

Salvatore Vitale

List of Publications by Year in descending order

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Version: 2024-02-01

94
papers

7,788
citations

57758

44
h-index

48315

88
g-index

94
all docs

94
docs citations

94
times ranked

5489
citing authors

#	ARTICLE	IF	CITATIONS
1	Hints of Spin-Orbit Resonances in the Binary Black Hole Population. <i>Physical Review Letters</i> , 2022, 128, 031101.	7.8	13
2	Measuring binary black hole orbital-plane spin orientations. <i>Physical Review D</i> , 2022, 105, .	4.7	14
3	The effect of spin mismodelling on gravitational-wave measurements of the binary neutron star mass distribution. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 511, 4350-4359.	4.4	5
4	An Infrared Search for Kilonovae with the WINTER Telescope. I. Binary Neutron Star Mergers. <i>Astrophysical Journal</i> , 2022, 926, 152.	4.5	10
5	A standard siren cosmological measurement from the potential GW190521 electromagnetic counterpart ZTF19abanhr. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 513, 2152-2157.	4.4	14
6	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. <i>Progress of Theoretical and Experimental Physics</i> , 2022, 2022, .	6.6	20
7	Searching for a subpopulation of primordial black holes in LIGO-Virgo gravitational-wave data. <i>Physical Review D</i> , 2022, 105, .	4.7	74
8	On the Single-event-based Identification of Primordial Black Hole Mergers at Cosmological Distances. <i>Astrophysical Journal Letters</i> , 2022, 931, L12.	8.3	19
9	The Binary Black Hole Spin Distribution Likely Broadens with Redshift. <i>Astrophysical Journal Letters</i> , 2022, 932, L19.	8.3	24
10	Inferring the Properties of a Population of Compact Binaries in Presence of Selection Effects. , 2022, , 1709-1768.		0
11	Constraining High-redshift Stellar-mass Primordial Black Holes with Next-generation Ground-based Gravitational-wave Detectors. <i>Astrophysical Journal Letters</i> , 2022, 933, L41.	8.3	26
12	Distance measures in gravitational-wave astrophysics and cosmology. <i>Classical and Quantum Gravity</i> , 2021, 38, 055010.	4.0	62
13	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.	4.5	144
14	Physical approach to the marginalization of LIGO calibration uncertainties. <i>Physical Review D</i> , 2021, 103, .	4.7	27
15	Searching for ultralight bosons within spin measurements of a population of binary black hole mergers. <i>Physical Review D</i> , 2021, 103, .	4.7	28
16	Statistical and systematic uncertainties in extracting the source properties of neutron star-black hole binaries with gravitational waves. <i>Physical Review D</i> , 2021, 103, .	4.7	12
17	Gravitational-wave physics and astronomy in the 2020s and 2030s. <i>Nature Reviews Physics</i> , 2021, 3, 344-366.	26.6	96
18	Constraints on Ultralight Scalar Bosons within Black Hole Spin Measurements from the LIGO-Virgo GWTC-2. <i>Physical Review Letters</i> , 2021, 126, 151102.	7.8	48

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19	New Spin on LIGO-Virgo Binary Black Holes. <i>Physical Review Letters</i> , 2021, 126, 171103.	7.8	23
20	Probing Multiple Populations of Compact Binaries with Third-generation Gravitational-wave Detectors. <i>Astrophysical Journal Letters</i> , 2021, 913, L5.	8.3	49
21	The first 5 years of gravitational-wave astrophysics. <i>Science</i> , 2021, 372, .	12.6	8
22	Bayesian Inference for Gravitational Waves from Binary Neutron Star Mergers in Third Generation Observatories. <i>Physical Review Letters</i> , 2021, 127, 081102.	7.8	21
23	The Relative Contribution to Heavy Metals Production from Binary Neutron Star Mergers and Neutron Star–Black Hole Mergers. <i>Astrophysical Journal Letters</i> , 2021, 920, L3.	8.3	10
24	Who Ordered That? Unequal-mass Binary Black Hole Mergers Have Larger Effective Spins. <i>Astrophysical Journal Letters</i> , 2021, 922, L5.	8.3	62
25	Measuring the spins of heavy binary black holes. <i>Physical Review D</i> , 2021, 104, .	4.7	18
26	Inferring the Properties of a Population of Compact Binaries in Presence of Selection Effects. , 2021, , 1-60.		22
27	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , 2020, 23, 3.	26.7	447
28	Multiband gravitational-wave searches for ultralight bosons. <i>Physical Review D</i> , 2020, 102, .	4.7	30
29	Astrophysical Implications of GW190412 as a Remnant of a Previous Black-Hole Merger. <i>Physical Review Letters</i> , 2020, 125, 101103.	7.8	35
30	Source properties of the lowest signal-to-noise-ratio binary black hole detections. <i>Physical Review D</i> , 2020, 102, .	4.7	18
31	Constraining black hole mimickers with gravitational wave observations. <i>Physical Review D</i> , 2020, 102, .	4.7	27
32	Machine-learning nonstationary noise out of gravitational-wave detectors. <i>Physical Review D</i> , 2020, 101, .	4.7	70
33	Quantifying the effect of power spectral density uncertainty on gravitational-wave parameter estimation for compact binary sources. <i>Physical Review D</i> , 2020, 102, .	4.7	28
34	Constraining Short Gamma-Ray Burst Jet Properties with Gravitational Waves and Gamma-Rays. <i>Astrophysical Journal</i> , 2020, 893, 38.	4.5	21
35	You Can't Always Get What You Want: The Impact of Prior Assumptions on Interpreting GW190412. <i>Astrophysical Journal Letters</i> , 2020, 899, L17.	8.3	49
36	The Reliability of the Low-latency Estimation of Binary Neutron Star Chirp Mass. <i>Astrophysical Journal Letters</i> , 2019, 884, L32.	8.3	18

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37	Measuring the Delay Time Distribution of Binary Neutron Stars. II. Using the Redshift Distribution from Third-generation Gravitational-wave Detectors Network. <i>Astrophysical Journal Letters</i> , 2019, 878, L13.	8.3	29
38	Improving astrophysical parameter estimation via offline noise subtraction for Advanced LIGO. <i>Physical Review D</i> , 2019, 99, .	4.7	77
39	Measuring the Star Formation Rate with Gravitational Waves from Binary Black Holes. <i>Astrophysical Journal Letters</i> , 2019, 886, L1.	8.3	75
40	Viewing Angle of Binary Neutron Star Mergers. <i>Physical Review X</i> , 2019, 9, .	8.9	24
41	On the properties of the massive binary black hole merger GW170729. <i>Physical Review D</i> , 2019, 100, .	4.7	82
42	Parametrized tests of the strong-field dynamics of general relativity using gravitational wave signals from coalescing binary black holes: Fast likelihood calculations and sensitivity of the method. <i>Physical Review D</i> , 2018, 97, .	4.7	40
43	Prospects for Detecting Gravitational Waves at 5ÅHz with Ground-Based Detectors. <i>Physical Review Letters</i> , 2018, 120, 141102.	7.8	47
44	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , 2018, 21, 3.	26.7	808
45	Characterization of low-significance gravitational-wave compact binary sources. <i>Physical Review D</i> , 2018, 98, .	4.7	10
46	Observational Implications of Lowering the LIGO-Virgo Alert Threshold. <i>Astrophysical Journal Letters</i> , 2018, 861, L24.	8.3	7
47	Characterization of binary black holes by heterogeneous gravitational-wave networks. <i>Physical Review D</i> , 2018, 98, .	4.7	16
48	Detecting stellar lensing of gravitational waves with ground-based observatories. <i>Physical Review D</i> , 2018, 98, .	4.7	56
49	Gravitational-wave astrophysics with effective-spin measurements: Asymmetries and selection biases. <i>Physical Review D</i> , 2018, 98, .	4.7	81
50	Mitigation of the instrumental noise transient in gravitational-wave data surrounding GW170817. <i>Physical Review D</i> , 2018, 98, .	4.7	75
51	Enhancing confidence in the detection of gravitational waves from compact binaries using signal coherence. <i>Physical Review D</i> , 2018, 98, .	4.7	19
52	Measuring the Hubble Constant with Neutron Star Black Hole Mergers. <i>Physical Review Letters</i> , 2018, 121, 021303.	7.8	78
53	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1.		2
54	OBSERVATIONAL SELECTION EFFECTS WITH GROUND-BASED GRAVITATIONAL WAVE DETECTORS. <i>Astrophysical Journal</i> , 2017, 835, 31.	4.5	17

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55	Use of gravitational waves to probe the formation channels of compact binaries. <i>Classical and Quantum Gravity</i> , 2017, 34, 03LT01.	4.0	129
56	Frequency-dependent responses in third generation gravitational-wave detectors. <i>Physical Review D</i> , 2017, 96, .	4.7	47
57	Validating gravitational-wave detections: The Advanced LIGO hardware injection system. <i>Physical Review D</i> , 2017, 95, .	4.7	45
58	Parameter estimation for heavy binary-black holes with networks of second-generation gravitational-wave detectors. <i>Physical Review D</i> , 2017, 95, .	4.7	66
59	Parameter estimation for binary black holes with networks of third-generation gravitational-wave detectors. <i>Physical Review D</i> , 2017, 95, .	4.7	70
60	Digging Deeper: Observing Primordial Gravitational Waves below the Binary-Black-Hole-Produced Stochastic Background. <i>Physical Review Letters</i> , 2017, 118, 151105.	7.8	106
61	Information-theoretic approach to the gravitational-wave burst detection problem. <i>Physical Review D</i> , 2017, 95, .	4.7	77
62	Impact of Bayesian Priors on the Characterization of Binary Black Hole Coalescences. <i>Physical Review Letters</i> , 2017, 119, 251103.	7.8	66
63	On similarity of binary black hole gravitational-wave skymaps: to observe or to wait?. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2017, 466, L78-L82.	3.3	7
64	Reanalysis of LIGO black-hole coalescences with alternative prior assumptions. <i>Proceedings of the International Astronomical Union</i> , 2017, 13, 22-28.	0.0	2
65	PARAMETER ESTIMATION ON GRAVITATIONAL WAVES FROM NEUTRON-STAR BINARIES WITH SPINNING COMPONENTS. <i>Astrophysical Journal</i> , 2016, 825, 116.	4.5	68
66	SUPPLEMENT: "GOING THE DISTANCE: MAPPING HOST GALAXIES OF LIGO AND VIRGO SOURCES IN THREE DIMENSIONS USING LOCAL COSMOGRAPHY AND TARGETED FOLLOW-UP" (2016, <i>ApJL</i> , 829, L15). <i>Astrophysical Journal, Supplement Series</i> , 2016, 226, 10.	7.7	41
67	Impact of the tidal χ instability on the gravitational wave signal from coalescing binary neutron stars. <i>Physical Review D</i> , 2016, 94, .	4.7	30
68	Early Advanced LIGO binary neutron-star sky localization and parameter estimation. <i>Journal of Physics: Conference Series</i> , 2016, 716, 012031.	0.4	5
69	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. <i>Classical and Quantum Gravity</i> , 2016, 33, 134001.	4.0	225
70	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. <i>Living Reviews in Relativity</i> , 2016, 19, 1.	26.7	427
71	Three observational differences for binary black holes detections with second- and third-generation gravitational-wave detectors. <i>Physical Review D</i> , 2016, 94, .	4.7	21
72	GOING THE DISTANCE: MAPPING HOST GALAXIES OF LIGO AND VIRGO SOURCES IN THREE DIMENSIONS USING LOCAL COSMOGRAPHY AND TARGETED FOLLOW-UP. <i>Astrophysical Journal Letters</i> , 2016, 829, L15.	8.3	126

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73	Constraining the neutron star equation of state with gravitational wave signals from coalescing binary neutron stars. <i>Physical Review D</i> , 2015, 92, .	4.7	153
74	Prospects for doubling the range of Advanced LIGO. <i>Physical Review D</i> , 2015, 91, .	4.7	126
75	PARAMETER ESTIMATION FOR BINARY NEUTRON-STAR COALESCENCES WITH REALISTIC NOISE DURING THE ADVANCED LIGO ERA. <i>Astrophysical Journal</i> , 2015, 804, 114.	4.5	117
76	TESTING GENERAL RELATIVITY USING GRAVITATIONAL WAVES FROM BINARY NEUTRON STARS: EFFECT OF SPINS. , 2015, , .		1
77	Effect of squeezing on parameter estimation of gravitational waves emitted by compact binary systems. <i>Physical Review D</i> , 2015, 91, .	4.7	11
78	Parameter estimation for compact binaries with ground-based gravitational-wave observations using the LALInference software library. <i>Physical Review D</i> , 2015, 91, .	4.7	674
79	How serious can the stealth bias be in gravitational wave parameter estimation?. <i>Physical Review D</i> , 2014, 89, .	4.7	19
80	TIGER: A data analysis pipeline for testing the strong-field dynamics of general relativity with gravitational wave signals from coalescing compact binaries. <i>Physical Review D</i> , 2014, 89, .	4.7	130
81	Reconstructing the sky location of gravitational-wave detected compact binary systems: Methodology for testing and comparison. <i>Physical Review D</i> , 2014, 89, .	4.7	50
82	THE FIRST TWO YEARS OF ELECTROMAGNETIC FOLLOW-UP WITH ADVANCED LIGO AND VIRGO. <i>Astrophysical Journal</i> , 2014, 795, 105.	4.5	159
83	Measuring the Spin of Black Holes in Binary Systems Using Gravitational Waves. <i>Physical Review Letters</i> , 2014, 112, 251101.	7.8	95
84	Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light. <i>Nature Photonics</i> , 2013, 7, 613-619.	31.4	825
85	Demonstrating the Feasibility of Probing the Neutron-Star Equation of State with Second-Generation Gravitational-Wave Detectors. <i>Physical Review Letters</i> , 2013, 111, 071101.	7.8	201
86	Towards a generic test of the strong field dynamics of general relativity using compact binary coalescence. <i>Physical Review D</i> , 2012, 85, .	4.7	176
87	Towards a generic test of the strong field dynamics of general relativity using compact binary coalescence: Further investigations. <i>Journal of Physics: Conference Series</i> , 2012, 363, 012028.	0.4	42
88	Effect of calibration errors on Bayesian parameter estimation for gravitational wave signals from inspiral binary systems in the advanced detectors era. <i>Physical Review D</i> , 2012, 85, .	4.7	62
89	Application of asymptotic expansions for maximum likelihood estimatorsâ€™ errors to gravitational waves from inspiraling binary systems: The network case. <i>Physical Review D</i> , 2011, 84, .	4.7	31
90	Status of the Virgo project. <i>Classical and Quantum Gravity</i> , 2011, 28, 114002.	4.0	171

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91	Application of asymptotic expansions for maximum likelihood estimators errors to gravitational waves from binary mergers: The single interferometer case. <i>Physical Review D</i> , 2010, 81, .	4.7	25
92	Parameter estimation from gravitational waves generated by nonspinning binary black holes with laser interferometers: Beyond the Fisher information. <i>Physical Review D</i> , 2010, 82, .	4.7	26
93	APPROXIMATE GRAVITATIONAL WAVES VIA DEFORMATIONS OF EMBEDDINGS. <i>International Journal of Modern Physics A</i> , 2009, 24, 1465-1472.	1.5	1
94	Gravitational waves as deformations of embedded Einstein spaces. <i>Classical and Quantum Gravity</i> , 2009, 26, 235007.	4.0	0