

# Stephen Fairhurst

## List of Publications by Citations

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125 papers	19,697 citations	64 h-index	130 g-index
130 ext. papers	22,527 ext. citations	5.9 avg, IF	6.14 L-index

#	Paper	IF	Citations
125	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
124	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
123	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
122	Predictions for the rates of compact binary coalescences observable by ground-based gravitational-wave detectors. <i>Classical and Quantum Gravity</i> , <b>2010</b> , 27, 173001	3.3	869
121	Tests of General Relativity with GW150914. <i>Physical Review Letters</i> , <b>2016</b> , 116, 221101	7.4	837
120	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 851, L35	7.9	809
119	Characterization of the LIGO detectors during their sixth science run. <i>Classical and Quantum Gravity</i> , <b>2015</b> , 32, 115012	3.3	790
118	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
117	A gravitational wave observatory operating beyond the quantum shot-noise limit. <i>Nature Physics</i> , <b>2011</b> , 7, 962-965	16.2	554
116	Properties of the Binary Black Hole Merger GW150914. <i>Physical Review Letters</i> , <b>2016</b> , 116, 241102	7.4	515
115	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. <i>Astrophysical Journal Letters</i> , <b>2016</b> , 818, L22	7.9	512
114	A gravitational-wave standard siren measurement of the Hubble constant. <i>Nature</i> , <b>2017</b> , 551, 85-88	50.4	413
113	The Emergence of a Lanthanide-rich Kilonova Following the Merger of Two Neutron Stars. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 848, L27	7.9	353
112	GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. <i>Physical Review Letters</i> , <b>2016</b> , 116, 131103	7.4	328
111	An upper limit on the stochastic gravitational-wave background of cosmological origin. <i>Nature</i> , <b>2009</b> , 460, 990-4	50.4	267
110	The PyCBC search for gravitational waves from compact binary coalescence. <i>Classical and Quantum Gravity</i> , <b>2016</b> , 33, 215004	3.3	263
109	Scientific objectives of Einstein Telescope. <i>Classical and Quantum Gravity</i> , <b>2012</b> , 29, 124013	3.3	256

108	Isolated horizons: Hamiltonian evolution and the first law. <i>Physical Review D</i> , <b>2000</b> , 62,	4.9	223
107	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
106	Generic isolated horizons and their applications. <i>Physical Review Letters</i> , <b>2000</b> , 85, 3564-7	7.4	186
105	Quantum gravity, shadow states and quantum mechanics. <i>Classical and Quantum Gravity</i> , <b>2003</b> , 20, 1031-1061	3.9	179
104	Transient overexpression of striatal D2 receptors impairs operant motivation and interval timing. <i>Journal of Neuroscience</i> , <b>2007</b> , 27, 7731-9	6.6	167
103	Mechanics of isolated horizons. <i>Classical and Quantum Gravity</i> , <b>2000</b> , 17, 253-298	3.3	165
102	Scalar expectancy theory and choice between delayed rewards. <i>Psychological Review</i> , <b>1988</b> , 95, 102-14	6.3	165
101	Isolated horizons: a generalization of black hole mechanics. <i>Classical and Quantum Gravity</i> , <b>1999</b> , 16, L1-L3	3.3	157
100	Beating the Spin-Down Limit on Gravitational Wave Emission from the Crab Pulsar. <i>Astrophysical Journal</i> , <b>2008</b> , 683, L45-L49	4.7	148
99	SEARCHES FOR GRAVITATIONAL WAVES FROM KNOWN PULSARS WITH SCIENCE RUN 5 LIGO DATA. <i>Astrophysical Journal</i> , <b>2010</b> , 713, 671-685	4.7	140
98	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
97	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
96	UPPER LIMITS ON THE RATES OF BINARY NEUTRON STAR AND NEUTRON STAR-BLACK HOLE MERGERS FROM ADVANCED LIGO'S FIRST OBSERVING RUN. <i>Astrophysical Journal Letters</i> , <b>2016</b> , 832, L21	7.9	130
95	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
94	Source localization with an advanced gravitational wave detector network. <i>Classical and Quantum Gravity</i> , <b>2011</b> , 28, 105021	3.3	126
93	Implications for the Origin of GRB 070201 from LIGO Observations. <i>Astrophysical Journal</i> , <b>2008</b> , 681, 1419-1430	4.7	126
92	Triangulation of gravitational wave sources with a network of detectors. <i>New Journal of Physics</i> , <b>2009</b> , 11, 123006	2.9	122
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	Host Galaxies Catalog Used in LIGO Searches for Compact Binary Coalescence Events. <i>Astrophysical Journal</i> , <b>2008</b> , 675, 1459-1467	4.7	109
89	Limits on gravitational-wave emission from selected pulsars using LIGO data. <i>Physical Review Letters</i> , <b>2005</b> , 94, 181103	7.4	109
88	First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. <i>Astrophysical Journal</i> , <b>2017</b> , 839, 12	4.7	107
87	Searching for a Stochastic Background of Gravitational Waves with the Laser Interferometer Gravitational-Wave Observatory. <i>Astrophysical Journal</i> , <b>2007</b> , 659, 918-930	4.7	107
86	WHEN CAN GRAVITATIONAL-WAVE OBSERVATIONS DISTINGUISH BETWEEN BLACK HOLES AND NEUTRON STARS?. <i>Astrophysical Journal Letters</i> , <b>2013</b> , 766, L14	7.9	98
85	Testing gravitational-wave searches with numerical relativity waveforms: results from the first Numerical INjection Analysis (NINJA) project. <i>Classical and Quantum Gravity</i> , <b>2009</b> , 26, 165008	3.3	98
84	FIRST SEARCH FOR GRAVITATIONAL WAVES FROM THE YOUNGEST KNOWN NEUTRON STAR. <i>Astrophysical Journal</i> , <b>2010</b> , 722, 1504-1513	4.7	95
83	The NINJA-2 catalog of hybrid post-Newtonian/numerical-relativity waveforms for non-precessing black-hole binaries. <i>Classical and Quantum Gravity</i> , <b>2012</b> , 29, 124001	3.3	94
82	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
81	Detecting Binary Compact-object Mergers with Gravitational Waves: Understanding and Improving the Sensitivity of the PyCBC Search. <i>Astrophysical Journal</i> , <b>2017</b> , 849, 118	4.7	93
80	Degeneracy between mass and spin in black-hole-binary waveforms. <i>Physical Review D</i> , <b>2013</b> , 87,	4.9	91
79	Effects of dopamine antagonists on the timing of two intervals. <i>Pharmacology Biochemistry and Behavior</i> , <b>2003</b> , 75, 9-15	3.9	91
78	The Environment of the Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 848, L28	7.9	89
77	The first law for slowly evolving horizons. <i>Physical Review Letters</i> , <b>2004</b> , 92, 011102	7.4	88
76	Directional limits on persistent gravitational waves using LIGO S5 science data. <i>Physical Review Letters</i> , <b>2011</b> , 107, 271102	7.4	85
75	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> , <b>2010</b> , 715, 1453-1461	4.7	79
74	All-sky LIGO search for periodic gravitational waves in the early fifth-science-run data. <i>Physical Review Letters</i> , <b>2009</b> , 102, 111102	7.4	77
73	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

72	Effects of waveform model systematics on the interpretation of GW150914. <i>Classical and Quantum Gravity</i> , <b>2017</b> , 34, 104002	3.3	74
71	DISTINGUISHING COMPACT BINARY POPULATION SYNTHESIS MODELS USING GRAVITATIONAL WAVE OBSERVATIONS OF COALESCING BINARY BLACK HOLES. <i>Astrophysical Journal</i> , <b>2015</b> , 810, 58	4.7	74
70	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
69	Dawn and dusk simulation as a therapeutic intervention. <i>Biological Psychiatry</i> , <b>1989</b> , 25, 966-70	7.9	73
68	Search for gravitational-wave bursts in LIGO data from the fourth science run. <i>Classical and Quantum Gravity</i> , <b>2007</b> , 24, 5343-5369	3.3	70
67	Upper limits on a stochastic background of gravitational waves. <i>Physical Review Letters</i> , <b>2005</b> , 95, 221101	7.4	69
66	Pharmacologic rescue of motivational deficit in an animal model of the negative symptoms of schizophrenia. <i>Biological Psychiatry</i> , <b>2011</b> , 69, 928-35	7.9	68
65	Isolated, slowly evolving, and dynamical trapping horizons: Geometry and mechanics from surface deformations. <i>Physical Review D</i> , <b>2007</b> , 75,	4.9	66
64	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
63	Glutaminase-deficient mice display hippocampal hypoactivity, insensitivity to pro-psychotic drugs and potentiated latent inhibition: relevance to schizophrenia. <i>Neuropsychopharmacology</i> , <b>2009</b> , 34, 2305-22	8.7	65
62	Search for gravitational-wave bursts from soft gamma repeaters. <i>Physical Review Letters</i> , <b>2008</b> , 101, 211102	7.4	64
61	Impaired timing precision produced by striatal D2 receptor overexpression is mediated by cognitive and motivational deficits. <i>Behavioral Neuroscience</i> , <b>2009</b> , 123, 720-30	2.1	61
60	Constraints on cosmic strings from the LIGO-Virgo gravitational-wave detectors. <i>Physical Review Letters</i> , <b>2014</b> , 112, 131101	7.4	59
59	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
58	Scalar Timing in Animals and Humans. <i>Learning and Motivation</i> , <b>2002</b> , 33, 156-176	1.3	59
57	SEARCHES FOR CONTINUOUS GRAVITATIONAL WAVES FROM NINE YOUNG SUPERNOVA REMNANTS. <i>Astrophysical Journal</i> , <b>2015</b> , 813, 39	4.7	58
56	SWIFT FOLLOW-UP OBSERVATIONS OF CANDIDATE GRAVITATIONAL-WAVE TRANSIENT EVENTS. <i>Astrophysical Journal, Supplement Series</i> , <b>2012</b> , 203, 28	8	57
55	SEARCH FOR GRAVITATIONAL-WAVE BURSTS ASSOCIATED WITH GAMMA-RAY BURSTS USING DATA FROM LIGO SCIENCE RUN 5 AND VIRGO SCIENCE RUN 1. <i>Astrophysical Journal</i> , <b>2010</b> , 715, 1438-1452	4.7	54

54	IMPLICATIONS FOR THE ORIGIN OF GRB 051103 FROM LIGO OBSERVATIONS. <i>Astrophysical Journal</i> , <b>2012</b> , 755, 2	4.7	53
53	A DARK ENERGY CAMERA SEARCH FOR AN OPTICAL COUNTERPART TO THE FIRST ADVANCED LIGO GRAVITATIONAL WAVE EVENT GW150914. <i>Astrophysical Journal Letters</i> , <b>2016</b> , 823, L33	7.9	53
52	Extremality conditions for isolated and dynamical horizons. <i>Physical Review D</i> , <b>2008</b> , 77,	4.9	52
51	FIRST SEARCHES FOR OPTICAL COUNTERPARTS TO GRAVITATIONAL-WAVE CANDIDATE EVENTS. <i>Astrophysical Journal, Supplement Series</i> , <b>2014</b> , 211, 7	8	51
50	On the Progenitor of Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 850, L40	7.9	50
49	The Mock LISA Data Challenges: from Challenge 1B to Challenge 3. <i>Classical and Quantum Gravity</i> , <b>2008</b> , 25, 184026	3.3	50
48	SEARCH FOR GRAVITATIONAL WAVE BURSTS FROM SIX MAGNETARS. <i>Astrophysical Journal Letters</i> , <b>2011</b> , 734, L35	7.9	47
47	The basic physics of the binary black hole merger GW150914. <i>Annalen Der Physik</i> , <b>2017</b> , 529, 1600209	2.6	45
46	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
45	Parameter estimation on compact binary coalescences with abruptly terminating gravitational waveforms. <i>Classical and Quantum Gravity</i> , <b>2014</b> , 31, 155005	3.3	41
44	DISTORTED BLACK HOLES WITH CHARGE. <i>International Journal of Modern Physics D</i> , <b>2001</b> , 10, 691-709	2.2	41
43	STACKED SEARCH FOR GRAVITATIONAL WAVES FROM THE 2006 SGR 1900+14 STORM. <i>Astrophysical Journal</i> , <b>2009</b> , 701, L68-L74	4.7	40
42	The loudest event statistic: general formulation, properties and applications. <i>Classical and Quantum Gravity</i> , <b>2009</b> , 26, 175009	3.3	39
41	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
40	Status of NINJA: the Numerical INjection Analysis project. <i>Classical and Quantum Gravity</i> , <b>2009</b> , 26, 114008	3.9	36
39	Search for gravitational-wave bursts in LIGO's third science run. <i>Classical and Quantum Gravity</i> , <b>2006</b> , 23, S29-S39	3.3	36
38	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
37	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

36	Report on the second Mock LISA data challenge. <i>Classical and Quantum Gravity</i> , <b>2008</b> , 25, 114037	3.3	34
35	Horizon energy and angular momentum from a Hamiltonian perspective. <i>Classical and Quantum Gravity</i> , <b>2005</b> , 22, 4515-4550	3.3	34
34	PROSPECTS FOR JOINT GRAVITATIONAL WAVE AND SHORT GAMMA-RAY BURST OBSERVATIONS. <i>Astrophysical Journal</i> , <b>2015</b> , 809, 53	4.7	33
33	Conditioned [corrected] stimulus informativeness governs conditioned stimulus-unconditioned stimulus associability. <i>Journal of Experimental Psychology</i> , <b>2012</b> , 38, 217-32		32
32	Searching for gravitational waves from binary inspirals with LIGO. <i>Classical and Quantum Gravity</i> , <b>2004</b> , 21, S1625-S1633	3.3	31
31	Constraining Black Hole Spins with Gravitational-wave Observations. <i>Astrophysical Journal</i> , <b>2018</b> , 868, 140	4.7	31
30	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
29	Phase advance after one or three simulated dawns in humans. <i>Chronobiology International</i> , <b>2000</b> , 17, 659-68	3.6	26
28	Interpreting the results of searches for gravitational waves from coalescing binaries. <i>Classical and Quantum Gravity</i> , <b>2008</b> , 25, 105002	3.3	25
27	Pavlovian contingencies and temporal information. <i>Journal of Experimental Psychology</i> , <b>2006</b> , 32, 284-94		25
26	Astrophysically triggered searches for gravitational waves: status and prospects. <i>Classical and Quantum Gravity</i> , <b>2008</b> , 25, 114051	3.3	24
25	Optimizing Workflow Data Footprint. <i>Scientific Programming</i> , <b>2007</b> , 15, 249-268	1.4	23
24	Addendum to The NINJA-2 catalog of hybrid post-Newtonian/numerical-relativity waveforms for non-precessing black-hole binaries <i>Classical and Quantum Gravity</i> , <b>2013</b> , 30, 199401	3.3	21
23	Ratio versus difference comparators in choice. <i>Journal of the Experimental Analysis of Behavior</i> , <b>1994</b> , 62, 409-34	2.1	20
22	First joint search for gravitational-wave bursts in LIGO and GEO 600 data. <i>Classical and Quantum Gravity</i> , <b>2008</b> , 25, 245008	3.3	19
21	Localization of binary neutron star mergers with second and third generation gravitational-wave detectors. <i>Physical Review D</i> , <b>2018</b> , 97,	4.9	19
20	Constraining the Inclinations of Binary Mergers from Gravitational-wave Observations. <i>Astrophysical Journal</i> , <b>2019</b> , 877, 82	4.7	18
19	The Emergence of Structure in the Binary Black Hole Mass Distribution. <i>Astrophysical Journal Letters</i> , <b>2021</b> , 913, L19	7.9	18



18	Two-harmonic approximation for gravitational waveforms from precessing binaries. <i>Physical Review D</i> , <b>2020</b> , 102,	4.9	15
17	When will we observe binary black holes precessing?. <i>Physical Review D</i> , <b>2020</b> , 102,	4.9	15
16	A first comparison of search methods for gravitational wave bursts using LIGO and Virgo simulated data. <i>Classical and Quantum Gravity</i> , <b>2005</b> , 22, S1293-S1301	3.3	14
15	Timing processes in the reinforcement-omission effect. <i>Learning and Behavior</i> , <b>1995</b> , 23, 286-296		14
14	A hierarchical search for gravitational waves from supermassive black hole binary mergers. <i>Classical and Quantum Gravity</i> , <b>2008</b> , 25, 184027	3.3	13
13	A coherent triggered search for single-spin compact binary coalescences in gravitational wave data. <i>Classical and Quantum Gravity</i> , <b>2011</b> , 28, 134008	3.3	12
12	Localization of transient gravitational wave sources: beyond triangulation. <i>Classical and Quantum Gravity</i> , <b>2018</b> , 35, 105002	3.3	12
11	Searching for binary coalescences with inspiral templates: detection and parameter estimation. <i>Classical and Quantum Gravity</i> , <b>2009</b> , 26, 114009	3.3	10
10	Measuring gravitational-wave higher-order multipoles. <i>Physical Review D</i> , <b>2021</b> , 103,	4.9	9
9	Unveiling early black hole growth with multifrequency gravitational wave observations. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2020</b> , 500, 4095-4109	4.3	8
8	Canonical phase space formulation of quasi-local general relativity. <i>Classical and Quantum Gravity</i> , <b>2003</b> , 20, 4507-4531	3.3	6
7	Plans for the LIGO-VIRGO joint search for gravitational wave bursts. <i>Classical and Quantum Gravity</i> , <b>2004</b> , 21, S1801-S1807	3.3	5
6	Identifying when precession can be measured in gravitational waveforms. <i>Physical Review D</i> , <b>2021</b> , 103,	4.9	5
5	Current status of gravitational wave observations. <i>General Relativity and Gravitation</i> , <b>2011</b> , 43, 387-407	2.3	4
4	Status of the joint LIGO-VIRGO300 inspiral analysis. <i>Classical and Quantum Gravity</i> , <b>2005</b> , 22, S1109-S1118	3.3	4
3	Timing the second response in two-response avoidance. <i>Journal of the Experimental Analysis of Behavior</i> , <b>1983</b> , 39, 199-211	2.1	2
2	Understanding How Fast Black Holes Spin by Analyzing Data from the Second Gravitational-wave Catalogue. <i>Astrophysical Journal</i> , <b>2022</b> , 928, 75	4.7	1
1	Relativistic astrophysics at GR20. <i>General Relativity and Gravitation</i> , <b>2014</b> , 46, 1	2.3	



