

# Javier Madrigal

## List of Publications by Year in descending order

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58  
papers

2,254  
citations

361413

20  
h-index

276875

41  
g-index

58  
all docs

58  
docs citations

58  
times ranked

2029  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microwave Photonic Signal Processing. <i>Journal of Lightwave Technology</i> , 2013, 31, 571-586.	4.6	494
2	Reconfigurable Radio Access Networks Using Multicore Fibers. <i>IEEE Journal of Quantum Electronics</i> , 2016, 52, 1-7.	1.9	379
3	Multi-Core Optical Fibers With Bragg Gratings as Shape Sensor for Flexible Medical Instruments. <i>IEEE Sensors Journal</i> , 2019, 19, 5878-5884.	4.7	136
4	Fiber Optic Shape Sensors: A comprehensive review. <i>Optics and Lasers in Engineering</i> , 2021, 139, 106508.	3.8	136
5	Packaged Optical Sensors Based on Regenerated Fiber Bragg Gratings for High Temperature Applications. <i>IEEE Sensors Journal</i> , 2012, 12, 107-112.	4.7	100
6	Microwave Photonics for Optical Sensors. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017, 23, 327-339.	2.9	98
7	Multipoint Two-Dimensional Curvature Optical Fiber Sensor Based on a Nontwisted Homogeneous Four-Core Fiber. <i>Journal of Lightwave Technology</i> , 2015, 33, 2445-2450.	4.6	95
8	Long Period Gratings in Multicore Optical Fibers for Directional Curvature Sensor Implementation. <i>Journal of Lightwave Technology</i> , 2018, 36, 1063-1068.	4.6	92
9	Spatial Division Multiplexed Microwave Signal processing by selective grating inscription in homogeneous multicore fibers. <i>Scientific Reports</i> , 2017, 7, 41727.	3.3	65
10	Long fiber Bragg grating sensor interrogation using discrete-time microwave photonic filtering techniques. <i>Optics Express</i> , 2013, 21, 28175.	3.4	56
11	Low-Loss Photonic Crystal Fiber Interferometers for Sensor Networks. <i>Journal of Lightwave Technology</i> , 2010, 28, 3542-3547.	4.6	48
12	Multicore fiber-Bragg-grating-based directional curvature sensor interrogated by a broadband source with a sinusoidal spectrum. <i>Optics Letters</i> , 2017, 42, 3710.	3.3	41
13	Twisting measurement and compensation of optical shape sensor based on spun multicore fiber. <i>Mechanical Systems and Signal Processing</i> , 2020, 140, 106700.	8.0	36
14	Measurement uncertainty of multicore optical fiber sensors used to sense curvature and bending direction. <i>Measurement: Journal of the International Measurement Confederation</i> , 2019, 132, 35-46.	5.0	34
15	Tilted fiber Bragg gratings in multicore optical fibers for optical sensing. <i>Optics Letters</i> , 2017, 42, 1460.	3.3	33
16	An Interrogation Technique of FBG Cascade Sensors Using Wavelength to Radio-Frequency Delay Mapping. <i>Journal of Lightwave Technology</i> , 2015, 33, 2222-2227.	4.6	31
17	Long Weak FBG Sensor Interrogation Using Microwave Photonics Filtering Technique. <i>IEEE Photonics Technology Letters</i> , 2014, 26, 2039-2042.	2.5	29
18	Curvature, twist and pose measurements using fiber Bragg gratings in multi-core fiber: A comparative study between helical and straight core fibers. <i>Sensors and Actuators A: Physical</i> , 2021, 317, 112442.	4.1	25

#	ARTICLE	IF	CITATIONS
19	Interrogation of a Sensor Array of Identical Weak FBGs Using Dispersive Incoherent OFDR. IEEE Photonics Technology Letters, 2016, 28, 1154-1156.	2.5	22
20	Experimental study of the influence of FBG length on optical shape sensor performance. Optics and Lasers in Engineering, 2020, 126, 105878.	3.8	22
21	Sampled true time delay line operation by inscription of long period gratings in few-mode fibers. Optics Express, 2019, 27, 22787.	3.4	21
22	Few-mode fiber true time delay lines for distributed radiofrequency signal processing. Optics Express, 2018, 26, 25761.	3.4	20
23	Effects of core position uncertainty on optical shape sensor accuracy. Measurement: Journal of the International Measurement Confederation, 2019, 139, 21-33.	5.0	19
24	Multicore optical fiber shape sensors suitable for use under gamma radiation. Optics Express, 2019, 27, 29026.	3.4	19
25	Temperature-insensitive optical tilt sensor based on a single eccentric-core fiber Bragg grating. Optics Letters, 2019, 44, 5570.	3.3	19
26	Microwave Photonic Filtering for Interrogating FBG-Based Multicore Fiber Curvature Sensor. IEEE Photonics Technology Letters, 2017, 29, 1707-1710.	2.5	17
27	Microwave Photonics Filtering Interrogation Technique Under Coherent Regime For Hot Spot Detection on a Weak FBGs Array. Journal of Lightwave Technology, 2018, 36, 1039-1045.	4.6	17
28	Refractive Index and Temperature Sensing Using Inter-Core Crosstalk in Multicore Fibers. Journal of Lightwave Technology, 2019, 37, 4703-4709.	4.6	17
29	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
30	Coupled-core fiber Bragg gratings for low-cost sensing. Scientific Reports, 2022, 12, 1280.	3.3	13
31	Characterization of a FBG sensor interrogation system based on a mode-locked laser scheme. Optics Express, 2017, 25, 24650.	3.4	12
32	Regenerated Fiber Bragg Gratings in Multicore Fiber for Multi-Parameter Sensing. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-6.	2.9	12
33	Temperature-insensitive curvature sensor based on Bragg gratings written in strongly coupled multicore fiber. Optics Letters, 2021, 46, 3933.	3.3	12
34	[INVITED] Cascade FBGs distributed sensors interrogation using microwave photonics filtering techniques. Optics and Laser Technology, 2016, 77, 144-150.	4.6	10
35	Effects of bonding on the performance of optical fiber strain sensors. Structural Control and Health Monitoring, 2021, 28, e2782.	4.0	10
36	Fast Incoherent OFDR Interrogation of FBG Arrays Using Sparse Radio Frequency Responses. Journal of Lightwave Technology, 2018, 36, 4393-4400.	4.6	8

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37	Bend-Direction and Rotation Plastic Optical Fiber Sensor. Sensors, 2020, 20, 5405.	3.8	6
38	Twisting compensation of optical multicore fiber shape sensors for flexible medical instruments. , 2020, , .		6
39	Monitoring temperature and vibration in a long weak grating array with short-pulse generation using a compact gain-switching laser diode module. Optics Express, 2019, 27, 38661.	3.4	6
40	Strongly coupled multicore fiber with FBGs for multipoint and multiparameter sensing. Optical Fiber Technology, 2020, 58, 102315.	2.7	5
41	Measurement uncertainty of 7-core multicore fiber shape sensors. , 2019, , .		4
42	Directional curvature sensor based on long period gratings in multicore optical fiber. Proceedings of SPIE, 2017, , .	0.8	3
43	On the Use of Microwave Photonics Techniques for Novel Sensing Applications. , 2019, , .		2
44	Opto-Mechanical Point Sensing in a Multi-Core Fiber. , 2018, , .		2
45	Current Sensor Based on a Fiber Bragg Grating Coated by Electroplated Magnetostrictive Material. , 2020, , .		2
46	Phase modulation to intensity modulation conversion for sensitive FBG sensor interrogation. Proceedings of SPIE, 2017, , .	0.8	1
47	Multiplexing FBG sensors combining microwave photonics and phase modulation. , 2017, , .		1
48	Refractive index and temperature sensor based on TFBGs in multicore fiber. , 2018, , .		1
49	Fast Interrogation of Equally-Spaced Arrays of Fiber Bragg Gratings Using Sparse Incoherent OFDR. , 2018, , .		1
50	Microwave Photonics for Optical Fiber Sensors. , 2019, , .		1
51	High-voltage fiber sensor based on fiber Bragg grating in poled fiber. , 2019, , .		1
52	High-voltage Sensor Based on Fiber Bragg Grating in Fibers with Electrodes. , 2020, , .		1
53	Microwave photonics filtering interrogation technique under coherent regime for hot spot detection on cascaded FBG fiber. Proceedings of SPIE, 2017, , .	0.8	0
54	FBGs based multicore fiber curvature sensor interrogation using microwave photonics filtering techniques. , 2017, , .		0

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55	Partially Coated Long Period Fiber Bragg Gratings in Multicore Optical Fibers. , 2018, , .		0
56	Tilted Fiber Bragg Gratings for Selective Coupling in a Multicore Optical Fiber. , 2018, , .		0
57	Sub-cm Temperature Monitoring of 500 Weak Gratings Array Through Chirped Ultra-Short Light Pulses. , 2019, , .		0
58	Coherent and Incoherent Regimes for Microwave Photonics Fiber Sensing. , 2020, , .		0