

Mateusz Bawaj

List of Publications by Year in descending order

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Version: 2024-02-01

110
papers

34,320
citations

22153

59
h-index

26613

107
g-index

113
all docs

113
docs citations

113
times ranked

13523
citing authors

#	ARTICLE	IF	CITATIONS
1	Search for intermediate-mass black hole binaries in the third observing run of Advanced LIGO and Advanced Virgo. <i>Astronomy and Astrophysics</i> , 2022, 659, A84.	5.1	32
2	Search for continuous gravitational waves from 20 accreting millisecond x-ray pulsars in O3 LIGO data. <i>Physical Review D</i> , 2022, 105, .	4.7	31
3	Multi Order Coverage data structure to plan multi-messenger observations. <i>Astronomy and Computing</i> , 2022, 39, 100547.	1.7	1
4	Calibration of advanced Virgo and reconstruction of the detector strain $h(t)$ during the observing run O3. <i>Classical and Quantum Gravity</i> , 2022, 39, 045006.	4.0	20
5	Constraints on dark photon dark matter using data from LIGO's and Virgo's third observing run. <i>Physical Review D</i> , 2022, 105, .	4.7	27
6	Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift during the LIGO's Virgo Run O3b. <i>Astrophysical Journal</i> , 2022, 928, 186.	4.5	15
7	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
8	Search of the early O3 LIGO data for continuous gravitational waves from the Cassiopeia A and Vela Jr. supernova remnants. <i>Physical Review D</i> , 2022, 105, .	4.7	21
9	All-sky search for gravitational wave emission from scalar boson clouds around spinning black holes in LIGO O3 data. <i>Physical Review D</i> , 2022, 105, .	4.7	40
10	All-sky, all-frequency directional search for persistent gravitational waves from Advanced LIGO's and Advanced Virgo's first three observing runs. <i>Physical Review D</i> , 2022, 105, .	4.7	18
11	Narrowband Searches for Continuous and Long-duration Transient Gravitational Waves from Known Pulsars in the LIGO-Virgo Third Observing Run. <i>Astrophysical Journal</i> , 2022, 932, 133.	4.5	33
12	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
13	All-sky search in early O3 LIGO data for continuous gravitational-wave signals from unknown neutron stars in binary systems. <i>Physical Review D</i> , 2021, 103, .	4.7	43
14	Automated source of squeezed vacuum states driven by finite state machine based software. <i>Review of Scientific Instruments</i> , 2021, 92, 054504.	1.3	3
15	Diving below the Spin-down Limit: Constraints on Gravitational Waves from the Energetic Young Pulsar PSR J0537-6910. <i>Astrophysical Journal Letters</i> , 2021, 913, L27.	8.3	32
16	Population Properties of Compact Objects from the Second LIGO's Virgo Gravitational-Wave Transient Catalog. <i>Astrophysical Journal Letters</i> , 2021, 913, L7.	8.3	514
17	Observation of Gravitational Waves from Two Neutron Star's Black Hole Coalescences. <i>Astrophysical Journal Letters</i> , 2021, 915, L5.	8.3	453
18	Tests of general relativity with binary black holes from the second LIGO-Virgo gravitational-wave transient catalog. <i>Physical Review D</i> , 2021, 103, .	4.7	338

#	ARTICLE	IF	CITATIONS
19	Constraints on Cosmic Strings Using Data from the Third Advanced LIGOâ€“Virgo Observing Run. Physical Review Letters, 2021, 126, 241102.	7.8	87
20	GWTC-2: Compact Binary Coalescences Observed by LIGO and Virgo during the First Half of the Third Observing Run. Physical Review X, 2021, 11, .	8.9	1,097
21	Towards ponderomotive squeezing with SIPS experiment. Physica Scripta, 2021, 96, 114007.	2.5	3
22	Upper limits on the isotropic gravitational-wave background from Advanced LIGO and Advanced Virgoâ€™s third observing run. Physical Review D, 2021, 104, .	4.7	192
23	Search for anisotropic gravitational-wave backgrounds using data from Advanced LIGO and Advanced Virgoâ€™s first three observing runs. Physical Review D, 2021, 104, .	4.7	62
24	Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift during the LIGOâ€“Virgo Run O3a. Astrophysical Journal, 2021, 915, 86.	4.5	20
25	All-sky search for continuous gravitational waves from isolated neutron stars in the early O3 LIGO data. Physical Review D, 2021, 104, .	4.7	42
26	Searches for Continuous Gravitational Waves from Young Supernova Remnants in the Early Third Observing Run of Advanced LIGO and Virgo. Astrophysical Journal, 2021, 921, 80.	4.5	39
27	Constraints from LIGO O3 Data on Gravitational-wave Emission Due to R-modes in the Glitching Pulsar PSR J0537â€™6910. Astrophysical Journal, 2021, 922, 71.	4.5	29
28	All-sky search for long-duration gravitational-wave bursts in the third Advanced LIGO and Advanced Virgo run. Physical Review D, 2021, 104, .	4.7	19
29	All-sky search for short gravitational-wave bursts in the third Advanced LIGO and Advanced Virgo run. Physical Review D, 2021, 104, .	4.7	33
30	Search for Lensing Signatures in the Gravitational-Wave Observations from the First Half of LIGOâ€“Virgoâ€™s Third Observing Run. Astrophysical Journal, 2021, 923, 14.	4.5	59
31	The advanced Virgo longitudinal control system for the O2 observing run. Astroparticle Physics, 2020, 116, 102386.	4.3	9
32	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2020, 23, 3.	26.7	447
33	A Joint Fermi-GBM and LIGO/Virgo Analysis of Compact Binary Mergers from the First and Second Gravitational-wave Observing Runs. Astrophysical Journal, 2020, 893, 100.	4.5	12
34	Study and experiment on the alternative technique of frequencyâ€“dependent squeezing generation with EPR entanglement for Virgo. Journal of Physics: Conference Series, 2020, 1468, 012215.	0.4	0
35	Frequency-dependent squeezing generation with EPR entanglement. Journal of Physics: Conference Series, 2020, 1548, 012013.	0.4	0
36	GW190521: A Binary Black Hole Merger with a Total Mass of $\lesssim 150 M_{\odot}$. Physical Review Letters, 2020, 125, 101102.	7.8	87

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37	Quantum Backaction on Kg-Scale Mirrors: Observation of Radiation Pressure Noise in the Advanced Virgo Detector. <i>Physical Review Letters</i> , 2020, 125, 131101.	7.8	35
38	GW190412: Observation of a binary-black-hole coalescence with asymmetric masses. <i>Physical Review D</i> , 2020, 102, .	4.7	394
39	GW190814: Gravitational Waves from the Coalescence of a 23 Solar Mass Black Hole with a 2.6 Solar Mass Compact Object. <i>Astrophysical Journal Letters</i> , 2020, 896, L44.	8.3	1,090
40	GW190425: Observation of a Compact Binary Coalescence with Total Mass $\hat{A}^{\hat{1}}_4 \hat{A}^{\hat{3}}_3.4 M_{\text{sun}}$. <i>Astrophysical Journal Letters</i> , 2020, 892, L3.	8.3	1,049
41	Model comparison from LIGOâ€™s Virgo data on GW170817â€™s binary components and consequences for the merger remnant. <i>Classical and Quantum Gravity</i> , 2020, 37, 045006.	4.0	109
42	A guide to LIGOâ€™s Virgo detector noise and extraction of transient gravitational-wave signals. <i>Classical and Quantum Gravity</i> , 2020, 37, 055002.	4.0	188
43	Advanced Virgo Status. <i>Journal of Physics: Conference Series</i> , 2020, 1342, 012010.	0.4	9
44	Optically targeted search for gravitational waves emitted by core-collapse supernovae during the first and second observing runs of advanced LIGO and advanced Virgo. <i>Physical Review D</i> , 2020, 101, .	4.7	69
45	Properties and Astrophysical Implications of the $150 M_{\text{sun}}$ Binary Black Hole Merger GW190521. <i>Astrophysical Journal Letters</i> , 2020, 900, L13.	8.3	406
46	Gravitational-wave Constraints on the Equatorial Ellipticity of Millisecond Pulsars. <i>Astrophysical Journal Letters</i> , 2020, 902, L21.	8.3	65
47	Quantum fluctuations have been shown to affect macroscopic objects. <i>Nature</i> , 2020, 583, 31-32.	27.8	1
48	Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run. <i>Physical Review D</i> , 2019, 99, .	4.7	60
49	Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015â€“2017 LIGO Data. <i>Astrophysical Journal</i> , 2019, 879, 10.	4.5	88
50	All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data. <i>Physical Review D</i> , 2019, 100, .	4.7	102
51	All-sky search for short gravitational-wave bursts in the second Advanced LIGO and Advanced Virgo run. <i>Physical Review D</i> , 2019, 100, .	4.7	54
52	Tests of General Relativity with GW170817. <i>Physical Review Letters</i> , 2019, 123, 011102.	7.8	370
53	Search for Eccentric Binary Black Hole Mergers with Advanced LIGO and Advanced Virgo during Their First and Second Observing Runs. <i>Astrophysical Journal</i> , 2019, 883, 149.	4.5	72
54	Search for intermediate mass black hole binaries in the first and second observing runs of the Advanced LIGO and Virgo network. <i>Physical Review D</i> , 2019, 100, .	4.7	52

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55	Multimode Cavity Optomechanics. Proceedings (mdpi), 2019, 12, 54.	0.2	3
56	Search for Substellar Mass Ultracompact Binaries in Advanced LIGO's Second Observing Run. Physical Review Letters, 2019, 123, 161102.	7.8	119
57	Binary Black Hole Population Properties Inferred from the First and Second Observing Runs of Advanced LIGO and Advanced Virgo. Astrophysical Journal Letters, 2019, 882, L24.	8.3	566
58	Directional limits on persistent gravitational waves using data from Advanced LIGO's first two observing runs. Physical Review D, 2019, 100, .	4.7	52
59	GWTC-1: A Gravitational-Wave Transient Catalog of Compact Binary Mergers Observed by LIGO and Virgo during the First and Second Observing Runs. Physical Review X, 2019, 9, .	8.9	2,022
60	Search for the isotropic stochastic background using data from Advanced LIGO's second observing run. Physical Review D, 2019, 100, .	4.7	200
61	A Standard Siren Measurement of the Hubble Constant from GW170817 without the Electromagnetic Counterpart. Astrophysical Journal Letters, 2019, 871, L13.	8.3	145
62	All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run. Physical Review D, 2019, 99, .	4.7	22
63	Search for Multimessenger Sources of Gravitational Waves and High-energy Neutrinos with Advanced LIGO during Its First Observing Run, ANTARES, and IceCube. Astrophysical Journal, 2019, 870, 134.	4.5	32
64	A Fermi Gamma-Ray Burst Monitor Search for Electromagnetic Signals Coincident with Gravitational-wave Candidates in Advanced LIGO's First Observing Run. Astrophysical Journal, 2019, 871, 90.	4.5	30
65	Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO. Astrophysical Journal, 2019, 875, 122.	4.5	61
66	Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal, 2019, 875, 160.	4.5	97
67	First Measurement of the Hubble Constant from a Dark Standard Siren using the Dark Energy Survey Galaxies and the LIGO/Virgo Binary Black-hole Merger GW170814. Astrophysical Journal Letters, 2019, 876, L7.	8.3	179
68	Low-latency Gravitational-wave Alerts for Multimessenger Astronomy during the Second Advanced LIGO and Virgo Observing Run. Astrophysical Journal, 2019, 875, 161.	4.5	71
69	Search for Transient Gravitational-wave Signals Associated with Magnetar Bursts during Advanced LIGO's Second Observing Run. Astrophysical Journal, 2019, 874, 163.	4.5	26
70	Constraining the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \rangle p \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle \text{-Mode} \langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \rangle g \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle \text{-Mode Tidal Instability with GW170817. Physical Review Letters, 2019, 122, 061104.}$	7.8	36
71	Sandwich in the Middle: Enhancing the Optomechanical Coupling. , 2019, , .		0
72	Tests of general relativity with the binary black hole signals from the LIGO-Virgo catalog GWTC-1. Physical Review D, 2019, 100, .	4.7	470

#	ARTICLE	IF	CITATIONS
73	Increasing the Astrophysical Reach of the Advanced Virgo Detector via the Application of Squeezed Vacuum States of Light. <i>Physical Review Letters</i> , 2019, 123, 231108.	7.8	254
74	Search for Gravitational-wave Signals Associated with Gamma-Ray Bursts during the Second Observing Run of Advanced LIGO and Advanced Virgo. <i>Astrophysical Journal</i> , 2019, 886, 75.	4.5	29
75	Search for gravitational waves from Scorpius X-1 in the second Advanced LIGO observing run with an improved hidden Markov model. <i>Physical Review D</i> , 2019, 100, .	4.7	46
76	Properties of the Binary Neutron Star Merger GW170817. <i>Physical Review X</i> , 2019, 9, .	8.9	728
77	Two-membrane cavity optomechanics. , 2019, , .		0
78	GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. <i>Physical Review Letters</i> , 2018, 120, 091101.	7.8	166
79	First Search for Nontensorial Gravitational Waves from Known Pulsars. <i>Physical Review Letters</i> , 2018, 120, 031104.	7.8	68
80	Status of the Advanced Virgo Gravitational Wave Detector. , 2018, , .		1
81	Search for Substellar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , 2018, 121, 231103.	7.8	77
82	GW170817: Measurements of Neutron Star Radii and Equation of State. <i>Physical Review Letters</i> , 2018, 121, 161101.	7.8	1,473
83	Calibration of advanced Virgo and reconstruction of the gravitational wave signal $h(t)$ (t) Tj ETQq1 1 0.784314 rgBT /Overdo	4.0	41
84	Status of Advanced Virgo. <i>EPJ Web of Conferences</i> , 2018, 182, 02003.	0.3	9
85	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. <i>Physical Review Letters</i> , 2018, 120, 201102.	7.8	85
86	Full band all-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , 2018, 97, .	4.7	46
87	Constraints on cosmic strings using data from the first Advanced LIGO observing run. <i>Physical Review D</i> , 2018, 97, .	4.7	88
88	Two-membrane cavity optomechanics. <i>New Journal of Physics</i> , 2018, 20, 083024.	2.9	63
89	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. <i>Physical Review Letters</i> , 2017, 119, 141101.	7.8	1,600
90	Upper Limits on Gravitational Waves from Scorpius X-1 from a Model-based Cross-correlation Search in Advanced LIGO Data. <i>Astrophysical Journal</i> , 2017, 847, 47.	4.5	46

#	ARTICLE	IF	CITATIONS
91	A gravitational-wave standard siren measurement of the Hubble constant. <i>Nature</i> , 2017, 551, 85-88.	27.8	674
92	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. <i>Physical Review Letters</i> , 2017, 119, 161101.	7.8	6,413
93	Multi-messenger Observations of a Binary Neutron Star Merger [*] . <i>Astrophysical Journal Letters</i> , 2017, 848, L12.	8.3	2,805
94	Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. <i>Astrophysical Journal Letters</i> , 2017, 848, L13.	8.3	2,314
95	Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO. <i>Physical Review D</i> , 2017, 96, .	4.7	73
96	All-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , 2017, 96, .	4.7	64
97	Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , 2017, 851, L16.	8.3	189
98	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L39.	8.3	156
99	Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory. <i>Astrophysical Journal Letters</i> , 2017, 850, L35.	8.3	135
100	GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. <i>Physical Review Letters</i> , 2017, 118, 221101.	7.8	1,987
101	Search for gravitational waves from Scorpius X-1 in the first Advanced LIGO observing run with a hidden Markov model. <i>Physical Review D</i> , 2017, 95, .	4.7	59
102	Status of the Advanced Virgo gravitational wave detector. <i>International Journal of Modern Physics A</i> , 2017, 32, 1744003.	1.5	6
103	First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. <i>Physical Review D</i> , 2017, 96, .	4.7	47
104	First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data. <i>Physical Review D</i> , 2017, 96, .	4.7	60
105	On the Progenitor of Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L40.	8.3	73
106	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. <i>Astrophysical Journal Letters</i> , 2017, 851, L35.	8.3	968
107	Probing deformed commutators with micro- and nano-oscillators. , 2017, , .		0
108	Microfabrication of large-area circular high-stress silicon nitride membranes for optomechanical applications. <i>AIP Advances</i> , 2016, 6, 065004.	1.3	41

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109	Probing deformed commutators with macroscopic harmonic oscillators. Nature Communications, 2015, 6, 7503.	12.8	116
110	Optomechanically induced transparency in a membrane-in-the-middle setup at room temperature. Physical Review A, 2013, 88, .	2.5	194