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## Publications

Danièle Steer  
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### Short Author papers

- 77)** *The Hitchhiker's guide to the galaxy catalog approach for gravitational wave cosmology*, J.Gair,...,D.A.Steer... et al, 2212.08694 [gr-qc], submitted to American Astronomical Society journal.
- 76)** *Generation of gravitational waves from freely decaying turbulence*, P. Auclair, C. Caprini, D. Cutting, M. Hindmarsh, K. Rummukainen, D.A. Steer and D.J. Weir, JCAP 09 (2022) 029.
- 75)** *Cosmology with the Laser Interferometer Space Antenna*, P. Auclair,..., D.A. Steer et al (LISA Cosmology Working Group), arXiv 2204.05434.
- 74)** *Topology in soft and biological matter: a not so short guide to an emerging research field*, L. Tubiana,..., D.A. Steer et al, Eutopia review submitted to **Physics Reports**, april 2022.
- 73)** *Detection of Early-Universe Gravitational Wave Signatures and Fundamental Physics*, R. Caldwell,..., D.A.Steer et al, General Relativity and Gravitation (2022) 54:156.
- 72)** *A window for cosmic strings*, P. Auclair, K. Leyde, D.A. Steer, arXiv 2112.11093, to appear in JCAP.
- 71)** Current and future constraints on cosmology and modified gravitational wave friction from binary black holes, K. Leyde, S. Mastrogiovanni, D.A. Steer, E. Chassande-Mottin, C. Karathanasis, 2202.00025, JCAP09 (2022) 012.
- 70)** *Cosmology in the dark: On the importance of source population models for gravitational-wave cosmology*, S. Mastrogiovanni, K. Leyde, C. Karathanasis, E. Chassande-Mottin, D.A. Steer, J. Gair, A. Ghosh, R. Gray, S. Mukherjee and S. Rinaldi, Phys. Rev. **D** 104 (2021) 6, 062009.
- 69)** *Irreducible cosmic production of relic vortons*, P. Auclair, P. Peter, C. Ringeval, and D.A. Steer, JCAP 03 (2021) 098.
- 68)** *Gravitational wave friction in light of GW170817 and GW190521*, S. Mastrogiovanni, L. Haegel, C. Karathanasis, I. Magaña Hernandez, and D.A. Steer, JCAP 02 (2021) 043.
- 67)** *Probing modified gravity theories and cosmology using gravitational-waves and associated electromagnetic counterparts*, S. Mastrogiovanni, D.A. Steer and M. Barsuglia, Phys. Rev. **D** 102 (2020) 4, 044009.
- 66)** *Particle emission and gravitational radiation from cosmic strings: observational constraints*, P. Auclair, D.A. Steer and T. Vachaspati, Phys. Rev. **D** 101 (2020) 8, 083511.
- 65)** *Probing the gravitational wave background from cosmic strings with LISA*, P.Auclair, J.Blanco-Pillado, D.G. Figueroa, A.C. Jenkins, M.Lewicki, M.Sakellariadou, S.Sanidas, L.Sousa, D.A.Steer, J.M.Wachter, S.Kuroyanagi, JCAP 04 (2020) 034.
- 64)** *Cosmological Inference using Gravitational Wave Standard Sirens: A Mock Data Challenge*, R.Gray, I.Magaña Hernandez, H.Qi, A.Sur, P.R.Brady, Hsin-Yu Chen, W.M. Farr, M.Fishbach, J.R.Gair, A.Ghosh, D.E.Holz, S.Mastrogiovanni, C.Messenger, D.A.Steer, J.Veitch, Phys. Rev. **D** 101 (2020) 12, 122001.

- 63)** *Gravitational wave observations, distance measurement uncertainties, and cosmology*, E. Chassande-Mottin, K. Leyde, S. Mastrogiovanni and D.A.Steer, Phys. Rev. **D100** (2019) 083514
- 62)** *Cosmic string loop production functions*, P. Auclair, C. Ringeval, M. Sakellariadou and D.A.Steer, JCAP 1906 (2019) no.06, 015
- 61)** *Cosmological evolution in DHOST theories*, M. Crisostomi, K. Koyama, D. Langlois, K. Noui, D.A. Steer, JCAP 1901 (2019) no. 01, 030.
- 60)** *A new Gross-Pitaevskii action for cold Fermi condensates*, R.J. Rivers, D. A. Steer, D.J. Weir, C.-Y. Lin, D.S. Lee, Annals of Physics 396 (2018) 495–516
- 59)** *On multi-field flows in gravity and holography*, F. Nitti, L. Silva-Pimenta, D. A. Steer, JHEP 1807 (2018) 022
- 58)** *Y-junction intercommutations of current carrying strings*, D. A. Steer, Marc Lilley, Daisuke Yamauchi, Takashi Hiramatsu, Phys. Rev. **D97** (2018) 023507
- 57)** *Beyond  $\Lambda$ CDM: Problems, solutions, and the road ahead*, P.Bull et al, Phys. Dark Univ. 12 (2016) 56-99.
- 56)** *Counting the degrees of freedom of generalized Galileons*, C. Deffayet, G. Esposito-Farèse, D.A. Steer, Phys. Rev. **D92** (2015) 084013.
- 55)** *Cosmic Strings*, L. Pogosian, D.A. Steer and T. Vachaspati, (2015), Scholarpedia, 10(2):31682. [http://www.scholarpedia.org/article/Cosmic\\_strings](http://www.scholarpedia.org/article/Cosmic_strings)
- 54)** *Superimposed Oscillations in Brane Inflation*, S. Avila, J. Martin and D.A. Steer, JCAP 1408 (2014) 032.
- 53)** *Translation invariant time-dependent massive gravity: Hamiltonian analysis*, J. Mourad, K. Noui and D.A. Steer, JCAP 09 (2014) 034.
- 52)** *Translation invariant time-dependent solutions to massive gravity II*, J. Mourad and D.A. Steer, JCAP 1406 (2014) 058.
- 51)** *Translation invariant time-dependent solutions to massive gravity*, J. Mourad and D.A. Steer, JCAP 1312 (2013) 004.
- 50)** *A formal introduction to Horndeski and Galileon theories and their generalizations*, C. Deffayet and D.A. Steer, Class. Quantum Grav. 30 (2013) 214006.
- 49)** *Radio Broadcasts from Superconducting Strings*, Yi-Fu Cai, E. Sabancilar D.A. Steer and T. Vachaspati, Phys. Rev. **D86** (2012) 043521.
- 48)** *Inflation and primordial non-Gaussianities of “generalized Galileons”*, X. Gao and D.A. Steer, JCAP 1112 (2011) 019.
- 47)** *Constraints on the fundamental string coupling from B-mode experiments.*, A. Pourtsidou, A. Avgoustidis, E. J. Copeland, A. Moss, L. Pogosian, and D.A. Steer, Phys. Rev. Lett. 107 (2011) 121301
- 46)** *From k-essence to generalised Galileons*, C. Deffayet, X. Gao, D.A. Steer and G. Zahariade, Phys. Rev. **D84** (2011) 064039
- 45)** *Scaling configurations of cosmic superstring networks and their cosmological implications*, A. Pourtsidou, A. Avgoustidis, E. J. Copeland, L. Pogosian, and D.A. Steer, Phys. Rev. **D83** (2011) 063525
- 44)** *Light from Cosmic Strings*, D.A. Steer and T. Vachaspati, Physical Review **D**, 83 (2011) 043528.
- 43)** *Gravitational wave signatures from kink proliferation on cosmic (super-) strings*, P. Binétruy,

- A. Bohé, T. Hertog and D.A. Steer, Phys. Rev. **D 82** (2010) 126007.
- 42)** *Proliferation of sharp kinks on cosmic (super-)string loops with junctions*, P. Binétruy, A. Bohé, T. Hertog and D.A. Steer, Phys. Rev. **D 82** (2010) 083524.
- 41)** *Spherical Collapse in Chameleon Models*, Ph. Brax, R. Rosenfeld, D.A. Steer, JCAP 1008 (2010) 033.
- 40)** *Gravitational Wave Bursts from Cosmic Superstrings with Y-junctions*, P. Binétruy, A. Bohé, T. Hertog and D.A. Steer, Physical Review **D80** (2009) 123510
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- 38)** *Multi-field DBI inflation: introducing bulk forms and revisiting the gravitational wave constraints*, D.Langlois, S.Renaux-Petel and D.A.Steer, Journal of Cosmology and Astro-Particle physics (JCAP) 0904 (2009) 021.
- 37)** *Dirac Born Infeld (DBI) Cosmic Strings*, E.Babichev, Ph.Brax, C.Caprini, J.Martin, D.A.Steer, Journal of High Energy Physics 0903 (2009) 091,2009.
- 36)** *Primordial perturbations and non-Gaussianities in DBI and general multi-field inflation*, D.Langlois, S.Renaux-Petel, D.A.Steer and T.Tanaka, Physical Review **D78** (2008) 063523.
- 35)** *Creating kinks from Particles*, S.Dutta, D.A.Steer and T.Vachaspati, Physical Review Letters **101** 121601 (2008).
- 34)** *Primordial fluctuations and non-Gaussianities in multi-field DBI inflation*, D.Langlois, S.Renaux-Petel, D.A.Steer and T.Tanaka, Physical Review Letters **101** 061301 (2008) .
- 33)** *Statistical mechanics of strings with Y junctions*, R.J.Rivers et D.A.Steer, Physical Review **D78** (2008) 023521.
- 32)** *Kinematic Constraints on Formation of Bound States of Cosmic Strings — Field Theoretical Approach*, P.Salmi, A.Achucarro, E.J.Copeland, T.W.B.Kibble, R.de Putter and D.A.Steer, Physical Review **D77** (2008) 041701.
- 31)** *On the Collision of Cosmic Superstrings*, E.J.Copeland, H.Firouzjahi, T.W.B.Kibble et D.A.Steer, Physical Review **D77** (2008) 063521.
- 30)** *Constraints on string networks with junctions*, E.J.Copeland, T.W.B.Kibble et D.A.Steer, Physical Review **D75** (2007) 065024.
- 29)** *Rotating spacetimes with a cosmological constant*, C.Charmousis, D.Langlois, D.A.Steer et R.Zegers, Journal of High Energy Physics 02 (2007) 064.
- 28)** *Domain walls and fermion scattering in Grand Unified models*, D.A.Steer et T.Vachaspati, Physical Review **D 73** (2006) 105021.
- 27)** *Collisions of strings with Y junctions*, E.J.Copeland, T.W.B.Kibble et D.A.Steer, Physical Review Letters **97** (2006) 021602.
- 26)** *Effective actions of a Gauss-Bonnet brane world with brane curvature terms*, Ph.Brax, N.Chatillon et D.A.Steer, Physical Letters **B 608** (2005) 130.
- 25)** *Brane cosmology with an anisotropic bulk*, A.Fabbri, D.Langlois, D.A.Steer et R.Zegers, Journal of High Energy Physics 0409 (2004) 025.
- 24)** *Tachyon inflation: tests and comparison with single scalar field inflation*, D.A.Steer et F.Vernizzi, Physical Review **D70** (2004) 043527.
- 23)** *Inflationary potentials yielding constant scalar perturbation spectral indices*, A.Vallinotto, E.J.Copeland, R.Kolb, A.Liddle et D.A.Steer, Physical Review **D69** (2004) 103519.
- 22)** *Symplectic structure for elastic and chiral conducting string models*, B.Carter et D.A.Steer,

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**21)** *Singular tachyon kinks from regular profiles*, E.J.Copeland, P.M.Saffin et D.A.Steer, Physical Review **D68** (2003) 065013.

**20)** *Tachyon kinks on non-BPS D-branes*, Ph.Brax, J.Mourad et D.A.Steer; Physics Letters **B** 575 (2003) 115.

**19)** *Transport Coefficients and analytic continuation in dual (1+1) dimensional models at finite temperature*, T.S.Evans, A.Gomez-Nicola, R.J.Rivers et D.A.Steer, Nuclear Physics **B654** (2003) 357.

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**17)** *A comment on bouncing and cyclic branes in more than one extra-dimension*, Ph.Brax et D.A.Steer, Physical Review **D66** (2002) 061501 (rapid communications).

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**15)** *Non-BPS Brane Cosmology*, Ph.Brax et D.A.Steer, JHEP 0205 (2002) 016.

**14)** *Brane cosmology, varying speed of light and inflation in models with one or more extra dimensions*, D.A.Steer et M.F.Parry, International Journal of Theoretical Physics **41** (2002) 2255.

**13)** *Brane Gas Inflation*, M.F.Parry et D.A.Steer, JHEP 0202 (2002) 032.

**12)** *Self-intersections and gravitational properties of chiral cosmic strings in Minkowski space*, D.A.Steer, Physical Review **D63** (2001) 083517.

**11)** *Spin and dualization of SU(5) dyons*, T.Vachaspati et D.A.Steer, Physical Review **D63** (2001) 085008.

**10)** *Dynamics and properties of chiral strings in Minkowski space*, A.C.Davis, T.W.B.Kibble, M.Pickles et D.A.Steer, Physical Review **D62** (2000) 083516.

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**7)** *The statistical physics of cosmological networks of string loops*, J.Magueijo, H.Sandvik et D.A.Steer, Physical Review **D60** (1999) 103514.

**6)** *Thermal Bosonisation in the sine-Gordon and massive Thirring models*, A. Gomez-Nicola et D.A.Steer, Nuclear Physics **B549** (1999) 409.

**5)** *On Normal ordering and canonical transformations in Thermal Field Theory*, M.Blasone, T.S.Evans, D.A.Steer et G.Vitiello, Journal of Physics **A32** (1999) 1185.

**4)** *Wick's Theorem for Non-Symmetric Products*, T.S.Evans, T.W.B.Kibble et D.A.Steer, Journal of Mathematical Physics **39**, numéro 11 (1998) 5726.

**3)** *The Evolution of a Network of Cosmic String Loops*, E.J.Copeland, T.W.B.Kibble et D.A.Steer, Physical Review **D58** (1998) 043508.

**2)** *Wick's Theorem at Finite Temperature*, T.S.Evans et D.A.Steer, Nuclear Physics **B474** (1996) 481-496.

**1)** *Pre-amorphization Damage Study in As-implanted Silicon*, D.A.Steer et al., Nuclear Instruments and Methods **B96** (1995) 227-231.

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## Book chapters

1) *Measuring cosmological parameters with gravitational waves*, S.Mastrogiovanni and D.A.Steer, in the “Handbook of Gravitational Wave Astronomy”, published by Springer, 2022 (Print ISBN 978-981-16-4305-7)

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## LIGO-Virgo collaboration papers

Below a \* indicates papers for which I have played a lead role, either as a member of the paper writing team, analyser, or reviewer.

82) *Search for gravitational-wave transients associated with magnetar bursts in Advanced LIGO and Advanced Virgo data from the third observing run*, LIGO Scientific and VIRGO and KAGRA Collaborations, 2210.10931 [astro-ph.HE]

81) *Virgo Detector Characterization and Data Quality: tools*. Virgo collaboration, 2210.15634 [gr-qc]

80) *Virgo Detector Characterization and Data Quality: results from the O3 run*. Virgo collaboration, 2210.15633 [gr-qc]

79) *Model-based cross-correlation search for gravitational waves from the low-mass X-ray binary Scorpius X-1 in LIGO O3 data*, LIGO Scientific and VIRGO and KAGRA Collaborations, 2209.02863 [astro-ph.HE]

78) *Virgo Detector Characterization and Data Quality during the O3 run*. Virgo collaboration, 2205.01555 [gr-qc]

77) *Search for continuous gravitational wave emission from the Milky Way center in O3 LIGO-Virgo data*, KAGRA and VIRGO and LIGO Scientific Collaborations, Phys. Rev. **D** 106 (2022) 4, 042003

76) *Search for Gravitational Waves Associated with Fast Radio Bursts Detected by CHIME/FRB During the LIGO-Virgo Observing Run O3a*, LIGO Scientific and VIRGO and KAGRA and CHIME/FRB Collaborations, 2203.12038 [astro-ph.HE]

75) *The Virgo O3 run and the impact of the environment*, Virgo Collaboration, 2203.04014 [gr-qc]

74) *First joint observation by the underground gravitational-wave detector KAGRA with GEO 600*, KAGRA and VIRGO and LIGO Scientific Collaborations, PTEP 2022 (2022) 6, 063F01

73) *Search for gravitational waves from Scorpius X-1 with a hidden Markov model in O3 LIGO data*, LIGO Scientific and VIRGO and KAGRA Collaborations, Phys. Rev. **D** 106 (2022) 6, 062002

72) *All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO and Advanced Virgo O3 data*, LIGO Scientific, Virgo and Kagra Collaborations, Phys. Rev. **D** 106 (2022) 10, 102008

71) *Narrowband searches for continuous and long-duration transient gravitational waves from known pulsars in the LIGO-Virgo third observing run*, LIGO Scientific, Virgo and Kagra Collaborations, Astrophys.J. 932 (2022) 2, 133

- 70) *Tests of General Relativity with GWTC-3*, LIGO Scientific, Virgo and Kagra Collaborations, 2112.06861 [gr-qc]
- 69) *All-sky search for gravitational wave emission from scalar boson clouds around spinning black holes in LIGO O3 data*, LIGO Scientific, Virgo and Kagra Collaborations, Phys.Rev.D 105 (2022) 102001
- 68) *Search of the Early O3 LIGO Data for Continuous Gravitational Waves from the Cassiopeia A and Vela Jr. Supernova Remnants*, LIGO Scientific, Virgo and Kagra Collaborations, Phys.Rev.D 105 (2022) 8, 082005
- 67) *Searches for Gravitational Waves from Known Pulsars at Two Harmonics in the Second and Third LIGO-Virgo Observing Runs*, LIGO Scientific, Virgo and Kagra Collaborations, Astrophys.J. 935 (2022) 1, 1
- 66) *Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift During the LIGO-Virgo Run O3b*, LIGO Scientific, Virgo and Kagra Collaborations, Astrophys.J. 928 (2022) 2, 186
- 65\*) *Constraints on the cosmic expansion history from GWTC-3*, LIGO Scientific, Virgo and Kagra Collaborations, 2111.03604 [astro-ph.CO]
- 64) *The population of merging compact binaries inferred using gravitational waves through GWTC-3*, LIGO Scientific, Virgo and Kagra Collaborations, 2111.03634 [astro-ph.HE]
- 63) *GWTC-3: Compact Binary Coalescences Observed by LIGO and Virgo During the Second Part of the Third Observing Run*, LIGO Scientific, Virgo and Kagra Collaborations, 2111.03606 [gr-qc]
- 62) *All-sky, all-frequency directional search for persistent gravitational-waves from Advanced LIGO's and Advanced Virgo's first three observing runs*, LIGO Scientific, Virgo and Kagra Collaborations, Phys.Rev.D 105 (2022) 12, 122001
- 61) *Search for subsolar-mass binaries in the first half of Advanced LIGO and Virgo's third observing run*, LIGO Scientific, Virgo and Kagra Collaborations, Phys.Rev.Lett. 129 (2022) 6, 061104
- 60) *Search for continuous gravitational waves from 20 accreting millisecond X-ray pulsars in O3 LIGO data*, LIGO Scientific, Virgo and Kagra Collaborations, Phys.Rev.D 105 (2022) 022002
- 59) *GWTC-2.1: Deep Extended Catalog of Compact Binary Coalescences Observed by LIGO and Virgo During the First Half of the Third Observing Run*, LIGO Scientific, Virgo and Kagra Collaborations, 2108.01045 [gr-qc]
- 58) *All-sky search for long-duration gravitational-wave bursts in the third Advanced LIGO and Advanced Virgo run*, LIGO Scientific, Virgo and Kagra Collaborations, Phys.Rev.D 104 (2021) 10, 102001
- 57) *All-sky search for short gravitational-wave bursts in the third Advanced LIGO and Advanced Virgo run*, LIGO Scientific, Virgo and Kagra Collaborations, Phys.Rev.D 104 (2021) 12, 122004
- 56) *Calibration of Advanced Virgo and reconstruction of detector strain  $h(t)$  during the Observing Run O3*, LIGO Scientific, Virgo and Kagra Collaborations, Class.Quant.Grav. 39 (2022) 4, 045006
- 55) *All-sky Search for Continuous Gravitational Waves from Isolated Neutron Stars in the Early O3 LIGO Data*, LIGO Scientific, Virgo and Kagra Collaborations, Phys.Rev.D 104 (2021) 8, 082004
- 54) *Observation of Gravitational Waves from Two Neutron Star-Black Hole Coalescences*, LIGO Scientific, Virgo and Kagra Collaborations, Astrophys.J.Lett. 915 (2021) 1, L5

- 53)** *Search for intermediate mass black hole binaries in the third observing run of Advanced LIGO and Advanced Virgo*, LIGO Scientific, Virgo and Kagra Collaborations, *Astron.Astrophys.* 659 (2022) A84
- 52)** *Constraints on dark photon dark matter using data from LIGO's and Virgo's third observing run*, LIGO Scientific, Virgo and Kagra Collaborations, *Phys.Rev.D* 105 (2022) 6, 063030.
- 51)** *Searches for continuous gravitational waves from young supernova remnants in the early third observing run of Advanced LIGO and Virgo*, LIGO Scientific, Virgo and Kagra Collaborations, *Astrophys.J.* 921 (2021) 1, 80
- 50\*)** *Search for lensing signatures in the gravitational-wave observations from the first half of LIGO-Virgo's third observing run*, LIGO Scientific, Virgo and Kagra Collaborations, *Astrophys.J.* 923 (2021) 1, 14.
- 49)** *Constraints from LIGO O3 data on gravitational-wave emission due to r-modes in the glitching pulsar PSR J0537-6910*, LIGO Scientific, Virgo and Kagra Collaborations, *Astrophys.J.* 922 (2021) 1, 71
- 48)** *Search for anisotropic gravitational-wave backgrounds using data from Advanced LIGO's and Advanced Virgo's first three observing runs*, LIGO Scientific, Virgo and Kagra Collaborations, *Phys. Rev. D* 104 (2021) 2, 022005.
- 47\*)** *Constraints on cosmic strings using data from the third Advanced LIGO-Virgo observing run*, LIGO Scientific, Virgo and Kagra Collaborations, *Phys. Rev. Lett.* 126 (2021) 24, 241102.
- 46)** *Upper Limits on the Isotropic Gravitational-Wave Background from Advanced LIGO's and Advanced Virgo's Third Observing Run*, LIGO Scientific, Virgo and Kagra Collaborations, *Phys. Rev. D* 104 (2021) 2, 022004.
- 45)** *Diving below the spin-down limit: Constraints on gravitational waves from the energetic young pulsar PSR J0537-6910*, LIGO Scientific, Virgo and Kagra Collaborations, *Astrophys. J.* 913 (2021) L27
- 44)** *All-sky search in early O3 LIGO data for continuous gravitational-wave signals from unknown neutron stars in binary systems*, LIGO Scientific and Virgo Collaborations, *Phys. Rev. D* 103 (2021) 6, 064017
- 43)** *GWTC-2: Compact Binary Coalescences Observed by LIGO and Virgo During the First Half of the Third Observing Run*, LIGO Scientific and Virgo Collaborations, *Phys. Rev. X* 11 (2021) 021053.
- 42)** *Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift During the LIGO-Virgo Run O3a*, LIGO Scientific and Virgo Collaborations, 2010.14550 [astro-ph.HE].
- 41)** *Population Properties of Compact Objects from the Second LIGO-Virgo Gravitational-Wave Transient Catalog*, LIGO Scientific and Virgo Collaborations, *Astrophys. J. Lett.* 913 (2021) 1, L7
- 40)** *Tests of General Relativity with Binary Black Holes from the second LIGO-Virgo Gravitational-Wave Transient Catalog*, LIGO Scientific and Virgo Collaborations, *Phys. Rev. D* 103 (2021) 12, 122002
- 39)** *Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA*, KAGRA and LIGO and Virgo Collaborations, *Living Rev.Rel.* 23 (2020) 1, 3
- 38)** *GW190521: A Binary Black Hole Merger with a Total Mass of  $150M_{\odot}$* , LIGO Scientific and Virgo Collaborations, *Phys. Rev. Lett.* 125 (2020) 10, 101102

- 37)** *Properties and Astrophysical Implications of the  $150M_{\odot}$  Binary Black Hole Merger GW190521*, LIGO Scientific and Virgo Collaborations, *Astrophys. J.* 900 (2020) 1, L13
- 36)** *Gravitational-wave constraints on the equatorial ellipticity of millisecond pulsars*, LIGO Scientific and Virgo Collaborations, *Astrophys. J. Lett.* 902 (2020) 1, L21
- 35\*)** *GW190814: Gravitational Waves from the Coalescence of a 23 Solar Mass Black Hole with a 2.6 Solar Mass Compact Object*, LIGO Scientific and Virgo Collaborations, *Astrophys. J. Lett.* 896 (2020) 2, L44
- 34)** *GW190412: Observation of a Binary-Black-Hole Coalescence with Asymmetric Masses*, LIGO Scientific and Virgo Collaborations, *Phys. Rev. D* 102 (2020) 4, 043015
- 33)** *The advanced Virgo longitudinal control system for the O2 observing run*, LIGO Scientific and Virgo Collaborations, *Astropart.Phys.* 116 (2020) 102386.
- 32)** *GW190425: Observation of a Compact Binary Coalescence with Total Mass  $\sim 3.4M_{\odot}$* , LIGO Scientific and Virgo Collaborations, *Astrophys. J. Lett.* 892 (2020) L3.
- 31)** *A Joint Fermi-GBM and LIGO/Virgo Analysis of Compact Binary Mergers From the First and Second Gravitational-wave Observing Runs*, LIGO Scientific and Virgo Collaborations and Fermi Gamma-ray Burst Monitor Team, *Astrophys. J.* 893 100
- 30)** *Open data from the first and second observing runs of Advanced LIGO and Advanced Virgo*, LIGO Scientific and Virgo Collaborations 1912.11716
- 29)** *Increasing the Astrophysical Reach of the Advanced Virgo Detector via the Application of Squeezed Vacuum States of Light*, Virgo Collaboration, *Phys.Rev.Lett.* 123 (2019) no.23, 231108
- 28)** *A guide to LIGO-Virgo detector noise and extraction of transient gravitational-wave signals*, LIGO Scientific and Virgo Collaborations, *Class. Quant. Grav.* 37 (2020) 5, 055002
- 27\*)** *A gravitational-wave measurement of the Hubble constant following the second observing run of Advanced LIGO and Virgo*, LIGO Scientific and Virgo Collaborations, *Astrophys. J.* 909 (2021) 2, 218
- 26)** *Optically Targeted Search for Gravitational Waves emitted by Core-Collapse Supernovae during the First and Second Observing Runs of Advanced LIGO and Advanced Virgo*, LIGO Scientific and Virgo Collaborations, *Phys. Rev. D* 101 (2020) 8, 084002
- 25)** *Model comparison from LIGO-Virgo data on GW170817's binary components and consequences for the merger remnant*, LIGO Scientific and Virgo Collaborations, *Class. Quant. Grav.* 37 (2020) 4, 045006
- 24)** *Search for Eccentric Binary Black Hole Mergers with Advanced LIGO and Advanced Virgo during their First and Second Observing Runs*, LIGO Scientific and Virgo Collaborations, *Astrophys. J.* 883 (2019) 2, 149
- 23)** *Search for gravitational-wave signals associated with gamma-ray bursts during the second observing run of Advanced LIGO and Advanced Virgo*, LIGO Scientific and Virgo Collaborations, *Astrophys.J.* 886 (2019) 75
- 22)** *Search for gravitational waves from Scorpius X-1 in the second Advanced LIGO observing run with an improved hidden Markov model*, LIGO Scientific and Virgo Collaborations, *Phys. Rev. D*100 (2019) 12, 122002
- 21)** *Search for intermediate mass black hole binaries in the first and second observing runs of the Advanced LIGO and Virgo network*, LIGO Scientific and Virgo Collaborations, *Phys. Rev. D*100 (2019) no.6, 064064
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