

Nils Andersson

List of Publications by Year in descending order

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151
papers

8,266
citations

41344

49
h-index

51608

86
g-index

151
all docs

151
docs citations

151
times ranked

2735
citing authors

#	ARTICLE	IF	CITATIONS
1	Inferring the dense nuclear matter equation of state with neutron star tides. EPJ Web of Conferences, 2022, 258, 07002.	0.3	0
2	Formulating bulk viscosity for neutron star simulations. Physical Review D, 2022, 105, .	4.7	5
3	Dynamical tides in superfluid neutron stars. Monthly Notices of the Royal Astronomical Society, 2022, 514, 1494-1510.	4.4	3
4	A Superfluid Perspective on Neutron Star Dynamics. Universe, 2021, 7, 17.	2.5	20
5	Linearizing a non-linear formulation for general relativistic dissipative fluids. Classical and Quantum Gravity, 2021, 38, 065009.	4.0	6
6	The phenomenology of dynamical neutron star tides. Monthly Notices of the Royal Astronomical Society, 2021, 503, 533-539.	4.4	18
7	Dynamical tides in neutron stars: the impact of the crust. Monthly Notices of the Royal Astronomical Society, 2021, 504, 1273-1293.	4.4	15
8	A Multifluid Perspective on Multimessenger Modeling. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	3
9	The I-Love-Q Relations for Superfluid Neutron Stars. Universe, 2021, 7, 111.	2.5	9
10	A Gravitational-Wave Perspective on Neutron-Star Seismology. Universe, 2021, 7, 97.	2.5	20
11	Relativistic fluid dynamics: physics for many different scales. Living Reviews in Relativity, 2021, 24, 1.	26.7	34
12	Modelling neutron star mountains in relativity. Monthly Notices of the Royal Astronomical Society, 2021, 507, 116-128.	4.4	27
13	Covariant approach to relativistic large-eddy simulations: The fibration picture. Physical Review D, 2021, 104, .	4.7	9
14	Thermal aspects of neutron star mergers. Physical Review D, 2021, 104, .	4.7	24
15	The physics of non-ideal general relativistic magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 2021, 509, 3737-3750.	4.4	5
16	Tidal Deformations of Hybrid Stars with Sharp Phase Transitions and Elastic Crusts. Astrophysical Journal, 2020, 895, 28.	4.5	25
17	Does elasticity stabilize a magnetic neutron star?. Monthly Notices of the Royal Astronomical Society, 2020, 499, 2636-2647.	4.4	10
18	Exploring universality in neutron star mergers. Monthly Notices of the Royal Astronomical Society, 2020, 497, 5480-5484.	4.4	6

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19	Merger-inspired rotation laws and the low-T/W instability in neutron stars. Monthly Notices of the Royal Astronomical Society, 2020, 498, 5904-5915.	4.4	11
20	Tidal deformations of neutron stars with elastic crusts. Physical Review D, 2020, 101, .	4.7	27
21	Gravitational waves from transient neutron star f -mode oscillations. Physical Review D, 2020, 101, .	4.7	26
22	Early neutron star evolution in high-mass X-ray binaries. Monthly Notices of the Royal Astronomical Society, 2020, 494, 44-49.	4.4	9
23	A variational approach to relativistic superfluid vortex elasticity. Classical and Quantum Gravity, 2020, 37, 085014.	4.0	4
24	Exploring the effective tidal deformability of neutron stars. Physical Review D, 2020, 101, .	4.7	22
25	Modelling neutron star mountains. Monthly Notices of the Royal Astronomical Society, 2020, 500, 5570-5582.	4.4	37
26	Instabilities in neutron-star postmerger remnants. Physical Review D, 2020, 102, .	4.7	12
27	Population synthesis of accreting neutron stars emitting gravitational waves. Monthly Notices of the Royal Astronomical Society, 2019, 488, 99-110.	4.4	19
28	The dynamics of neutron star crusts: Lagrangian perturbation theory for a relativistic superfluid-elastic system. Classical and Quantum Gravity, 2019, 36, 105004.	4.0	18
29	Dissipation Triggers Dynamical Two-Stream Instability. Particles, 2019, 2, 457-480.	1.7	6
30	Gravitational-Wave Astronomy. , 2019, , .		15
31	Pulsar spin-down: the glitch-dominated rotation of PSR J0537 $\hat{\sim}$ 6910. Monthly Notices of the Royal Astronomical Society, 2018, 473, 1644-1655.	4.4	48
32	Using gravitational-wave data to constrain dynamical tides in neutron star binaries. Physical Review D, 2018, 97, .	4.7	27
33	Glitch Rises as a Test for Rapid Superfluid Coupling in Neutron Stars. Astrophysical Journal, 2018, 865, 23.	4.5	34
34	Neutron stars in the laboratory. International Journal of Modern Physics D, 2017, 26, 1730015.	2.1	42
35	Beyond ideal magnetohydrodynamics: from fibration to $\mathfrak{sl}(2, \mathbb{R})$ foliation. Classical and Quantum Gravity, 2017, 34, 125003.	4.0	13
36	Beyond ideal magnetohydrodynamics: resistive, reactive and relativistic plasmas. Classical and Quantum Gravity, 2017, 34, 125002.	4.0	13

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37	A variational approach to resistive relativistic plasmas. <i>Classical and Quantum Gravity</i> , 2017, 34, 125001.	4.0	13
38	Conservation laws and evolution schemes in geodesic, hydrodynamic, and magnetohydrodynamic flows. <i>Physical Review D</i> , 2017, 96, .	4.7	11
39	Whispers from the Edge of Physics. <i>Journal of Astrophysics and Astronomy</i> , 2017, 38, 1.	1.0	5
40	The Spin Distribution of Fast-spinning Neutron Stars in Low-mass X-Ray Binaries: Evidence for Two Subpopulations. <i>Astrophysical Journal</i> , 2017, 850, 106.	4.5	66
41	Ejector and propeller spin-down: how might a superluminous supernova millisecond magnetar become the 6.67 h pulsar in RCW 103. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2017, 464, L65-L69.	3.3	24
42	Pinning Down the Superfluid and Nuclear Equation of State and Measuring Neutron Star Mass Using Pulsar Glitches. , 2017, , .		4
43	Quantised vortices and mutual friction in relativistic superfluids. <i>Classical and Quantum Gravity</i> , 2016, 33, 245010.	4.0	14
44	<i>Colloquium</i>: Measuring the neutron star equation of state using x-ray timing. <i>Reviews of Modern Physics</i> , 2016, 88, .	45.6	234
45	Buoyancy and g-modes in young superfluid neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 455, 1489-1511.	4.4	24
46	Seismology of adolescent neutron stars: Accounting for thermal effects and crust elasticity. <i>Physical Review D</i> , 2015, 92, .	4.7	40
47	A covariant action principle for dissipative fluid dynamics: from formalism to fundamental physics. <i>Classical and Quantum Gravity</i> , 2015, 32, 075008.	4.0	28
48	The intimate relation between the low T/W instability and the corotation point. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 446, 555-565.	4.4	20
49	Pinning down the superfluid and measuring masses using pulsar glitches. <i>Science Advances</i> , 2015, 1, e1500578.	10.3	71
50	Magnetic field evolution in superconducting neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 453, 671-681.	4.4	51
51	Equilibrium spin pulsars unite neutron star populations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 437, 3664-3669.	4.4	38
52	A minimal model for finite temperature superfluid dynamics. <i>Classical and Quantum Gravity</i> , 2013, 30, 235025.	4.0	9
53	The nonlinear development of the relativistic two-stream instability. <i>Classical and Quantum Gravity</i> , 2013, 30, 145007.	4.0	6
54	The transient gravitational-wave sky. <i>Classical and Quantum Gravity</i> , 2013, 30, 193002.	4.0	40

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55	Superfluid instability of r-modes in differentially rotating neutron stars. <i>Physical Review D</i> , 2013, 87, .	4.7	13
56	Resistive relativistic magnetohydrodynamics from a charged multifluids perspective. <i>Physical Review D</i> , 2012, 86, .	4.7	19
57	Dynamics of dissipative multifluid neutron star cores. <i>Physical Review D</i> , 2012, 86, .	4.7	16
58	CRUSTAL FAILURE DURING BINARY INSPIRAL. <i>Astrophysical Journal Letters</i> , 2012, 749, L36.	8.3	17
59	Neutron star seismology. <i>Proceedings of the International Astronomical Union</i> , 2012, 8, 159-159.	0.0	0
60	Magnetars are super hot and super cool. <i>Proceedings of the International Astronomical Union</i> , 2012, 8, 396-398.	0.0	0
61	Pulsar Glitches: The Crust is not Enough. <i>Physical Review Letters</i> , 2012, 109, 241103.	7.8	187
62	Cosmological two-stream instability. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 715, 289-292.	4.1	3
63	Multifluid cosmology: An illustration of fundamental principles. <i>Physical Review D</i> , 2012, 85, .	4.7	9
64	Rotational evolution of young pulsars due to superfluid decoupling. <i>Nature Physics</i> , 2012, 8, 787-789.	16.7	56
65	Towards real neutron star seismology: accounting for elasticity and superfluidity. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 419, 638-655.	4.4	57
66	Hydromagnetic equilibrium in non-barotropic multifluid neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 420, 1263-1272.	4.4	44
67	Magnetars: super(ficially) hot and super(fluid) cool. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 422, 2632-2641.	4.4	47
68	A consistent first-order model for relativistic heat flow. <i>Classical and Quantum Gravity</i> , 2011, 28, 195023.	4.0	25
69	COSMIC RECYCLING OF MILLISECOND PULSARS. <i>Astrophysical Journal Letters</i> , 2011, 730, L36.	8.3	7
70	Magnetohydrodynamics of superfluid and superconducting neutron star cores. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 410, 805-829.	4.4	114
71	Hydrodynamics of rapidly rotating superfluid neutron stars with mutual friction. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 413, 47-70.	4.4	13
72	Lagrangian perturbation theory for a superfluid immersed in an elastic neutron star crust. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, , no-no.	4.4	11

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73	Gravitational waves from neutron stars: promises and challenges. <i>General Relativity and Gravitation</i> , 2011, 43, 409-436.	2.0	139
74	The road to gravitational-wave astronomy. <i>Progress in Particle and Nuclear Physics</i> , 2011, 66, 239-248.	14.4	1
75	Tidal deformations of neutron stars: The role of stratification and elasticity. <i>Physical Review D</i> , 2011, 84, .	4.7	27
76	Revealing the Physics of r -Modes in Low-Mass X-Ray Binaries. <i>Physical Review Letters</i> , 2011, 107, 101101.	7.8	68
77	Thermal dynamics in general relativity. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011, 467, 738-759.	2.1	43
78	ENTROPY ENTRAINMENT AND DISSIPATION IN FINITE TEMPERATURE SUPERFLUIDS. <i>International Journal of Modern Physics D</i> , 2011, 20, 1215-1233.	2.1	15
79	Relativistic two-stream instability. <i>General Relativity and Gravitation</i> , 2010, 42, 413-433.	2.0	21
80	The dynamics of pulsar glitches: contrasting phenomenology with numerical evolutions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, , .	4.4	26
81	Trying to catch the wave. <i>Nature Physics</i> , 2010, 6, 484-485.	16.7	0
82	The third generation of gravitational wave observatories and their science reach. <i>Classical and Quantum Gravity</i> , 2010, 27, 084007.	4.0	287
83	Relativistic multi-fluid dynamics, superfluids and heat conduction. , 2010, , .		0
84	Variational multi-fluid dynamics and causal heat conductivity. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2010, 466, 1373-1387.	2.1	43
85	r -modes in low temperature color-flavor-locked superconducting quark stars. <i>Physical Review D</i> , 2010, 82, .	4.7	24
86	Hydrodynamical Trigger Mechanism for Pulsar Glitches. <i>Physical Review Letters</i> , 2009, 102, 141101.	7.8	72
87	Axial quasi-normal modes of neutron stars: accounting for the superfluid in the crust. <i>Classical and Quantum Gravity</i> , 2009, 26, 155016.	4.0	27
88	Do superfluid instabilities prevent neutron star precession?. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 394, 1908-1924.	4.4	27
89	Oscillations of rapidly rotating stratified neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 394, 730-741.	4.4	39
90	Superfluid signatures in magnetar seismology. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 396, 894-899.	4.4	54

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91	r modes and mutual friction in rapidly rotating superfluid neutron stars. Monthly Notices of the Royal Astronomical Society, 2009, 397, 1464-1485.	4.4	62
92	Oscillations of rapidly rotating superfluid stars. Monthly Notices of the Royal Astronomical Society, 2009, 396, 951-963.	4.4	28
93	Oscillations of dissipative superfluid neutron stars. Physical Review D, 2009, 79, .	4.7	41
94	Nonlinear radial oscillations of neutron stars. Physical Review D, 2009, 80, .	4.7	14
95	Gravitational waves from neutron stars. Proceedings of the International Astronomical Union, 2009, 5, 137-140.	0.0	0
96	Stability of Precessing Superfluid Neutron Stars. Physical Review Letters, 2008, 100, 081101.	7.8	32
97	Oscillations of general relativistic multifluid/multilayer compact stars. Physical Review D, 2008, 78, .	4.7	23
98	Are Neutron Stars with Crystalline Color-Superconducting Cores Relevant for the LIGO Experiment?. Physical Review Letters, 2007, 99, 231101.	7.8	59
99	Relativistic Fluid Dynamics: Physics for Many Different Scales. Living Reviews in Relativity, 2007, 10, 1.	26.7	245
100	Neutron star asteroseismology. Axial crust oscillations in the Cowling approximation. Monthly Notices of the Royal Astronomical Society, 2007, 374, 256-268.	4.4	151
101	Lagrangian perturbation theory for rotating magnetic stars. Monthly Notices of the Royal Astronomical Society, 2007, 377, 630-644.	4.4	15
102	Superfluid neutron star turbulence. Monthly Notices of the Royal Astronomical Society, 2007, 381, 747-756.	4.4	81
103	Oscillations in the neutron star crust. Astrophysics and Space Science, 2007, 308, 581-583.	1.4	5
104	A toy model for global magnetar oscillation. Astrophysics and Space Science, 2007, 308, 607-611.	1.4	3
105	Modelling the dynamics of superfluid neutron stars. Astrophysics and Space Science, 2007, 308, 395-402.	1.4	11
106	Modelling the dynamics of superfluid neutron stars. , 2007, , 395-402.		0
107	Crust-core coupling in rotating neutron stars. Physical Review D, 2006, 74, .	4.7	41
108	Elastic or magnetic? A toy model for global magnetar oscillations with implications for quasi-periodic oscillations during flares. Monthly Notices of the Royal Astronomical Society: Letters, 2006, 371, L74-L77.	3.3	81

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109	Mutual friction in superfluid neutron stars. Monthly Notices of the Royal Astronomical Society, 2006, 368, 162-170.	4.4	99
110	Ekman layer damping of r modes revisited. Monthly Notices of the Royal Astronomical Society, 2006, 371, 1311-1321.	4.4	55
111	Temperature-dependent pulsations of superfluid neutron stars. Monthly Notices of the Royal Astronomical Society, 2006, 372, 1776-1790.	4.4	49
112	Mountains on neutron stars: accreted versus non-accreted crusts. Monthly Notices of the Royal Astronomical Society, 2006, 373, 1423-1439.	4.4	96
113	A flux-conservative formalism for convective and dissipative multi-fluid systems, with application to Newtonian superfluid neutron stars. Classical and Quantum Gravity, 2006, 23, 5505-5529.	4.0	70
114	How viscous is a superfluid neutron star core?. Nuclear Physics A, 2005, 763, 212-229.	1.5	93
115	Modelling the spin equilibrium of neutron stars in low-mass X-ray binaries without gravitational radiation. Monthly Notices of the Royal Astronomical Society, 2005, 361, 1153-1164.	4.4	54
116	The Nature of Low T / W Dynamical Instabilities in Differentially Rotating Stars. Astrophysical Journal, 2005, 618, L37-L40.	4.5	93
117	Inertial modes of non-stratified superfluid neutron stars. Monthly Notices of the Royal Astronomical Society, 2004, 348, 625-637.	4.4	28
118	The superfluid two-stream instability. Monthly Notices of the Royal Astronomical Society, 2004, 354, 101-110.	4.4	55
119	Lagrangian perturbation theory of non-relativistic rotating superfluid stars. Monthly Notices of the Royal Astronomical Society, 2004, 355, 918-928.	4.4	23
120	Gravitational waves from instabilities in relativistic stars. Classical and Quantum Gravity, 2003, 20, R105-R144.	4.0	159
121	Rotational modes of relativistic stars: Numerical results. Physical Review D, 2003, 68, .	4.7	54
122	Are Pulsar Glitches Triggered by a Superfluid Two-Stream Instability?. Physical Review Letters, 2003, 90, 091101.	7.8	70
123	Quick and dirty methods for studying black-hole resonances. Classical and Quantum Gravity, 2003, 20, 3441-3463.	4.0	33
124	GRAVITATIONAL WAVES: PROBING THE EXTREMES OF PHYSICS. , 2003, , .		0
125	Oscillations of general relativistic superfluid neutron stars. Physical Review D, 2002, 66, .	4.7	63
126	GRAVITATIONAL-WAVE INSTABILITIES IN ROTATING STARS. International Journal of Modern Physics A, 2002, 17, 2645-2650.	1.5	3

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127	Slowly rotating superfluid Newtonian neutron star model with entrainment. <i>Astronomy and Astrophysics</i> , 2002, 381, 178-196.	5.1	80
128	Gravitational waves from freely precessing neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2002, 331, 203-220.	4.4	88
129	The spin evolution of nascent neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2002, 333, 943-951.	4.4	33
130	Time evolution of the linear perturbations of a rotating Newtonian polytrope. <i>Monthly Notices of the Royal Astronomical Society</i> , 2002, 334, 933-940.	4.4	22
131	Strange stars as persistent sources of gravitational waves. <i>Monthly Notices of the Royal Astronomical Society</i> , 2002, 337, 1224-1232.	4.4	91
132	THE R-MODE INSTABILITY IN ROTATING NEUTRON STARS. <i>International Journal of Modern Physics D</i> , 2001, 10, 381-441.	2.1	300
133	The inverse problem for pulsating neutron stars: a 'fingerprint analysis' for the supranuclear equation of state. <i>Monthly Notices of the Royal Astronomical Society</i> , 2001, 320, 307-315.	4.4	144
134	Freely precessing neutron stars: model and observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2001, 324, 811-824.	4.4	110
135	On the dynamics of superfluid neutron star cores. <i>Monthly Notices of the Royal Astronomical Society</i> , 2001, 328, 1129-1143.	4.4	118
136	Slowly rotating general relativistic superfluid neutron stars. <i>Classical and Quantum Gravity</i> , 2001, 18, 969-1002.	4.0	80
137	Probing Neutron-Star Superfluidity with Gravitational-Wave Data. <i>Physical Review Letters</i> , 2001, 87, 241101.	7.8	49
138	Rotational modes of relativistic stars: Analytic results. <i>Physical Review D</i> , 2000, 63, .	4.7	62
139	Superradiance Resonance Cavity Outside Rapidly Rotating Black Holes. <i>Physical Review Letters</i> , 2000, 84, 4537-4540.	7.8	46
140	[CLC][ITAL]r[/ITAL][[/CLC]-Mode Runaway and Rapidly Rotating Neutron Stars. <i>Astrophysical Journal</i> , 2000, 534, L75-L78.	4.5	98
141	Black hole dynamics: A survey of black hole physics from the point of view of perturbation theory. <i>Journal of Astrophysics and Astronomy</i> , 1999, 20, 269-280.	1.0	2
142	On the Relevance of the r -Mode Instability for Accreting Neutron Stars and White Dwarfs. <i>Astrophysical Journal</i> , 1999, 516, 307-314.	4.5	185
143	Gravitational Radiation Limit on the Spin of Young Neutron Stars. <i>Astrophysical Journal</i> , 1999, 510, 846-853.	4.5	175
144	Towards gravitational wave asteroseismology. <i>Monthly Notices of the Royal Astronomical Society</i> , 1998, 299, 1059-1068.	4.4	354

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145	A New Class of Unstable Modes of Rotating Relativistic Stars. <i>Astrophysical Journal</i> , 1998, 502, 708-713.	4.5	524
146	Gravitational waves from pulsating stars: Evolving the perturbation equations for a relativistic star. <i>Physical Review D</i> , 1998, 58, .	4.7	62
147	Gravitational waves from hot young rapidly rotating neutron stars. <i>Physical Review D</i> , 1998, 58, .	4.7	367
148	Gravitational Waves and Pulsating Stars: What Can We Learn from Future Observations?. <i>Physical Review Letters</i> , 1996, 77, 4134-4137.	7.8	219
149	Waves and instabilities in dissipative rotating superfluid neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, 385, 335-348.	4.4	24
150	Modelling magnetically deformed neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, 385, 531-542.	4.4	163
151	The g-mode spectrum of reactive neutron star cores. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	10