Nicolas Sanchis-Gual

List of Publications by Year
in descending order

111 papers	33,267 citations	22153 59 h-index	22166 113 g-index
115 all docs	115 docs citations	115 times ranked	13163 citing authors

#	Article	IF	Citations
1	Self-interactions can stabilize excited boson stars. Classical and Quantum Gravity, 2022, 39, 064001.	4.0	14
2	Can fermion-boson stars reconcile multimessenger observations of compact stars?. Physical Review D, 2022, 105, .	4.7	17
3	Ultralight bosonic dark matter in white dwarfs and potential observational consequences. Physical Review D, 2022, 105, .	4.7	5
4	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	6.6	20
5	Head-on collisions of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mo>â„“</mml:mo></mml:math> -boson stars. Physical Review D, 2022, 105, .	4.7	11
6	Open data from the first and second observing runs of Advanced LIGO and Advanced Virgo. SoftwareX, 2021, 13, 100658.	2.6	275
7	GW190521 as a Merger of Proca Stars: A Potential New Vector Boson of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>8.7</mml:mn><mml:mo>Ã—</mml:mo><mml:msup><mml:mrow><mml:mn>10</mml:mn></mml:mrow></mml:msup> Physical Review Letters, 2021, 126, 081101.	7.8	125
8	Gravitational waves from binary black hole mergers surrounded by scalar field clouds: Numerical simulations and observational implications. Physical Review D, 2021, 103, .	4.7	15
9	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
10	All-sky search in early O3 LIGO data for continuous gravitational-wave signals from unknown neutron stars in binary systems. Physical Review D, 2021, 103, .	4.7	43
11	The imitation game: Proca stars that can mimic the Schwarzschild shadow. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 051.	5.4	83
12	Confusing Head-On Collisions with Precessing Intermediate-Mass Binary Black Hole Mergers. Physical Review Letters, 2021, 126, 201101.	7.8	46
13	Diving below the Spin-down Limit: Constraints on Gravitational Waves from the Energetic Young Pulsar PSR J0537-6910. Astrophysical Journal Letters, 2021, 913, L27.	8.3	32
14	Population Properties of Compact Objects from the Second LIGOâ€“Virgo Gravitational-Wave Transient Catalog. Astrophysical Journal Letters, 2021, 913, L7.	8.3	514
15	Observation of Gravitational Waves from Two Neutron Starâ€“Black Hole Coalescences. Astrophysical Journal Letters, 2021, 915, L5.	8.3	453
16	Tests of general relativity with binary black holes from the second LIGO-Virgo gravitational-wave transient catalog. Physical Review D, 2021, 103, .	4.7	338
17	Constraints on Cosmic Strings Using Data from the Third Advanced LIGOâ€“Virgo Observing Run. Physical Review Letters, 2021, 126, 241102.	7.8	87
18	Multifield, Multifrequency Bosonic Stars and a Stabilization Mechanism. Physical Review Letters, 2021, 126, 241105.	7.8	21

#	Article	IF	Citations
19	GWTC-2: Compact Binary Coalescences Observed by LIGO and Virgo during the First Half of the Third Observing Run. Physical Review X, 2021, 11, .	8.9	1,097
20	Upper limits on the isotropic gravitational-wave background from Advanced LIGO and Advanced Virgoâ€™s third observing run. Physical Review D, 2021, 104, .	4.7	192
21	Estimate of the gravitational-wave background from the observed cosmological distribution of quasars. Physical Review D, 2021, 104, .	4.7	2
22	Search for anisotropic gravitational-wave backgrounds using data from Advanced LIGO and Advanced Virgoâ€™s first three observing runs. Physical Review D, 2021, 104, .	4.7	62
23	A stabilization mechanism for excited fermionâ€“boson stars. Classical and Quantum Gravity, 2021, 38, 194001.	4.0	16
24	Boson stars in Palatini f(R) gravity. Classical and Quantum Gravity, 2021, 38, 194003.	4.0	14
25	Ultralight bosons for strong gravity applications from simple Standard Model extensions. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 047.	5.4	22
26	The advanced Virgo longitudinal control system for the O2 observing run. Astroparticle Physics, 2020, 116, 102386.	4.3	9
27	Dynamically and thermodynamically stable black holes in Einstein-Maxwell-dilaton gravity. Journal of High Energy Physics, 2020, 2020, 1.	4.7	16
28	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
29	A Joint Fermi-GBM and LIGO/Virgo Analysis of Compact Binary Mergers from the First and Second Gravitational-wave Observing Runs. Astrophysical Journal, 2020, 893, 100.	4.5	12
30	Dynamical formation and stability of fermion-boson stars. Physical Review D, 2020, 102, .	4.7	29
31	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:mrow></mml:mrow><mml:mo stretchy="false">âŠ™</mml:mo></mml:msub></mml:mrow></mml:math>. Physical Review Letters, 2020, 125, 101102.	7.8	836
32	Quantum Backaction on Kg-Scale Mirrors: Observation of Radiation Pressure Noise in the Advanced Virgo Detector. Physical Review Letters, 2020, 125, 131101.	7.8	35
33	GW190412: Observation of a binary-black-hole coalescence with asymmetric masses. Physical Review D, 2020, 102, .	4.7	394
34	Dynamical bar-mode instability in spinning bosonic stars. Physical Review D, 2020, 102, .	4.7	35
35	Synchronized gravitational atoms from mergers of bosonic stars. Physical Review D, 2020, 102, .	4.7	26
36	Cosmological analogies in the search for new physics in high-energy collisions. Physical Review D, 2020, 102, .	4.7	2

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37	Spontaneous Creation of Circularly Polarized Photons in Chiral Astrophysical Systems. Physical Review Letters, 2020, 124, 211301.	7.8	7
38	Dynamical <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mo>â„“</mml:mo></mml:math> -boson stars: Generic stability and evidence for nonspherical solutions. Physical Review D, 2020, 101, .	4.7	17
39	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
40	GW190425: Observation of a Compact Binary Coalescence with Total MassÂâ¼Â3.4 M_{âŠ™}. Astrophysical Journal Letters, 2020, 892, L3.	8.3	1,049
41	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
42	A guide to LIGOâ€“Virgo detector noise and extraction of transient gravitational-wave signals. Classical and Quantum Gravity, 2020, 37, 055002.	4.0	188
43	Advanced Virgo Status. Journal of Physics: Conference Series, 2020, 1342, 012010.	0.4	9
44	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
45	Properties and Astrophysical Implications of the 150 M_{âŠ™} Binary Black Hole Merger GW190521. Astrophysical Journal Letters, 2020, 900, L13.	8.3	406
46	Gravitational-wave Constraints on the Equatorial Ellipticity of Millisecond Pulsars. Astrophysical Journal Letters, 2020, 902, L21.	8.3	65
47	Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run. Physical Review D, 2019, 99, .	4.7	60
48	Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015â€“2017 LIGO Data. Astrophysical Journal, 2019, 879, 10.	4.5	88
49	All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data. Physical Review D, 2019, 100, .	4.7	102
50	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
51	Tests of General Relativity with GW170817. Physical Review Letters, 2019, 123, 011102.	7.8	370
52	Spontaneous scalarisation of charged black holes: coupling dependence and dynamical features. Classical and Quantum Gravity, 2019, 36, 134002.	4.0	114
53	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
54	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

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55	Charged black holes with axionic-type couplings: Classes of solutions and dynamical scalarization. Physical Review D, 2019, 100, .	4.7	50
56	Search for Subsolar Mass Ultracompact Binaries in Advanced LIGOâ€™s Second Observing Run. Physical Review Letters, 2019, 123, 161102.	7.8	119
57	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
58	Directional limits on persistent gravitational waves using data from Advanced LIGOâ€™s first two observing runs. Physical Review D, 2019, 100, .	4.7	52
59	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
60	Search for the isotropic stochastic background using data from Advanced LIGOâ€™s second observing run. Physical Review D, 2019, 100, .	4.7	200
61	A Standard Siren Measurement of the Hubble Constant from GW170817 without the Electromagnetic Counterpart. Astrophysical Journal Letters, 2019, 871, L13.	8.3	145
62	Black holes, gravitational waves and fundamental physics: a roadmap. Classical and Quantum Gravity, 2019, 36, 143001.	4.0	451
63	All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run. Physical Review D, 2019, 99, .	4.7	22
64	Neutron star collapse and gravitational waves with a non-convex equation of state. Monthly Notices of the Royal Astronomical Society, 2019, 484, 4980-5008.	4.4	28
65	Search for Multimessenger Sources of Gravitational Waves and High-energy Neutrinos with Advanced LIGO during Its First Observing Run, ANTARES, and IceCube. Astrophysical Journal, 2019, 870, 134.	4.5	32
66	A Fermi Gamma-Ray Burst Monitor Search for Electromagnetic Signals Coincident with Gravitational-wave Candidates in Advanced LIGO's First Observing Run. Astrophysical Journal, 2019, 871, 90.	4.5	30
67	Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO[*]. Astrophysical Journal, 2019, 875, 122.	4.5	61
68	Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal, 2019, 875, 160.	4.5	97
69	First Measurement of the Hubble Constant from a Dark Standard Siren using the Dark Energy Survey Galaxies and the LIGO/Virgo Binaryâ€“Black-hole Merger GW170814. Astrophysical Journal Letters, 2019, 876, L7.	8.3	179
70	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
71	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
72	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

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73	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
74	Nonlinear Dynamics of Spinning Bosonic Stars: Formation and Stability. Physical Review Letters, 2019, 123, 221101.	7.8	82
75	Increasing the Astrophysical Reach of the Advanced Virgo Detector via the Application of Squeezed Vacuum States of Light. Physical Review Letters, 2019, 123, 231108.	7.8	254
76	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
77	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
78	Properties of the Binary Neutron Star Merger GW170817. Physical Review X, 2019, 9, .	8.9	728
79	Head-on collisions and orbital mergers of Proca stars. Physical Review D, 2019, 99, .	4.7	51
80	GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. Physical Review Letters, 2018, 120, 091101.	7.8	166
81	Search for Subsolar-Mass Ultracompact Binaries in Advanced LIGOâ€™s First Observing Run. Physical Review Letters, 2018, 121, 231103.	7.8	77
82	Dynamical formation of Proca stars and quasistationary solitonic objects. Physical Review D, 2018, 98, .	4.7	43
83	GW170817: Measurements of Neutron Star Radii and Equation of State. Physical Review Letters, 2018, 121, 161101.	7.8	1,473
84	Calibration of advanced Virgo and reconstruction of the gravitational wave signal h (t) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	4.0	41
85	Spontaneous Scalarization of Charged Black Holes. Physical Review Letters, 2018, 121, 101102.	7.8	213
86	Status of Advanced Virgo. EPJ Web of Conferences, 2018, 182, 02003.	0.3	9
87	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. Physical Review Letters, 2018, 120, 201102.	7.8	85
88	Full band all-sky search for periodic gravitational waves in the O1 LIGO data. Physical Review D, 2018, 97, .	4.7	46
89	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. Physical Review Letters, 2017, 119, 141101.	7.8	1,600
90	A gravitational-wave standard siren measurement of the Hubble constant. Nature, 2017, 551, 85-88.	27.8	674

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91	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. Physical Review Letters, 2017, 119, 161101.	7.8	6,413
92	Multi-messenger Observations of a Binary Neutron Star Merger[*]. Astrophysical Journal Letters, 2017, 848, L12.	8.3	2,805
93	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
94	Dynamical formation of a hairy black hole in a cavity from the decay of unstable solitons. Classical and Quantum Gravity, 2017, 34, 165001.	4.0	16
95	Completion of the universal Iâ€“Loveâ€“Q relations in compact stars including the mass. Monthly Notices of the Royal Astronomical Society: Letters, 2017, 470, L54-L58.	3.3	9
96	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
97	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated withÂGW170817. Astrophysical Journal Letters, 2017, 850, L39.	8.3	156
98	Lensing and dynamics of ultracompact bosonic stars. Physical Review D, 2017, 96, .	4.7	73
99	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.	8.3	135
100	Quasistationary solutions of scalar fields around collapsing self-interacting boson stars. Physical Review D, 2017, 96, .	4.7	19
101	Numerical evolutions of spherical Proca stars. Physical Review D, 2017, 95, .	4.7	61
102	First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. Physical Review D, 2017, 96, .	4.7	47
103	On the Progenitor of Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 850, L40.	8.3	73
104	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. Astrophysical Journal Letters, 2017, 851, L35.	8.3	968
105	Quasistationary solutions of scalar fields around accreting black holes. Physical Review D, 2016, 94, .	4.7	8
106	Dynamical formation of a Reissner-NordstrÃ¶m black hole with scalar hair in a cavity. Physical Review D, 2016, 94, .	4.7	48
107	Explosion and Final State of an Unstable Reissner-NordstrÃ¶m Black Hole. Physical Review Letters, 2016, 116, 141101.	7.8	133
108	Quasistationary solutions of self-gravitating scalar fields around collapsing stars. Physical Review D, 2015, 92, .	4.7	23

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109	Comparison between the fCCZ4 and BSSN formulations of Einstein equations in spherical polar coordinates. Journal of Physics: Conference Series, 2015, 600, 012058.	0.4	0
110	Quasistationary solutions of self-gravitating scalar fields around black holes. Physical Review D, 2015, 91, .	4.7	29
111	Fully covariant and conformal formulation of the Z4 system in a reference-metric approach: Comparison with the BSSN formulation in spherical symmetry. Physical Review D, 2014, 89, .	4.7	19