

# Koji Arai

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/1876780/koji-arai-publications-by-year.pdf>  
**Version:** 2024-04-09

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.  
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

259 papers	43,616 citations	74 h-index	208 g-index
267 ext. papers	55,108 ext. citations	5.5 avg, IF	5.71 L-index

#	Paper	IF	Citations
259	Search for continuous gravitational waves from 20 accreting millisecond x-ray pulsars in O3 LIGO data. <i>Physical Review D</i> , <b>2022</b> , 105,	4.9	9
258	Constraints on dark photon dark matter using data from LIGO $\mathcal{B}$ and Virgo $\mathcal{B}$ third observing run. <i>Physical Review D</i> , <b>2022</b> , 105,	4.9	2
257	Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift during the LIGO $\mathcal{B}$ Virgo Run O3b. <i>Astrophysical Journal</i> , <b>2022</b> , 928, 186	4.7	1
256	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> , <b>2022</b> , 105,	4.9	4
255	All-sky search for gravitational wave emission from scalar boson clouds around spinning black holes in LIGO O3 data. <i>Physical Review D</i> , <b>2022</b> , 105,	4.9	2
254	All-sky search for short gravitational-wave bursts in the third Advanced LIGO and Advanced Virgo run. <i>Physical Review D</i> , <b>2021</b> , 104,	4.9	4
253	Searches for Continuous Gravitational Waves from Young Supernova Remnants in the Early Third Observing Run of Advanced LIGO and Virgo. <i>Astrophysical Journal</i> , <b>2021</b> , 921, 80	4.7	10
252	Constraints from LIGO O3 Data on Gravitational-wave Emission Due to R-modes in the Glitching Pulsar PSR J0537-6910. <i>Astrophysical Journal</i> , <b>2021</b> , 922, 71	4.7	8
251	All-sky search for long-duration gravitational-wave bursts in the third Advanced LIGO and Advanced Virgo run. <i>Physical Review D</i> , <b>2021</b> , 104,	4.9	1
250	All-sky search for continuous gravitational waves from isolated neutron stars in the early O3 LIGO data. <i>Physical Review D</i> , <b>2021</b> , 104,	4.9	15
249	A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. <i>Astrophysical Journal</i> , <b>2021</b> , 909, 218	4.7	46
248	Vibration isolation systems for the beam splitter and signal recycling mirrors of the KAGRA gravitational wave detector. <i>Classical and Quantum Gravity</i> , <b>2021</b> , 38, 065011	3.3	3
247	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> , <b>2021</b> , 103,	4.9	15
246	Point absorbers in Advanced LIGO. <i>Applied Optics</i> , <b>2021</b> , 60, 4047-4063	1.7	8
245	Radiative Cooling of the Thermally Isolated System in KAGRA Gravitational Wave Telescope. <i>Journal of Physics: Conference Series</i> , <b>2021</b> , 1857, 012002	0.3	
244	Diving below the Spin-down Limit: Constraints on Gravitational Waves from the Energetic Young Pulsar PSR J0537-6910. <i>Astrophysical Journal Letters</i> , <b>2021</b> , 913, L27	7.9	13
243	Population Properties of Compact Objects from the Second LIGO $\mathcal{B}$ Virgo Gravitational-Wave Transient Catalog. <i>Astrophysical Journal Letters</i> , <b>2021</b> , 913, L7	7.9	194

242	Observation of Gravitational Waves from Two Neutron StarBlack Hole Coalescences. <i>Astrophysical Journal Letters</i> , <b>2021</b> , 915, L5	7.9	142
241	Approaching the motional ground state of a 10-kg object. <i>Science</i> , <b>2021</b> , 372, 1333-1336	33.3	14
240	Tests of general relativity with binary black holes from the second LIGO-Virgo gravitational-wave transient catalog. <i>Physical Review D</i> , <b>2021</b> , 103,	4.9	81
239	Constraints on Cosmic Strings Using Data from the Third Advanced LIGO-Virgo Observing Run. <i>Physical Review Letters</i> , <b>2021</b> , 126, 241102	7.4	21
238	Environmental noise in advanced LIGO detectors. <i>Classical and Quantum Gravity</i> , <b>2021</b> , 38, 145001	3.3	15
237	Gravitational-wave physics with Cosmic Explorer: Limits to low-frequency sensitivity. <i>Physical Review D</i> , <b>2021</b> , 103,	4.9	11
236	GWTC-2: Compact Binary Coalescences Observed by LIGO and Virgo during the First Half of the Third Observing Run. <i>Physical Review X</i> , <b>2021</b> , 11,	9.1	311
235	Upper limits on the isotropic gravitational-wave background from Advanced LIGO and Advanced Virgo's third observing run. <i>Physical Review D</i> , <b>2021</b> , 104,	4.9	33
234	Search for anisotropic gravitational-wave backgrounds using data from Advanced LIGO and Advanced Virgo's first three observing runs. <i>Physical Review D</i> , <b>2021</b> , 104,	4.9	12
233	Overview of KAGRA: Detector design and construction history. <i>Progress of Theoretical and Experimental Physics</i> , <b>2021</b> , 2021,	5.4	34
232	Overview of KAGRA: KAGRA science. <i>Progress of Theoretical and Experimental Physics</i> , <b>2021</b> , 2021,	5.4	5
231	Overview of KAGRA: Calibration, detector characterization, physical environmental monitors, and the geophysics interferometer. <i>Progress of Theoretical and Experimental Physics</i> , <b>2021</b> , 2021,	5.4	8
230	Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift during the LIGO-Virgo Run O3a. <i>Astrophysical Journal</i> , <b>2021</b> , 915, 86	4.7	6
229	LIGO's quantum response to squeezed states. <i>Physical Review D</i> , <b>2021</b> , 104,	4.9	5
228	Point Absorber Limits to Future Gravitational-Wave Detectors.. <i>Physical Review Letters</i> , <b>2021</b> , 127, 2411024	7.4	0
227	Search for Lensing Signatures in the Gravitational-Wave Observations from the First Half of LIGO-Virgo's Third Observing Run. <i>Astrophysical Journal</i> , <b>2021</b> , 923, 14	4.7	4
226	Sensitivity and performance of the Advanced LIGO detectors in the third observing run. <i>Physical Review D</i> , <b>2020</b> , 102,	4.9	84
225	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> , <b>2020</b> , 896, L44	7.9	571

224	GW190425: Observation of a Compact Binary Coalescence with Total Mass $\sim 3.4 M_{\odot}$ . <i>Astrophysical Journal Letters</i> , <b>2020</b> , 892, L3	7.9	591
223	Silicon emissivity as a function of temperature. <i>International Journal of Heat and Mass Transfer</i> , <b>2020</b> , 157, 119863	4.9	2
222	Model comparison from LIGO/Virgo data on GW170817's binary components and consequences for the merger remnant. <i>Classical and Quantum Gravity</i> , <b>2020</b> , 37, 045006	3.3	69
221	A guide to LIGO/Virgo detector noise and extraction of transient gravitational-wave signals. <i>Classical and Quantum Gravity</i> , <b>2020</b> , 37, 055002	3.3	78
220	Frequency-Dependent Squeezed Vacuum Source for Broadband Quantum Noise Reduction in Advanced Gravitational-Wave Detectors. <i>Physical Review Letters</i> , <b>2020</b> , 124, 171101	7.4	31
219	Properties and Astrophysical Implications of the $150 M_{\odot}$ Binary Black Hole Merger GW190521. <i>Astrophysical Journal Letters</i> , <b>2020</b> , 900, L13	7.9	207
218	Gravitational-wave Constraints on the Equatorial Ellipticity of Millisecond Pulsars. <i>Astrophysical Journal Letters</i> , <b>2020</b> , 902, L21	7.9	32
217	A cryogenic silicon interferometer for gravitational-wave detection. <i>Classical and Quantum Gravity</i> , <b>2020</b> , 37, 165003	3.3	50
216	Improving the robustness of the advanced LIGO detectors to earthquakes. <i>Classical and Quantum Gravity</i> , <b>2020</b> , 37, 235007	3.3	4
215	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , <b>2020</b> , 23, 3	32.5	144
214	A Joint Fermi-GBM and LIGO/Virgo Analysis of Compact Binary Mergers from the First and Second Gravitational-wave Observing Runs. <i>Astrophysical Journal</i> , <b>2020</b> , 893, 100	4.7	9
213	Application of independent component analysis to the iKAGRA data. <i>Progress of Theoretical and Experimental Physics</i> , <b>2020</b> , 2020,	5.4	5
212	GW190521: A Binary Black Hole Merger with a Total Mass of $150 M_{\odot}$ . <i>Physical Review Letters</i> , <b>2020</b> , 125, 101102	7.4	420
211	GW190412: Observation of a binary-black-hole coalescence with asymmetric masses. <i>Physical Review D</i> , <b>2020</b> , 102,	4.9	212
210	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> , <b>2020</b> , 101,	4.9	36
209	Binary Black Hole Population Properties Inferred from the First and Second Observing Runs of Advanced LIGO and Advanced Virgo. <i>Astrophysical Journal Letters</i> , <b>2019</b> , 882, L24	7.9	381
208	Directional limits on persistent gravitational waves using data from Advanced LIGO's first two observing runs. <i>Physical Review D</i> , <b>2019</b> , 100,	4.9	31
207	GWTC-1: A Gravitational-Wave Transient Catalog of Compact Binary Mergers Observed by LIGO and Virgo during the First and Second Observing Runs. <i>Physical Review X</i> , <b>2019</b> , 9,	9.1	1169

206	Search for the isotropic stochastic background using data from Advanced LIGO's second observing run. <i>Physical Review D</i> , <b>2019</b> , 100,	4.9	117
205	All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run. <i>Physical Review D</i> , <b>2019</b> , 99,	4.9	17
204	A Fermi Gamma-Ray Burst Monitor Search for Electromagnetic Signals Coincident with Gravitational-wave Candidates in Advanced LIGO's First Observing Run. <i>Astrophysical Journal</i> , <b>2019</b> , 871, 90	4.7	22
203	Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO. <i>Astrophysical Journal</i> , <b>2019</b> , 875, 122	4.7	45
202	Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. <i>Astrophysical Journal</i> , <b>2019</b> , 875, 160	4.7	60
201	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. <i>Astrophysical Journal Letters</i> , <b>2019</b> , 876, L7	7.9	91
200	Low-latency Gravitational-wave Alerts for Multimessenger Astronomy during the Second Advanced LIGO and Virgo Observing Run. <i>Astrophysical Journal</i> , <b>2019</b> , 875, 161	4.7	49
199	Search for Transient Gravitational-wave Signals Associated with Magnetar Bursts during Advanced LIGO's Second Observing Run. <i>Astrophysical Journal</i> , <b>2019</b> , 874, 163	4.7	17
198	Vibration isolation system with a compact damping system for power recycling mirrors of KAGRA. <i>Classical and Quantum Gravity</i> , <b>2019</b> , 36, 095015	3.3	6
197	Improving astrophysical parameter estimation via offline noise subtraction for Advanced LIGO. <i>Physical Review D</i> , <b>2019</b> , 99,	4.9	58
196	Space gravitational-wave antennas DECIGO and B-DECIGO. <i>International Journal of Modern Physics D</i> , <b>2019</b> , 28, 1845001	2.2	35
195	Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run. <i>Physical Review D</i> , <b>2019</b> , 99,	4.9	43
194	Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015–2017 LIGO Data. <i>Astrophysical Journal</i> , <b>2019</b> , 879, 10	4.7	63
193	All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data. <i>Physical Review D</i> , <b>2019</b> , 100,	4.9	81
192	All-sky search for short gravitational-wave bursts in the second Advanced LIGO and Advanced Virgo run. <i>Physical Review D</i> , <b>2019</b> , 100,	4.9	39
191	First cryogenic test operation of underground km-scale gravitational-wave observatory KAGRA. <i>Classical and Quantum Gravity</i> , <b>2019</b> , 36, 165008	3.3	34
190	Tests of General Relativity with GW170817. <i>Physical Review Letters</i> , <b>2019</b> , 123, 011102	7.4	204
189	Search for Eccentric Binary Black Hole Mergers with Advanced LIGO and Advanced Virgo during Their First and Second Observing Runs. <i>Astrophysical Journal</i> , <b>2019</b> , 883, 149	4.7	36

188	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> , <b>2019</b> , 100,	4.9	39
187	Search for Substellar Mass Ultracompact Binaries in Advanced LIGO's Second Observing Run. <i>Physical Review Letters</i> , <b>2019</b> , 123, 161102	7.4	68
186	Constraining the p-Mode-g-Mode Tidal Instability with GW170817. <i>Physical Review Letters</i> , <b>2019</b> , 122, 061104	7.4	22
185	Tests of general relativity with the binary black hole signals from the LIGO-Virgo catalog GWTC-1. <i>Physical Review D</i> , <b>2019</b> , 100,	4.9	258
184	Quantum-Enhanced Advanced LIGO Detectors in the Era of Gravitational-Wave Astronomy. <i>Physical Review Letters</i> , <b>2019</b> , 123, 231107	7.4	182
183	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> , <b>2019</b> , 886, 75	4.7	21
182	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> , <b>2019</b> , 100,	4.9	31
181	Properties of the Binary Neutron Star Merger GW170817. <i>Physical Review X</i> , <b>2019</b> , 9,	9.1	423
180	Effects of data quality vetoes on a search for compact binary coalescences in Advanced LIGO's first observing run. <i>Classical and Quantum Gravity</i> , <b>2018</b> , 35, 065010	3.3	62
179	GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. <i>Physical Review Letters</i> , <b>2018</b> , 120, 091101	7.4	120
178	All-sky search for long-duration gravitational wave transients in the first Advanced LIGO observing run. <i>Classical and Quantum Gravity</i> , <b>2018</b> , 35, 065009	3.3	12
177	First Search for Nontensorial Gravitational Waves from Known Pulsars. <i>Physical Review Letters</i> , <b>2018</b> , 120, 031104	7.4	50
176	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , <b>2018</b> , 21, 3	32.5	543
175	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> , <b>2018</b> , 97,	4.9	77
174	External quantum efficiency enhancement by photon recycling with backscatter evasion. <i>Applied Optics</i> , <b>2018</b> , 57, 3372-3376	1.7	1
173	Full band all-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , <b>2018</b> , 97,	4.9	37
172	Constraints on cosmic strings using data from the first Advanced LIGO observing run. <i>Physical Review D</i> , <b>2018</b> , 97,	4.9	60
171	Measurement of optical losses in a high-finesse 300 m filter cavity for broadband quantum noise reduction in gravitational-wave detectors. <i>Physical Review D</i> , <b>2018</b> , 98,	4.9	8

170	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA <b>2018</b> , 21, 1		2
169	Search for Substellar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , <b>2018</b> , 121, 231103	7.4	49
168	GW170817: Measurements of Neutron Star Radii and Equation of State. <i>Physical Review Letters</i> , <b>2018</b> , 121, 161101	7.4	867
167	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. <i>Physical Review Letters</i> , <b>2018</b> , 120, 201102	7.4	60
166	Exploring the sensitivity of next generation gravitational wave detectors. <i>Classical and Quantum Gravity</i> , <b>2017</b> , 34, 044001	3.3	454
165	All-sky search for short gravitational-wave bursts in the first Advanced LIGO run. <i>Physical Review D</i> , <b>2017</b> , 95,	4.9	54
164	Effects of waveform model systematics on the interpretation of GW150914. <i>Classical and Quantum Gravity</i> , <b>2017</b> , 34, 104002	3.3	74
163	Calibration of the Advanced LIGO detectors for the discovery of the binary black-hole merger GW150914. <i>Physical Review D</i> , <b>2017</b> , 95,	4.9	60
162	Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , <b>2017</b> , 118, 121101	7.4	137
161	Directional Limits on Persistent Gravitational Waves from Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , <b>2017</b> , 118, 121102	7.4	65
160	First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. <i>Astrophysical Journal</i> , <b>2017</b> , 839, 12	4.7	107
159	The basic physics of the binary black hole merger GW150914. <i>Annalen Der Physik</i> , <b>2017</b> , 529, 1600209	2.6	45
158	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. <i>Physical Review Letters</i> , <b>2017</b> , 119, 141101	7.4	1270
157	Upper Limits on Gravitational Waves from Scorpius X-1 from a Model-based Cross-correlation Search in Advanced LIGO Data. <i>Astrophysical Journal</i> , <b>2017</b> , 847, 47	4.7	35
156	A gravitational-wave standard siren measurement of the Hubble constant. <i>Nature</i> , <b>2017</b> , 551, 85-88	50.4	413
155	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. <i>Physical Review Letters</i> , <b>2017</b> , 119, 161101	7.4	4272
154	Multi-messenger Observations of a Binary Neutron Star Merger. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 848, L12	7.9	1935
153	Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 848, L13	7.9	1614



152	Guided lock of a suspended optical cavity enhanced by a higher-order extrapolation. <i>Applied Optics</i> , <b>2017</b> , 56, 5470-5479	0.2	2
151	Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO. <i>Physical Review D</i> , <b>2017</b> , 96,	4.9	64
150	Quantum correlation measurements in interferometric gravitational-wave detectors. <i>Physical Review A</i> , <b>2017</b> , 95,	2.6	9
149	All-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , <b>2017</b> , 96,	4.9	54
148	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> , <b>2017</b> , 841, 89	4.7	42
147	Search for high-energy neutrinos from gravitational wave event GW151226 and candidate LVT151012 with ANTARES and IceCube. <i>Physical Review D</i> , <b>2017</b> , 96,	4.9	32
146	First Demonstration of Electrostatic Damping of Parametric Instability at Advanced LIGO. <i>Physical Review Letters</i> , <b>2017</b> , 118, 151102	7.4	18
145	Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 851, L16	7.9	133
144	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 850, L39	7.9	127
143	Effects of transients in LIGO suspensions on searches for gravitational waves. <i>Review of Scientific Instruments</i> , <b>2017</b> , 88, 124501	1.7	4
142	The status of DECIGO. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 840, 012010	0.3	83
141	GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. <i>Physical Review Letters</i> , <b>2017</b> , 118, 221101	7.4	1609
140	Search for continuous gravitational waves from neutron stars in globular cluster NGC 6544. <i>Physical Review D</i> , <b>2017</b> , 95,	4.9	14
139	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> , <b>2017</b> , 95,	4.9	47
138	First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. <i>Physical Review D</i> , <b>2017</b> , 96,	4.9	39
137	First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data. <i>Physical Review D</i> , <b>2017</b> , 96,	4.9	54
136	On the Progenitor of Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 850, L40	7.9	50
135	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 851, L35	7.9	809



134	LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914. <i>Astrophysical Journal Letters</i> , <b>2016</b> , 826, L13	7.9	183
133	Comprehensive all-sky search for periodic gravitational waves in the sixth science run LIGO data. <i>Physical Review D</i> , <b>2016</b> , 94,	4.9	28
132	First targeted search for gravitational-wave bursts from core-collapse supernovae in data of first-generation laser interferometer detectors. <i>Physical Review D</i> , <b>2016</b> , 94,	4.9	43
131	UPPER LIMITS ON THE RATES OF BINARY NEUTRON STAR AND NEUTRON STARBLACK HOLE MERGERS FROM ADVANCED LIGO'S FIRST OBSERVING RUN. <i>Astrophysical Journal Letters</i> , <b>2016</b> , 832, L21	7.9	130
130	Directly comparing GW150914 with numerical solutions of Einstein's equations for binary black hole coalescence. <i>Physical Review D</i> , <b>2016</b> , 94,	4.9	76
129	All-sky search for long-duration gravitational wave transients with initial LIGO. <i>Physical Review D</i> , <b>2016</b> , 93,	4.9	27
128	Search of the Orion spur for continuous gravitational waves using a loosely coherent algorithm on data from LIGO interferometers. <i>Physical Review D</i> , <b>2016</b> , 93,	4.9	14
127	First low frequency all-sky search for continuous gravitational wave signals. <i>Physical Review D</i> , <b>2016</b> , 93,	4.9	29
126	Sensitivity of the Advanced LIGO detectors at the beginning of gravitational wave astronomy. <i>Physical Review D</i> , <b>2016</b> , 93,	4.9	208
125	GW150914: First results from the search for binary black hole coalescence with Advanced LIGO. <i>Physical Review D</i> , <b>2016</b> , 93,	4.9	253
124	Search for transient gravitational waves in coincidence with short-duration radio transients during 2007–2013. <i>Physical Review D</i> , <b>2016</b> , 93,	4.9	10
123	High-energy neutrino follow-up search of gravitational wave event GW150914 with ANTARES and IceCube. <i>Physical Review D</i> , <b>2016</b> , 93,	4.9	80
122	GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes. <i>Physical Review Letters</i> , <b>2016</b> , 116, 131102	7.4	188
121	GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. <i>Physical Review Letters</i> , <b>2016</b> , 116, 131103	7.4	328
120	SUPPLEMENT: LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914[2016, ApJL, 826, L13). <i>Astrophysical Journal, Supplement Series</i> , <b>2016</b> , 225, 8	8	38
119	Observing gravitational-wave transient GW150914 with minimal assumptions. <i>Physical Review D</i> , <b>2016</b> , 93,	4.9	94
118	Tests of General Relativity with GW150914. <i>Physical Review Letters</i> , <b>2016</b> , 116, 221101	7.4	837
117	Properties of the Binary Black Hole Merger GW150914. <i>Physical Review Letters</i> , <b>2016</b> , 116, 241102	7.4	515

116	GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. <i>Physical Review Letters</i> , <b>2016</b> , 116, 241103	7.4	2136
115	Binary Black Hole Mergers in the First Advanced LIGO Observing Run. <i>Physical Review X</i> , <b>2016</b> , 6,	9.1	723
114	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. <i>Astrophysical Journal Letters</i> , <b>2016</b> , 818, L22	7.9	512
113	Observation of Gravitational Waves from a Binary Black Hole Merger. <i>Physical Review Letters</i> , <b>2016</b> , 116, 061102	7.4	6108
112	Passive, free-space heterodyne laser gyroscope. <i>Classical and Quantum Gravity</i> , <b>2016</b> , 33, 035004	3.3	15
111	Coherent cancellation of photothermal noise in GaAs/Al <sub>0.92</sub> Ga <sub>0.08</sub> As Bragg mirrors. <i>Metrologia</i> , <b>2016</b> , 53, 860-868	2.1	14
110	An instrument to measure mechanical up-conversion phenomena in metals in the elastic regime. <i>Review of Scientific Instruments</i> , <b>2016</b> , 87, 065107	1.7	5
109	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. <i>Classical and Quantum Gravity</i> , <b>2016</b> , 33,	3.3	155
108	SUPPLEMENT: THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914(2016, ApJL, 833, L1). <i>Astrophysical Journal, Supplement Series</i> , <b>2016</b> , 227, 14	8	52
107	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. <i>Living Reviews in Relativity</i> , <b>2016</b> , 19, 1	32.5	393
106	Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model. <i>Physical Review X</i> , <b>2016</b> , 6,	9.1	89
105	Results of the deepest all-sky survey for continuous gravitational waves on LIGO S6 data running on the Einstein@Home volunteer distributed computing project. <i>Physical Review D</i> , <b>2016</b> , 94,	4.9	29
104	THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914. <i>Astrophysical Journal Letters</i> , <b>2016</b> , 833, L1	7.9	209
103			
102	Searching for stochastic gravitational waves using data from the two colocated LIGO Hanford detectors. <i>Physical Review D</i> , <b>2015</b> , 91,	4.9	26
101	Broadband measurement of coating thermal noise in rigid Fabry-Pérot cavities. <i>Metrologia</i> , <b>2015</b> , 52, 17-30	2.1	7
100	Directed search for gravitational waves from Scorpius X-1 with initial LIGO data. <i>Physical Review D</i> , <b>2015</b> , 91,	4.9	38
99	Observation of Parametric Instability in Advanced LIGO. <i>Physical Review Letters</i> , <b>2015</b> , 114, 161102	7.4	63

98	Characterization of the LIGO detectors during their sixth science run. <i>Classical and Quantum Gravity</i> , <b>2015</b> , 32, 115012	3.3	790
97	Advanced LIGO. <i>Classical and Quantum Gravity</i> , <b>2015</b> , 32, 074001	3.3	1098
96	SEARCHES FOR CONTINUOUS GRAVITATIONAL WAVES FROM NINE YOUNG SUPERNOVA REMNANTS. <i>Astrophysical Journal</i> , <b>2015</b> , 813, 39	4.7	58
95	Gravitational wave astronomy: the current status. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2015</b> , 58, 1	3.6	18
94	In situ characterization of the thermal state of resonant optical interferometers via tracking of their higher-order mode resonances. <i>Classical and Quantum Gravity</i> , <b>2015</b> , 32, 135018	3.3	5
93	Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in Virgo VSR4 data. <i>Physical Review D</i> , <b>2015</b> , 91,	4.9	32
92	Implementation of an $\mathcal{F}$ -statistic all-sky search for continuous gravitational waves in Virgo VSR1 data. <i>Classical and Quantum Gravity</i> , <b>2014</b> , 31, 165014	3.3	27
91	GRAVITATIONAL WAVES FROM KNOWN PULSARS: RESULTS FROM THE INITIAL DETECTOR ERA. <i>Astrophysical Journal</i> , <b>2014</b> , 785, 119	4.7	109
90	Application of a Hough search for continuous gravitational waves on data from the fifth LIGO science run. <i>Classical and Quantum Gravity</i> , <b>2014</b> , 31, 085014	3.3	18
89	The NINJA-2 project: detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations. <i>Classical and Quantum Gravity</i> , <b>2014</b> , 31, 115004	3.3	34
88	Search for gravitational wave ringdowns from perturbed intermediate mass black holes in LIGO-Virgo data from 2005–2010. <i>Physical Review D</i> , <b>2014</b> , 89,	4.9	26
87	Search for gravitational waves associated with $\gamma$ -ray bursts detected by the interplanetary network. <i>Physical Review Letters</i> , <b>2014</b> , 113, 011102	7.4	30
86	Search for gravitational radiation from intermediate mass black hole binaries in data from the second LIGO-Virgo joint science run. <i>Physical Review D</i> , <b>2014</b> , 89,	4.9	32
85	Methods and results of a search for gravitational waves associated with gamma-ray bursts using the GEO 600, LIGO, and Virgo detectors. <i>Physical Review D</i> , <b>2014</b> , 89,	4.9	25
84	FIRST SEARCHES FOR OPTICAL COUNTERPARTS TO GRAVITATIONAL-WAVE CANDIDATE EVENTS. <i>Astrophysical Journal, Supplement Series</i> , <b>2014</b> , 211, 7	8	51
83	Residual amplitude modulation in interferometric gravitational wave detectors. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2014</b> , 31, 81-8	1.8	21
82	First all-sky search for continuous gravitational waves from unknown sources in binary systems. <i>Physical Review D</i> , <b>2014</b> , 90,	4.9	54
81	Constraints on cosmic strings from the LIGO-Virgo gravitational-wave detectors. <i>Physical Review Letters</i> , <b>2014</b> , 112, 131101	7.4	59

80	Improved upper limits on the stochastic gravitational-wave background from 2009-2010 LIGO and Virgo data. <i>Physical Review Letters</i> , <b>2014</b> , 113, 231101	7.4	74
79	Achieving resonance in the Advanced LIGO gravitational-wave interferometer. <i>Classical and Quantum Gravity</i> , <b>2014</b> , 31, 245010	3.3	41
78	Multimessenger search for sources of gravitational waves and high-energy neutrinos: Initial results for LIGO-Virgo and IceCube. <i>Physical Review D</i> , <b>2014</b> , 90,	4.9	25
77	Search for gravitational waves from binary black hole inspiral, merger, and ringdown in LIGO-Virgo data from 2009–2010. <i>Physical Review D</i> , <b>2013</b> , 87,	4.9	91
76	Search for long-lived gravitational-wave transients coincident with long gamma-ray bursts. <i>Physical Review D</i> , <b>2013</b> , 88,	4.9	30
75	Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light. <i>Nature Photonics</i> , <b>2013</b> , 7, 613-619	33.9	572
74	A first search for coincident gravitational waves and high energy neutrinos using LIGO, Virgo and ANTARES data from 2007. <i>Journal of Cosmology and Astroparticle Physics</i> , <b>2013</b> , 2013, 008-008	6.4	29
73	Einstein@Home all-sky search for periodic gravitational waves in LIGO S5 data. <i>Physical Review D</i> , <b>2013</b> , 87,	4.9	84
72	Parameter estimation for compact binary coalescence signals with the first generation gravitational-wave detector network. <i>Physical Review D</i> , <b>2013</b> , 88,	4.9	122
71	Directed search for continuous gravitational waves from the Galactic center. <i>Physical Review D</i> , <b>2013</b> , 88,	4.9	57
70	IMPLICATIONS FOR THE ORIGIN OF GRB 051103 FROM LIGO OBSERVATIONS. <i>Astrophysical Journal</i> , <b>2012</b> , 755, 2	4.7	53
69	All-sky search for gravitational-wave bursts in the second joint LIGO-Virgo run. <i>Physical Review D</i> , <b>2012</b> , 85,	4.9	96
68	Search for gravitational waves from intermediate mass binary black holes. <i>Physical Review D</i> , <b>2012</b> , 85,	4.9	46
67	Upper limits on a stochastic gravitational-wave background using LIGO and Virgo interferometers at 600–1000 Hz. <i>Physical Review D</i> , <b>2012</b> , 85,	4.9	40
66	Search for gravitational waves from low mass compact binary coalescence in LIGO’s sixth science run and Virgo’s science runs 2 and 3. <i>Physical Review D</i> , <b>2012</b> , 85,	4.9	172
65	All-sky search for periodic gravitational waves in the full S5 LIGO data. <i>Physical Review D</i> , <b>2012</b> , 85,	4.9	61
64	SWIFT FOLLOW-UP OBSERVATIONS OF CANDIDATE GRAVITATIONAL-WAVE TRANSIENT EVENTS. <i>Astrophysical Journal, Supplement Series</i> , <b>2012</b> , 203, 28	8	57
63	The characterization of Virgo data and its impact on gravitational-wave searches. <i>Classical and Quantum Gravity</i> , <b>2012</b> , 29, 155002	3.3	59

62	Multicolor cavity metrology. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2012</b> , 29, 2092-103	1.8	16
61	Technique for in situ measurement of free spectral range and transverse mode spacing of optical cavities. <i>Applied Optics</i> , <b>2012</b> , 51, 6571-7	1.7	8
60	Reduction of thermal fluctuations in a cryogenic laser interferometric gravitational wave detector. <i>Physical Review Letters</i> , <b>2012</b> , 108, 141101	7.4	30
59	First low-latency LIGO+Virgo search for binary inspirals and their electromagnetic counterparts. <i>Astronomy and Astrophysics</i> , <b>2012</b> , 541, A155	5.1	69
58	SEARCH FOR GRAVITATIONAL WAVES ASSOCIATED WITH GAMMA-RAY BURSTS DURING LIGO SCIENCE RUN 6 AND VIRGO SCIENCE RUNS 2 AND 3. <i>Astrophysical Journal</i> , <b>2012</b> , 760, 12	4.7	94
57	Implementation and testing of the first prompt search for gravitational wave transients with electromagnetic counterparts. <i>Astronomy and Astrophysics</i> , <b>2012</b> , 539, A124	5.1	71
56	SEARCH FOR GRAVITATIONAL WAVE BURSTS FROM SIX MAGNETARS. <i>Astrophysical Journal Letters</i> , <b>2011</b> , 734, L35	7.9	47
55	BEATING THE SPIN-DOWN LIMIT ON GRAVITATIONAL WAVE EMISSION FROM THE VELA PULSAR. <i>Astrophysical Journal</i> , <b>2011</b> , 737, 93	4.7	75
54	A gravitational wave observatory operating beyond the quantum shot-noise limit. <i>Nature Physics</i> , <b>2011</b> , 7, 962-965	16.2	554
53	The Japanese space gravitational wave antenna: DECIGO. <i>Classical and Quantum Gravity</i> , <b>2011</b> , 28, 094011	3.3	308
52	DECIGO and DECIGO pathfinder. <i>Classical and Quantum Gravity</i> , <b>2010</b> , 27, 084010	3.3	32
51	Thermal-noise-limited underground interferometer CLIO. <i>Classical and Quantum Gravity</i> , <b>2010</b> , 27, 084023	3.3	15
50	DECIGO pathfinder. <i>Classical and Quantum Gravity</i> , <b>2009</b> , 26, 094019	3.3	13
49	Status of Japanese gravitational wave detectors. <i>Classical and Quantum Gravity</i> , <b>2009</b> , 26, 204020	3.3	23
48	Long-term stabilization of a heterodyne metrology interferometer down to a noise level of 20 pm over an hour. <i>Applied Optics</i> , <b>2009</b> , 48, 6105-10	0.2	10
47	DECIGO: The Japanese space gravitational wave antenna. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 154, 012040	0.3	26
46	Laser-interferometric detectors for gravitational wave backgrounds at 100 MHz: Detector design and sensitivity. <i>Physical Review D</i> , <b>2008</b> , 77,	4.9	52
45	Operational status of TAMA300 with the seismic attenuation system (SAS). <i>Classical and Quantum Gravity</i> , <b>2008</b> , 25, 114036	3.3	29

44	Optimal location of two laser-interferometric detectors for gravitational wave backgrounds at 100 MHz. <i>Classical and Quantum Gravity</i> , <b>2008</b> , 25, 225011	3.3	7
43	Search for a stochastic background of 100-MHz gravitational waves with laser interferometers. <i>Physical Review Letters</i> , <b>2008</b> , 101, 101101	7.4	52
42	The Japanese space gravitational wave antenna; DECIGO. <i>Journal of Physics: Conference Series</i> , <b>2008</b> , 120, 032004	0.3	22
41	DECIGO pathfinder. <i>Journal of Physics: Conference Series</i> , <b>2008</b> , 120, 032005	0.3	4
40	Recent progress of TAMA300. <i>Journal of Physics: Conference Series</i> , <b>2008</b> , 120, 032010	0.3	8
39	The Japanese space gravitational wave antenna - DECIGO. <i>Journal of Physics: Conference Series</i> , <b>2008</b> , 122, 012006	0.3	36
38	Current status of Japanese detectors. <i>Classical and Quantum Gravity</i> , <b>2007</b> , 24, S399-S403	3.3	19
37	Laser interferometric high-precision geometry (angle and length) monitor for JASMINE. <i>Proceedings of the International Astronomical Union</i> , <b>2007</b> , 3, 280-281	0.1	
36	The Japanese space gravitational wave antenna DECIGO. <i>Classical and Quantum Gravity</i> , <b>2006</b> , 23, S125-S131	3.3	305
35	Results of the search for inspiraling compact star binaries from TAMA300 observation in 2000-2004. <i>Physical Review D</i> , <b>2006</b> , 74,	4.9	11
34	Joint LIGO and TAMA300 search for gravitational waves from inspiralling neutron star binaries. <i>Physical Review D</i> , <b>2006</b> , 73,	4.9	38
33	Analysis of the laser noise propagation mechanism on the laser interferometer gravitational wave antenna. <i>Journal of Physics: Conference Series</i> , <b>2006</b> , 32, 74-79	0.3	
32	Influence of radio frequency harmonics to TAMA300 sensitivity. <i>Journal of Physics: Conference Series</i> , <b>2006</b> , 32, 99-104	0.3	
31	Online monitoring of alignment noises in TAMA300. <i>Journal of Physics: Conference Series</i> , <b>2006</b> , 32, 94-98	0.3	1
30	Contributions of oscillator noises to the sensitivity of TAMA300. <i>Journal of Physics: Conference Series</i> , <b>2006</b> , 32, 105-110	0.3	
29	Upper limits from the LIGO and TAMA detectors on the rate of gravitational-wave bursts. <i>Physical Review D</i> , <b>2005</b> , 72,	4.9	44
28	Observation results by the TAMA300 detector on gravitational wave bursts from stellar-core collapses. <i>Physical Review D</i> , <b>2005</b> , 71,	4.9	23
27	Development of a frequency-detuned interferometer as a prototype experiment for next-generation gravitational-wave detectors. <i>Applied Optics</i> , <b>2005</b> , 44, 3179-91	1.7	9



26	Upper limits on gravitational-wave bursts radiated from stellar-core collapses in our galaxy. <i>Classical and Quantum Gravity</i> , <b>2005</b> , 22, S1283-S1291	3.3	8
25	Analysis for burst gravitational waves with TAMA300 data. <i>Classical and Quantum Gravity</i> , <b>2004</b> , 21, S735-S740	3.3	3
24	Analysis methods for burst gravitational waves with TAMA data. <i>Classical and Quantum Gravity</i> , <b>2004</b> , 21, S1679-S1684	3.3	5
23	Present status of large-scale cryogenic gravitational wave telescope. <i>Classical and Quantum Gravity</i> , <b>2004</b> , 21, S1161-S1172	3.3	41
22	Direct measurement of the scattered light effect on the sensitivity in TAMA300. <i>Physical Review D</i> , <b>2004</b> , 70,	4.9	6
21	Coincidence analysis to search for inspiraling compact binaries using TAMA300 and LISM data. <i>Physical Review D</i> , <b>2004</b> , 70,	4.9	16
20	Methods to characterize non-Gaussian noise in TAMA. <i>Classical and Quantum Gravity</i> , <b>2003</b> , 20, S697-S709	3.3	8
19	Interferometry for the LISA technology package (LTP) aboard SMART-2. <i>Classical and Quantum Gravity</i> , <b>2003</b> , 20, S153-S161	3.3	42
18	Current status of large-scale cryogenic gravitational wave telescope. <i>Classical and Quantum Gravity</i> , <b>2003</b> , 20, S871-S884	3.3	20
17	Evaluation of the performance of polished mirror surfaces for the TAMA gravitational wave detector by use of a wave-front tracing simulation: erratum <b>2003</b> , 42, 1306		
16	Development of a multistage laser frequency stabilization for an interferometric gravitational-wave detector. <i>Review of Scientific Instruments</i> , <b>2003</b> , 74, 4176-4183	1.7	18
15	Vacuum-compatible vibration isolation stack for an interferometric gravitational wave detector TAMA300. <i>Review of Scientific Instruments</i> , <b>2002</b> , 73, 2428-2433	1.7	19
14	Direct measurement of residual gas effect on the sensitivity in TAMA300. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2002</b> , 20, 1237-1241	2.9	9
13	Development of a light source with an injection-locked Nd:YAG laser and a ring-mode cleaner for the TAMA 300 gravitational-wave detector. <i>Review of Scientific Instruments</i> , <b>2002</b> , 73, 2136-2142	1.7	10
12	Improvement of the vibration isolation system for TAMA300. <i>Classical and Quantum Gravity</i> , <b>2002</b> , 19, 1599-1604	3.3	20
11	Japanese large-scale interferometers. <i>Classical and Quantum Gravity</i> , <b>2002</b> , 19, 1237-1245	3.3	20
10	Sensing and controls for power-recycling of TAMA300. <i>Classical and Quantum Gravity</i> , <b>2002</b> , 19, 1843-1848	3.3	14
9	Evaluation of the performance of polished mirror surfaces for the TAMA gravitational wave detector by use of a wave-front tracing simulation. <i>Applied Optics</i> , <b>2002</b> , 41, 5913-20	1.7	4



8	First search for gravitational waves from inspiraling compact binaries using TAMA300 data. <i>Physical Review D</i> , <b>2001</b> , 63,	4.9	61
7	Stable operation of a 300-m laser interferometer with sufficient sensitivity to detect gravitational-wave events within our galaxy. <i>Physical Review Letters</i> , <b>2001</b> , 86, 3950-4	7.4	233
6	Signal-separation experiments for a power-recycled Fabry-Perot-Michelson interferometer by sideband elimination. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2000</b> , 268, 268-273	2.3	6
5	New signal extraction scheme with harmonic demodulation for power-recycled Fabry-Perot-Michelson interferometers. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2000</b> , 273, 15-24	2.3	18
4	LARGE-SCALE CRYOGENIC GRAVITATIONAL WAVE TELESCOPE. <i>International Journal of Modern Physics D</i> , <b>1999</b> , 08, 557-579	2.2	101
3	Demonstration of power recycling on a Fabry-Perot-type prototype gravitational wave detector. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1998</b> , 248, 145-150	2.3	13
2	Focussing DIRC [A new compact Cherenkov ring imaging device. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>1996</b> , 382, 430-440	1.2	19
1	LIGO detector characterization in the second and third observing runs. <i>Classical and Quantum Gravity</i> ,	3.3	31