

# Luis A Nunez

## List of Publications by Year in descending order

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91  
papers

2,714  
citations

331259

21  
h-index

182168

51  
g-index

98  
all docs

98  
docs citations

98  
times ranked

2372  
citing authors

#	ARTICLE	IF	CITATIONS
1	Sound speeds, cracking and the stability of self-gravitating anisotropic compact objects. <i>Classical and Quantum Gravity</i> , 2007, 24, 4631-4645.	1.5	508
2	Observation of a large-scale anisotropy in the arrival directions of cosmic rays above $8 \times 10^{18}$ eV. <i>Science</i> , 2017, 357, 1266-1270.	6.0	261
3	Combined fit of spectrum and composition data as measured by the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2017, 2017, 038-038.	1.9	191
4	An Indication of Anisotropy in Arrival Directions of Ultra-high-energy Cosmic Rays through Comparison to the Flux Pattern of Extragalactic Gamma-Ray Sources. <i>Astrophysical Journal Letters</i> , 2018, 853, L29.	3.0	165
5	Virtual atomic and molecular data centre. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2010, 111, 2151-2159.	1.1	164
6	Testing Hadronic Interactions at Ultrahigh Energies with Air Showers Measured by the Pierre Auger Observatory. <i>Physical Review Letters</i> , 2016, 117, 192001.	2.9	154
7	Measurement of the Radiation Energy in the Radio Signal of Extensive Air Showers as a Universal Estimator of Cosmic-Ray Energy. <i>Physical Review Letters</i> , 2016, 116, 241101.	2.9	91
8	Features of the Energy Spectrum of Cosmic Rays above $2.5 \times 10^{18}$ eV Measured Using the Pierre Auger Observatory. <i>Physical Review Letters</i> , 2020, 125, 121106.	2.9	79
9	Large-scale Cosmic-Ray Anisotropies above 4 EeV Measured by the Pierre Auger Observatory. <i>Astrophysical Journal</i> , 2018, 868, 4.	1.6	77
10	Nonlocal equation of state in anisotropic static fluid spheres in general relativity. <i>Canadian Journal of Physics</i> , 2004, 82, 29-51.	0.4	65
11	Probing the origin of ultra-high-energy cosmic rays with neutrinos in the EeV energy range using the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 022-022.	1.9	64
12	Search for photons with energies above $10^{18}$ eV using the hybrid detector of the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2017, 2017, 009-009.	1.9	49
13	The energy spectrum of cosmic rays beyond the turn-down around $10^{17}$ eV as measured with the surface detector of the Pierre Auger Observatory. <i>European Physical Journal C</i> , 2021, 81, 1.	1.4	44
14	Karmarkar scalar condition. <i>European Physical Journal C</i> , 2020, 80, 1.	1.4	41
15	Cosmic-Ray Anisotropies in Right Ascension Measured by the Pierre Auger Observatory. <i>Astrophysical Journal</i> , 2020, 891, 142.	1.6	39
16	Non-local equation of state in general relativistic radiating spheres. <i>Classical and Quantum Gravity</i> , 1999, 16, 871-896.	1.5	38
17	Direct measurement of the muonic content of extensive air showers between $2 \times 10^{17}$ and $2 \times 10^{18}$ eV at the Pierre Auger Observatory. <i>European Physical Journal C</i> , 2020, 80, 1.	1.4	36
18	Measurement of the Fluctuations in the Number of Muons in Extensive Air Showers with the Pierre Auger Observatory. <i>Physical Review Letters</i> , 2021, 126, 152002.	2.9	34

#	ARTICLE	IF	CITATIONS
19	Observation of inclined EeV air showers with the radio detector of the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2018, 2018, 026-026.	1.9	30
20	Cracking of Anisotropic Spheres in General Relativity Revisited. <i>Journal of Physics: Conference Series</i> , 2015, 600, 012014.	0.3	26
21	VAMDC—The Virtual Atomic and Molecular Data Centre—A New Way to Disseminate Atomic and Molecular Data—VAMDC Level 1 Release. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	24
22	Photoprotective and Antigenotoxic Effects of the Flavonoids Apigenin, Naringenin and Pinocembrin. <i>Photochemistry and Photobiology</i> , 2019, 95, 1010-1018.	1.3	23
23	Radiation flow and viscous stresses in anisotropic gravitational collapse. <i>Monthly Notices of the Royal Astronomical Society</i> , 1994, 271, 463-475.	1.6	21
24	A Targeted Search for Point Sources of EeV Photons with the Pierre Auger Observatory. <i>Astrophysical Journal Letters</i> , 2017, 837, L25.	3.0	21
25	Calibration of the logarithmic-periodic dipole antenna (LPDA) radio stations at the Pierre Auger Observatory using an octocopter. <i>Journal of Instrumentation</i> , 2017, 12, T10005-T10005.	0.5	21
26	A Search for Photons with Energies Above $2 \times 10^{17}$ eV Using Hybrid Data from the Low-Energy Extensions of the Pierre Auger Observatory. <i>Astrophysical Journal</i> , 2022, 933, 125.	1.6	21
27	Reconstruction of events recorded with the surface detector of the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2020, 15, P10021-P10021.	0.5	20
28	Preliminary Results From the Latin American Giant Observatory Space Weather Simulation Chain. <i>Space Weather</i> , 2018, 16, 461-475.	1.3	18
29	Limits on point-like sources of ultra-high-energy neutrinos with the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 004-004.	1.9	18
30	Ricci Collineations for Type B Warped Space-times. <i>General Relativity and Gravitation</i> , 1997, 29, 1223-1237.	0.7	17
31	Convection and cracking stability of spheres in general relativity. <i>European Physical Journal C</i> , 2018, 78, 1.	1.4	17
32	Deep-learning based reconstruction of the shower maximum $X_{\text{max}}$ using the water-Cherenkov detectors of the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2021, 16, P07019.	0.5	16
33	Multi-resolution anisotropy studies of ultrahigh-energy cosmic rays detected at the Pierre Auger Observatory. <i>Journal of Cosmology and Astroparticle Physics</i> , 2017, 2017, 026-026.	1.9	14
34	Ricci Collineations for Non-degenerate, Diagonal and Spherically Symmetric Ricci Tensors. <i>General Relativity and Gravitation</i> , 2000, 32, 285-294.	0.7	13
35	Design, upgrade and characterization of the silicon photomultiplier front-end for the AMIGA detector at the Pierre Auger Observatory. <i>Journal of Instrumentation</i> , 2021, 16, P01026-P01026.	0.5	13
36	A Search for Ultra-high-energy Neutrinos from TXS 0506+056 Using the Pierre Auger Observatory. <i>Astrophysical Journal</i> , 2020, 902, 105.	1.6	13

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37	Design and construction of MuTe: a hybrid Muon Telescope to study Colombian volcanoes. Journal of Instrumentation, 2020, 15, P09006-P09006.	0.5	12
38	Acceptability conditions and relativistic barotropic equations of state. European Physical Journal C, 2021, 81, 1.	1.4	11
39	Extraction of the muon signals recorded with the surface detector of the Pierre Auger Observatory using recurrent neural networks. Journal of Instrumentation, 2021, 16, P07016.	0.5	11
40	Cracking of Self-Gravitating Compact Objects with Local and Non Local Equations of State. Journal of Physics: Conference Series, 2007, 66, 012038.	0.3	10
41	Measurement of the average shape of longitudinal profiles of cosmic-ray air showers at the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 018-018.	1.9	10
42	Simulated response of MuTe, a hybrid Muon Telescope. Journal of Instrumentation, 2020, 15, P08004-P08004.	0.5	10
43	Search for magnetically-induced signatures in the arrival directions of ultra-high-energy cosmic rays measured at the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 017-017.	1.9	10
44	Plausible families of compact objects with a nonlocal equation of state. Canadian Journal of Physics, 2013, 91, 328-336.	0.4	9
45	The data acquisition system of the Latin American Giant Observatory (LAGO). Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 820, 34-39.	0.7	9
46	Cracking isotropic and anisotropic relativistic spheres. Canadian Journal of Physics, 2017, 95, 1089-1095.	0.4	9
47	A 3-year Sample of Almost 1,600 Elves Recorded Above South America by the Pierre Auger Cosmic-Ray Observatory. Earth and Space Science, 2020, 7, e2019EA000582.	1.1	9
48	Acceptability conditions and relativistic anisotropic generalized polytropes. European Physical Journal C, 2022, 82, 1.	1.4	9
49	Radiating spheres in general relativity with a mixed transport energy flow. Astrophysics and Space Science, 1991, 178, 261-275.	0.5	8
50	Comment on Ricci collineations of static spherically symmetric spacetimes [J. Math. Phys. 35, 3005-3012 (1994)]. Journal of Mathematical Physics, 1996, 37, 1086.	0.5	8
51	Impact of atmospheric effects on the energy reconstruction of air showers observed by the surface detectors of the Pierre Auger Observatory. Journal of Instrumentation, 2017, 12, P02006-P02006.	0.5	8
52	Simulated Annealing for volcano muography. Journal of South American Earth Sciences, 2021, 109, 103248.	0.6	8
53	Radiating, slowly rotating bodies in general relativity. Astrophysical Journal, 1994, 421, 677.	1.6	8
54	The LAGO Space Weather Program: Directional Geomagnetic Effects, Background Fluence Calculations and Multi-Spectral Data Anal. , 2016, , .		8

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55	Calibration of a large water-Cherenkov detector at the Sierra Negra site of LAGO. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 861, 28-37.	0.7	7
56	Spectral calibration of the fluorescence telescopes of the Pierre Auger Observatory. Astroparticle Physics, 2017, 95, 44-56.	1.9	7
57	Geant4 based simulation of the Water Cherenkov Detectors of the LAGO Project. Nuclear and Particle Physics Proceedings, 2015, 267-269, 424-426.	0.2	6
58	Hydrodynamics in type B warped spacetimes. Physical Review D, 2005, 72, .	1.6	5
59	Studies on the response of a water-Cherenkov detector of the Pierre Auger Observatory to atmospheric muons using an RPC hodoscope. Journal of Instrumentation, 2020, 15, P09002-P09002.	0.5	5
60	Calibration of the underground muon detector of the Pierre Auger Observatory. Journal of Instrumentation, 2021, 16, P04003.	0.5	5
61	Luminosity profiles and the evolution of shock waves in general-relativistic radiating spheres. Astrophysical Journal, 1990, 364, 212.	1.6	5
62	Testing effects of Lorentz invariance violation in the propagation of astroparticles with the Pierre Auger Observatory. Journal of Cosmology and Astroparticle Physics, 2022, 2022, 023.	1.9	5
63	Luminosity profiles and contraction of radiating spheres. General Relativity and Gravitation, 1994, 26, 537-553.	0.7	4
64	Radiation hydrodynamics and Radiating Spheres in General Relativity. Astrophysics and Space Science, 1994, 219, 153-170.	0.5	4
65	An equivalent system of Einstein Equations. Journal of Physics: Conference Series, 2017, 831, 012011.	0.3	4
66	Checking collineation vectors with reduce. General Relativity and Gravitation, 1992, 24, 1125-1129.	0.7	3
67	Luminosity profiles and the contraction of radiating spheres in general relativity. Astrophysics and Space Science, 1995, 225, 167-181.	0.5	3
68	A Resilient Methodology for Accessing and Exploiting Data and Scientific Codes on Distributed Environments. , 2015, , .		3
69	Implementing the De-thinning Method for High Energy Cosmic Rays Extensive Air Showers Simulations. Nuclear and Particle Physics Proceedings, 2015, 267-269, 421-423.	0.2	3
70	On the Vortex Waves in Nonadiabatic Flows. Astrophysical Journal, 2018, 855, 19.	1.6	3
71	Are there any models with homogeneous energy density?. General Relativity and Gravitation, 2018, 50, 1.	0.7	3
72	Design and implementation of the AMIGA embedded system for data acquisition. Journal of Instrumentation, 2021, 16, T07008.	0.5	3

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73	Data Accessibility, Reproducibility and Trustworthiness with LAGO Data Repositories. , 2016, , .		3
74	All analytic solutions for geodesic motion in axially symmetric space-times. European Physical Journal C, 2022, 82, .	1.4	3
75	<i>Reply to comment</i>: Note on an example of a general class of symmetries of Lagrangians and their equations of motion. Canadian Journal of Physics, 1994, 72, 87-88.	0.4	2
76	The Latin American Giant Observatory: A Successful Collaboration in Latin America Based on Cosmic Rays and Computer Science Domains. , 2016, , .		2
77	The FRAM robotic telescope for atmospheric monitoring at the Pierre Auger Observatory. Journal of Instrumentation, 2021, 16, P06027.	0.5	2
78	The oscillations of relativistic radiating spheres. Astronomical and Astrophysical Transactions, 1995, 6, 187-196.	0.2	1
79	On the eccentricity behaviour of radiating slowly rotating bodies in general relativity. Classical and Quantum Gravity, 1998, 15, 187-196.	1.5	1
80	Quasi-static thermal evolution of compact objects. Canadian Journal of Physics, 2015, 93, 920-934.	0.4	1
81	Cosmic Rays Induced Background Radiation on Board of Commercial Flights. Nuclear and Particle Physics Proceedings, 2015, 267-269, 418-420.	0.2	1
82	Exposici3n Temprana de Nativos Digitales en Ambientes, Metodolog3as y T3cnicas de Investigaci3n en la Universidad. Revista Brasileira De Ensino De Fisica, 2018, 40, .	0.2	1
83	Modeling and Simulation of the R5912 Photomultiplier for the LAGO Project. IEEE Sensors Journal, 2021, 21, 20184-20191.	2.4	1
84	Validaci3n del linaje de los datos de la colaboraci3n LAGO. Instalaciones Sierra Negra y Chacaltaya. ITECKNE Innovaci3n E Investigaci3n En Ingenier3a, 2013, 10, .	0.0	1
85	Analysis of Background Cosmic Ray Rate in the 2010-2012 Period from the LAGO-Chacaltaya Detectors. , 2016, , .		1
86	Supernovae: Where and why do they break off?. Astrophysics and Space Science, 1992, 188, 9-18.	0.5	0
87	General Relativistic Radiant Shock Waves in the Post-Quasistatic Approximation. Journal of Physics: Conference Series, 2007, 66, 012042.	0.3	0
88	An identity-based encryption model for logs harvesting using one time password. , 2013, , .		0
89	Astroparticle physics at the Eastern Colombia region. AIP Conference Proceedings, 2015, , .	0.3	0
90	A preface to the 70&70 Gravity Fest. Journal of Physics: Conference Series, 2017, 831, 011001.	0.3	0

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91	Calibration and first measurements of MuTe: a hybrid Muon Telescope for geological structures. , 2019, , .		0