

Borja Sorazu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

60
papers

3,368
citations

21
h-index

58
g-index

63
ext. papers

4,396
ext. citations

7.5
avg, IF

2.92
L-index

#	Paper	IF	Citations
60	A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. <i>Astrophysical Journal</i> , 2021 , 909, 218	4.7	46
59	Approaching the motional ground state of a 10-kg object. <i>Science</i> , 2021 , 372, 1333-1336	33.3	14
58	Experimental investigation of the limitations of polarisation optics for future gravitational wave detectors based on the polarisation Sagnac speedmeter. <i>Classical and Quantum Gravity</i> , 2021 , 38, 195004 ³	4.3	2
57	First Demonstration of 6dB Quantum Noise Reduction in a Kilometer Scale Gravitational Wave Observatory. <i>Physical Review Letters</i> , 2021 , 126, 041102	7.4	18
56	Direct limits for scalar field dark matter from a gravitational-wave detector.. <i>Nature</i> , 2021 , 600, 424-428	50.4	4
55	Point Absorber Limits to Future Gravitational-Wave Detectors.. <i>Physical Review Letters</i> , 2021 , 127, 241102	7.4	0
54	Sensitivity and performance of the Advanced LIGO detectors in the third observing run. <i>Physical Review D</i> , 2020 , 102,	4.9	84
53	Lowest observed surface and weld losses in fused silica fibres for gravitational wave detectors. <i>Classical and Quantum Gravity</i> , 2020 , 37, 195019	3.3	3
52	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , 2020 , 23, 3	32.5	144
51	Improving astrophysical parameter estimation via offline noise subtraction for Advanced LIGO. <i>Physical Review D</i> , 2019 , 99,	4.9	58
50	Quantum-Enhanced Advanced LIGO Detectors in the Era of Gravitational-Wave Astronomy. <i>Physical Review Letters</i> , 2019 , 123, 231107	7.4	182
49	Prospects for Detecting Gravitational Waves at 5Hz with Ground-Based Detectors. <i>Physical Review Letters</i> , 2018 , 120, 141102	7.4	33
48	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , 2018 , 21, 3	32.5	543
47	Identification and mitigation of narrow spectral artifacts that degrade searches for persistent gravitational waves in the first two observing runs of Advanced LIGO. <i>Physical Review D</i> , 2018 , 97,	4.9	77
46	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA 2018 , 21, 1		2
45	Quantum noise cancellation in asymmetric speed metres with balanced homodyne readout. <i>New Journal of Physics</i> , 2018 , 20, 103040	2.9	4
44	Experimental demonstration of coupled optical springs. <i>Classical and Quantum Gravity</i> , 2017 , 34, 035020 ³	3.3	3

43	The basic physics of the binary black hole merger GW150914. <i>Annalen Der Physik</i> , 2017 , 529, 1600209	2.6	45
42	Quantum correlation measurements in interferometric gravitational-wave detectors. <i>Physical Review A</i> , 2017 , 95,	2.6	9
41	Effects of static and dynamic higher-order optical modes in balanced homodyne readout for future gravitational waves detectors. <i>Physical Review D</i> , 2017 , 95,	4.9	6
40	Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B. <i>Astrophysical Journal</i> , 2017 , 841, 89	4.7	42
39	First Demonstration of Electrostatic Damping of Parametric Instability at Advanced LIGO. <i>Physical Review Letters</i> , 2017 , 118, 151102	7.4	18
38	Candidates for a possible third-generation gravitational wave detector: comparison of ring-Sagnac and sloshing-Sagnac speedmeter interferometers. <i>Classical and Quantum Gravity</i> , 2017 , 34, 024001	3.3	11
37	Effects of transients in LIGO suspensions on searches for gravitational waves. <i>Review of Scientific Instruments</i> , 2017 , 88, 124501	1.7	4
36	Sensitivity of the Advanced LIGO detectors at the beginning of gravitational wave astronomy. <i>Physical Review D</i> , 2016 , 93,	4.9	208
35	GEO 600 and the GEO-HF upgrade program: successes and challenges. <i>Classical and Quantum Gravity</i> , 2016 , 33, 075009	3.3	52
34	Demonstration of an optical spring in the 100 g mirror regime. <i>Classical and Quantum Gravity</i> , 2016 , 33, 075007	3.3	4
33	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. <i>Classical and Quantum Gravity</i> , 2016 , 33,	3.3	155
32	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. <i>Living Reviews in Relativity</i> , 2016 , 19, 1	32.5	393
31	CostBenefit analysis for commissioning decisions in GEO 600. <i>Classical and Quantum Gravity</i> , 2015 , 32, 135014	3.3	1
30	Local-oscillator noise coupling in balanced homodyne readout for advanced gravitational wave detectors. <i>Physical Review D</i> , 2015 , 92,	4.9	13
29	Upper limit to the transverse to longitudinal motion coupling of a waveguide mirror. <i>Classical and Quantum Gravity</i> , 2015 , 32, 175005	3.3	
28	Obtaining complementary Lamb wave dispersion information by two signal processing methods on an all-optical non-contact configuration. <i>Sensors and Actuators A: Physical</i> , 2014 , 217, 95-104	3.9	5
27	Progress and challenges in advanced ground-based gravitational-wave detectors. <i>General Relativity and Gravitation</i> , 2014 , 46, 1	2.3	2
26	Concepts and research for future detectors. <i>General Relativity and Gravitation</i> , 2014 , 46, 1	2.3	2

25	Smart Charging Technologies for Portable Electronic Devices. <i>IEEE Transactions on Smart Grid</i> , 2014 , 5, 328-336	10.7	7
24	Advanced techniques in GEO 600. <i>Classical and Quantum Gravity</i> , 2014 , 31, 224002	3.3	60
23	Design of a speed meter interferometer proof-of-principle experiment. <i>Classical and Quantum Gravity</i> , 2014 , 31, 215009	3.3	26
22	Experimental test of higher-order Laguerre-Gauss modes in the 10 m Glasgow prototype interferometer. <i>Classical and Quantum Gravity</i> , 2013 , 30, 035004	3.3	21
21	Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light. <i>Nature Photonics</i> , 2013 , 7, 613-619	33.9	572
20	Scientific objectives of Einstein Telescope. <i>Classical and Quantum Gravity</i> , 2012 , 29, 124013	3.3	256
19	Waveguide grating mirror in a fully suspended 10 meter Fabry-Perot cavity. <i>Optics Express</i> , 2011 , 19, 14955-63	3.3	12
18	Translational, rotational, and vibrational coupling into phase in diffractively coupled optical cavities. <i>Optics Letters</i> , 2011 , 36, 2746-8	3	4
17	Wavefront Integrating Fiber Sensors for Ultrasonic Detection. <i>IEEE Sensors Journal</i> , 2011 , 11, 1623-1631	4	9
16	Violin mode amplitude glitch monitor for the presence of excess noise on the monolithic silica suspensions of GEO 600. <i>Classical and Quantum Gravity</i> , 2010 , 27, 155017	3.3	3
15	SEARCH FOR GRAVITATIONAL-WAVE INSPIRAL SIGNALS ASSOCIATED WITH SHORT GAMMA-RAY BURSTS DURING LIGO'S FIFTH AND VIRGO'S FIRST SCIENCE RUN. <i>Astrophysical Journal</i> , 2010 , 715, 1453-1461	47.61	79
14	Techniques in the optimization of length sensing and control systems for a three-mirror coupled cavity. <i>Classical and Quantum Gravity</i> , 2008 , 25, 235003	3.3	
13	The Detection of Ultrasound Using Fiber-Optic Sensors. <i>IEEE Sensors Journal</i> , 2008 , 8, 1360-1367	4	44
12	Novel sensing and control schemes for a three-mirror coupled cavity. <i>Classical and Quantum Gravity</i> , 2007 , 24, 3825-3836	3.3	7
11	Optical modulation techniques for length sensing and control of optical cavities. <i>Applied Optics</i> , 2007 , 46, 7739-45	1.7	3
10	Inversion technique for an all-optical inspection of materials Elastic properties 2006 ,		1
9	Novel methods of Lamb wave detection for material damage detection and location 2005 , 5768, 313		6
8	Optical technique for examining materials Elastic properties 2005 ,		1

7	Comparison of point and integrated fiber optic sensing techniques for ultrasound detection and location of damage 2004 ,		5
6	Detecting Ultrasound Using Optical Fibres. <i>Journal of Optics (India)</i> , 2004 , 33, 241-255	1.3	9
5	Noncontact material evaluation for characterization and wear detection using laser-generated ultrasound and interferometric detection 2004 , 5384, 296		
4	Damage detection in structural materials using a polarimetric fiber optic sensor 2003 ,		2
3	Optical Generation and Detection of Ultrasound. <i>Strain</i> , 2003 , 39, 111-114	1.7	21
2	Fibre optic polarimetric detection of Lamb waves 2002 ,		4
1	LIGO detector characterization in the second and third observing runs. <i>Classical and Quantum Gravity</i> ,	3.3	31