

# Balaji Srinivasan

## List of Publications by Year in descending order

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111  
papers

792  
citations

516710

16  
h-index

580821

25  
g-index

111  
all docs

111  
docs citations

111  
times ranked

614  
citing authors

#	ARTICLE	IF	CITATIONS
1	Impact of Surfactants on the Electrical and Rheological Aspects of Silica Based Synthetic Ester Nanofluids. IEEE Access, 2022, 10, 18192-18200.	4.2	11
2	Statistics-based baseline-free approach for rapid inspection of delamination in composite structures using ultrasonic guided waves. Structural Health Monitoring, 2022, 21, 2719-2731.	7.5	44
3	Challenges in coherent beam combining of high power fiber amplifiers: a review. ISSS Journal of Micro and Smart Systems, 2022, 11, 277-293.	2.0	6
4	Challenges and opportunities in distributed anti-Stokes Raman thermometry. ISSS Journal of Micro and Smart Systems, 2022, 11, 179-206.	2.0	4
5	Investigation of the corona discharge activity in liquid nitrogen under transient voltage conditions using fluorescent fiber sensor. Cryogenics, 2022, 124, 103456.	1.7	0
6	Generation of High Power Ultrashort Pulses in Tapered Yb-Doped PCF Through Self-Similar Compression. IEEE Journal of Quantum Electronics, 2022, 58, 1-8.	1.9	0
7	Nonlinearity-Assisted All-Optical Clock Recovery for Phase Modulated Lightwave Systems. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-9.	2.9	1
8	Outlier analysis for defect detection using sparse sampling in guided wave structural health monitoring. Structural Control and Health Monitoring, 2021, 28, e2690.	4.0	68
9	Predicting Onset of Combustion Instability in Gas Turbines Using Fiber Bragg Grating Pressure Sensors. Springer Proceedings in Physics, 2021, , 161-164.	0.2	0
10	Stimulated Brillouin scattering mitigation using optimized phase modulation waveforms in high power narrow linewidth Yb-doped fiber amplifiers. Optics Express, 2021, 29, 17183.	3.4	13
11	Numerical studies of the operating regimes of a passively mode-locked Thulium doped fiber laser. OSA Continuum, 2021, 4, 2193.	1.8	3
12	Measurement accuracy enhancement with multi-event detection using the deep learning approach in Raman distributed temperature sensors. Optics Express, 2021, 29, 26745.	3.4	18
13	Investigation on Surface Condition of the Corona-Aged Silicone Rubber Nanocomposite Adopting Wavelet and LIBS Technique. IEEE Transactions on Plasma Science, 2021, 49, 2294-2304.	1.3	12
14	Investigation on Impact of Magnetic Field on the Corona Discharge Activity in Punga Oil Using Fluorescent Fiber and UHF Sensor Techniques. IEEE Access, 2021, 9, 129218-129228.	4.2	14
15	Fluorescent fiber-based identification of incipient discharges in liquid nitrogen. Cryogenics, 2021, 120, 103376.	1.7	2
16	Simultaneous Multi-point Sensing based on Brillouin Optical Correlation Domain Analysis with Digital Lock-in Detection Scheme. , 2021, , .		0
17	Wave visualization of ultrasonic guided waves in a metallic structure using fiber Bragg gratings. , 2021, , .		1
18	Demonstration of a Multi-Channel Dynamic Interrogation System based on Matched Filters for Elastic Wave Sensing. , 2021, , .		0

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19	Reference-Free Real-Time Power Line Monitoring Using Distributed Anti-Stokes Raman Thermometry for Smart Power Grids. IEEE Sensors Journal, 2020, 20, 7044-7052.	4.7	30
20	Predicting Onset of Combustion Instability in Gas Turbines Using Fiber Optic Sensors. IEEE Sensors Journal, 2020, , 1-1.	4.7	0
21	Study on water droplet initiated discharges and charge trap characteristics of laser textured silicone rubber nanocomposites. SPE Polymers, 2020, 1, 139-148.	3.3	5
22	Fluorescence Fiber Based Identification of Partial Discharges in Liquid Nitrogen for High-Temperature Superconducting Power Apparatus. , 2020, 4, 1-4.		15
23	Raman Amplification of Charge-15 Orbital Angular Momentum Mode in a Large Core Step Index Fiber. , 2020, , .		1
24	Accurate BFS Estimation in Simultaneous Multi-Point Sensing Based on External Modulation BOCDA. , 2020, , .		0
25	Fiber bragg grating based detection of part-thickness cracks in bent composite laminates using feature-guided waves. Smart Materials and Structures, 2019, 28, 085026.	3.5	8
26	Accurate Estimation of Brillouin Frequency Shift in Brillouin Optical Correlation Domain Analysis. Journal of Lightwave Technology, 2019, 37, 5875-5884.	4.6	3
27	Generation and decomposition of scalar and vector modes carrying orbital angular momentum: a review. Optical Engineering, 2019, 59, 1.	1.0	29
28	Modal decomposition of Laguerre Gaussian beams with different radial orders using optical correlation technique. Optics Express, 2019, 27, 13182.	3.4	21
29	Multi-point dynamic strain sensing using external modulation-based Brillouin optical correlation domain analysis. Optics Express, 2019, 27, 19486.	3.4	5
30	Single Shot Modal Decomposition of Optical Fiber Output in OAM Basis using Optical Correlation Technique. , 2019, , .		1
31	Demonstration of all-optical clock recovery from NRZ-PM-QPSK and PM-16QAM signals. , 2019, , .		2
32	Raman amplification of optical beam carrying orbital angular momentum in a multimode step-index fiber. Optics Letters, 2019, 44, 1658.	3.3	4
33	Effects of wavelength filtering on pulse dynamics in a tunable, actively Q-switched fiber laser. Optics and Laser Technology, 2018, 98, 190-197.	4.6	8
34	Detection of Guided Waves in a Composite Plate Using Surface Bonded Fiber Bragg Gratings Sensor. , 2018, , .		1
35	Robust Classification of Partial Discharges in Transformer Insulation Based on Acoustic Emissions Detected Using Fiber Bragg Gratings. IEEE Sensors Journal, 2018, 18, 10018-10027.	4.7	31
36	Investigation of propagation dynamics of truncated vector vortex beams. Optics Letters, 2018, 43, 2579.	3.3	11

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37	Multimode-pumped Raman amplification of a higher order mode in a large mode area fiber. Optics Express, 2018, 26, 23295.	3.4	12
38	Monitoring pipe wall integrity using fiber Bragg grating-based sensing of low-frequency guided ultrasonic waves. Ultrasonics, 2018, 90, 120-124.	3.9	15
39	Performance analysis of frequency shift estimation techniques in Brillouin distributed fiber sensors. Optics Express, 2018, 26, 14661.	3.4	39
40	Investigation of temporal dynamics due to stimulated Brillouin scattering using statistical correlation in a narrow-linewidth cw high power fiber amplifier. Optics Express, 2018, 26, 33409.	3.4	14
41	All-Optical Clock Recovery from 10 Gbps NRZ OOK and BPSK Data through Injection-Locking of Fiber Laser. , 2018, , .		1
42	Modal decomposition of optical fiber output in OAM basis using optical correlation technique. , 2018, , .		0
43	Deconvolution Algorithm for Accurate Estimation of Brillouin Frequency in Brillouin Optical Correlation Domain Analysis. , 2018, , .		1
44	Spatial mapping of correlation profile in Brillouin optical correlation domain analysis. Measurement Science and Technology, 2017, 28, 045202.	2.6	2
45	Fiber Bragg grating-based detection of cross sectional irregularities in metallic pipes. , 2017, , .		0
46	Accurate determination of Brillouin frequency based on cross recurrence plot analysis in Brillouin distributed fiber sensor. Proceedings of SPIE, 2017, , .	0.8	1
47	All-Fiber Fused Coupler for Stable Generation of Radially and Azimuthally Polarized Beams. IEEE Photonics Technology Letters, 2017, 29, 31-34.	2.5	31
48	Identification and localization of partial discharge in transformer insulation adopting cross recurrence plot analysis of acoustic signals detected using fiber Bragg gratings. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 1773-1780.	2.9	35
49	Feature-guided wave-based health monitoring of bent plates using fiber Bragg gratings. Journal of Intelligent Material Systems and Structures, 2017, 28, 1211-1220.	2.5	17
50	Simultaneous Multi-point Sensing through External Phase Modulation based Brillouin Optical Correlation Domain Analysis. , 2017, , .		0
51	Orbital angular momentum beam excitation using an all-fiber weakly fused mode selective coupler. Optics Letters, 2017, 42, 4347.	3.3	84
52	Investigation of Self-Healing Property of Composite Vector Vortex Beams. , 2017, , .		1
53	Design and experimental demonstration of a Fourier-domain mode-locked laser based on erbium-doped fiber amplifier. Optical Engineering, 2017, 56, 1.	1.0	1
54	Amplification of Orbital Angular Momentum Beam in a Fiber Raman Amplifier. , 2017, , .		2

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55	Multimode Raman Pumping for Power-Scaling of Large Area Higher Order Modes in Fiber Amplifiers. , 2017, , .		1
56	Sub-harmonic injection locking of quantum-dash lasers using spectral enrichment from semiconductor optical amplifiers. Applied Optics, 2017, 56, 9913.	1.8	1
57	OAM generation in optical fibre and free space devices. , 2016, , .		1
58	Fiber Bragg grating-based wavelength modulation spectroscopy technique for trace gas sensing. Proceedings of SPIE, 2016, , .	0.8	0
59	Investigation of fractional charge OAM beam generation and its decomposition. , 2016, , .		0
60	Detection of fundamental shear horizontal mode in plates using fibre Bragg gratings. Journal of Intelligent Material Systems and Structures, 2016, 27, 2229-2236.	2.5	19
61	OAM Beam Generation using All-fiber Fused Couplers. , 2016, , .		12
62	Generation of Radially and Azimuthally Polarized Beams using All-fiber Fused Couplers. , 2016, , .		3
63	Design and Demonstration of an All-Fiber Tandem Pumped Master Oscillator Power Amplifier. , 2016, , .		1
64	Demonstration of filterless and tunable thulium doped fiber ring laser with emission in the 2 $\mu$ m region. , 2016, , .		0
65	Investigation of scalability of all-fiber fused mode selective coupler for generating multiple OAM states. , 2016, , .		1
66	Investigation of Passive Mode Locking Characteristics of Thulium Doped Fiber Ring Laser. , 2016, , .		0
67	Performance Analysis of All-optical Clock Recovery Using Fabry-Perot Fiber Bragg Gratings. , 2016, , .		0
68	Riding the Feature - Feature Guided Wave-Based Defect Identification using Fiber Bragg Grating Sensors. , 2016, , .		0
69	Sub-Harmonic Injection-Locking of Quantum Dash Lasers through Spectral Enrichment for All-Optical Clock Recovery. , 2015, , .		0
70	Studies on the propagation of orbital angular momentum beams through optical fibers with different index profiles. , 2015, , .		0
71	Development of a 535 nm frequency doubled fiber laser with enhanced spatial coherence for diabetic retinopathy. , 2015, , .		0
72	Simulation and experimental validation of fiber Fabry-Perot filters for optical clock recovery. Journal of Optics (India), 2015, 44, 178-181.	1.7	3

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73	Enhanced sensitivity etched fiber Bragg gratings for precise measurement of refractive index. , 2015, , .		1
74	Novel method of defect identification in bent structures through feature-guided wave detection using fiber Bragg grating sensors. Proceedings of SPIE, 2015, , .	0.8	0
75	Fiber interrogator for Bragg grating sensors based on cavity ring-down technique. Proceedings of SPIE, 2015, , .	0.8	0
76	Spectral tailoring of fiber Bragg gratings through scanning beam fabrication technique. Journal of Optics (India), 2015, 44, 330-336.	1.7	0
77	Dynamic interrogator for elastic wave sensing using Fabry Perot filters based on fiber Bragg gratings. Ultrasonics, 2015, 60, 103-108.	3.9	21
78	Characterization of regenerative stabilized actively mode-locked fiber laser incorporating a saturated amplifier in feed-back chain. Optics and Laser Technology, 2015, 67, 98-106.	4.6	2
79	Demonstration of Correlation Peak Profiling in Frequency Correlated Brillouin Optical Time Domain Analysis. , 2015, , .		1
80	Measurement of Amplitude Response of a Fabry-Perot Tunable Optical Filter for Fourier Domain Mode-Locking. , 2014, , .		1
81	Distributed fiber optic sensor based on correlation coded Brillouin scattering for long range condition monitoring. , 2014, , .		0
82	Fast distributed temperature sensing using Brillouin beat spectrum of large effective area fiber (LEAF). Proceedings of SPIE, 2014, , .	0.8	0
83	Numerical simulation of a dispersion-managed active harmonically mode-locked fiber laser using a spectral double-grid technique. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1373.	2.1	1
84	Design and demonstration of tunable q-switched fiber laser. , 2013, , .		1
85	Formulation of adaptive Adam-Bashforth method for solving ordinary differential equations: modeling of highly doped waveguide amplifiers. Proceedings of SPIE, 2012, , .	0.8	0
86	Repetition rate independent scheme for the stabilization of re-generatively mode-locked fiber lasers. , 2012, , .		0
87	An adaptive line enhancement technique for Fiber Bragg grating-based acoustic emission sensor. , 2012, , .		1
88	Investigation of the Directional Response of Fibre Bragg Grating-Based Acoustic Emission Sensor. , 2012, , .		5
89	Experimental investigation of link between growth and decay of fiber Bragg gratings. Applied Optics, 2011, 50, 4042.	2.1	1
90	A flexible rugged testbed for passive solar collector development. , 2011, , .		0

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91	Investigation of scattering profiles for passive solar light collectors. , 2011, , .		0
92	Investigation of stimulated Brillouin scattering spectra of an optical fiber with use of a frequency modulated laser. Proceedings of SPIE, 2011, , .	0.8	0
93	Precise, rugged spectrum-based calibration of distributed anti-stokes raman thermometry systems. , 2011, , .		0
94	ENHANCED DETECTION OF VIBRATIONS USING FIBER FABRY PEROT FILTERS AND SPECTRAL ESTIMATION TECHNIQUES. , 2011, , .		4
95	Characterization of atmospheric turbulence effects and their mitigation using wavelet-based signal processing. IEEE Transactions on Communications, 2010, 58, 1795-1802.	7.8	11
96	Optimization of cavity configuration of a Q-switched fibre laser. Proceedings of SPIE, 2010, , .	0.8	0
97	Strain-Temperature Discrimination Using a Single Fiber Bragg Grating. IEEE Photonics Technology Letters, 2010, 22, 778-780.	2.5	28
98	Performance enhancement of Raman optical time domain reflectometer using Golay codes. Proceedings of SPIE, 2010, , .	0.8	2
99	Predicting the Decay of Fiber Bragg Gratings from their Growth. , 2010, , .		0
100	Investigation of Coal Gasification Through Distributed Temperature Sensing Using Fiber Bragg Gratings. , 2010, , .		0
101	Implementation of a low cost short-haul optical wireless link. , 2009, , .		0
102	A low-cost rugged solution for solar lighting. Proceedings of SPIE, 2009, , .	0.8	1
103	Distributed High Temperature Sensing Using Fiber Bragg Gratings. International Journal of Optomechatronics, 2008, 2, 4-15.	6.6	5
104	Countering Atmospheric Turbulence in Free Space Optical Links Using Wavelet Based Signal Processing. , 2008, , .		0
105	Predicting thermal stability of fibre Bragg gratings " isothermal annealing within isochronal annealing. Electronics Letters, 2007, 43, 1341.	1.0	5
106	Compact optical rotation sensor using CCD array. , 2007, , .		0
107	First demonstration of thermally poled electrooptically tunable fiber Bragg gratings. IEEE Photonics Technology Letters, 2000, 12, 170-172.	2.5	21
108	<title>Compact LED-based phase fluorimeter detection system for chemical and biosensor arrays</title>. , 1998, , .		5

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109	<title>Upconversion fiber lasers</title>. , 1998, 3211, 397.		0
110	Investigation of water dropletâ€initiated discharges on laser textured silicone nanoâ€micro composites using UHF and fluorescent fibre techniques. IET Nanodielectrics, 0, , .	4.1	0
111	Theoretical and experimental investigation of the sources of error in stochastic parallel gradient descent based digital modal decomposition technique. OSA Continuum, 0, , .	1.8	5