Todor Stanev

List of Publications by Year
in descending order

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121 papers	7,458 citations	71102 41 h-index	51608 86 g-index
123 all docs	123 docs citations	123 times ranked	4629 citing authors

#	Article	IF	Citations
1	Multimessenger observations of a flaring blazar coincident with high-energy neutrino IceCube-170922A. Science, 2018, 361, .	12.6	654
2	Neutrino emission from the direction of the blazar TXS 0506+056 prior to the IceCube-170922A alert. Science, 2018, 361, 147-151.	12.6	601
3	Particle astrophysics with high energy neutrinos. Physics Reports, 1995, 258, 173-236.	25.6	445
4	Cosmic ray interaction event generator SIBYLL 2.1. Physical Review D, 2009, 80, .	4.7	355
5	Neutrinos from propagation of ultrahigh energy protons. Physical Review D, 2001, 64, .	4.7	331
6	sibyll: An event generator for simulation of high energy cosmic ray cascades. Physical Review D, 1994, 50, 5710-5731.	4.7	326
7	Monte Carlo simulations of photohadronic processes in astrophysics. Computer Physics Communications, 2000, 124, 290-314.	7.5	318
8	Atmospheric neutrino flux above 1 GeV. Physical Review D, 1996, 53, 1314-1323.	4.7	274
9	Propagation of multi-TeV muons. Physical Review D, 1991, 44, 3543-3554.	4.7	201
10	Flux of atmospheric neutrinos. Physical Review D, 1989, 39, 3532-3534.	4.7	196
11	Nucleus-nucleus collisions and interpretation of cosmic-ray cascades. Physical Review D, 1992, 46, 5013-5025.	4.7	159
12	Ultraâ€“Highâ€Energy Cosmic Rays and the Largeâ€Scale Structure of the Galactic Magnetic Field. Astrophysical Journal, 1997, 479, 290-295.	4.5	156
13	Arrival Directions of the Most Energetic Cosmic Rays. Physical Review Letters, 1995, 75, 3056-3059.	7.8	140
14	Gammaâ€Ray Production in Supernova Remnants. Astrophysical Journal, 1998, 492, 219-227.	4.5	126
15	Propagation of ultrahigh energy protons in the nearby universe. Physical Review D, 2000, 62, .	4.7	126
16	Ultrahigh energy cosmic rays. Reviews of Modern Physics, 2011, 83, 907-942.	45.6	116
17	Signatures of cosmic-ray interactions on the solar surface. Astrophysical Journal, 1991, 382, 652.	4.5	113
18	Cosmic-ray neutrinos in the atmosphere. Physical Review D, 1988, 38, 85-95.	4.7	110

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19	Limits on Models of the Ultrahigh Energy Cosmic Rays Based on Topological Defects. Physical Review Letters, 1996, 77, 3708-3711.	7.8	109
20	Development of ultrahigh-energy electromagnetic cascades in water and lead including the Landau-Pomeranchuk-Migdal effect. Physical Review D, 1982, 25, 1291-1304.	4.7	105
21	Hadronic interaction model sibyll 2.3d and extensive air showers. Physical Review D, 2020, 102, .	4.7	102
22	Constraints on the Extragalactic Infrared Background from Gamma-Ray Observations of Markarian 501. Astrophysical Journal, 1998, 494, L159-L162.	4.5	98
23	Cosmic-ray composition around1018eV. Physical Review D, 1993, 47, 1919-1932.	4.7	96
24	Antiprotons at Solar Maximum. Physical Review Letters, 1999, 83, 674-677.	7.8	88
25	Mini-jets in minimum-bias events. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 219, 375-380.	4.1	83
26	Flux of Atmospheric Neutrinos. Physical Review Letters, 1983, 51, 223-226.	7.8	76
27	Simulation of atmospheric cascades and deep-underground muons. Physical Review D, 1990, 42, 3668-3689.	4.7	76
28	Diffuse radiation from cosmic ray interactions in the galaxy. Astroparticle Physics, 1993, 1, 281-287.	4.3	73
29	Photohadronic Processes in Astrophysical Environments. Publications of the Astronomical Society of Australia, 1999, 16, 160-166.	3.4	73
30	THE ORIGIN OF COSMIC RAYS: EXPLOSIONS OF MASSIVE STARS WITH MAGNETIC WINDS AND THEIR SUPERNOVA MECHANISM. Astrophysical Journal, 2010, 725, 184-187.	4.5	71
31	Hybrid simulations of extensive air showers. Physical Review D, 2002, 66, .	4.7	66
32	Calculation of Neutrino Flux from Cygnus X-3. Physical Review Letters, 1985, 54, 2265-2268.	7.8	61
33	Comparison of atmospheric neutrino flux calculations at low energies. Physical Review D, 1996, 54, 5578-5584.	4.7	60
34	Neutrinos: The Key to Ultrahigh Energy Cosmic Rays. Physical Review Letters, 2005, 95, 141101.	7.8	60
35	Variation of the solar neutrino flux with the Sun's activity. Nature, 1990, 348, 407-411.	27.8	56
36	Muon bundles in underground detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1985, 235, 183-192.	1.6	52

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37	Atmospheric neutrino data and neutrino oscillations. Physical Review D, 1993, 48, 1140-1149.	4.7	50
38	Ultrahighâ€“Energy Cosmicâ€Ray Propagation in the Galaxy: Clustering versus Isotropy. Astrophysical Journal, 2002, 572, 185-201.	4.5	49
39	Neutrino-induced muon flux deep underground and search for neutrino oscillations. Physical Review D, 1984, 30, 985-990.	4.7	48
40	Path length distributions of atmospheric neutrinos. Physical Review D, 1998, 57, 1977-1982.	4.7	44
41	High-energy cosmic rays. Nuclear Physics A, 2006, 777, 98-110.	1.5	44
42	Energetic (>1 GeV) neutrinos as a probe of acceleration in the new supernova. Physical Review Letters, 1987, 58, 1695-1697.	7.8	40
43	High Energy Cosmic Rays. , 2010, , .		39
44	Particle acceleration and production of energetic photons in SN1987A. Nature, 1987, 329, 314-316.	27.8	38
45	Origin of galactic cosmic rays. Physical Review D, 1995, 51, 3450-3454.	4.7	35
46	Ultrahigh-energy cross section from study of longitudinal development of air showers. Physical Review D, 1982, 26, 336-339.	4.7	34
47	On the shape of the ultrahigh energy cosmic ray spectrum. Physical Review D, 2005, 72, .	4.7	34
48	Data-driven model of the cosmic-ray flux and mass composition from 10 GeV to 10^{11} GeV. , 2017, , .		34
49	Origin of the highest energy cosmic rays. Nuclear Physics, Section B, Proceedings Supplements, 2000, 87, 417-419.	0.4	33
50	Cosmic PeV neutrinos and the sources of ultrahigh energy protons. Physical Review D, 2014, 90, .	4.7	33
51	Analysis of deep-underground muons. Physical Review D, 1983, 27, 1448-1456.	4.7	32
52	Nature of the highest energy cosmic rays. Physical Review D, 1997, 55, 1365-1371.	4.7	32
53	Geomagnetic effects on atmospheric neutrinos. Physical Review D, 1998, 58, .	4.7	32
54	Proton-proton cross section atsâˆ¼30TeV. Physical Review D, 1998, 58, .	4.7	32

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55	Pion production in proton collisions with light nuclei: implications for atmospheric neutrinos. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 472, 113-118.	4.1	31
56	Cut-offs and pile-ups in shock acceleration spectra. Astroparticle Physics, 1999, 10, 185-196.	4.3	30
57	Constraints on models of Cygnus X-3 from high-energy gamma-ray absorption at source. Astrophysical Journal, 1987, 322, 838.	4.5	29
58	Electromagnetic component of1014â€“1016-eV air showers. Physical Review D, 1988, 37, 649-656.	4.7	28
59	Cosmogenic neutrinos from cosmic ray interactions with extragalactic infrared photons. Physical Review D, 2006, 73, .	4.7	28
60	Response of deep detectors to extraterrestrial neutrinos. Physical Review D, 1985, 31, 2770-2772.	4.7	26
61	THE WMAP HAZE FROM THE GALACTIC CENTER REGION DUE TO MASSIVE STAR EXPLOSIONS AND A REDUCED COSMIC RAY SCALE HEIGHT. Astrophysical Journal Letters, 2010, 710, L53-L57.	8.3	26
62	Nucleus-nucleus collisions and interpretation of cosmic-ray cascades above 100 TeV. Physical Review D, 1982, 25, 2341-2350.	4.7	25
63	Predicting Proton-Air Cross Sections atsâ¯¼30TeVUsing Accelerator and Cosmic Ray Data. Physical Review Letters, 1999, 83, 4926-4928.	7.8	22
64	Possible Tau Appearance Experiment with Atmospheric Neutrinos. Physical Review Letters, 1999, 83, 5427-5430.	7.8	22
65	High energy neutrinos from cosmic ray interactions in clusters of galaxies. Physical Review D, 2006, 73, .	4.7	22
66	Constraints on cosmic-ray observation of Cygnus X-3. Nature, 1985, 317, 409-411.	27.8	19
67	Atmospheric shower fluctuations and the constant intensity cut method. Physical Review D, 2002, 66, .	4.7	18
68	THE CENTAURUS A ULTRAHIGH-ENERGY COSMIC-RAY EXCESS AND THE LOCAL EXTRAGALACTIC MAGNETIC FIELD. Astrophysical Journal, 2012, 758, 16.	4.5	18
69	Production of high-energy muons in gamma showers. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1985, 158, 75-76.	4.1	17
70	High energy cosmic rays: sources and fluxes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 742, 42-46.	1.6	17
71	Î³ray astronomy with muons. Physical Review D, 1997, 55, 4475-4479.	4.7	16
72	Active Galactic Nuclei: Sources for ultra high energy cosmic rays?. Nuclear Physics, Section B, Proceedings Supplements, 2009, 190, 61-78.	0.4	16

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73	Propagation of ultrahigh energy protons in regular extragalactic magnetic fields. Physical Review D, 2003, 68, .	4.7	15
74	Influence of shower fluctuations and primary composition on studies of the shower longitudinal development. Physical Review D, 2004, 69, .	4.7	15
75	Supernova explosions of massive stars and cosmic rays. Advances in Space Research, 2018, 62, 2773-2816.	2.6	15
76	Neutrino production by UHECR proton interactions in the infrared background. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 595, 50-54.	4.1	14
77	Signatures of particle acceleration at SN 1987A. Astrophysical Journal, 1989, 345, 423.	4.5	14
78	Search for photons of energy>50 TeV from SN 1987A in early 1988. Physical Review Letters, 1989, 62, 1425-1428.	7.8	13
79	Propagation of ultrahigh-energy cosmic rays. New Journal of Physics, 2009, 11, 065013.	2.9	12
80	The photoproduction threshold. Implications for air showers. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1990, 243, 444-450.	4.1	9
81	Status, performance, and first results of the IceTop array. Nuclear Physics, Section B, Proceedings Supplements, 2009, 196, 159-164.	0.4	9
82	Are deep underground detectors goodÎ³-ray telescopes?. Physical Review D, 1986, 33, 2740-2743.	4.7	8
83	Air-shower detection of ultrahigh-energy muons and neutrinos. Physical Review D, 1989, 40, 1472-1476.	4.7	8
84	Cosmogenic neutrinos and gamma rays. Comptes Rendus Physique, 2014, 15, 349-356.	0.9	7
85	The hadronic interaction model Sibyll 2.3c and muon production in extensive air-showers. EPJ Web of Conferences, 2019, 208, 11002.	0.3	6
86	Simulation of Centauro events. Physical Review D, 1981, 23, 771-776.	4.7	5
87	Energetic (>1 GeV) Neutrinos as a Probe of Acceleration in the New Supernova. Physical Review Letters, 1987, 59, 844-844.	7.8	5
88	Ultrahigh energy cosmic rays and neutrinos. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 588, 215-220.	1.6	5
89	Neutrinos and cosmic rays. Astroparticle Physics, 2012, 39-40, 120-128.	4.3	5
90	Astrophysical sources of high energy neutrinos. Nuclear Physics, Section B, Proceedings Supplements, 1990, 14, 17-27.	0.4	4

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91	Hybrid simulations of electromagnetic cascades. Astroparticle Physics, 1994, 2, 35-42.	4.3	4
92	Atmospheric neutrino challenges. Nuclear Physics, Section B, Proceedings Supplements, 2005, 145, 69-74.	0.4	4
93	Muon flux at the geographical South Pole. Astroparticle Physics, 2006, 25, 361-367.	4.3	4
94	ULTRA HIGH ENERGY COSMIC RAYS: ORIGIN AND PROPAGATION. Modern Physics Letters A, 2010, 25, 1467-1481.	1.2	4
95	Photon and neutrino emission from active galactic nuclei. Nuclear Physics, Section B, Proceedings Supplements, 2011, 217, 284-286.	0.4	4
96	Burst of TeVÎ³rays from SN 1987A: Cosmic storage rings?. Physical Review Letters, 1989, 63, 1035-1037.	7.8	3
97	A Possible Nearby Origin for the Highest-Energy Events Observed. , 2001, , 181-195.		3
98	High Energy cosmic neutrinos. Nuclear Physics, Section B, Proceedings Supplements, 1994, 35, 185-196.	0.4	2
99	The nature and the origin of the highest energy cosmic rays. Nuclear Physics, Section B, Proceedings Supplements, 1998, 60, 181-190.	0.4	2
100	Charge ratio of muons from atmospheric neutrinos. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 561, 125-129.	4.1	2
101	GZK cutoff and associated neutrinos. Nuclear Physics, Section B, Proceedings Supplements, 2004, 136, 103-110.	0.4	2
102	IceTop Status in 2004. Nuclear Physics, Section B, Proceedings Supplements, 2005, 145, 327-330.	0.4	2
103	Origin and Physics of the Highest Energy Particles in the Universe. , 2001, , 515-537.		2
104	Inelasticity of nucleus-nucleus collisions and composition of high-energy cosmic rays. Physical Review D, 1983, 28, 464-467.	4.7	1
105	Restrictions on primaries responsible for correlated muon events at Soudan. Physical Review D, 1986, 33, 2597-2601.	4.7	1
106	Atmospheric neutrinos: Muon and electron neutrinos problem. Nuclear Physics, Section B, Proceedings Supplements, 1996, 48, 165-171.	0.4	1
107	High energy neutrinos: sources and fluxes. Journal of Physics: Conference Series, 2006, 39, 386-392.	0.4	1
108	Ultra high energy interaction models for Monte Carlo calculations: what model is the best fit. Nuclear Physics, Section B, Proceedings Supplements, 2006, 151, 135-142.	0.4	1

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109	ULTRA HIGH ENERGY COSMIC RAYS: ORIGIN AND PROPAGATION. , 2007, , .		1
110	On the possibility of observations of high energy neutrino and gamma-ray fluxes from SN1987A. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1988, 264, 32-36.	1.6	0
111	Production of Energetic Gamma-Rays and Neutrinos at Binary Systems. , 1989, , 39-48.		0
112	Ultra high energy cosmic rays and magnetic fields. Nuclear Physics, Section B, Proceedings Supplements, 2002, 110, 491-493.	0.4	0
113	Cosmic Ray Interactions. Astrophysics and Space Science Library, 2021, , 17-44.	2.7	0
114	Cosmic Rays Underground. Astrophysics and Space Science Library, 2021, , 141-176.	2.7	0
115	Cosmic Rays at the Top of the Atmosphere. Astrophysics and Space Science Library, 2021, , 93-124.	2.7	0
116	The Birth of Cosmic Rays. Astrophysics and Space Science Library, 2021, , 45-73.	2.7	0
117	Cosmic Rays in the Galaxy. Astrophysics and Space Science Library, 2021, , 75-92.	2.7	0
118	Cosmic Ray Showers. Astrophysics and Space Science Library, 2021, , 179-229.	2.7	0
119	Cosmic Rays in the Atmosphere. Astrophysics and Space Science Library, 2021, , 125-140.	2.7	0
120	Acceleration of Cosmic Rays At Young Supernova Remnants. , 1991, , 177-186.		0
121	Solar and Supernova Neutrinos. , 1995, , 55-67.		0