# Pep Covas

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/3279363/publications.pdf

Version: 2024-02-01

| | | | |
|---|---|---|---|
| 79 papers | 31,479 citations | 30070 54 h-index | 64796 79 g-index |
| 80 all docs | 80 docs citations | 80 times ranked | 13201 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Constraints on r-modes and Mountains on Millisecond Neutron Stars in Binary Systems. Astrophysical Journal Letters, 2022, 929, L19. | 8.3 | 18 |
| 2 | Improved short-segment detection statistic for continuous gravitational waves. Physical Review D, 2022, 105, . | 4.7 | 5 |
| 3 | A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. Astrophysical Journal, 2021, 909, 218. | 4.5 | 144 |
| 4 | LIGO detector characterization in the second and third observing runs. Classical and Quantum Gravity, 2021, 38, 135014. | 4.0 | 128 |
| 5 | Approaching the motional ground state of a 10-kg object. Science, 2021, 372, 1333-1336. | 12.6 | 59 |
| 6 | Environmental noise in advanced LIGO detectors. Classical and Quantum Gravity, 2021, 38, 145001. | 4.0 | 38 |
| 7 | 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 |
| 8 | LIGOâ€™s quantum response to squeezed states. Physical Review D, 2021, 104, . | 4.7 | 19 |
| 9 | Point Absorber Limits to Future Gravitational-Wave Detectors. Physical Review Letters, 2021, 127, 241102. | 7.8 | 3 |
| 10 | 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 |
| 11 | GW190521: A Binary Black Hole Merger with a Total Mass of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>150</mml:mn><mml:mtext>â€‰</mml:mtext><mml:mtext>â€‰</mml:mtext><mml:msub><mml:mi></mml:mi><mml:mo stretchy="false">âŠ™</mml:mo></mml:msub></mml:mrow></mml:math>. Physical Review Letters, 2020, 125, 101102. | 7.8 | 836 |
| 12 | GW190412: Observation of a binary-black-hole coalescence with asymmetric masses. Physical Review D, 2020, 102, . | 4.7 | 394 |
| 13 | Sensitivity and performance of the Advanced LIGO detectors in the third observing run. Physical Review D, 2020, 102, . | 4.7 | 196 |
| 14 | First All-Sky Search for Continuous Gravitational-Wave Signals from Unknown Neutron Stars in Binary Systems Using Advanced LIGO Data. Physical Review Letters, 2020, 124, 191102. | 7.8 | 26 |
| 15 | GW190814: Gravitational Waves from the Coalescence of a 23 Solar Mass Black Hole with a 2.6 Solar Mass Compact Object. Astrophysical Journal Letters, 2020, 896, L44. | 8.3 | 1,090 |
| 16 | GW190425: Observation of a Compact Binary Coalescence with Total MassÂâˆ¼Â3.4 M<sub>âŠ™</sub>. Astrophysical Journal Letters, 2020, 892, L3. | 8.3 | 1,049 |
| 17 | Model comparison from LIGOâ€“Virgo data on GW170817â€™s binary components and consequences for the merger remnant. Classical and Quantum Gravity, 2020, 37, 045006. | 4.0 | 109 |
| 18 | A guide to LIGOâ€“Virgo detector noise and extraction of transient gravitational-wave signals. Classical and Quantum Gravity, 2020, 37, 055002. | 4.0 | 188 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Optically targeted search for gravitational waves emitted by core-collapse supernovae during the first and second observing runs of advanced LIGO and advanced Virgo. Physical Review D, 2020, 101, . | 4.7 | 69 |
| 20 | Improving the robustness of the advanced LIGO detectors to earthquakes. Classical and Quantum Gravity, 2020, 37, 235007. | 4.0 | 11 |
| 21 | Effects of proper motion of neutron stars on continuous gravitational-wave searches. Monthly Notices of the Royal Astronomical Society, 2020, 500, 5167-5176. | 4.4 | 7 |
| 22 | Properties and Astrophysical Implications of the 150 M<sub>âŠ™</sub> Binary Black Hole Merger GW190521. Astrophysical Journal Letters, 2020, 900, L13. | 8.3 | 406 |
| 23 | New method to search for continuous gravitational waves from unknown neutron stars in binary systems. Physical Review D, 2019, 99, . | 4.7 | 15 |
| 24 | Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run. Physical Review D, 2019, 99, . | 4.7 | 60 |
| 25 | Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015â€“2017 LIGO Data. Astrophysical Journal, 2019, 879, 10. | 4.5 | 88 |
| 26 | All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data. Physical Review D, 2019, 100, . | 4.7 | 102 |
| 27 | All-sky search for short gravitational-wave bursts in the second Advanced LIGO and Advanced Virgo run. Physical Review D, 2019, 100, . | 4.7 | 54 |
| 28 | Tests of General Relativity with GW170817. Physical Review Letters, 2019, 123, 011102. | 7.8 | 370 |
| 29 | Search for Eccentric Binary Black Hole Mergers with Advanced LIGO and Advanced Virgo during Their First and Second Observing Runs. Astrophysical Journal, 2019, 883, 149. | 4.5 | 72 |
| 30 | Search for intermediate mass black hole binaries in the first and second observing runs of the Advanced LIGO and Virgo network. Physical Review D, 2019, 100, . | 4.7 | 52 |
| 31 | Search for Subsolar Mass Ultracompact Binaries in Advanced LIGOâ€™s Second Observing Run. Physical Review Letters, 2019, 123, 161102. | 7.8 | 119 |
| 32 | 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 |
| 33 | Directional limits on persistent gravitational waves using data from Advanced LIGOâ€™s first two observing runs. Physical Review D, 2019, 100, . | 4.7 | 52 |
| 34 | 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 |
| 35 | Search for the isotropic stochastic background using data from Advanced LIGOâ€™s second observing run. Physical Review D, 2019, 100, . | 4.7 | 200 |
| 36 | All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run. Physical Review D, 2019, 99, . | 4.7 | 22 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO<sup>*</sup>. Astrophysical Journal, 2019, 875, 122. | 4.5 | 61 |
| 38 | Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal, 2019, 875, 160. | 4.5 | 97 |
| 39 | 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 |
| 40 | Search for Transient Gravitational-wave Signals Associated with Magnetar Bursts during Advanced LIGOâ€™s Second Observing Run. Astrophysical Journal, 2019, 874, 163. | 4.5 | 26 |
| 41 | Improving astrophysical parameter estimation via offline noise subtraction for Advanced LIGO. Physical Review D, 2019, 99, . | 4.7 | 77 |
| 42 | Constraining the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math> -Modeâ€“ <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>g</mml:mi></mml:math> -Mode Tidal Instability with GW170817. Physical Review Letters, 2019, 122, 061104. | 7.8 | 36 |
| 43 | 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 |
| 44 | Quantum-Enhanced Advanced LIGO Detectors in the Era of Gravitational-Wave Astronomy. Physical Review Letters, 2019, 123, 231107. | 7.8 | 359 |
| 45 | Search for Gravitational-wave Signals Associated with Gamma-Ray Bursts during the Second Observing Run of Advanced LIGO and Advanced Virgo. Astrophysical Journal, 2019, 886, 75. | 4.5 | 29 |
| 46 | Search for gravitational waves from Scorpius X-1 in the second Advanced LIGO observing run with an improved hidden Markov model. Physical Review D, 2019, 100, . | 4.7 | 46 |
| 47 | Properties of the Binary Neutron Star Merger GW170817. Physical Review X, 2019, 9, . | 8.9 | 728 |
| 48 | GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. Physical Review Letters, 2018, 120, 091101. | 7.8 | 166 |
| 49 | All-sky search for long-duration gravitational wave transients in the first Advanced LIGO observing run. Classical and Quantum Gravity, 2018, 35, 065009. | 4.0 | 18 |
| 50 | First Search for Nontensorial Gravitational Waves from Known Pulsars. Physical Review Letters, 2018, 120, 031104. | 7.8 | 68 |
| 51 | Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2018, 21, 3. | 26.7 | 808 |
| 52 | Identification and mitigation of narrow spectral artifacts that degrade searches for persistent gravitational waves in the first two observing runs of Advanced LIGO. Physical Review D, 2018, 97, . | 4.7 | 104 |
| 53 | Search for Subsolar-Mass Ultracompact Binaries in Advanced LIGOâ€™s First Observing Run. Physical Review Letters, 2018, 121, 231103. | 7.8 | 77 |
| 54 | GW170817: Measurements of Neutron Star Radii and Equation of State. Physical Review Letters, 2018, 121, 161101. | 7.8 | 1,473 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. Physical Review Letters, 2018, 120, 201102. | 7.8 | 85 |
| 56 | Full band all-sky search for periodic gravitational waves in the O1 LIGO data. Physical Review D, 2018, 97, . | 4.7 | 46 |
| 57 | Constraints on cosmic strings using data from the first Advanced LIGO observing run. Physical Review D, 2018, 97, . | 4.7 | 88 |
| 58 | Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1. | | 2 |
| 59 | All-sky search for short gravitational-wave bursts in the first Advanced LIGO run. Physical Review D, 2017, 95, . | 4.7 | 69 |
| 60 | Effects of waveform model systematics on the interpretation of GW150914. Classical and Quantum Gravity, 2017, 34, 104002. | 4.0 | 98 |
| 61 | Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGOâ€™s First Observing Run. Physical Review Letters, 2017, 118, 121101. | 7.8 | 194 |
| 62 | Directional Limits on Persistent Gravitational Waves from Advanced LIGOâ€™s First Observing Run. Physical Review Letters, 2017, 118, 121102. | 7.8 | 84 |
| 63 | First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. Astrophysical Journal, 2017, 839, 12. | 4.5 | 131 |
| 64 | GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. Physical Review Letters, 2017, 119, 141101. | 7.8 | 1,600 |
| 65 | Upper Limits on Gravitational Waves from Scorpius X-1 from a Model-based Cross-correlation Search in Advanced LIGO Data. Astrophysical Journal, 2017, 847, 47. | 4.5 | 46 |
| 66 | GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. Physical Review Letters, 2017, 119, 161101. | 7.8 | 6,413 |
| 67 | Multi-messenger Observations of a Binary Neutron Star Merger<sup>*</sup>. Astrophysical Journal Letters, 2017, 848, L12. | 8.3 | 2,805 |
| 68 | Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. Astrophysical Journal Letters, 2017, 848, L13. | 8.3 | 2,314 |
| 69 | Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO. Physical Review D, 2017, 96, . | 4.7 | 73 |
| 70 | All-sky search for periodic gravitational waves in the O1 LIGO data. Physical Review D, 2017, 96, . | 4.7 | 64 |
| 71 | Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B. Astrophysical Journal, 2017, 841, 89. | 4.5 | 52 |
| 72 | Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 851, L16. | 8.3 | 189 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated withÂGW170817. Astrophysical Journal Letters, 2017, 850, L39. | 8.3 | 156 |
| 74 | GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. Physical Review Letters, 2017, 118, 221101. | 7.8 | 1,987 |
| 75 | Search for gravitational waves from Scorpius X-1 in the first Advanced LIGO observing run with a hidden Markov model. Physical Review D, 2017, 95, . | 4.7 | 59 |
| 76 | First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. Physical Review D, 2017, 96, . | 4.7 | 47 |
| 77 | First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data. Physical Review D, 2017, 96, . | 4.7 | 60 |
| 78 | On the Progenitor of Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 850, L40. | 8.3 | 73 |
| 79 | GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. Astrophysical Journal Letters, 2017, 851, L35. | 8.3 | 968 |