectroscopy and its application to a three-level system in samarium. *Physical Review A*, **1998**, 58, 2252-2264	2.6	26
143	Quasi-Phase-Matched Supercontinuum Generation in Photonic Waveguides. *Physical Review Letters* , **2018**, 120, 053903	7.4	25
142	Terahertz-Rate Kerr-Microresonator Optical Clockwork. *Physical Review X*, **2019**, 9,	9.1	25
141	High-Power and High-Linearity Photodetector Modules for Microwave Photonic Applications. *Journal of Lightwave Technology*, **2014**, 32, 3810-3816	4	25

140	Broadband phase-coherent optical frequency synthesis with actively linked Ti:sapphire and Cr:forsterite femtosecond lasers. *Optics Letters*, **2004**, 29, 403-5	3	25
139	Optically referenced broadband electronic synthesizer with 15 digits of resolution. *Laser and Photonics Reviews*, **2016**, 10, 780-790	8.3	25
138	Open-air, broad-bandwidth trace gas sensing with a mid-infrared optical frequency comb. *Applied Physics B: Lasers and Optics*, **2015**, 119, 327-338	1.9	24
137	Direct Kerr frequency comb atomic spectroscopy and stabilization. *Science Advances*, **2020**, 6, eaax6230	14.3	23
136	Infrared frequency comb generation and spectroscopy with suspended silicon nanophotonic waveguides. *Optica*, **2019**, 6, 1269	8.6	23
135	Tuning Kerr-Soliton Frequency Combs to Atomic Resonances. *Physical Review Applied*, **2019**, 11,	4.3	22
134	Deuterated silicon nitride photonic devices for broadband optical frequency comb generation. *Optics Letters*, **2018**, 43, 1527-1530	3	22
133	Optical frequency measurements of 6sS1⁄226pP3⁄22 transition in a Cs133 atomic beam using a femtosecond laser frequency comb. *Physical Review A*, **2004**, 70,	2.6	22
132	Coherent frequency combs for spectroscopy across the 3–5 μm region. *Applied Physics B: Lasers and Optics*, **2017**, 123, 1	1.9	21
131	Optical amplification and pulse interleaving for low-noise photonic microwave generation. *Optics Letters*, **2014**, 39, 1581-4	3	21
130	Direct comparison of two cold-atom-based optical frequency standards by using a femtosecond-laser comb. *Optics Letters*, **2001**, 26, 102-4	3	21
129	Complete characterization of femtosecond pulses using an all-electronic detector. *Optics Communications*, **1996**, 123, 567-573	2	21
128	A microrod-resonator Brillouin laser with 240 Hz absolute linewidth. *New Journal of Physics*, **2016**, 18, 045001	2.9	21
127	Broadband noise limit in the photodetection of ultralow jitter optical pulses. *Physical Review Letters*, **2014**, 113, 203901	7.4	20
126	Offset frequency dynamics and phase noise properties of a self-referenced 10 GHz Ti:sapphire frequency comb. *Optics Express*, **2011**, 19, 18440-51	3.3	20
125	1-GHz repetition rate femtosecond OPO with stabilized offset between signal and idler frequency combs. *Optics Express*, **2008**, 16, 5397-405	3.3	20
124	30 GHz electro-optic frequency comb spanning 300 THz in the near infrared and visible. *Optics Letters*, **2019**, 44, 2673	3	20
123	A six-octave optical frequency comb from a scalable few-cycle erbium fibre laser. *Nature Photonics*, **2021**, 15, 281-286	33.9	20

122	Characterizing the nonlinear propagation of femtosecond pulses in bulk media. *IEEE Journal of Selected Topics in Quantum Electronics*, **1998**, 4, 306-316	3.8	19
121	Frequency measurements and hyperfine structure of the R(85)33□ transition of molecular iodine with a femtosecond optical comb. *Journal of the Optical Society of America B: Optical Physics*, **2004**, 21, 88	1.7	19
120	Frequency-comb spectroscopy on pure quantum states of a single molecular ion. *Science*, **2020**, 367, 1458-1461	33.3	17
119	Recent atomic clock comparisons at NIST. *European Physical Journal: Special Topics*, **2008**, 163, 19-35	2.3	17
118	Tunable mid-infrared generation via wide-band four-wave mixing in silicon nitride waveguides. *Optics Letters*, **2018**, 43, 4220-4223	3	16
117	Absolute-frequency measurements with a stabilized near-infrared optical frequency comb from a Cr:forsterite laser. *Optics Letters*, **2004**, 29, 397-9	3	16
116	Persistent Starspot Signals on M Dwarfs: Multiwavelength Doppler Observations with the Habitable-zone Planet Finder and Keck/HIRES. *Astrophysical Journal*, **2020**, 897, 125	4.7	16
115	Dual-comb interferometry via repetition rate switching of a single frequency comb. *Optics Letters*, **2018**, 43, 3614-3617	3	15
114	Phase and coherence of optical microresonator frequency combs. *Physical Review A*, **2014**, 89,	2.6	15
113	Experimental study of noise properties of a Ti:sapphire femtosecond laser. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2003**, 50, 355-60	3.2	15
112	Mid-Infrared Frequency Comb Generation and Spectroscopy with Few-Cycle Pulses and □{(2)} Nonlinear Optics. *Physical Review Letters*, **2020**, 124, 133904	7.4	14
111	Fully self-referenced frequency comb consuming 5 watts of electrical power. *OSA Continuum*, **2018**, 1, 274	1.4	14
110	Tunable resolution terahertz dual frequency comb spectrometer. *Optics Express*, **2016**, 24, 30100-30107	3.3	14
109	Noise and dynamics of stimulated-Brillouin-scattering microresonator lasers. *Physical Review A*, **2015**, 91,	2.6	13
108	Absolute and relative stability of an optical frequency reference based on spectral hole burning in Eu3+:Y2SiO5. *Physical Review Letters*, **2013**, 111, 237402	7.4	13
107	A proposed laser frequency comb-based wavelength reference for high-resolution spectroscopy **2007**,		13
106	Improved stabilization of a 1.3 microm femtosecond optical frequency comb by use of a spectrally tailored continuum from a nonlinear fiber grating. *Optics Letters*, **2006**, 31, 277-9	3	13
105	Compact femtosecond-laser-based optical clockwork **2001**, 4269, 77		13

104	Mid-infrared frequency combs at 10 GHz. *Optics Letters*, **2020**, 45, 3677-3680	3	13
103	Rapid, broadband spectroscopic temperature measurement of (hbox {CO}_2) using VIPA spectroscopy. *Applied Physics B: Lasers and Optics*, **2016**, 122, 1	1.9	12
102	A frequency-stabilized Yb:KYW femtosecond laser frequency comb and its application to low-phase-noise microwave generation. *Applied Physics B: Lasers and Optics*, **2013**, 112, 565-570	1.9	12
101	Optical frequency measurements with the global positioning system: tests with an iodine-stabilized He-Ne laser. *Applied Optics*, **2005**, 44, 113-20	1.7	12
100	Chromium-doped forsterite: dispersion measurement with white-light interferometry. *Applied Optics*, **2003**, 42, 1661-6	1.7	12
99	Optical-Clock-Based Time Scale. *Physical Review Applied*, **2019**, 12,	4.3	11
98	Optical frequency standards based on mercury and aluminum ions **2007**,		11
97	The199Hg´single ion optical clock: recent progress. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2003**, 36, 545-551	1.3	11
96	International comparisons of femtosecond laser frequency combs. *IEEE Transactions on Instrumentation and Measurement*, **2005**, 54, 746-749	5.2	11
95	Direct RF to optical frequency measurements with a femtosecond laser comb. *IEEE Transactions on Instrumentation and Measurement*, **2001**, 50, 552-555	5.2	11
94	Dynamics of self-focused femtosecond laser pulses in the near and far fields. *Optics Express*, **1999**, 4, 336-43	3.3	11
93	Microresonator Brillouin laser stabilization using a microfabricated rubidium cell. *Optics Express*, **2016**, 24, 14513-24	3.3	11
92	Measurements of Al+27 and Mg+25 magnetic constants for improved ion-clock accuracy. *Physical Review A*, **2019**, 100,	2.6	10
91	Tunable, stable source of femtosecond pulses near 2 Ħm via supercontinuum of an Erbium mode-locked laser. *Optics Express*, **2014**, 22, 28400-11	3.3	10
90	Pump frequency noise coupling into a microcavity by thermo-optic locking. *Optics Express*, **2014**, 22, 14559-67	3.3	10
89	Generation of a 20 GHz train of subpicosecond pulses with a stabilized optical-frequency-comb generator. *Optics Letters*, **2009**, 34, 85-7	3	10
88	Optimizing the linearity in high-speed photodiodes. *Optics Express*, **2018**, 26, 30532-30545	3.3	10
87	Control and readout of a superconducting qubit using a photonic link. *Nature*, **2021**, 591, 575-579	50.4	10

86	State-of-the-art RF signal generation from optical frequency division. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2013**, 60, 1796-803	3.2	9
85	Grism-based pulse shaper for line-by-line control of more than 600 optical frequency comb lines. *Optics Letters*, **2010**, 35, 3264-6	3	9
84	Low-noise synthesis of microwave and millimetre-wave signals with optical frequency comb generator. *Electronics Letters*, **2009**, 45, 170	1.1	9
83	Chip-scale optical resonator enabled synthesizer (CORES) miniature systems for optical frequency synthesis **2016**,		8
82	Measurement of excited-state transitions in cold calcium atoms by direct femtosecond frequency-comb spectroscopy. *Physical Review A*, **2007**, 75,	2.6	8
81	A low-threshold self-referenced Ti:Sapphire optical frequency comb. *Optics Express*, **2006**, 14, 9531-6	3.3	8
80	Stellar Activity Manifesting at a One-year Alias Explains Barnard b as a False Positive. *Astronomical Journal*, **2021**, 162, 61	4.9	8
79	Fully phase-stabilized 1 GHz turnkey frequency comb at 156 μm. *OSA Continuum*, **2020**, 3, 2070	1.4	7
78	TOI-1728b: The Habitable-zone Planet Finder Confirms a Warm Super-Neptune Orbiting an M-dwarf Host. *Astrophysical Journal*, **2020**, 899, 29	4.7	7
77	Broadband ultraviolet-visible frequency combs from cascaded high-harmonic generation in quasi-phase-matched waveguides. *Journal of the Optical Society of America B: Optical Physics*, **2021**, 38, 2252	1.7	7
76	Octave-spanning supercontinuum generation via microwave frequency multiplication. *Journal of Physics: Conference Series*, **2016**, 723, 012035	0.3	7
75	Broadly tunable, low timing jitter, high repetition rate optoelectronic comb generator. *Electronics Letters*, **2015**, 51, 1596-1598	1.1	6
74	Frequency stability characterization of a broadband fiber Fabry-Pérot interferometer. *Optics Express*, **2017**, 25, 15599-15613	3.3	6
73	Optical frequency standards based on the /sup 199/Hg/sup +/ ion. *IEEE Transactions on Instrumentation and Measurement*, **2003**, 52, 245-249	5.2	6
72	All-fiber frequency comb at 2 μm providing 1.4-cycle pulses. *Optics Letters*, **2020**, 45, 2660-2663	3	6
71	A Warm Jupiter Transiting an M Dwarf: A TESS Single-transit Event Confirmed with the Habitable-zone Planet Finder. *Astronomical Journal*, **2020**, 160, 147	4.9	6
70	Phase-dependent interference between frequency doubled comb lines in a $\chi^{(2)}$ phase-matched aluminum nitride microring. *Optics Letters*, **2016**, 41, 3747-50	3	6
69	High-performance, compact optical standard. *Optics Letters*, **2021**, 46, 4702-4705	3	6

68	Microrod Optical Frequency Reference in the Ambient Environment. *Physical Review Applied*, **2019**, 12,	4.3	5
67	The habitable-zone planet finder calibration system **2014**,		5
66	A near-infrared frequency comb for Y+J band astronomical spectroscopy **2012**,		5
65	Stable Laser System for Probing the Clock Transition at 578 nm in Neutral Ytterbium. *Frequency Control Symposium and Exhibition, Proceedings of the IEEE International*, **2007**,		5
64	Characterization of frequency noise on a broadband infrared frequency comb using optical heterodyne techniques. *Optics Express*, **2007**, 15, 17715-23	3.3	5
63	Investigating nonlinear femtosecond pulse propagation with frequency-resolved optical gating. *IEEE Journal of Quantum Electronics*, **1999**, 35, 451-458	2	5
62	Towards an Integrated-Photonics Optical-Frequency Synthesizer With **2017**,		5
61	Measurement of gravitational time delay using drag-free spacecraft and an optical clock. *Proceedings of the International Astronomical Union*, **2009**, 5, 414-419	0.1	4
60	Introduction to the issue on stabilization of mode-locked lasers. *IEEE Journal of Selected Topics in Quantum Electronics*, **2003**, 9, 969-971	3.8	4
59	Octave-spanning dual comb spectroscopy in the molecular fingerprint region **2018**,		4
58	Mid-infrared frequency comb with 6.7 W average power based on difference frequency generation. *Optics Letters*, **2020**, 45, 1248-1251	3	4
57	A Mini-Neptune and a Radius Valley Planet Orbiting the Nearby M2 Dwarf TOI-1266 in Its Venus Zone: Validation with the Habitable-zone Planet Finder. *Astronomical Journal*, **2020**, 160, 259	4.9	4
56	Nondetection of Helium in the Upper Atmospheres of TRAPPIST-1b, e, and f*. *Astronomical Journal*, **2021**, 162, 82	4.9	4
55	Downsampling of optical frequency combs. *Journal of the Optical Society of America B: Optical Physics*, **2018**, 35, 1666	1.7	3
54	**2010**,		3
53	ALPHA-DOT OR NOT: COMPARISON OF TWO SINGLE ATOM OPTICAL CLOCKS **2009**,		3
52	Noise properties of microwave signals synthesized with femtosecond lasers		3
51	Impact of crosshatch patterns in H2RGs on high-precision radial velocity measurements: exploration of measurement and mitigation paths with the Habitable-Zone Planet Finder. *Journal of Astronomical Telescopes, Instruments, and Systems*, **2019**, 5, 1	1.1	3

50	Versatile digital approach to laser frequency comb stabilization. *OSA Continuum*, **2019**, 2, 3262	1.4	3
49	Frequency locking and unlocking in a femtosecond ring laser with application to intracavity phase measurements. *Applied Physics B: Lasers and Optics*, **1996**, 63, 473-480	1.9	3
48	TOI-532b: The Habitable-zone Planet Finder confirms a Large Super Neptune in the Neptune Desert orbiting a metal-rich M-dwarf host. *Astronomical Journal*, **2021**, 162, 135	4.9	3
47	The Habitable-zone Planet Finder Detects a Terrestrial-mass Planet Candidate Closely Orbiting Gliese 1151: The Likely Source of Coherent Low-frequency Radio Emission from an Inactive Star. *Astrophysical Journal Letters*, **2021**, 919, L9	7.9	3
46	Photonic microwave generation with high-power photodiodes **2013**,		2
45	Heterodyne-based hybrid controller for wide dynamic range optoelectronic frequency synthesis. *Optics Express*, **2017**, 25, 29086	3.3	2
44	Optical phase-noise dynamics of Titanium:sapphire optical frequency combs. *Optics Communications*, **2014**, 320, 84-87	2	2
43	Ultra-low-noise regenerative frequency divider for high-spectral-purity RF signal generation **2012**,		2
42	**2012**,		2
41	A near infrared laser frequency comb for high precision Doppler planet surveys. *EPJ Web of Conferences*, **2011**, 16, 02002	0.3	2
40	Square pulse generation in a ring dye laser. *Optics Communications*, **1997**, 143, 252-256	2	2
39	Lattice-based optical clock using an even isotope of Yb **2007**, 6673, 117		2
38	Stability Measurements of the Ca and Yb Optical Frequency Standards **2006**,		2
37	Low instability, low phase-noise femtosecond optical frequency comb microwave synthesizer		2
36	Dispersion measurements of water with white-light interferometry: errata **1999**, 38, 2499		2
35	Infrared Astronomical Spectroscopy for Radial Velocity Measurements with 10 cm/s Precision **2018**,		2
34	Direct Kerr-frequency-comb atomic stabilization **2018**,		2
33	Initiating Kerr-Soliton Frequency Combs Apart from Thermal Bistability and Mode Perturbation Effects **2017**,		2

32	Optical frequency synthesis using a dual-Kerr-microresonator frequency comb **2017**,		2
31	Self-referencing a CW laser with efficient nonlinear optics **2015**,		2
30	A Harsh Test of Far-field Scrambling with the Habitable-zone Planet Finder and the Hobby-Eberly Telescope. *Astrophysical Journal*, **2021**, 912, 15	4.7	2
29	Reduction of Flicker Phase Noise in High-Speed Photodetectors Under Ultrashort Pulse Illumination. *IEEE Photonics Journal*, **2021**, 13, 1-12	1.8	2
28	Single-cycle all-fiber frequency comb. *APL Photonics*, **2021**, 6, 086110	5.2	2
27	Octave-spanning long-wave infrared generation via intra-pulse difference frequency generation in orientation-patterned gallium phosphide **2017**,		1
26	**2011**,		1
25	Mechanical stabilization of a microrod-resonator optical frequency comb **2012**,		1
24	Fiber laser-based frequency combs with high relative frequency stability. *Frequency Control Symposium and Exhibition, Proceedings of the IEEE International*, **2007**,		1
23	Sub 6-fs Pulses Generated from a Broadband 1-GHz Ti:sapphire Oscillator **2007**,		1
22	Optical frequency standards for clocks of the future **2001**,		1
21	Carrier-envelope phase stabilization of mode-locked lasers **2001**, 4271, 183		1
20			1
19	Direct RF to optical frequency measurements with a femtosecond laser comb		1
18	All-optical atomic clocks		1
17	High-resolution Near-infrared Spectroscopy of a Flare around the Ultracool Dwarf vB 10. *Astrophysical Journal*, **2022**, 925, 155	4.7	1
16	Coherent on-chip spectral-engineered mid-IR frequency comb generation in Si waveguides **2017**,		1
15	Stabilizing multiple solitons in Kerr microresonator frequency combs **2016**,		1

List of Publications

14	High-Speed Photodetection and Microwave Generation in a Sub-100 mK Environment **2019**,		1
13	Frequency stability of the mode spectrum of broad bandwidth Fabry-Pérot interferometers. *OSA Continuum*, **2020**, 3, 1177	1.4	1
12	Atomic clocks of the future: using the ultrafast and ultrastable. *Springer Series in Chemical Physics*, **2003**, 170-174	0.3	1
11	An Ultrafast Electro-Optic Dual Comb for Linear and Nonlinear Spectroscopy **2018**,		1
10	Precise Control of the Pulse-to-Pulse Carrier-Envelope Phase in a Mode-Locked Laser. *Springer Series in Chemical Physics*, **2001**, 74-78	0.3	1
9	A low-dispersion Fabry-Perot cavity for generation of a 30 GHz astrocomb spanning 140 nm **2015**,		1
8	Broadband Mid-Infrared Dual Comb Spectroscopy with Comb-Tooth Resolution and High Signal-To-Noise Ratio **2017**,		1
7	Measuring the thermal sensitivity of a fiber Fabry-Pérot interferometer **2016**,		1
6	Rotational Modulation of Spectroscopic Zeeman Signatures in Low-mass Stars. *Astrophysical Journal Letters*, **2022**, 927, L11	7.9	1
5	Broadband Stability of the Habitable Zone Planet Finder Fabry-Pérot Etalon Calibration System: Evidence for Chromatic Variation. *Astronomical Journal*, **2021**, 161, 252	4.9	0
4	A Hot Mars-sized Exoplanet Transiting an M Dwarf. *Astronomical Journal*, **2022**, 163, 3	4.9	0
3	TOI-1696 and TOI-2136: Constraining the Masses of Two Mini-Neptunes with the Habitable-Zone Planet Finder. *Astronomical Journal*, **2022**, 163, 286	4.9	0
2	Femtosecond Laser Frequency Combs with linewidths at the 1-Hz Level. *Springer Series in Chemical Physics*, **2005**, 840-842	0.3	
1	Toward Ultrafast Optical Waveform Synthesis with a Stabilized Ti:Sapphire Frequency Comb. *Springer Series in Chemical Physics*, **2009**, 861-863	0.3	