Avi Zadok

List of Publications by Year
in descending order

85 papers	2,561 citations	186265 28 h-index	189892 50 g-index
85 all docs	85 docs citations	85 times ranked	1214 citing authors

#	Article	IF	Citations
1	Vector analysis of stimulated Brillouin scattering amplification in standard single-mode fibers. Optics Express, 2008, 16, 21692.	3.4	240
2	Optomechanical sensing of liquids outside standard fibers using forward stimulated Brillouin scattering. Optica, 2016, 3, 510.	9.3	149
3	Randomâ€access distributed fiber sensing. Laser and Photonics Reviews, 2012, 6, L1.	8.7	131
4	High-resolution long-reach distributed Brillouin sensing based on combined time-domain and correlation-domain analysis. Optics Express, 2014, 22, 6453.	3.4	128
5	Brillouin optical correlation domain analysis with 4 millimeter resolution based on amplified spontaneous emission. Optics Express, 2014, 22, 12070.	3.4	125
6	Electrically pumped hybrid evanescent Si/InGaAsP lasers. Optics Letters, 2009, 34, 1345.	3.3	93
7	Tunable sharp and highly selective microwave-photonic band-pass filters based on stimulated Brillouin scattering. Photonics Research, 2014, 2, B18.	7.0	90
8	Low-noise delays from dynamic Brillouin gratings based on perfect Golomb coding of pump waves. Optics Letters, 2012, 37, 5259.	3.3	89
9	Optomechanical time-domain reflectometry. Nature Communications, 2018, 9, 2991.	12.8	89
10	Experimental demonstration of localized Brillouin gratings with low off-peak reflectivity established by perfect Golomb codes. Optics Letters, 2013, 38, 4701.	3.3	83
11	High-resolution long-range distributed Brillouin analysis using dual-layer phase and amplitude coding. Optics Express, 2014, 22, 27144.	3.4	83
12	High-Resolution Low-Sidelobe Laser Ranging Based on Incoherent Pulse Compression. IEEE Photonics Technology Letters, 2012, 24, 2119-2121.	2.5	75
13	Extended delay of broadband signals in stimulated Brillouin scattering slow light using synthesized pump chirp. Optics Express, 2006, 14, 8498.	3.4	74
14	Gigahertz-Wide Optically Reconfigurable Filters Using Stimulated Brillouin Scattering. Journal of Lightwave Technology, 2007, 25, 2168-2174.	4.6	62
15	Sharp tunable optical filters based on the polarization attributes of stimulated Brillouin scattering. Optics Express, 2011, 19, 21945.	3.4	62
16	Observation of anti-parity-time-symmetry, phase transitions and exceptional points in an optical fibre. Nature Communications, 2021, 12, 486.	12.8	59
17	Enhancement of spectral resolution and optical rejection ratio of Brillouin optical spectral analysis using polarization pulling. Optics Express, 2012, 20, 14734.	3.4	55
18	Surface acoustic wave photonic devices in silicon on insulator. Nature Communications, 2019, 10, 4214.	12.8	54

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19	Opto-mechanical inter-core cross-talk in multi-core fibers. Optica, 2017, 4, 289.	9.3	48
20	Secure key generation using an ultra-long fiber laser: transient analysis and experiment. Optics Express, 2008, 16, 16680.	3.4	44
21	Generation of ultra-narrow, stable and tunable millimeter- and terahertz- waves with very low phase noise. Optics Express, 2013, 21, 23950.	3.4	42
22	Optically Controlled Low-Distortion Delay of GHz-Wide Radio-Frequency Signals Using Slow Light in Fibers. IEEE Photonics Technology Letters, 2007, 19, 462-464.	2.5	39
23	Dual-pump push-pull polarization control using stimulated Brillouin scattering. Optics Express, 2011, 19, 25873.	3.4	37
24	Distributed opto-mechanical analysis of liquids outside standard fibers coated with polyimide. APL Photonics, 2019, 4, .	5.7	37
25	Forward stimulated Brillouin scattering and opto-mechanical non-reciprocity in standard polarization maintaining fibres. Light: Science and Applications, 2021, 10, 119.	16.6	35
26	Monitoring the Evaporation of Fluids from Fiber-Optic Micro-Cell Cavities. Sensors, 2013, 13, 15261-15273.	3.8	33
27	Brillouin Optical Correlation Domain Analysis Addressing 440 000 Resolution Points. Journal of Lightwave Technology, 2016, 34, 4421-4429.	4.6	32
28	Eight-Channel Silicon-Photonic Wavelength Division Multiplexer With 17 GHz Spacing. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-10.	2.9	28
29	Forward Stimulated Brillouin Scattering Analysis of Optical Fibers Coatings. Journal of Lightwave Technology, 2021, 39, 1800-1807.	4.6	26
30	Distributed cladding mode fiber-optic sensor. Optica, 2020, 7, 85.	9.3	25
31	Electro-opto-mechanical radio-frequency oscillator driven by guided acoustic waves in standard single-mode fiber. APL Photonics, 2017, 2, 041303.	5.7	23
32	Four-wave mixing and nonlinear parameter measurement in a gallium-nitride ridge waveguide. Optical Materials Express, 2018, 8, 66.	3.0	22
33	Monitoring and analysis of pendant droplets evaporation using bare and monolayer-coated optical fiber facets. Optical Materials Express, 2014, 4, 903.	3.0	20
34	Highly-coherent stimulated phonon oscillations in a multi-core optical fiber. Scientific Reports, 2018, 8, 9514.	3.3	20
35	Invited Article: Distributed analysis of nonlinear wave mixing in fiber due to forward Brillouin scattering and Kerr effects. APL Photonics, 2018, 3, .	5.7	19
36	Opto-Mechanical Fiber Sensing of Gamma Radiation. Journal of Lightwave Technology, 2021, 39, 6637-6645.	4.6	19

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37	Stimulated Brillouin scattering amplification in centimeter-long directly written chalcogenide waveguides. Optics Letters, 2012, 37, 5112.	3.3	18
38	High-Q ring resonators directly written in As_2S_3 chalcogenide glass films. Photonics Research, 2015, 3, 63.	7.0	18
39	Double-pulse pair Brillouin optical correlation-domain analysis. Optics Express, 2016, 24, 26867.	3.4	17
40	High-resolution Brillouin optical correlation domain analysis with no spectral scanning. Optics Express, 2016, 24, 27253.	3.4	16
41	Polarization-induced distortion in stimulated Brillouin scattering slow-light systems. Optics Letters, 2009, 34, 2530.	3.3	15
42	Photonic Generation of Ultra-Wideband Signals via Pulse Compression in a Highly Nonlinear Fiber. IEEE Photonics Technology Letters, 2010, 22, 239-241.	2.5	15
43	Generation and Detection of Ultra-Wideband Waveforms Using Stimulated Brillouin Scattering Amplified Spontaneous Emission. IEEE Photonics Technology Letters, 2010, 22, 1692-1694.	2.5	14
44	Interpolarization Forward Stimulated Brillouin Scattering in Standard Singleâ€Mode Fibers. Laser and Photonics Reviews, 2022, 16, 2100337.	8.7	14
45	Tunable microwave-photonic filter using frequency-to-time mapping-based delay lines. Optics Express, 2013, 21, 21702.	3.4	13
46	Opto-Mechanical Interactions in Multi-Core Optical Fibers and Their Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-13.	2.9	13
47	Phase-Coded and Noise-Based Brillouin Optical Correlation-Domain Analysis. Applied Sciences (Switzerland), 2018, 8, 1482.	2.5	12
48	Reconfigurable Generation of High-Order Ultra-Wideband Waveforms Using Edge Detection. Journal of Lightwave Technology, 2010, 28, 2207-2212.	4.6	11
49	Surface acoustic microwave photonic filters in standard silicon-on-insulator. Optica, 2021, 8, 697.	9.3	11
50	Direct time-of-flight distributed analysis of nonlinear forward scattering. Optica, 2022, 9, 419.	9.3	9
51	A forward Brillouin fibre laser. Nature Communications, 2022, 13, .	12.8	8
52	Ultra-narrowband integrated Brillouin laser. Nature Photonics, 2019, 13, 9-10.	31.4	7
53	Fiber-Optic Evaporation Sensing: Monitoring Environmental Conditions and Urinalysis. Journal of Lightwave Technology, 2016, 34, 4486-4492.	4.6	6
54	Sequence-coded coherent laser ranging with high detection sensitivity. OSA Continuum, 2020, 3, 1274.	1.8	6

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55	Integrated High-Resolution Optical Spectrum Analyzer With Broad Operational Bandwidth. IEEE Photonics Technology Letters, 2020, 32, 1061-1064.	2.5	5
56	Surface acoustic wave photonic filters with a single narrow radio-frequency passband in standard silicon on insulator. Photonics Research, 2022, 10, 1723.	7.0	5
57	Incoherent compression of complementary code pairs for laser ranging and detection. , 2013, , .		4
58	Brillouin Optical Correlation Domain Analysis in Composite Material Beams. Sensors, 2017, 17, 2266.	3.8	4
59	Sensing Outside Polyimide-Coated Fibers Using Guided Acoustic Waves Brillouin Scattering. , 2018, , .		4
60	Robust Directional Couplers for State Manipulation in Silicon Photonic-Integrated Circuits. Journal of Lightwave Technology, 2022, 40, 7634-7639.	4.6	4
61	Birefringence-Induced Trains of High-Rate Pulses in a Mode-Locked Fiber Laser. IEEE Photonics Journal, 2009, 1, 128-134.	2.0	3
62	Continuously variable long microwave-photonic delay of arbitrary frequency-chirped signals. Optics Letters, 2012, 37, 3939.	3.3	3
63	Analysis of thin layers using surface acoustic wave-photonic devices in silicon-on-insulator. Optics Express, 2022, 30, 6949.	3.4	3
64	Low-Distortion Long Variable Delay of Linear Frequency Modulated Waveforms. IEEE Photonics Journal, 2012, 4, 499-503.	2.0	2
65	Silicon-Photonic Dense 8-Channel Multiplexer Using Auto-Regressive Moving-Average Filters. , 2018, , .		2
66	Opto-Mechanical Point Sensing in a Multi-Core Fiber. , 2018, , .		2
67	Polarimetric Characterization of RF Spectra at the Output of Linear Optical Systems. Journal of Lightwave Technology, 2006, 24, 4138-4148.	4.6	1
68	Frequency-selective filtering and analysis of radio-over-fiber using stimulated Brillouin scattering. , 2013, , .		1
69	Tunable generation of ultra-narrow linewidth millimeter and THz-waves and their modulation at 40 Gbd. , 2013, , .		1
70	Brillouin time-domain and correlation-domain analyses combined. , 2014, , .		1
71	Direct observation of patterned self-assembled monolayers and bilayers on silica-on-silicon surfaces. Optical Materials Express, 2015, 5, 149.	3.0	1
72	Surface-Acoustic-Wave Modulation of a Silicon-on-Insulator Defect Bragg Grating. , 2020, , .		1

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73	Surface-Acoustic-Wave Characterization of Thin Layer Deposition on a Standard Silicon-Photonic Circuit. , 2020, , .		1
74	Coherent optical (CO) OFDM system based on the wavelet packet transform (WPT). , 2012, , .		0
75	All-optical storage and processing in optical fibers. , 2012, , .		0
76	Advanced applications of stimulated Brillouin scattering in optical communications. , 2015, , .		0
77	Electro-opto-mechanical oscillator in standard fiber. , 2017, , .		0
78	Guided acoustic waves Brillouin scattering in multi-core optical fibers. , 2017, , .		0
79	Sinc-shaped, Nyquist Channel Demultiplexing with Silicon Photonics. , 2019, , .		0
80	An Integrated Discrete-Time Microwave Photonic Filter Using Surface Acoustic Waves in Silicon. , 2019, , .		0
81	Integrated Discrete-Time Surface Acoustic Wave Photonic Radio-Frequency Filters with Arbitrary Tap Weights. , 2021, , .		0
82	Inter-Modal Forward Stimulated Brillouin Scattering and Non-Reciprocity in Standard Polarization Maintaining Fiber. , 2021, , .		0
83	Opto-Mechanical Inter-Core Crosstalk in Multi-Core Fibers. , 2021, , .		0
84	Surface Acoustic Wave Integrated-Photonic Radio-Frequency Filters with Arbitrary Complex Tap Coefficients. , 2020, , .		0
85	Multiple return analysis for noncoherent pulse compression of periodic coded waveforms. , 2021, , .		0