

James M Lattimer

List of Publications by Citations

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146
papers

20,977
citations

71
h-index

144
g-index

156
ext. papers

23,923
ext. citations

7.1
avg, IF

7.3
L-index

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 146 | Neutron Star Structure and the Equation of State. <i>Astrophysical Journal</i> , 2001 , 550, 426-442 | 4.7 | 1082 |
| 145 | Neutron star observations: Prognosis for equation of state constraints. <i>Physics Reports</i> , 2007 , 442, 109-167 | 15.7 | 961 |
| 144 | A generalized equation of state for hot, dense matter. <i>Nuclear Physics A</i> , 1991 , 535, 331-376 | 1.3 | 942 |
| 143 | The physics of neutron stars. <i>Science</i> , 2004 , 304, 536-42 | 33.3 | 882 |
| 142 | Isospin asymmetry in nuclei and neutron stars. <i>Physics Reports</i> , 2005 , 411, 325-375 | 27.7 | 711 |
| 141 | THE EQUATION OF STATE FROM OBSERVED MASSES AND RADII OF NEUTRON STARS. <i>Astrophysical Journal</i> , 2010 , 722, 33-54 | 4.7 | 653 |
| 140 | The Nuclear Equation of State and Neutron Star Masses. <i>Annual Review of Nuclear and Particle Science</i> , 2012 , 62, 485-515 | 15.7 | 618 |
| 139 | Composition and structure of protoneutron stars. <i>Physics Reports</i> , 1997 , 280, 1-77 | 27.7 | 577 |
| 138 | The birth of neutron stars. <i>Astrophysical Journal</i> , 1986 , 307, 178 | 4.7 | 565 |
| 137 | Direct URCA process in neutron stars. <i>Physical Review Letters</i> , 1991 , 66, 2701-2704 | 7.4 | 544 |
| 136 | Black-hole-neutron-star collisions. <i>Astrophysical Journal</i> , 1974 , 192, L145 | 4.7 | 494 |
| 135 | PSR J0030+0451 Mass and Radius from NICER Data and Implications for the Properties of Neutron Star Matter. <i>Astrophysical Journal Letters</i> , 2019 , 887, L24 | 7.9 | 456 |
| 134 | Equation of state in the gravitational collapse of stars. <i>Nuclear Physics A</i> , 1979 , 324, 487-533 | 1.3 | 432 |
| 133 | A NICER View of PSR J0030+0451: Millisecond Pulsar Parameter Estimation. <i>Astrophysical Journal Letters</i> , 2019 , 887, L21 | 7.9 | 428 |
| 132 | EQUATION OF STATE AND NEUTRON STAR PROPERTIES CONSTRAINED BY NUCLEAR PHYSICS AND OBSERVATION. <i>Astrophysical Journal</i> , 2013 , 773, 11 | 4.7 | 392 |
| 131 | Minimal Cooling of Neutron Stars: A New Paradigm. <i>Astrophysical Journal, Supplement Series</i> , 2004 , 155, 623-650 | 8 | 378 |
| 130 | Evolution of Proto-Neutron Stars. <i>Astrophysical Journal</i> , 1999 , 513, 780-804 | 4.7 | 376 |

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|-----|--|------|-----|
| 129 | CONSTRAINING THE SYMMETRY PARAMETERS OF THE NUCLEAR INTERACTION. <i>Astrophysical Journal</i> , 2013 , 771, 51 | 4.7 | 362 |
| 128 | Tidal Deformabilities and Radii of Neutron Stars from the Observation of GW170817. <i>Physical Review Letters</i> , 2018 , 121, 091102 | 7.4 | 334 |
| 127 | The equation of state of hot, dense matter and neutron stars. <i>Physics Reports</i> , 2016 , 621, 127-164 | 27.7 | 316 |
| 126 | THE NEUTRON STAR MASS-RADIUS RELATION AND THE EQUATION OF STATE OF DENSE MATTER. <i>Astrophysical Journal Letters</i> , 2013 , 765, L5 | 7.9 | 297 |
| 125 | Rapid cooling of the neutron star in Cassiopeia A triggered by neutron superfluidity in dense matter. <i>Physical Review Letters</i> , 2011 , 106, 081101 | 7.4 | 295 |
| 124 | Constraining the Equation of State with Moment of Inertia Measurements. <i>Astrophysical Journal</i> , 2005 , 629, 979-984 | 4.7 | 276 |
| 123 | The tidal disruption of neutron stars by black holes in close binaries. <i>Astrophysical Journal</i> , 1976 , 210, 549 | 4.7 | 271 |
| 122 | Constraints on neutron star radii based on chiral effective field theory interactions. <i>Physical Review Letters</i> , 2010 , 105, 161102 | 7.4 | 265 |
| 121 | Equation of state and the maximum mass of neutron stars. <i>Physical Review Letters</i> , 1988 , 61, 2518-2521 | 7.4 | 250 |
| 120 | The Equation of State of Neutron Star Matter in Strong Magnetic Fields. <i>Astrophysical Journal</i> , 2000 , 537, 351-367 | 4.7 | 239 |
| 119 | Nuclear matter and its role in supernovae, neutron stars and compact object binary mergers. <i>Physics Reports</i> , 2000 , 333-334, 121-146 | 27.7 | 231 |
| 118 | Neutrino interactions in hot and dense matter. <i>Physical Review D</i> , 1998 , 58, | 4.9 | 222 |
| 117 | Pulsar Constraints on Neutron Star Structure and Equation of State. <i>Physical Review Letters</i> , 1999 , 83, 3362-3365 | 7.4 | 213 |
| 116 | Effects of Strong Magnetic Fields on Neutron Star Structure. <i>Astrophysical Journal</i> , 2001 , 554, 322-339 | 4.7 | 210 |
| 115 | Physical properties of hot, dense matter: The general case. <i>Nuclear Physics A</i> , 1985 , 432, 646-742 | 1.3 | 204 |
| 114 | NEUTRON STAR MASSES AND RADII FROM QUIESCENT LOW-MASS X-RAY BINARIES. <i>Astrophysical Journal</i> , 2014 , 784, 123 | 4.7 | 201 |
| 113 | Composition, structure and evolution of neutron stars with kaon condensates. <i>Nuclear Physics A</i> , 1994 , 572, 693-731 | 1.3 | 197 |
| 112 | Tidal Love numbers of neutron and self-bound quark stars. <i>Physical Review D</i> , 2010 , 82, | 4.9 | 194 |

| | | | |
|-----|---|------|-----|
| 111 | The origin of deuterium. <i>Nature</i> , 1976 , 263, 198-202 | 50.4 | 190 |
| 110 | Toward a Mass and Radius Determination of the Nearby Isolated Neutron Star RX J185635B754. <i>Astrophysical Journal</i> , 2002 , 564, 981-1006 | 4.7 | 184 |
| 109 | Constraints on the symmetry energy using the mass-radius relation of neutron stars. <i>European Physical Journal A</i> , 2014 , 50, 1 | 2.5 | 183 |
| 108 | Condensation in supernova ejecta and isotopic anomalies in meteorites. <i>Astrophysical Journal</i> , 1978 , 219, 230 | 4.7 | 172 |
| 107 | Effects of strong and electromagnetic correlations on neutrino interactions in dense matter. <i>Physical Review C</i> , 1999 , 59, 2888-2918 | 2.7 | 168 |
| 106 | Symmetry Parameter Constraints from a Lower Bound on Neutron-matter Energy. <i>Astrophysical Journal</i> , 2017 , 848, 105 | 4.7 | 167 |
| 105 | Hot Dense Matter and Stellar Collapse. <i>Physical Review Letters</i> , 1978 , 41, 1623-1626 | 7.4 | 166 |
| 104 | The decompression of cold neutron star matter. <i>Astrophysical Journal</i> , 1977 , 213, 225 | 4.7 | 166 |
| 103 | Limits on the neutrino magnetic moment from SN1987A. <i>Physical Review Letters</i> , 1988 , 61, 23-26 | 7.4 | 164 |
| 102 | NEUTRINO EMISSION FROM COOPER PAIRS AND MINIMAL COOLING OF NEUTRON STARS. <i>Astrophysical Journal</i> , 2009 , 707, 1131-1140 | 4.7 | 161 |
| 101 | The Large Observatory for X-ray Timing (LOFT). <i>Experimental Astronomy</i> , 2012 , 34, 415-444 | 1.3 | 148 |
| 100 | Rapid cooling and the structure of neutron stars. <i>Astrophysical Journal</i> , 1994 , 425, 802 | 4.7 | 147 |
| 99 | Rapid cooling of neutron stars by hyperons and Delta isobars. <i>Astrophysical Journal</i> , 1992 , 390, L77 | 4.7 | 136 |
| 98 | A Revised Parallax and Its Implications for RX J185635B754. <i>Astrophysical Journal</i> , 2002 , 576, L145-L148 | 4.7 | 130 |
| 97 | Evolution of proto-neutron stars with quarks. <i>Physical Review Letters</i> , 2001 , 86, 5223-6 | 7.4 | 128 |
| 96 | Prospects of detecting baryon and quark superfluidity from cooling neutron stars. <i>Physical Review Letters</i> , 2000 , 85, 2048-51 | 7.4 | 112 |
| 95 | Quark-hadron phase transition in protoneutron stars. <i>Physical Review D</i> , 1995 , 52, 661-665 | 4.9 | 111 |
| 94 | Ultimate energy density of observable cold baryonic matter. <i>Physical Review Letters</i> , 2005 , 94, 111101 | 7.4 | 108 |

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|----|---|------|-----|
| 93 | The Radius of PSR J0740+6620 from NICER and XMM-Newton Data. <i>Astrophysical Journal Letters</i> , 2021 , 918, L28 | 7.9 | 107 |
| 92 | Rapidly rotating pulsars and the equation of state. <i>Astrophysical Journal</i> , 1990 , 355, 241 | 4.7 | 104 |
| 91 | Physical properties of hot, dense matter: The bulk equilibrium approximation. <i>Nuclear Physics A</i> , 1981 , 360, 459-482 | 1.3 | 104 |
| 90 | Neutron star matter at high temperatures and densities. I - Bulk properties of nuclear matter. <i>Astrophysical Journal</i> , 1978 , 223, 314 | 4.7 | 104 |
| 89 | The Equation of State of Hot Dense Matter and Supernovae. <i>Annual Review of Nuclear and Particle Science</i> , 1981 , 31, 337-374 | 15.7 | 102 |
| 88 | A NICER View of PSR J0030+0451: Implications for the Dense Matter Equation of State. <i>Astrophysical Journal Letters</i> , 2019 , 887, L22 | 7.9 | 101 |
| 87 | Nuclear interface energy at finite temperatures. <i>Nuclear Physics A</i> , 1983 , 407, 571-591 | 1.3 | 100 |
| 86 | A NICER View of the Massive Pulsar PSR J0740+6620 Informed by Radio Timing and XMM-Newton Spectroscopy. <i>Astrophysical Journal Letters</i> , 2021 , 918, L27 | 7.9 | 97 |
| 85 | Analysis of the neutrino events from supernova 1987A. <i>Astrophysical Journal</i> , 1989 , 340, 426 | 4.7 | 95 |
| 84 | Effects of strong magnetic fields in strange baryonic matter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2002 , 531, 167-174 | 4.2 | 92 |
| 83 | Neutrinos from SN 1987A. <i>Astrophysical Journal</i> , 1987 , 318, L63 | 4.7 | 91 |
| 82 | Constraining the Dense Matter Equation of State with Joint Analysis of NICER and LIGO/Virgo Measurements. <i>Astrophysical Journal Letters</i> , 2020 , 893, L21 | 7.9 | 83 |
| 81 | Quark-hadron phase transitions in Young and old neutron stars. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2000 , 486, 239-248 | 4.2 | 80 |
| 80 | Kaon condensation in proto-neutron star matter. <i>Physical Review C</i> , 2000 , 62, | 2.7 | 80 |
| 79 | Keplerian frequency of uniformly rotating neutron stars and strange stars. <i>Astronomy and Astrophysics</i> , 2009 , 502, 605-610 | 5.1 | 76 |
| 78 | Neutron star radii, universal relations, and the role of prior distributions. <i>European Physical Journal A</i> , 2016 , 52, 1 | 2.5 | 74 |
| 77 | The role of the equation of state in the 'prompt' phase of type II supernovae. <i>Astrophysical Journal</i> , 1994 , 425, 195 | 4.7 | 74 |
| 76 | Evolution of Proto-Neutron Stars with Kaon Condensates. <i>Astrophysical Journal</i> , 2001 , 553, 382-393 | 4.7 | 73 |

| | | | |
|----|---|------|----|
| 75 | Stellar core collapse. I - Infall epoch. <i>Astrophysical Journal</i> , 1981 , 249, 270 | 4.7 | 64 |
| 74 | Tidal deformabilities and neutron star mergers. <i>Physical Review D</i> , 2018 , 98, | 4.9 | 61 |
| 73 | REVISITING THE PARALLAX OF THE ISOLATED NEUTRON STAR RX J185635B754 USING HST/ACS IMAGING. <i>Astrophysical Journal</i> , 2010 , 724, 669-677 | 4.7 | 53 |
| 72 | The deleptonization and heating of proton-neutron stars. <i>Astrophysical Journal</i> , 1981 , 251, 325 | 4.7 | 53 |
| 71 | The prompt mechanism of Type II supernovae. <i>Astrophysical Journal</i> , 1985 , 299, L19 | 4.7 | 53 |
| 70 | The effect of trapped lepton number and entropy on the outcome of stellar collapse. <i>Astrophysical Journal</i> , 1983 , 270, 735 | 4.7 | 51 |
| 69 | Nuclear forces, partition functions, and dissociation in stellar collapse. <i>Astrophysical Journal</i> , 1979 , 229, 713 | 4.7 | 50 |
| 68 | Neutrino helicity flips via electroweak interactions. <i>Physical Review D</i> , 1989 , 40, 309-314 | 4.9 | 49 |
| 67 | On the accuracy of the single-nucleus approximation in the equation of state of hot, dense matter. <i>Astrophysical Journal</i> , 1984 , 285, 294 | 4.7 | 48 |
| 66 | NEUTRINO PROPAGATION IN DENSE ASTROPHYSICAL SYSTEMS. <i>Annual Review of Nuclear and Particle Science</i> , 2001 , 51, 295-344 | 15.7 | 46 |
| 65 | Convection, type II supernovae, and the early evolution of neutron stars. <i>Physics Reports</i> , 1988 , 163, 51-62 | 27.7 | 45 |
| 64 | Surface and curvature properties of neutron-rich nuclei. <i>Nuclear Physics A</i> , 1985 , 439, 535-572 | 1.3 | 45 |
| 63 | Chemical condensation sequences in supernova ejecta. <i>The Moon and the Planets</i> , 1978 , 19, 169-184 | | 45 |
| 62 | Thermal properties of supernova matter: The bulk homogeneous phase. <i>Physical Review C</i> , 2014 , 89, | 2.7 | 38 |
| 61 | Thermal properties of hot and dense matter with finite range interactions. <i>Physical Review C</i> , 2015 , 92, | 2.7 | 37 |
| 60 | Evolution of a Neutron Star from Its Birth to Old Age. <i>Lecture Notes in Physics</i> , 2001 , 364-423 | 0.8 | 36 |
| 59 | Supernova theory and the neutrinos from SN1987a. <i>Nuclear Physics A</i> , 1988 , 478, 199-217 | 1.3 | 35 |
| 58 | Enthalpies of formation of CaAl ₄ O ₇ and CaAl ₁₂ O ₁₉ (hibonite) by high temperature, alkali borate solution calorimetry. <i>Geochimica Et Cosmochimica Acta</i> , 1988 , 52, 1729-1736 | 5.5 | 35 |

| | | | |
|----|--|-----|----|
| 57 | Constraints on the Dense Matter Equation of State and Neutron Star Properties from NICER Mass and Radius Estimate of PSR J0740+6620 and Multimessenger Observations. <i>Astrophysical Journal Letters</i> , 2021 , 918, L29 | 7.9 | 32 |
| 56 | Quarkyonic matter equation of state in beta-equilibrium. <i>Physical Review D</i> , 2020 , 102, | 4.9 | 30 |
| 55 | Leptonic overturn and shocks in collapsing stellar cores. <i>Astrophysical Journal</i> , 1981 , 246, 955 | 4.7 | 29 |
| 54 | Phase transitions in cold and warm dense matter. <i>Nuclear Physics A</i> , 1983 , 411, 449-473 | 1.3 | 27 |
| 53 | NS 1987A in SN 1987A. <i>Astrophysical Journal</i> , 2020 , 898, 125 | 4.7 | 27 |
| 52 | Neutron stars and the dense matter equation of state. <i>Astrophysics and Space Science</i> , 2011 , 336, 67-74 | 1.6 | 26 |
| 51 | What a Two Solar Mass Neutron Star Really Means 2011 , 275-304 | | 26 |
| 50 | Diffusion of neutrinos in proto-neutron star matter with quarks. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2001 , 509, 10-18 | 4.2 | 26 |
| 49 | Newborn hot neutron stars. <i>Nuclear Physics A</i> , 1995 , 583, 623-628 | 1.3 | 24 |
| 48 | Symmetry energy in nuclei and neutron stars. <i>Nuclear Physics A</i> , 2014 , 928, 276-295 | 1.3 | 23 |
| 47 | Neutron stars. <i>General Relativity and Gravitation</i> , 2014 , 46, 1 | 2.3 | 22 |
| 46 | Equation of State Constraints from Nuclear Physics, Neutron Star Masses, and Future Moment of Inertia Measurements. <i>Astrophysical Journal</i> , 2020 , 901, 155 | 4.7 | 22 |
| 45 | Limiting masses and radii of neutron stars and their implications. <i>Physical Review C</i> , 2021 , 103, | 2.7 | 21 |
| 44 | Numerical Approximation to the Thermodynamic Integrals. <i>Astrophysical Journal</i> , 1996 , 473, 1020-1028 | 4.7 | 20 |
| 43 | Supernovae for Pedestrians 1982 , 53-70 | | 20 |
| 42 | Type II supernova energetics. <i>Astrophysical Journal</i> , 1985 , 288, 644 | 4.7 | 20 |
| 41 | Neutron Star Mass and Radius Measurements. <i>Universe</i> , 2019 , 5, 159 | 2.5 | 19 |
| 40 | Equation of state, neutron stars and exotic phases. <i>Nuclear Physics A</i> , 2006 , 777, 479-496 | 1.3 | 19 |

| | | | |
|----|---|------|----|
| 39 | Observability of neutron stars with quarks. <i>Nuclear Physics A</i> , 2003 , 715, 835c-838c | 1.3 | 16 |
| 38 | Supernovae, grains and the formation of the Solar System. <i>Nature</i> , 1977 , 269, 116-118 | 50.4 | 16 |
| 37 | Neutron star equation of state. <i>New Astronomy Reviews</i> , 2010 , 54, 101-109 | 7.9 | 15 |
| 36 | The Boltzmann equation in general relativistic rotating systems - Cooling of rotating neutron stars. <i>Astrophysical Journal</i> , 1993 , 407, 687 | 4.7 | 14 |
| 35 | Are supernovae sources of presolar grains?. <i>Nature</i> , 1977 , 270, 700-701 | 50.4 | 12 |
| 34 | Strangeness in stellar matter. <i>Nuclear Physics A</i> , 1998 , 639, 433c-442c | 1.3 | 11 |
| 33 | Properties of warm dense matter at low entropies. <i>Nuclear Physics A</i> , 1984 , 414, 517-528 | 1.3 | 11 |
| 32 | Degenerate limit thermodynamics beyond leading order for models of dense matter. <i>Annals of Physics</i> , 2015 , 363, 533-555 | 2.5 | 10 |
| 31 | Effect of nuclear curvature energy on the transition between nuclei and bubbles in dense matter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1983 , 128, 137-140 | 4.2 | 10 |
| 30 | The Physics of Supernova Shocks 1984 , 147-162 | | 10 |
| 29 | Introduction to neutron stars 2015 , | | 9 |
| 28 | The structure of strange quark matter and neutron stars. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2004 , 30, S479-S486 | 2.9 | 8 |
| 27 | Neutron stars are gold mines. <i>International Journal of Modern Physics E</i> , 2017 , 26, 1740014 | 0.7 | 7 |
| 26 | Mergers of binary stars: the ultimate heavy-ion experience. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2004 , 30, S1279-S1282 | 2.9 | 7 |
| 25 | A tale of two mergers: searching for strangeness in compact stars. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2004 , 30, S451-S459 | 2.9 | 6 |
| 24 | Impact of GW170817 for the nuclear physics of the EOS and the r-process. <i>Annals of Physics</i> , 2019 , 411, 167963 | 2.5 | 5 |
| 23 | Neutron Star Structure and the Equation of State. <i>Progress of Theoretical Physics Supplement</i> , 2010 , 186, 1-8 | | 5 |
| 22 | Equation of state constraints from neutron stars. <i>Astrophysics and Space Science</i> , 2007 , 308, 371-379 | 1.6 | 4 |

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|----|---|------|---|
| 21 | Limits on the Neutrino Magnetic Moment from Sn1987A. <i>Physical Review Letters</i> , 1988 , 61, 2633-2633 | 7.4 | 4 |
| 20 | Neutron star masses and radii 2019 , | | 3 |
| 19 | Properties of the isolated neutron star RX J185635-3754. <i>Advances in Space Research</i> , 2004 , 33, 513-517 | 2.4 | 3 |
| 18 | THE MINIMAL COOLING OF NEUTRON STARS 2004 , | | 2 |
| 17 | Neutron Star Physics and EOS. <i>EPJ Web of Conferences</i> , 2016 , 109, 07001 | 0.3 | 2 |
| 16 | Strangeness in stellar matter. <i>Acta Physica Hungarica A Heavy Ion Physics</i> , 1996 , 4, 271-292 | | 2 |
| 15 | Perspectives on the Equation of State in Neutron Stars 2017 , | | 1 |
| 14 | Neutron stars are gold mines 2017 , 159-191 | | 1 |
| 13 | Astrophysical and laboratory constraints for the dense matter equation of state 2012 , | | 1 |
| 12 | Gravitational collapse and supernovae. <i>Contemporary Physics</i> , 1989 , 30, 55-64 | 3.3 | 1 |
| 11 | Equation of State from Neutron Star Mass and Radius Measurements 2020 , | | 1 |
| 10 | Probing the Neutron Star Interior with Glitches. <i>Astrophysics and Space Science Library</i> , 2000 , 117-126 | 0.3 | 1 |
| 9 | Finding Exoplanets with Quantum Imaging. <i>Physics Magazine</i> , 2018 , 11, | 1.1 | 1 |
| 8 | Evolution of Neutron Stars and Observational Constraints. <i>EPJ Web of Conferences</i> , 2010 , 7, 03001 | 0.3 | |
| 7 | Tales of Neutrinos. <i>Science</i> , 1997 , 276, 1344-1344 | 33.3 | |
| 6 | Structure of Strange Quark Matter and Neutron Stars. <i>Symposium - International Astronomical Union</i> , 2004 , 218, 289-296 | | |
| 5 | Supernova theory. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2000 , 81, 283-293 | | |
| 4 | The Isolated Neutron Star RX J185635-3754. <i>Symposium - International Astronomical Union</i> , 2000 , 195, 437-438 | | |

- 3 Implications of a Fast Pulsar for the Equation of State **1991**, 318-320
- 2 Recent results from supernova calculations **1988**, 153-164
- 1 Equation of state constraints from neutron stars **2007**, 371-379