

Zurab G Berezghiani

List of Publications by Year in descending order

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111
papers

5,233
citations

61984

43
h-index

88630

70
g-index

111
all docs

111
docs citations

111
times ranked

1985
citing authors

#	ARTICLE	IF	CITATIONS
1	Asymmetric inflationary reheating and the nature of mirror universe. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 375, 26-36.	4.1	266
2	Reconciling present neutrino puzzles: Sterile neutrinos as mirror neutrinos. Physical Review D, 1995, 52, 6607-6611.	4.7	250
3	The early mirror universe: inflation, baryogenesis, nucleosynthesis and dark matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 503, 362-375.	4.1	206
4	The weak mixing angles in gauge models with horizontal symmetry \hat{e}^{ν} A new approach to quark and lepton masses. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1983, 129, 99-102.	4.1	169
5	MIRROR WORLD AND ITS COSMOLOGICAL CONSEQUENCES. International Journal of Modern Physics A, 2004, 19, 3775-3806.	1.5	162
6	Gamma-Ray Bursts from Delayed Collapse of Neutron Stars to Quark Matter Stars. Astrophysical Journal, 2003, 586, 1250-1253.	4.5	155
7	Planck-scale physics and neutrino masses. Physical Review Letters, 1992, 69, 3013-3016.	7.8	146
8	Neutron-antineutrino oscillations: Theoretical status and experimental prospects. Physics Reports, 2016, 612, 1-45.	25.6	138
9	Cosmology of spontaneously broken gauge family symmetry with axion solution of strong CP-problem. Zeitschrift für Physik C-Particles and Fields, 1991, 49, 73-78.	1.5	137
10	STRUCTURE FORMATION WITH MIRROR DARK MATTER: CMB AND LSS. International Journal of Modern Physics D, 2005, 14, 107-119.	2.1	126
11	Limits on the non-standard interactions of neutrinos from $e+e^{\nu}$ colliders. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 535, 207-218.	4.1	125
12	Neutron-Mirror-Neutron Oscillations: How Fast Might They Be?. Physical Review Letters, 2006, 96, 081801.	7.8	123
13	Strong CP problem and mirror world: the Weinberg-Wilczek axion revisited. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 500, 286-296.	4.1	121
14	Horizontal symmetry and quark-lepton mass spectrum: The $SU(5) \times SU(3)_H$ model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1985, 150, 177-181.	4.1	116
15	Leptogenesis via Collisions: Leaking Lepton Number to the Hidden Sector. Physical Review Letters, 2001, 87, 231304.	7.8	111
16	Spontaneous Lorentz Breaking and Massive Gravity. Physical Review Letters, 2007, 99, 131101.	7.8	85
17	Reconciling Planck results with low redshift astronomical measurements. Physical Review D, 2015, 92, .	4.7	83
18	Planck scale effects on the majoron. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 299, 90-93.	4.1	79

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19	Observable majoron emission in neutrinoless double beta decay. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 291, 99-105.	4.1	77
20	The CKM unitarity problem: a trace of new physics at the TeV scale?. European Physical Journal C, 2020, 80, 1.	3.9	76
21	Predictive grand unified textures for quark and neutrino masses and mixings. Nuclear Physics B, 2001, 594, 113-168.	2.5	71
22	Unified picture of the particle and sparticle masses in SUSY GUT. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 417, 287-296.	4.1	70
23	Could the supersymmetric Higgs particles naturally be pseudo-Goldstone bosons?. Nuclear Physics B, 1995, 444, 61-91.	2.5	67
24	Flavour in supersymmetric Grand Unification: A democratic approach. Nuclear Physics B, 1994, 432, 49-67.	2.5	66
25	Evolutionary and structural properties of mirror star MACHOs. Astroparticle Physics, 2006, 24, 495-510.	4.3	66
26	Fast neutronâ€“mirror neutron oscillation and ultra high energy cosmic rays. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 635, 253-259.	4.1	66
27	More about neutronâ€“mirror neutron oscillation. European Physical Journal C, 2009, 64, 421.	3.9	64
28	DAMA annual modulation effect and asymmetric mirror matter. European Physical Journal C, 2015, 75, 1.	3.9	63
29	More missing VEV mechanism in supersymmetric SO(10) model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 409, 220-228.	4.1	62
30	Grand unified textures for neutrino and quark mixings. Journal of High Energy Physics, 1999, 1999, 002-002.	4.7	60
31	Neutrino decay in matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1987, 199, 281-285.	4.1	59
32	Neutron lifetime puzzle and neutronâ€“mirror neutron oscillation. European Physical Journal C, 2019, 79, 1.	3.9	55
33	Matter-induced neutrino decay and supernova 1987A. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 220, 279-284.	4.1	54
34	Exact spherically symmetric solutions in massive gravity. Journal of High Energy Physics, 2008, 2008, 130-130.	4.7	53
35	Unified picture of ordinary and dark matter genesis. European Physical Journal: Special Topics, 2008, 163, 271-289.	2.6	51
36	Generation of large scale magnetic fields at recombination epoch. Astroparticle Physics, 2004, 21, 59-69.	4.3	50

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37	Flavor violation in theories with TeV scale quantum gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 450, 24-33.	4.1	48
38	DAMA annual modulation and mirror Dark Matter. European Physical Journal C, 2017, 77, 1.	3.9	48
39	SUSY SU(6): GIFT for doublet-triplet splitting and fermion masses. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 355, 481-491.	4.1	47
40	Cosmological bounds on the millicharges of mirror particles. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 681, 276-281.	4.1	46
41	Universal seesaw and radiative quark mass hierarchy. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 279, 124-130.	4.1	44
42	Probing non-standard couplings of neutrinos at the Borexino detector. Nuclear Physics B, 2002, 638, 62-80.	2.5	44
43	Double Protection of the Higgs Potential in a Supersymmetric Little Higgs Model. Physical Review Letters, 2006, 96, 031801.	7.8	44
44	Magnetic anomaly in UCN trapping: signal for neutron oscillations to parallel world?. European Physical Journal C, 2012, 72, 1.	3.9	43
45	Fast neutrino decay and solar neutrino detectors. Zeitschrift für Physik C-Particles and Fields, 1992, 54, 581-586.	1.5	41
46	Neutron-antineutron oscillation and baryonic majoron: low scale spontaneous baryon violation. European Physical Journal C, 2016, 76, 1.	3.9	41
47	Planck scale effects in neutrino physics. Physical Review D, 1993, 47, 3245-3253.	4.7	36
48	Baryon Asymmetry, Dark Matter and the Hidden Sector. Fortschritte Der Physik, 2002, 50, 489-495.	4.4	36
49	Gravity modification with Yukawa-type potential: dark matter and mirror gravity. Journal of High Energy Physics, 2009, 2009, 083-083.	4.7	35
50	New experimental limits on neutron mirror neutron oscillations in the presence of mirror magnetic field. European Physical Journal C, 2018, 78, 1.	3.9	34
51	Implications of Majorana neutrino transition magnetic moments for neutrino signals from supernovae. Nuclear Physics B, 1992, 373, 479-497.	2.5	33
52	The high-2 HERA anomaly and supersymmetric unification. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 407, 250-254.	4.1	33
53	New high-sensitivity searches for neutrons converting into antineutrons and/or sterile neutrons at the HIBEAM/NNBAR experiment at the European Spallation Source. Journal of Physics G: Nuclear and Particle Physics, 2021, 48, 070501.	3.6	33
54	Gamma ray bursts via emission of axion-like particles. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 473, 281-290.	4.1	31

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55	Flavor structure, flavor symmetry and supersymmetry. Nuclear Physics, Section B, Proceedings Supplements, 2001, 101, 410-420.	0.4	31
56	THROUGH THE LOOKING-GLASS: ALICE'S ADVENTURES IN MIRROR WORLD. , 2005, , 2147-2195.		31
57	Neutron oscillations to parallel world: earlier end to the cosmic ray spectrum?. European Physical Journal C, 2012, 72, 1.	3.9	30
58	Just-so oscillation: as just as MSW?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 367, 219-225.	4.1	29
59	Weak mixing angles as dynamical degrees of freedom. Nuclear Physics B, 1997, 484, 97-123.	2.5	29
60	Blocking active-sterile neutrino oscillations in the early universe with a Majoron field. Physical Review D, 2001, 64, .	4.7	28
61	Neutron disappearance and regeneration from a mirror state. Physical Review D, 2017, 96, .	4.7	28
62	Neutron lifetime and dark decay of the neutron and hydrogen. Letters in High Energy Physics, 2019, 2, .	1.0	27
63	Vacuum oscillation solution to the solar neutrino problem in standard and nonstandard pictures. Physical Review D, 1995, 51, 5229-5239.	4.7	26
64	Dark matter and generation of galactic magnetic fields. European Physical Journal C, 2013, 73, 1.	3.9	24
65	Neutron-mirror neutron mixing and neutron stars. European Physical Journal C, 2021, 81, 1.	3.9	24
66	Inverse hierarchy approach to fermion masses. Nuclear Physics B, 1993, 407, 249-270.	2.5	23
67	Gamma Ray Bursts from delayed quark-deconfinement phase transition in neutron stars. Nuclear Physics, Section B, Proceedings Supplements, 2002, 113, 268-274.	0.4	23
68	Are the CKM anomalies induced by vector-like quarks? Limits from flavor changing and Standard Model precision tests. Journal of High Energy Physics, 2021, 2021, 1.	4.7	23
69	Predictive SUSY SO(10) model with very low $\tan \hat{\beta}$. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 355, 178-186.	4.1	22
70	Mirror matter, mirror gravity and galactic rotational curves. European Physical Journal C, 2010, 70, 305-316.	3.9	22
71	TeV scale unification in four dimensions versus extra dimensions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 522, 107-116.	4.1	20
72	Planck-scale physics and solutions to the strongCPproblem without the axion. Physical Review D, 1993, 47, 5565-5570.	4.7	19

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73	BBN with light dark matter. <i>Journal of Cosmology and Astroparticle Physics</i> , 2013, 2013, 010-010.	5.4	19
74	Gauged $B-L$ - L number and neutron-antineutron oscillation: long-range forces mediated by baryophotons. <i>European Physical Journal C</i> , 2017, 77, 1.	3.9	19
75	Supersymmetric $SO(10)$ for fermion masses and mixings: rank-1 structures of flavour. <i>Journal of High Energy Physics</i> , 2006, 2006, 041-041.	4.7	18
76	Affleck-Dine leptogenesis via right-handed sneutrino fields in a supersymmetric hybrid inflation model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2001, 518, 282-293.	4.1	17
77	Neutron-antineutron oscillations: Discrete symmetries and quark operators. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2019, 788, 58-64.	4.1	17
78	Field evolution leading to hybrid inflation. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1998, 431, 286-294.	4.1	14
79	Marriage between the baryonic and dark matters. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	14
80	Matter, dark matter, and antimatter in our Universe. <i>International Journal of Modern Physics A</i> , 2018, 33, 1844034.	1.5	14
81	Matter induced neutrino decay and solar antineutrinos. <i>Zeitschrift für Physik C-Particles and Fields</i> , 1993, 58, 423-428.	1.5	13
82	Improved Search for Neutron to Mirror-Neutron Oscillations in the Presence of Mirror Magnetic Fields with a Dedicated Apparatus at the PSI UCN Source. <i>Symmetry</i> , 2022, 14, 503.	2.2	13
83	Majoron decay in matter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1994, 336, 439-445.	4.1	12
84	Realistic SUSY model with four fermion families, natural R parity and $\hat{1}/2\hat{1}$, in the eV range. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1995, 355, 199-208.	4.1	11
85	Vanishing of cosmological constant and fully localized gravity in a brane world with extra time(s). <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2001, 517, 387-396.	4.1	11
86	On the Neutron Transition Magnetic Moment. <i>Physics</i> , 2019, 1, 271-289.	1.4	11
87	How light the lepton flavor changing gauge bosons can be. <i>European Physical Journal C</i> , 2019, 79, 1.	3.9	11
88	A possible shortcut for neutron-antineutron oscillation through mirror world. <i>European Physical Journal C</i> , 2021, 81, 1.	3.9	11
89	Could neutrinos with masses of a few keV be shortlived?. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1985, 162, 349-353.	4.1	10
90	Problem of flavour in SUSY GUT and horizontal symmetry. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 1997, 52, 153-158.	0.4	10

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91	Neutrino-antineutrino oscillation and discrete symmetries. International Journal of Modern Physics A, 2018, 33, 1844016.	1.5	10
92	Natural parity conservation with horizontal symmetries: A four generation model. Physical Review D, 1995, 52, 3087-3099.	4.7	8
93	ON THE POSSIBILITY OF A SOLUTION TO THE STRONG CP-PROBLEM WITHOUT AXION IN A SU(3) _H FAMILY SYMMETRY MODEL. Modern Physics Letters A, 1991, 06, 2437-2442.	1.2	7
94	Neutron-Mirror Neutron Oscillations in Absorbing Matter. Symmetry, 2022, 14, 230.	2.2	7
95	Horizontal symmetry: masses and mixing angles of quarks and leptons of different generations; neutrino mass and neutrino oscillation. Uspekhi Fizicheskikh Nauk, 1985, 28, 104-105.	0.3	6
96	Chances for SUSY-GUT in the LHC Epoch. Journal of High Energy Physics, 2015, 2015, 1.	4.7	6
97	Shadow dark matter, sterile neutrinos and neutrino events at IceCube. Nuclear and Particle Physics Proceedings, 2015, 265-266, 303-306.	0.5	5
98	Classical Nambu-Goldstone fields. Physical Review D, 2000, 62, .	4.7	4
99	Soft SUSY breaking contributions to proton decay. Journal of High Energy Physics, 2006, 2006, 030-030.	4.7	4
100	Sterile Neutrinos and Leptogenesis of Matter and Dark Matter. Nuclear Physics, Section B, Proceedings Supplements, 2013, 237-238, 263-265.	0.4	4
101	Antistars or Antimatter Cores in Mirror Neutron Stars?. Universe, 2022, 8, 313.	2.5	4
102	Neutrino oscillations and magnetic moment transitions in a model with a conserved lepton number. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1991, 264, 381-388.	4.1	3
103	Fritzsch-like model for the quark mass matrices with a large first-generation- \leftrightarrow third-generation mixing. Physical Review D, 1992, 45, 934-945.	4.7	3
104	Testing neutrino decay in matter. Nuclear Physics, Section B, Proceedings Supplements, 1994, 35, 469-470.	0.4	3
105	On the deconstruction of time. JETP Letters, 2002, 75, 530-533.	1.4	3
106	Gravitational wave bursts induced by r-mode spin-down of hybrid stars. Astronomy and Astrophysics, 2006, 445, 1053-1060.	5.1	3
107	17 keV neutrino and large magnetic moment solution of the solar neutrino puzzle. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 298, 391-396.	4.1	2
108	Towards a grand unified picture for neutrino and quark mixings. Nuclear Physics, Section B, Proceedings Supplements, 2000, 81, 346-350.	0.4	2

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109	Baryon Asymmetry, Dark Matter and the Hidden Sector. , 0, , 60-66.		0
110	SPONTANEOUS BREAKING OF LORENTZ-INVARIANCE AND GRAVITONS AS GOLDSTONE PARTICLES. , 2013, , 58-79.		0
111	High Energy Neutrinos from Dark Matter Decay. , 2017, , .		0