

Simon P Stevenson

List of Publications by Year in descending order

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Version: 2024-02-01

103
papers

44,847
citations

23500

58
h-index

29081

104
g-index

104
all docs

104
docs citations

104
times ranked

16223
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Observation of Gravitational Waves from a Binary Black Hole Merger. <i>Physical Review Letters</i> , 2016, 116, 061102. | 2.9 | 8,753 |
| 2 | GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. <i>Physical Review Letters</i> , 2017, 119, 161101. | 2.9 | 6,413 |
| 3 | Multi-messenger Observations of a Binary Neutron Star Merger [*] . <i>Astrophysical Journal Letters</i> , 2017, 848, L12. | 3.0 | 2,805 |
| 4 | GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. <i>Physical Review Letters</i> , 2016, 116, 241103. | 2.9 | 2,701 |
| 5 | Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. <i>Astrophysical Journal Letters</i> , 2017, 848, L13. | 3.0 | 2,314 |
| 6 | 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> , 2019, 9, . | 2.8 | 2,022 |
| 7 | GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. <i>Physical Review Letters</i> , 2017, 118, 221101. | 2.9 | 1,987 |
| 8 | Advanced LIGO. <i>Classical and Quantum Gravity</i> , 2015, 32, 074001. | 1.5 | 1,929 |
| 9 | GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. <i>Physical Review Letters</i> , 2017, 119, 141101. | 2.9 | 1,600 |
| 10 | GW170817: Measurements of Neutron Star Radii and Equation of State. <i>Physical Review Letters</i> , 2018, 121, 161101. | 2.9 | 1,473 |
| 11 | GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. <i>Astrophysical Journal Letters</i> , 2017, 851, L35. | 3.0 | 968 |
| 12 | Binary Black Hole Mergers in the First Advanced LIGO Observing Run. <i>Physical Review X</i> , 2016, 6, . | 2.8 | 898 |
| 13 | Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , 2018, 21, 3. | 8.2 | 808 |
| 14 | Properties of the Binary Neutron Star Merger GW170817. <i>Physical Review X</i> , 2019, 9, . | 2.8 | 728 |
| 15 | A gravitational-wave standard siren measurement of the Hubble constant. <i>Nature</i> , 2017, 551, 85-88. | 13.7 | 674 |
| 16 | Properties of the Binary Black Hole Merger GW150914. <i>Physical Review Letters</i> , 2016, 116, 241102. | 2.9 | 673 |
| 17 | ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. <i>Astrophysical Journal Letters</i> , 2016, 818, L22. | 3.0 | 633 |
| 18 | Binary Black Hole Population Properties Inferred from the First and Second Observing Runs of Advanced LIGO and Advanced Virgo. <i>Astrophysical Journal Letters</i> , 2019, 882, L24. | 3.0 | 566 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Tests of general relativity with the binary black hole signals from the LIGO-Virgo catalog GWTC-1. Physical Review D, 2019, 100, . | 1.6 | 470 |
| 20 | Tests of General Relativity with GW170817. Physical Review Letters, 2019, 123, 011102. | 2.9 | 370 |
| 21 | Formation of the first three gravitational-wave observations through isolated binary evolution. Nature Communications, 2017, 8, 14906. | 5.8 | 270 |
| 22 | THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914. Astrophysical Journal Letters, 2016, 833, L1. | 3.0 | 230 |
| 23 | Distinguishing spin-aligned and isotropic black hole populations with gravitational waves. Nature, 2017, 548, 426-429. | 13.7 | 208 |
| 24 | Search for the isotropic stochastic background using data from Advanced LIGO's second observing run. Physical Review D, 2019, 100, . | 1.6 | 200 |
| 25 | Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO's First Observing Run. Physical Review Letters, 2017, 118, 121101. | 2.9 | 194 |
| 26 | The effect of the metallicity-specific star formation history on double compact object mergers. Monthly Notices of the Royal Astronomical Society, 2019, 490, 3740-3759. | 1.6 | 192 |
| 27 | Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 851, L16. | 3.0 | 189 |
| 28 | On the formation history of Galactic double neutron stars. Monthly Notices of the Royal Astronomical Society, 2018, 481, 4009-4029. | 1.6 | 189 |
| 29 | First Measurement of the Hubble Constant from a Dark Standard Siren using the Dark Energy Survey Galaxies and the LIGO/Virgo Binary's Black-hole Merger GW170814. Astrophysical Journal Letters, 2019, 876, L7. | 3.0 | 179 |
| 30 | GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. Physical Review Letters, 2018, 120, 091101. | 2.9 | 166 |
| 31 | Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817. Astrophysical Journal Letters, 2017, 850, L39. | 3.0 | 156 |
| 32 | The origin of spin in binary black holes. Astronomy and Astrophysics, 2020, 635, A97. | 2.1 | 155 |
| 33 | Hierarchical analysis of gravitational-wave measurements of binary black hole spin-orbit misalignments. Monthly Notices of the Royal Astronomical Society, 2017, 471, 2801-2811. | 1.6 | 152 |
| 34 | Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory. Astrophysical Journal Letters, 2017, 850, L35. | 3.0 | 135 |
| 35 | First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. Astrophysical Journal, 2017, 839, 12. | 1.6 | 131 |
| 36 | Search for Substellar Mass Ultracompact Binaries in Advanced LIGO's Second Observing Run. Physical Review Letters, 2019, 123, 161102. | 2.9 | 119 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | The Impact of Pair-instability Mass Loss on the Binary Black Hole Mass Distribution. <i>Astrophysical Journal</i> , 2019, 882, 121. | 1.6 | 114 |
| 38 | Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model. <i>Physical Review X</i> , 2016, 6, . | 2.8 | 106 |
| 39 | Accuracy of inference on the physics of binary evolution from gravitational-wave observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 477, 4685-4695. | 1.6 | 100 |
| 40 | Effects of waveform model systematics on the interpretation of GW150914. <i>Classical and Quantum Gravity</i> , 2017, 34, 104002. | 1.5 | 98 |
| 41 | Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. <i>Astrophysical Journal</i> , 2019, 875, 160. | 1.6 | 97 |
| 42 | DISTINGUISHING COMPACT BINARY POPULATION SYNTHESIS MODELS USING GRAVITATIONAL WAVE OBSERVATIONS OF COALESCING BINARY BLACK HOLES. <i>Astrophysical Journal</i> , 2015, 810, 58. | 1.6 | 90 |
| 43 | Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015â€“2017 LIGO Data. <i>Astrophysical Journal</i> , 2019, 879, 10. | 1.6 | 88 |
| 44 | Improved Upper Limits on the Stochastic Gravitational-Wave Background from 2009â€“2010 LIGO and Virgo Data. <i>Physical Review Letters</i> , 2014, 113, 231101. | 2.9 | 86 |
| 45 | Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. <i>Physical Review Letters</i> , 2018, 120, 201102. | 2.9 | 85 |
| 46 | Directional Limits on Persistent Gravitational Waves from Advanced LIGOâ€™s First Observing Run. <i>Physical Review Letters</i> , 2017, 118, 121102. | 2.9 | 84 |
| 47 | Impact of massive binary star and cosmic evolution on gravitational wave observations I: black holeâ€“neutron star mergers. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 508, 5028-5063. | 1.6 | 83 |
| 48 | Search for Substellar-Mass Ultracompact Binaries in Advanced LIGOâ€™s First Observing Run. <i>Physical Review Letters</i> , 2018, 121, 231103. | 2.9 | 77 |
| 49 | On the Progenitor of Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L40. | 3.0 | 73 |
| 50 | 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. | 1.6 | 72 |
| 51 | Low-latency Gravitational-wave Alerts for Multimessenger Astronomy during the Second Advanced LIGO and Virgo Observing Run. <i>Astrophysical Journal</i> , 2019, 875, 161. | 1.6 | 71 |
| 52 | All-sky search for short gravitational-wave bursts in the first Advanced LIGO run. <i>Physical Review D</i> , 2017, 95, . | 1.6 | 69 |
| 53 | SEARCHES FOR CONTINUOUS GRAVITATIONAL WAVES FROM NINE YOUNG SUPERNOVA REMNANTS. <i>Astrophysical Journal</i> , 2015, 813, 39. | 1.6 | 66 |
| 54 | SUPPLEMENT: â€œTHE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914â€•(2016, <i>ApJL</i> , 833, L1). <i>Astrophysical Journal</i> , Supplement Series, 2016, 227, 14. | 3.0 | 63 |

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|----|--|-----|-----------|
| 55 | Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO. <i>Astrophysical Journal</i> , 2019, 875, 122. | 1.6 | 61 |
| 56 | First all-sky search for continuous gravitational waves from unknown sources in binary systems. <i>Physical Review D</i> , 2014, 90, . | 1.6 | 60 |
| 57 | Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run. <i>Physical Review D</i> , 2019, 99, . | 1.6 | 60 |
| 58 | Model-independent inference on compact-binary observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 465, 3254-3260. | 1.6 | 58 |
| 59 | Rapid Stellar and Binary Population Synthesis with COMPAS. <i>Astrophysical Journal, Supplement Series</i> , 2022, 258, 34. | 3.0 | 57 |
| 60 | Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B. <i>Astrophysical Journal</i> , 2017, 841, 89. | 1.6 | 52 |
| 61 | 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, . | 1.6 | 52 |
| 62 | Directional limits on persistent gravitational waves using data from Advanced LIGO's first two observing runs. <i>Physical Review D</i> , 2019, 100, . | 1.6 | 52 |
| 63 | Detecting double neutron stars with LISA. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 492, 3061-3072. | 1.6 | 49 |
| 64 | Directed search for gravitational waves from Scorpius X-1 with initial LIGO data. <i>Physical Review D</i> , 2015, 91, . | 1.6 | 47 |
| 65 | First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. <i>Physical Review D</i> , 2017, 96, . | 1.6 | 47 |
| 66 | Impact of massive binary star and cosmic evolution on gravitational wave observations – II. Double compact object rates and properties. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 516, 5737-5761. | 1.6 | 47 |
| 67 | Full band all-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , 2018, 97, . | 1.6 | 46 |
| 68 | 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, . | 1.6 | 46 |
| 69 | On the origin of GW190425. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2020, 496, L64-L69. | 1.2 | 46 |
| 70 | Modelling neutron star–black hole binaries: future pulsar surveys and gravitational wave detectors. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 504, 3682-3710. | 1.6 | 43 |
| 71 | The NINJA-2 project: detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations. <i>Classical and Quantum Gravity</i> , 2014, 31, 115004. | 1.5 | 42 |
| 72 | Inference on gravitational waves from coalescences of stellar-mass compact objects and intermediate-mass black holes. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 457, 4499-4506. | 1.6 | 42 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Luminous Red Novae: population models and future prospects. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 492, 3229-3240. | 1.6 | 42 |
| 74 | Search for high-energy neutrinos from gravitational wave event GW151226 and candidate LVT151012 with ANTARES and IceCube. <i>Physical Review D</i> , 2017, 96, . | 1.6 | 40 |
| 75 | Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in Virgo VSR4 data. <i>Physical Review D</i> , 2015, 91, . | 1.6 | 37 |
| 76 | Constraining the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mi} \rangle \text{p} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -Mode $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mi} \rangle \text{g} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -Mode Tidal Instability with GW170817. <i>Physical Review Letters</i> , 2019, 122, 061104. | 2.9 | 36 |
| 77 | Modelling double neutron stars: radio and gravitational waves. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 494, 1587-1610. | 1.6 | 36 |
| 78 | 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> , 2014, 89, . | 1.6 | 35 |
| 79 | Implementation of an \mathcal{F} -statistic all-sky search for continuous gravitational waves in Virgo VSR1 data. <i>Classical and Quantum Gravity</i> , 2014, 31, 165014. | 1.5 | 34 |
| 80 | Search for Gravitational Waves Associated with $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mi} \rangle \hat{\Gamma}^3 \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -ray Bursts Detected by the Interplanetary Network. <i>Physical Review Letters</i> , 2014, 113, 011102. | 2.9 | 32 |
| 81 | First low frequency all-sky search for continuous gravitational wave signals. <i>Physical Review D</i> , 2016, 93, . | 1.6 | 32 |
| 82 | Search for Multimessenger Sources of Gravitational Waves and High-energy Neutrinos with Advanced LIGO during Its First Observing Run, ANTARES, and IceCube. <i>Astrophysical Journal</i> , 2019, 870, 134. | 1.6 | 32 |
| 83 | $\langle \text{scp} \rangle$ stroopwafel $\langle \text{scp} \rangle$: simulating rare outcomes from astrophysical populations, with application to gravitational-wave sources. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 490, 5228-5248. | 1.6 | 30 |
| 84 | 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> , 2019, 871, 90. | 1.6 | 30 |
| 85 | Multimessenger search for sources of gravitational waves and high-energy neutrinos: Initial results for LIGO-Virgo and IceCube. <i>Physical Review D</i> , 2014, 90, . | 1.6 | 29 |
| 86 | 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> , 2014, 89, . | 1.6 | 29 |
| 87 | Search for gravitational wave ringdowns from perturbed intermediate mass black holes in LIGO-Virgo data from 2005–2010. <i>Physical Review D</i> , 2014, 89, . | 1.6 | 28 |
| 88 | Search for Transient Gravitational-wave Signals Associated with Magnetar Bursts during Advanced LIGO's Second Observing Run. <i>Astrophysical Journal</i> , 2019, 874, 163. | 1.6 | 26 |
| 89 | The fates of massive stars: exploring uncertainties in stellar evolution with metisse. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 497, 4549-4564. | 1.6 | 26 |
| 90 | Heavy Double Neutron Stars: Birth, Midlife, and Death. <i>Astrophysical Journal Letters</i> , 2021, 909, L19. | 3.0 | 24 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 91 | All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run. <i>Physical Review D</i> , 2019, 99, . | 1.6 | 22 |
| 92 | Linking the rates of neutron star binaries and short gamma-ray bursts. <i>Physical Review D</i> , 2022, 105, . | 1.6 | 21 |
| 93 | All-sky search for long-duration gravitational wave transients in the first Advanced LIGO observing run. <i>Classical and Quantum Gravity</i> , 2018, 35, 065009. | 1.5 | 18 |
| 94 | Constraints on Weak Supernova Kicks from Observed Pulsar Velocities. <i>Astrophysical Journal Letters</i> , 2021, 920, L37. | 3.0 | 18 |
| 95 | Search of the Orion spur for continuous gravitational waves using a loosely coherent algorithm on data from LIGO interferometers. <i>Physical Review D</i> , 2016, 93, . | 1.6 | 17 |
| 96 | Unmodelled clustering methods for gravitational wave populations of compact binary mergers. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 488, 3810-3817. | 1.6 | 16 |
| 97 | Explaining the differences in massive star models from various simulations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 512, 5717-5725. | 1.6 | 15 |
| 98 | Dynamical double black holes and their host cluster properties. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 513, 4527-4555. | 1.6 | 13 |
| 99 | Modelling the formation of the first two neutron star "black hole mergers, GW200105 and GW200115: metallicity, chirp masses, and merger remnant spins. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 513, 5780-5789. | 1.6 | 12 |
| 100 | Biases in Estimates of Black Hole Kicks from the Spin Distribution of Binary Black Holes. <i>Astrophysical Journal Letters</i> , 2022, 926, L32. | 3.0 | 11 |
| 101 | COMPAS: A rapid binary population synthesis suite. <i>Journal of Open Source Software</i> , 2022, 7, 3838. | 2.0 | 9 |
| 102 | Exploring the Parameter Space of Compact Binary Population Synthesis. <i>Proceedings of the International Astronomical Union</i> , 2016, 12, 46-50. | 0.0 | 8 |
| 103 | Wide binary pulsars from electron-capture supernovae. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 513, 6105-6110. | 1.6 | 4 |