

# Nikolaos Stergioulas

## List of Publications by Citations

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104  
papers

6,022  
citations

42  
h-index

77  
g-index

118  
ext. papers

7,024  
ext. citations

5.1  
avg, IF

6.12  
L-index

#	Paper	IF	Citations
104	Design concepts for the Cherenkov Telescope Array CTA: an advanced facility for ground-based high-energy gamma-ray astronomy. <i>Experimental Astronomy</i> , <b>2011</b> , 32, 193-316	1.3	496
103	Introducing the CTA concept. <i>Astroparticle Physics</i> , <b>2013</b> , 43, 3-18	2.4	389
102	Comparing models of rapidly rotating relativistic stars constructed by two numerical methods. <i>Astrophysical Journal</i> , <b>1995</b> , 444, 306	4.7	349
101	Neutron-star Radius Constraints from GW170817 and Future Detections. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 850, L34	7.9	332
100	Rotating Stars in Relativity. <i>Living Reviews in Relativity</i> , <b>2003</b> , 6, 3	32.5	299
99	Black holes, gravitational waves and fundamental physics: a roadmap. <i>Classical and Quantum Gravity</i> , <b>2019</b> , 36, 143001	3.3	248
98	Three-dimensional relativistic simulations of rotating neutron-star collapse to a Kerr black hole. <i>Physical Review D</i> , <b>2005</b> , 71,	4.9	231
97	On the Relevance of the Mode Instability for Accreting Neutron Stars and White Dwarfs. <i>Astrophysical Journal</i> , <b>1999</b> , 516, 307-314	4.7	175
96	Rotating Relativistic Stars <b>2013</b> ,		157
95	The Large Observatory for X-ray Timing (LOFT). <i>Experimental Astronomy</i> , <b>2012</b> , 34, 415-444	1.3	148
94	Towards a stable numerical evolution of strongly gravitating systems in general relativity: The conformal treatments. <i>Physical Review D</i> , <b>2000</b> , 62,	4.9	134
93	Three-dimensional numerical general relativistic hydrodynamics. II. Long-term dynamics of single relativistic stars. <i>Physical Review D</i> , <b>2002</b> , 65,	4.9	119
92	Torsional oscillations of relativistic stars with dipole magnetic fields. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2007</b> , 375, 261-277	4.3	117
91	Gravitational waves and non-axisymmetric oscillation modes in mergers of compact object binaries. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2011</b> , 418, 427-436	4.3	106
90	Observing gravitational waves from the post-merger phase of binary neutron star coalescence. <i>Classical and Quantum Gravity</i> , <b>2016</b> , 33, 085003	3.3	99
89	Rotating stars in relativity. <i>Living Reviews in Relativity</i> , <b>2017</b> , 20, 7	32.5	97
88	Unified picture of the post-merger dynamics and gravitational wave emission in neutron star mergers. <i>Physical Review D</i> , <b>2015</b> , 91,	4.9	93

87	Revealing the high-density equation of state through binary neutron star mergers. <i>Physical Review D</i> , <b>2014</b> , 90,	4.9	93
86	r-Mode Runaway and Rapidly Rotating Neutron Stars. <i>Astrophysical Journal</i> , <b>2000</b> , 534, L75-L78	4.7	91
85	Nonaxisymmetric Neutral Modes in Rotating Relativistic Stars. <i>Astrophysical Journal</i> , <b>1998</b> , 492, 301-322	4.7	90
84	Nonlinear Resonance in the Accretion Disk of a Millisecond Pulsar. <i>Astrophysical Journal</i> , <b>2004</b> , 603, L89-L92	4.7	89
83	Upper Limits Set by Causality on the Rotation and Mass of Uniformly Rotating Relativistic Stars. <i>Astrophysical Journal</i> , <b>1997</b> , 488, 799-806	4.7	85
82	BREAKDOWN OF I-LOVE-Q UNIVERSALITY IN RAPIDLY ROTATING RELATIVISTIC STARS. <i>Astrophysical Journal Letters</i> , <b>2014</b> , 781, L6	7.9	84
81	Rapidly rotating neutron stars in scalar-tensor theories of gravity. <i>Physical Review D</i> , <b>2013</b> , 88,	4.9	82
80	Alfvén quasi-periodic oscillations in magnetars. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , <b>2008</b> , 385, L5-L9	4.3	82
79	Exploring properties of high-density matter through remnants of neutron-star mergers. <i>European Physical Journal A</i> , <b>2016</b> , 52, 1	2.5	80
78	Non-linear axisymmetric pulsations of rotating relativistic stars in the conformal flatness approximation. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2006</b> , 368, 1609-1630	4.3	75
77	Non-linear pulsations in differentially rotating neutron stars: mass-shedding-induced damping and splitting of the fundamental mode. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2004</b> , 352, 1089-1101	4.3	75
76	Nonlinear r-modes in rapidly rotating relativistic stars. <i>Physical Review Letters</i> , <b>2001</b> , 86, 1148-51	7.4	75
75	Magnetoelastic oscillations of neutron stars with dipolar magnetic fields. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2012</b> , 421, 2054-2078	4.3	65
74	Collapse of differentially rotating neutron stars and cosmic censorship. <i>Physical Review D</i> , <b>2011</b> , 84,	4.9	63
73	Magneto-elastic oscillations and the damping of crustal shear modes in magnetars. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , <b>2011</b> , 410, L37-L41	4.3	62
72	Approximate matching of analytic and numerical solutions for rapidly rotating neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2004</b> , 350, 1416-1430	4.3	59
71	Prospects for high frequency burst searches following binary neutron star coalescence with advanced gravitational wave detectors. <i>Physical Review D</i> , <b>2014</b> , 90,	4.9	55
70	Alfvén QPOs in magnetars in the anelastic approximation. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2009</b> , 397, 1607-1620	4.3	54

69	Non-linear hydrodynamical evolution of rotating relativistic stars: numerical methods and code tests. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2000</b> , 313, 678-688	4.3	50
68	Magneto-elastic oscillations of neutron stars: exploring different magnetic field configurations. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2013</b> , 430, 1811-1831	4.3	48
67	Stability of general-relativistic accretion disks. <i>Physical Review D</i> , <b>2011</b> , 83,	4.9	46
66	Torsional oscillations of magnetized relativistic stars. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2001</b> , 328, 1161-1168	4.3	43
65	Equation of State Constraints from the Threshold Binary Mass for Prompt Collapse of Neutron Star Mergers. <i>Physical Review Letters</i> , <b>2020</b> , 125, 141103	7.4	43
64	Semi-analytic derivation of the threshold mass for prompt collapse in binary neutron-star mergers. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2017</b> , 471, 4956-4965	4.3	42
63	Axisymmetric modes of rotating relativistic stars in the Cowling approximation. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2001</b> , 325, 1463-1470	4.3	42
62	Rotating Stars in Relativity. <i>Living Reviews in Relativity</i> , <b>1998</b> , 1, 8	32.5	42
61	Quasi-normal Modes of Rotating Relativistic Stars: Neutral Modes for Realistic Equations of State. <i>Astrophysical Journal</i> , <b>1999</b> , 510, 854-861	4.7	37
60	Rotating black holes in higher order gravity. <i>Physical Review D</i> , <b>2019</b> , 100,	4.9	36
59	Nonlinear r-modes in neutron stars: Instability of an unstable mode. <i>Physical Review D</i> , <b>2002</b> , 66,	4.9	35
58	Frequency band of the f-mode Chandrasekhar-Friedman-Schutz instability. <i>Physical Review D</i> , <b>2010</b> , 81,	4.9	31
57	Orbital and epicyclic frequencies around rapidly rotating compact stars in scalar-tensor theories of gravity. <i>Physical Review D</i> , <b>2014</b> , 90,	4.9	30
56	Equation-of-state constraints and the QCD phase transition in the era of gravitational-wave astronomy <b>2019</b> ,		29
55	Nonaxisymmetric instability and fragmentation of general relativistic quasitoroidal stars. <i>Physical Review D</i> , <b>2007</b> , 76,	4.9	26
54	Imprints of superfluidity on magnetoelastic quasiperiodic oscillations of soft gamma-ray repeaters. <i>Physical Review Letters</i> , <b>2013</b> , 111, 211102	7.4	25
53	Gravitational waves from nonlinear couplings of radial and polar nonradial modes in relativistic stars. <i>Physical Review D</i> , <b>2007</b> , 75,	4.9	25
52	Universal relations for differentially rotating relativistic stars at the threshold to collapse. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2018</b> , 474, 3557-3564	4.3	24

51	The runaway instability in general relativistic accretion discs. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2013</b> , 431, 349-354	4.3	23
50	Spectral classification of gravitational-wave emission and equation of state constraints in binary neutron star mergers. <i>Journal of Physics G: Nuclear and Particle Physics</i> , <b>2019</b> , 46, 113002	2.9	22
49	LOFT: the Large Observatory For X-ray Timing <b>2012</b> ,		21
48	Formation of supermassive black holes through fragmentation of toroidal supermassive stars. <i>Physical Review Letters</i> , <b>2006</b> , 96, 161101	7.4	21
47	GW190814: on the properties of the secondary component of the binary. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2021</b> , 505, 1600-1606	4.3	21
46	Convective Excitation of Inertial Modes in Binary Neutron Star Mergers. <i>Physical Review Letters</i> , <b>2018</b> , 120, 221101	7.4	21
45	Empirical relations for gravitational-wave asteroseismology of binary neutron star mergers. <i>Physical Review D</i> , <b>2020</b> , 101,	4.9	20
44	Time evolution of the linear perturbations of a rotating Newtonian polytrope. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2002</b> , 334, 933-940	4.3	20
43	Numerical relativity simulations of thick accretion disks around tilted Kerr black holes. <i>Physical Review D</i> , <b>2016</b> , 93,	4.9	19
42	Modulating the magnetosphere of magnetars by internal magneto-elastic oscillations. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2014</b> , 443, 1416-1424	4.3	18
41	Numerical-relativity simulations of long-lived remnants of binary neutron star mergers. <i>Physical Review D</i> , <b>2020</b> , 101,	4.9	16
40	AN IMPROVED METHOD FOR CONSTRUCTING MODELS OF SELF-GRAVITATING TORI AROUND BLACK HOLES. <i>International Journal of Modern Physics D</i> , <b>2011</b> , 20, 1251-1263	2.2	13
39	Universal and approximate relations for the gravitational-wave damping timescale of f-modes in neutron stars. <i>General Relativity and Gravitation</i> , <b>2018</b> , 50, 1	2.3	12
38	Differentially rotating neutron stars in scalar-tensor theories of gravity. <i>Physical Review D</i> , <b>2018</b> , 98,	4.9	12
37	Constraining properties of high-density matter in neutron stars with magneto-elastic oscillations. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2018</b> , 476, 4199-4212	4.3	11
36	On the dynamics of tilted black hole–torus systems. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 461, 2480-2489	4.3	11
35	Epicyclic frequencies for rotating strange quark stars: Importance of stellar oblateness. <i>Physical Review D</i> , <b>2014</b> , 89,	4.9	11
34	Astrophysical implications of neutron star inspiral and coalescence. <i>International Journal of Modern Physics D</i> , <b>2020</b> , 29, 2041015	2.2	11

33	Stationary, axisymmetric neutron stars with meridional circulation in general relativity. <i>Physical Review D</i> , <b>2011</b> , 84,	4.9	10
32	Coherent magneto-elastic oscillations in superfluid magnetars. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 460, 4242-4257	4.3	10
31	The Large Observatory for x-ray timing <b>2014</b> ,		9
30	On the accuracy of the IWMFC approximation in differentially rotating relativistic stars. <i>General Relativity and Gravitation</i> , <b>2014</b> , 46, 1	2.3	8
29	Parametrized equation of state for neutron star matter with continuous sound speed. <i>Physical Review D</i> , <b>2020</b> , 102,	4.9	8
28	Systematics of prompt black-hole formation in neutron star mergers. <i>Physical Review D</i> , <b>2021</b> , 103,	4.9	8
27	The LOFT mission concept: a status update <b>2016</b> ,		7
26	Black hole spacetimes with self-gravitating, massive accretion tori. <i>Journal of Physics: Conference Series</i> , <b>2011</b> , 283, 012036	0.3	7
25	Magnetized neutron stars with superconducting cores: effect of entrainment. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2015</b> , 452, 3246-3255	4.3	6
24	XIPE: the x-ray imaging polarimetry explorer <b>2016</b> ,		5
23	Probing the nature of black holes: Deep in the mHz gravitational-wave sky. <i>Experimental Astronomy</i> , <b>2021</b> , 51, 1385-1416	1.3	5
22	Equilibrium sequences of differentially rotating stars with post-merger-like rotational profiles. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2021</b> , 503, 850-866	4.3	4
21	Neutron-star properties from the postmerger gravitational wave signal of binary neutron stars. <i>Physics of Particles and Nuclei</i> , <b>2015</b> , 46, 835-838	0.7	3
20	Modulating magnetar emission by magneto-elastic oscillations. <i>Astronomische Nachrichten</i> , <b>2014</b> , 335, 240-245	0.7	3
19	The IWMFC approximation in differentially rotating relativistic stars. <i>Journal of Physics: Conference Series</i> , <b>2013</b> , 453, 012004	0.3	3
18	Radiation from charged particles on eccentric orbits in a dipolar magnetic field around a Schwarzschild black hole. <i>General Relativity and Gravitation</i> , <b>2015</b> , 47, 1	2.3	2
17	Magneto-elastic oscillations modulating the emission of magnetars. <i>Astronomische Nachrichten</i> , <b>2017</b> , 338, 1105-1108	0.7	2
16	Dynamics and gravitational-wave emission of neutron-star merger remnants <b>2017</b> ,		2

15	Instabilities of Relativistic Stars <b>2014</b> , 427-458		2
14	Frequency deviations in universal relations of isolated neutron stars and postmerger remnants. <i>Physical Review D</i> , <b>2021</b> , 104,	4.9	2
13	The gravitational wave damping timescales of f-modes in neutron stars. <i>Journal of Physics: Conference Series</i> , <b>2020</b> , 1667, 012026	0.3	1
12	Stability of relativistic stars <b>2011</b> , 75-100		1
11	Magneto-elastic torsional oscillations of magnetars. <i>Journal of Physics: Conference Series</i> , <b>2011</b> , 283, 012013	0.3	1
10	Numerical Simulations of Black Hole Formation. <i>Lecture Notes in Physics</i> , <b>2009</b> , 177-208	0.8	1
9	THREE-DIMENSIONAL RELATIVISTIC SIMULATIONS OF ROTATING NEUTRON-STAR COLLAPSE TO A KERR BLACK HOLE <b>2006</b> , 75-82		1
8	Autoencoder-driven spiral representation learning for gravitational wave surrogate modelling. <i>Neurocomputing</i> , <b>2022</b> , 491, 67-77	5.4	1
7	Models of binary neutron star remnants with tabulated equations of state. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2022</b> , 510, 2948-2967	4.3	1
6	Relativistic astrophysics at GR20. <i>General Relativity and Gravitation</i> , <b>2014</b> , 46, 1	2.3	
5	Relativistic MHD simulations of stellar core collapse and magnetars. <i>Journal of Physics: Conference Series</i> , <b>2011</b> , 283, 012011	0.3	
4	Alfvén QPOs in Magnetars. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 189, 012038	0.3	
3	Supermassive Black Hole Formation through Rotational Instabilities. <i>Journal of Physics: Conference Series</i> , <b>2007</b> , 68, 012050	0.3	
2	General Relativistic Simulations of Accretion Disks Around Tilted Kerr Black Holes. <i>Thirty Years of Astronomical Discovery With UKIRT</i> , <b>2015</b> , 121-127	0.3	
1	Differentially Rotating Relativistic Stars beyond the J-Constant Law. <i>Physical Sciences Forum</i> , <b>2021</b> , 2, 62		