Jerome Novak

List of Publications by Year
in descending order

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27 papers	1,248 citations	471509 17 h-index	526287 27 g-index
27 all docs	27 docs citations	27 times ranked	792 citing authors

#	Article	IF	Citations
1	Constrained scheme for the Einstein equations based on the Dirac gauge and spherical coordinates. Physical Review D, 2004, 70, .	4.7	139
2	Spectral Methods for Numerical Relativity. Living Reviews in Relativity, 2009, 12, 1.	26.7	133
3	Improved constrained scheme for the Einstein equations: An approach to the uniqueness issue. Physical Review D, 2009, 79, .	4.7	112
4	Consistent neutron star models with magnetic-field-dependent equations of state. Monthly Notices of the Royal Astronomical Society, 2015, 447, 3785-3796.	4.4	102
5	Combining spectral and shock-capturing methods: A new numerical approach for 3D relativistic core collapse simulations. Physical Review D, 2005, 71, .	4.7	89
6	Spherical neutron star collapse toward a black hole in a tensor-scalar theory of gravity. Physical Review D, 1998, 57, 4789-4801.	4.7	87
7	Neutron star transition to a strong-scalar-field state in tensor-scalar gravity. Physical Review D, 1998, 58, .	4.7	84
8	External field effect of modified Newtonian dynamics in the Solar system. Monthly Notices of the Royal Astronomical Society, 2011, 412, 2530-2542.	4.4	73
9	New temperature dependent hyperonic equation of state: Application to rotating neutron star models and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>I</mml:mi><mml:mtext>â^’</mml:mtext><mml:mi>Q<mml:m relations. Physical Review C, 2017, 96, .	2.9	67
10	Mathematical issues in a fully constrained formulation of the Einstein equations. Physical Review D, 2008, 77, .	4.7	51
11	Gravitational Waves from the Collapse and Bounce of a Stellar Core in Tensorâ€Scalar Gravity. Astrophysical Journal, 2000, 533, 392-405.	4.5	41
12	Relativistic numerical models for stationary superfluid neutron stars. Physical Review D, 2005, 71, .	4.7	39
13	Influence of pions and hyperons on stellar black hole formation. Physical Review D, 2013, 87, .	4.7	37
14	Magnetic field distribution in magnetars. Physical Review C, 2019, 99, .	2.9	32
15	Absorbing boundary conditions for simulation of gravitational waves with spectral methods in spherical coordinates. Journal of Computational Physics, 2004, 197, 186-196.	3.8	22
16	Proto-neutron star evolution with improved charged-current neutrinoâ€“nucleon interactions. Monthly Notices of the Royal Astronomical Society, 2022, 511, 356-370.	4.4	21
17	Numerical models for stationary superfluid neutron stars in general relativity with realistic equations of state. Physical Review D, 2016, 93, .	4.7	19
18	A new spectral apparent horizon finder for 3D numerical relativity. Classical and Quantum Gravity, 2007, 24, 2665-2676.	4.0	17

#	Article	IF	Citations
19	General relativistic neutrino transport using spectral methods. Classical and Quantum Gravity, 2014, 31, 045012.	4.0	17
20	Excised black hole spacetimes: Quasilocal horizon formalism applied to the Kerr example. Physical Review D, 2009, 79, .	4.7	16
21	Rotating star initial data for a constrained scheme in numerical relativity. Classical and Quantum Gravity, 2006, 23, 4545-4561.	4.0	14
22	Impact of electron capture rates for nuclei far from stability on core-collapse supernovae. Physical Review C, 2020, 101, .	2.9	14
23	Improved neutrino-nucleon interactions in dense and hot matter for numerical simulations. Physical Review C, 2020, 102, .	2.9	11
24	Structure of ultra-magnetised neutron stars. European Physical Journal A, 2021, 57, 1.	2.5	5
25	Excision scheme for black holes in constrained evolution formulations: Spherically symmetric case. Physical Review D, 2014, 90, .	4.7	3
26	A fast stroboscopic spectral method for rotating systems in numerical relativity. Classical and Quantum Gravity, 2007, 24, 4037-4051.	4.0	2
27	Numerical simulations of GRB engines. Comptes Rendus Physique, 2011, 12, 246-254.	0.9	1