

Yi-Fu Cai

List of Publications by Year in descending order

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139
papers

8,200
citations

41339

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49904

87
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139
all docs

139
docs citations

139
times ranked

2585
citing authors

#	ARTICLE	IF	CITATIONS
1	f teleparallel gravity and cosmology. Reports on Progress in Physics, 2016, 79, 106901.	20.1	923
2	Quintom cosmology: Theoretical implications and observations. Physics Reports, 2010, 493, 1-60.	25.6	678
3	Matter bounce cosmology with the f gravity. Classical and Quantum Gravity, 2011, 28, 215011.	4.0	336
4	Towards a nonsingular bouncing cosmology. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 020-020.	5.4	303
5	Bouncing universe with Quintom matter. Journal of High Energy Physics, 2007, 2007, 071-071.	4.7	254
6	Bouncing Galileon cosmologies. Journal of Cosmology and Astroparticle Physics, 2011, 2011, 036-036.	5.4	171
7	Exploring bouncing cosmologies with cosmological surveys. Science China: Physics, Mechanics and Astronomy, 2014, 57, 1414-1430.	5.1	164
8	Nonsingular cosmology with a scale-invariant spectrum of cosmological perturbations from Lee-Wick theory. Physical Review D, 2009, 80, .	4.7	160
9	Entropic cosmology: A unified model of inflation and late-time acceleration. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 690, 213-219.	4.1	128
10	Cosmic duality in quintom Universe. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 646, 141-144.	4.1	125
11	Non-singular cosmology in a model of non-relativistic gravity. Journal of Cosmology and Astroparticle Physics, 2009, 2009, 020-020.	5.4	122
12	On perturbations of a quintom bounce. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 013.	5.4	118
13	Two field matter bounce cosmology. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 024-024.	5.4	114
14	Primordial Black Holes from Sound Speed Resonance during Inflation. Physical Review Letters, 2018, 121, 081306.	7.8	112
15	The matter bounce curvaton scenario. Journal of Cosmology and Astroparticle Physics, 2011, 2011, 003-003.	5.4	107
16	Anisotropy in a non-singular bounce. Classical and Quantum Gravity, 2013, 30, 075019.	4.0	103
17	Matter creation in a nonsingular bouncing cosmology. Physical Review D, 2014, 90, .	4.7	99
18	f gravity after GW170817 and GRB170817A. Physical Review D, 2018, 97, .	4.7	96

#	ARTICLE	IF	CITATIONS
19	Non-singular bounce scenarios in loop quantum cosmology and the effective field description. <i>Journal of Cosmology and Astroparticle Physics</i> , 2014, 2014, 026-026.	5.4	94
20	CONSTRAINTS ON THE SOUND SPEED OF DYNAMICAL DARK ENERGY. <i>International Journal of Modern Physics D</i> , 2008, 17, 1229-1243.	2.1	93
21	Model-independent Reconstruction of $f(T)$ Gravity from Gaussian Processes. <i>Astrophysical Journal</i> , 2020, 888, 62.	4.5	93
22	Non-Gaussianity in a matter bounce. <i>Journal of Cosmology and Astroparticle Physics</i> , 2009, 2009, 011-011.	5.4	92
23	A string-inspired quintom model of dark energy. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2007, 651, 1-7.	4.1	91
24	Inflation with multiple sound speeds: A model of multiple DBI type actions and non-Gaussianities. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2009, 677, 226-234.	4.1	90
25	Dark energy model with spinor matter and its quintom scenario. <i>Classical and Quantum Gravity</i> , 2008, 25, 165014.	4.0	88
26	When primordial black holes from sound speed resonance meet a stochastic background of gravitational waves. <i>Physical Review D</i> , 2019, 100, .	4.7	82
27	Primordial black holes and gravitational waves from resonant amplification during inflation. <i>Physical Review D</i> , 2020, 102, .	4.7	75
28	Evolution of metric perturbations in a model of nonsingular inflationary cosmology. <i>Journal of Cosmology and Astroparticle Physics</i> , 2009, 2009, 003-003.	5.4	71
29	Preheating a bouncing universe. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2011, 703, 25-33.	4.1	71
30	Hearing the echoes of electroweak baryogenesis with gravitational wave detectors. <i>Physical Review D</i> , 2016, 94, .	4.7	71
31	Bounce and cyclic cosmology in extended nonlinear massive gravity. <i>Journal of Cosmology and Astroparticle Physics</i> , 2012, 2012, 048-048.	5.4	70
32	Revisiting non-Gaussianity from non-attractor inflation models. <i>Journal of Cosmology and Astroparticle Physics</i> , 2018, 2018, 012-012.	5.4	70
33	Black holes in an asymptotically safe gravity theory with higher derivatives. <i>Journal of Cosmology and Astroparticle Physics</i> , 2010, 2010, 002-002.	5.4	67
34	Charged black holes in nonlinear massive gravity. <i>Physical Review D</i> , 2013, 87, .	4.7	66
35	Interpreting cosmological tensions from the effective field theory of torsional gravity. <i>Physical Review D</i> , 2020, 101, .	4.7	66
36	An extended matter bounce scenario: current status and challenges. <i>General Relativity and Gravitation</i> , 2015, 47, 1.	2.0	65

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37	Primordial black holes from sound speed resonance in the inflaton-curvaton mixed scenario. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 068-068.	5.4	62
38	Bouncing Cosmologies with Dark Matter and Dark Energy. <i>Universe</i> , 2017, 3, 1.	2.5	61
39	Primordial perturbations with a modified dispersion relation. <i>Physical Review D</i> , 2009, 80, .	4.7	60
40	Model of inflationary cosmology without singularity. <i>Physical Review D</i> , 2009, 79, .	4.7	59
41	A Λ CDM bounce scenario. <i>Journal of Cosmology and Astroparticle Physics</i> , 2015, 2015, 006-006.	5.4	59
42	Probing primordial gravitational waves: Ali CMB Polarization Telescope. <i>National Science Review</i> , 2019, 6, 145-154.	9.5	59
43	Inflation in entropic cosmology: Primordial perturbations and non-Gaussianities. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2011, 697, 280-287.	4.1	57
44	Evolution of cosmological perturbations and the production of non-Gaussianities through a nonsingular bounce: Indications for a no-go theorem in single field matter bounce cosmologies. <i>Physical Review D</i> , 2015, 92, .	4.7	56
45	Oscillating universe with quintom matter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2008, 666, 212-217.	4.1	55
46	Searching for an exotic spin-dependent interaction with a single electron-spin quantum sensor. <i>Nature Communications</i> , 2018, 9, 739.	12.8	54
47	The effective field theory approach of teleparallel gravity, $f(T)$ gravity and beyond. <i>Journal of Cosmology and Astroparticle Physics</i> , 2018, 2018, 001-001.	5.4	53
48	Warm Dirac-Born-Infeld inflation. <i>Physical Review D</i> , 2011, 83, .	4.7	52
49	Cyclic cosmology from Lagrange-multiplier modified gravity. <i>Classical and Quantum Gravity</i> , 2011, 28, 035010.	4.0	51
50	Cosmological perturbations in unimodular gravity. <i>Journal of Cosmology and Astroparticle Physics</i> , 2014, 2014, 021-021.	5.4	48
51	Thermal fluctuations and bouncing cosmologies. <i>Journal of Cosmology and Astroparticle Physics</i> , 2009, 2009, 037-037.	5.4	47
52	Nonsingular bouncing cosmologies in light of BICEP2. <i>Journal of Cosmology and Astroparticle Physics</i> , 2014, 2014, 033-033.	5.4	47
53	Asymptotically safe gravity as a scalar-tensor theory and its cosmological implications. <i>Physical Review D</i> , 2011, 84, .	4.7	45
54	Testing the equivalence principle via the shadow of black holes. <i>Physical Review Research</i> , 2020, 2, .	3.6	45

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55	N-flation from multiple DBI type actions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 680, 395-398.	4.1	43
56	Emergent universe scenario via Quintom matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 718, 248-254.	4.1	42
57	Evidence for Bouncing Evolution Before Inflation After BICEP2. Physical Review Letters, 2014, 112, 251301.	7.8	42
58	Radio broadcasts from superconducting strings. Physical Review D, 2012, 86, .	4.7	40
59	NANOGrav results and dark first order phase transitions. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	5.1	40
60	DBI-curvaton. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 671, 423-427.	4.1	39
61	Features from the non-attractor beginning of inflation. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 017-017.	5.4	39
62	GRID: a student project to monitor the transient gamma-ray sky in the multi-messenger astronomy era. Experimental Astronomy, 2019, 48, 77-95.	3.7	38
63	BOSS Correlation Function analysis from the Effective Field Theory of Large-Scale Structure. Journal of Cosmology and Astroparticle Physics, 2022, 2022, 036.	5.4	38
64	On the possibility of blue tensor spectrum within single field inflation. Nuclear Physics B, 2015, 900, 517-532.	2.5	36
65	DHOST bounce. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 002-002.	5.4	36
66	Data-driven reconstruction of the late-time cosmic acceleration with $\langle \text{mml:math display="inline" id="d1e500" altimg="si183.svg" \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \langle \text{mml:mo} \rangle \langle \text{mml:mi} \rangle T \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle \rangle \langle \text{mml:mo} \rangle \rangle$ gravity. Physics of the Dark Universe, 2021, 32, 100812.	4.9	36
67	Dirac-Born-Infeld realization of sound speed resonance mechanism for primordial black holes. Physical Review D, 2020, 102, .	4.7	35
68	Cosmic microwave background power asymmetry from primordial sound speed parameter. Physical Review D, 2014, 89, .	4.7	34
69	Bounce inflation cosmology with Standard Model Higgs boson. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 019-019.	5.4	34
70	Radio bursts from superconducting strings. Physical Review D, 2012, 85, .	4.7	32
71	Probing noncommutativity with inflationary gravitational waves. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 657, 1-9.	4.1	30
72	Testing quantum gravity effects with latest CMB observations. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 735, 108-111.	4.1	30

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73	Implications of the possible 21-cm line excess at cosmic dawn on dynamics of interacting dark energy. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 801, 135141.	4.1	30
74	cosmological implications. Physical Review D, 2014, 90, .	4.7	28
75	Cosmology of the spinor emergent universe and scale-invariant perturbations. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 731, 217-226.	4.1	28
76	Experimental simulation of the Unruh effect on an NMR quantum simulator. Science China: Physics, Mechanics and Astronomy, 2016, 59, 1.	5.1	28
77	Post-Newtonian parameters and cosmological constant of screened modified gravity. Physical Review D, 2016, 93, .	4.7	27
78	Matter bounce cosmology with a generalized single field: non-Gaussianity and an extended no-go theorem. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 031-031.	5.4	27
79	Cosmology of Chern-Simons modified gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 680, 118-124.	4.7	26
80	CPT violating electrodynamics and Chern-Simons modified gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 680, 118-124.	4.1	25
81	Dynamical analysis of the cosmology of mass-varying massive gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 721, 7-12.	4.1	25
82	Features and stability analysis of non-Schwarzschild black hole in quadratic gravity. Journal of High Energy Physics, 2016, 2016, 1.	4.7	25
83	Deflection angle and lensing signature of covariant f(R) gravity. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 062.	5.4	25
84	CYCLIC UNIVERSE WITH QUINTOM MATTER IN LOOP QUANTUM COSMOLOGY. Modern Physics Letters A, 2009, 24, 1237-1246.	1.2	23
85	Single field inflation with modulated potential in light of Planck and BICEP2. Physical Review D, 2014, 90, .	4.7	23
86	Constraints on a Spin-Dependent Exotic Interaction between Electrons with Single Electron Spin Quantum Sensors. Physical Review Letters, 2018, 121, 080402.	7.8	23
87	Large nonlocal non-Gaussianity from a curvaton brane. Physical Review D, 2010, 82, .	4.7	22
88	Searching for a matter bounce cosmology with low redshift observations. Physical Review D, 2016, 93, .	4.7	22
89	New test on general relativity and torsional gravity from galaxy-galaxy weak lensing surveys. Physical Review D, 2020, 102, .	4.7	22
90	Sound Speed Resonance of the Stochastic Gravitational-Wave Background. Physical Review Letters, 2021, 126, 071303.	7.8	22

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91	Scalar and tensor perturbations in DHOST bounce cosmology. <i>Journal of Cosmology and Astroparticle Physics</i> , 2021, 2021, 045.	5.4	22
92	Lee-Wick radiation induced bouncing universe models. <i>Physical Review D</i> , 2013, 87, .	4.7	21
93	Planck constraints on Higgs modulated reheating of renormalization group improved inflation. <i>Physical Review D</i> , 2013, 88, .	4.7	21
94	Searching for features of a string-inspired inflationary model with cosmological observations. <i>Physical Review D</i> , 2015, 92, .	4.7	21
95	Fast radio bursts from primordial black hole binaries coalescence. <i>Physical Review D</i> , 2018, 98, .	4.7	21
96	Rotating a curvaton brane in a warped throat. <i>Journal of Cosmology and Astroparticle Physics</i> , 2010, 2010, 001-001.	5.4	20
97	On dark energy models of single scalar field. <i>Journal of Cosmology and Astroparticle Physics</i> , 2012, 2012, 003-003.	5.4	20
98	Fermi-bounce cosmology and the fermion curvaton mechanism. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2015, 745, 97-104.	4.1	20
99	Gaussian Processes and Effective Field Theory of $f(T)$ Gravity under the H_{00} Tension. <i>Astrophysical Journal</i> , 2022, 932, 131.	4.5	20
100	Magnetogenesis in bouncing cosmology. <i>Physical Review D</i> , 2016, 94, .	4.7	19
101	Superconducting cosmic strings as sources of cosmological fast radio bursts. <i>European Physical Journal C</i> , 2017, 77, 1.	3.9	19
102	Inflation beyond T-models and primordial B-modes. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2014, 738, 20-24.	4.1	18
103	Tracing primordial black holes in nonsingular bouncing cosmology. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2017, 769, 561-568.	4.1	18
104	Emergent universe and Genesis from the DHOST cosmology. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	18
105	Cold dark matter isocurvature perturbations: Cosmological constraints and applications. <i>Physical Review D</i> , 2011, 83, .	4.7	16
106	Fluctuations in a cosmology with a spacelike singularity and their gauge theory dual description. <i>Physical Review D</i> , 2016, 94, .	4.7	16
107	Testing Dark Matter models with radio telescopes in light of gravitational wave astronomy. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2018, 782, 732-736.	4.1	16
108	Two-field cosmological phase transitions and gravitational waves in the singlet Majoron model. <i>European Physical Journal C</i> , 2019, 79, 1.	3.9	16

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109	Searching for the dark force with 21-cm spectrum in light of EDGES. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2019, 788, 70-75.	4.1	16
110	Experimental Constraint on an Exotic Parity-Odd Spin- and Velocity-Dependent Interaction with a Single Electron Spin Quantum Sensor. <i>Physical Review Letters</i> , 2021, 127, 010501.	7.8	16
111	Infrared divergence in inflationary tensor perturbations from fermion loops. <i>Physical Review D</i> , 2012, 86, .	4.7	14
112	Beating the Lyth Bound by Parametric Resonance during Inflation. <i>Physical Review Letters</i> , 2021, 127, 251301.	7.8	14
113	NULL ENERGY CONDITION AND DARK ENERGY MODELS. <i>Modern Physics Letters A</i> , 2008, 23, 2787-2798.	1.2	12
114	Parametric resonance of entropy perturbations in massless preheating. <i>International Journal of Modern Physics D</i> , 2015, 24, 1550082.	2.1	12
115	A possible interpretation of the Higgs mass by the cosmological attractive relaxion. <i>Chinese Physics C</i> , 2016, 40, 113103.	3.7	11
116	Probing the origin of our universe through primordial gravitational waves by Ali CMB project. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016, 59, 1.	5.1	11
117	Is noncommutative eternal inflation possible?. <i>Journal of Cosmology and Astroparticle Physics</i> , 2007, 2007, 022-022.	5.4	10
118	Dark energy perturbations revisited. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2011, 702, 5-11.	4.1	10
119	New model of axion monodromy inflation and its cosmological implications. <i>Journal of Cosmology and Astroparticle Physics</i> , 2016, 2016, 027-027.	5.4	10
120	Differentiating G-inflation from string gas cosmology using the effective field theory approach. <i>Journal of Cosmology and Astroparticle Physics</i> , 2016, 2016, 040-040.	5.4	10
121	HIGGS BOSON IN RG RUNNING INFLATIONARY COSMOLOGY. <i>International Journal of Modern Physics D</i> , 2012, 21, 1250094.	2.1	9
122	Scale-dependent CMB power asymmetry from primordial speed of sound and a generalized \hat{N} formalism. <i>Journal of Cosmology and Astroparticle Physics</i> , 2016, 2016, 019-019.	5.4	9
123	Evading the theoretical no-go theorem for nonsingular bounces in Horndeski/Galileon cosmology. <i>Classical and Quantum Gravity</i> , 2019, 36, 135009.	4.0	9
124	Numerical Study of Inflationary Preheating with Arbitrary Power-law Potential and a Realization of Curvaton Mechanism. <i>Astrophysical Journal</i> , 2019, 876, 136.	4.5	9
125	BOSS full-shape analysis from the EFTofLSS with exact time dependence. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 031.	5.4	9
126	New test on the Einstein equivalence principle through the photon ring of black holes. <i>Physical Review D</i> , 2021, 104, .	4.7	7

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127	Hawking's "Moss tunneling in non-commutative eternal inflation. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 001.	5.4	6
128	Testing the scale-dependent hemispherical asymmetry with the 21-cm power spectrum from the epoch of reionization. Monthly Notices of the Royal Astronomical Society, 2019, 487, 5564-5571.	4.4	6
129	Probing new physics with multi-vacua quantum tunnelings beyond standard model through gravitational waves. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 812, 136026.	4.1	6
130	Testing the Lorentz and CPT symmetry with CMB polarizations and a non-relativistic Maxwell theory. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 017-017.	5.4	5
131	Searching for an exotic spin-dependent interaction between electrons at the nanometer scale with molecular rulers. Physical Review D, 2020, 101, .	4.7	5
132	Ultrahigh-energy gamma rays and gravitational waves from primordial exotic stellar bubbles. European Physical Journal C, 2022, 82, .	3.9	5
133	Dark matter and baryogenesis in the Fermi-bounce curvaton mechanism. Chinese Physics C, 2018, 42, 065101.	3.7	4
134	Updated constraints on superconducting cosmic strings from the astronomy of fast radio bursts. European Physical Journal C, 2020, 80, 1.	3.9	4
135	Measuring the Gravitomagnetic Distortion from Rotating Halos. I. Methods. Astrophysical Journal, 2021, 911, 44.	4.5	4
136	Nonsingular cosmology from an unstable Higgs field. International Journal of Modern Physics D, 2017, 26, 1740006.	2.1	2
137	Cosmology of $f(T)$ Teleparallel Gravity. , 2017, , .		0
138	Henry Tye: the future of theoretical physics and advice to young researchers. National Science Review, 2021, 8, nwab074.	9.5	0
139	New perspectives of our universe—Thoughts about the 2019 Nobel Prize in Physics. Chinese Science Bulletin, 2019, 64, 3793-3797.	0.7	0