David F Mota

List of Publications by Year
in descending order

107 papers	8,915 citations	41258 49 h-index	39575 94 g-index
108 all docs	108 docs citations	108 times ranked	3273 citing authors

#	Article	IF	Citations
1	In the realm of the Hubble tensionâ€”a review of solutions [*]. Classical and Quantum Gravity, 2021, 38, 153001.	1.5	816
2	Cosmology and Fundamental Physics with the Euclid Satellite. Living Reviews in Relativity, 2013, 16, 6.	8.2	683
3	Cosmology and fundamental physics with the Euclid satellite. Living Reviews in Relativity, 2018, 21, 2.	8.2	602
4	Cosmology intertwined: A review of the particle physics, astrophysics, and cosmology associated with the cosmological tensions and anomalies. Journal of High Energy Astrophysics, 2022, 34, 49-211.	2.4	350
5	Evading equivalence principle violations, cosmological, and other experimental constraints in scalar field theories with a strong coupling to matter. Physical Review D, 2007, 75, .	1.6	308
6	Cosmology of modified Gauss-Bonnet gravity. Physical Review D, 2007, 76, .	1.6	247
7	Dark energy anisotropic stress and large scale structure formation. Physical Review D, 2006, 73, .	1.6	242
8	Tale of stable interacting dark energy, observational signatures, and the H₀ tension. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 019-019.	1.9	237
9	Vector field models of inflation and dark energy. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 021.	1.9	228
10	Snowmass2021 - Letter of interest cosmology intertwined II: The hubble constant tension. Astroparticle Physics, 2021, 131, 102605.	1.9	228
11	Cosmology and astrophysical constraints of Gaussâ€“Bonnet dark energy. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 644, 104-108.	1.5	210
12	Varying alpha in a more realistic universe. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 581, 141-146.	1.5	184
13	Cosmology intertwined III: <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si4.svg"><mml:mrow><mml:mi>f</mml:mi><mml:msub><mml:mi>Ïƒ</mml:mi><mml:mn>8</mml:mn></mml:msub></mml:mr and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.svg"><mml:msub><mml:mi>S</mml:mi><mml:mn>8</mml:mn></mml:msub></mml:math>. Astroparticle Physics, 2021, 131, 102604.	1.9	182
14	Strongly Coupled Chameleon Fields: New Horizons in Scalar Field Theory. Physical Review Letters, 2006, 97, 151102.	2.9	174
15	Gauss-Bonnet quintessence: Background evolution, large scale structure, and cosmological constraints. Physical Review D, 2007, 75, .	1.6	174
16	Screening Modifications of Gravity Through Disformally Coupled Fields. Physical Review Letters, 2012, 109, 241102.	2.9	161
17	Anisotropic dark energy: dynamics of the background and perturbations. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 018.	1.9	151
18	Accelerating Cosmologies with an Anisotropic Equation of State. Astrophysical Journal, 2008, 679, 1-5.	1.6	149

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19	Local and global variations of the fine-structure constant. Monthly Notices of the Royal Astronomical Society, 2004, 349, 291-302.	1.6	128
20	Detecting chameleons through Casimir force measurements. Physical Review D, 2007, 76, .	1.6	112
21	DBI Galileons in the Einstein frame: Local gravity and cosmology. Physical Review D, 2013, 87, .	1.6	111
22	Constraining dark energy anisotropic stress. Monthly Notices of the Royal Astronomical Society, 2007, 382, 793-800.	1.6	108
23	Bimetric gravity doubly coupled to matter: theory and cosmological implications. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 046-046.	1.9	104
24	Modified gravityN-body code comparison project. Monthly Notices of the Royal Astronomical Society, 2015, 454, 4208-4234.	1.6	104
25	Inhomogeneous gravity. Monthly Notices of the Royal Astronomical Society, 2005, 358, 601-613.	1.6	102
26	Releasing Scalar Fields: Cosmological Simulations of Scalar-Tensor Theories for Gravity Beyond the Static Approximation. Physical Review Letters, 2013, 110, 161101.	2.9	100
27	ISIS: a newN-body cosmological code with scalar fields based on RAMSES. Astronomy and Astrophysics, 2014, 562, A78.	2.1	96
28	STRUCTURE FORMATION IN THE SYMMETRON MODEL. Astrophysical Journal, 2012, 748, 61.	1.6	89
29	Inflation from N-forms and its stability. Journal of High Energy Physics, 2009, 2009, 092-092.	1.6	81
30	Multiple inflation, cosmic string networks and the string landscape. Journal of High Energy Physics, 2005, 2005, 067-067.	1.6	79
31	Cosmology of a scalar field coupled to matter and an isotropy-violating Maxwell field. Journal of High Energy Physics, 2012, 2012, 1.	1.6	79
32	Listening to the sound of dark sector interactions with gravitational wave standard sirens. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 037-037.	1.9	77
33	Neutrino dark energyâ€"revisiting the stability issue. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 026.	1.9	75
34	Chameleons with field-dependent couplings. Physical Review D, 2010, 82, .	1.6	75
35	Cosmology of Ricci-tensor-squared gravity in the Palatini variational approach. Physical Review D, 2007, 76, .	1.6	72
36	Testing chameleon theories with light propagating through a magnetic field. Physical Review D, 2007, 76, .	1.6	70

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37	Dark spinor models in gravitation and cosmology. Journal of High Energy Physics, 2010, 2010, 1.	1.6	70
38	Inflation with stable anisotropic hair: is it cosmologically viable?. Journal of High Energy Physics, 2011, 2011, 1.	1.6	70
39	Detecting a Lorentz-violating field in cosmology. Physical Review D, 2008, 77, .	1.6	69
40	Novel approach toward the large-scale stable interacting dark-energy models and their astronomical bounds. Physical Review D, 2017, 96, .	1.6	64
41	Matter instabilities in general Gauss-Bonnet gravity. Physical Review D, 2010, 81, .	1.6	62
42	Dark calling dark: interaction in the dark sector in presence of neutrino properties after Planck CMB final release. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 008-008.	1.9	60
43	Chameleon dark energy models with characteristic signatures. Physical Review D, 2010, 82, .	1.6	58
44	Cosmological simulations of screened modified gravity out of the static approximation: Effects on matter distribution. Physical Review D, 2014, 89, .	1.6	58
45	Effects of anisotropic stress in interacting dark matter â€“ dark energy scenarios. Monthly Notices of the Royal Astronomical Society, 2019, 482, 1858-1871.	1.6	58
46	Do we have any hope of detecting scattering between dark energy and baryons through cosmology?. Monthly Notices of the Royal Astronomical Society, 2020, 493, 1139-1152.	1.6	58
47	Effects of neutrino mass hierarchies on dynamical dark energy models. Physical Review D, 2017, 95, .	1.6	56
48	N-BODY SIMULATIONS FOR EXTENDED QUINTESSENCE MODELS. Astrophysical Journal, 2011, 728, 109.	1.6	55
49	Cosmology of the selfaccelerating third order Galileon. Journal of High Energy Physics, 2010, 2010, 1.	1.6	51
50	Microscopic and macroscopic behaviors of Palatini modified gravity theories. Physical Review D, 2008, 78, .	1.6	49
51	On the Magnitude of Dark Energy Voids and Overdensities. Astrophysical Journal, 2008, 675, 29-48.	1.6	49
52	Gauge-invariant perturbations of varying-alpha cosmologies. Classical and Quantum Gravity, 2003, 20, 2045-2062.	1.5	45
53	Hidden in the light: Magnetically induced afterglow from trapped chameleon fields. Physical Review D, 2008, 77, .	1.6	42
54	ENVIRONMENT DEPENDENCE OF DARK MATTER HALOS IN SYMMETRON MODIFIED GRAVITY. Astrophysical Journal, 2012, 756, 166.	1.6	42

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55	Possibility of anisotropic curvature in cosmology. Physical Review D, 2011, 83, .	1.6	40
56	Snowmass2021 - Letter of interest cosmology intertwined IV: The age of the universe and its curvature. Astroparticle Physics, 2021, 131, 102607.	1.9	39
57	Probing dark energy at galactic and cluster scales. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 006.	1.9	38
58	Modeling void abundance in modified gravity. Physical Review D, 2017, 95, .	1.6	36
59	Extrasolar planets as a probe of modified gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 769, 485-490.	1.5	36
60	Dawn of the dark: unified dark sectors and the EDGES Cosmic Dawn 21-cm signal. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 044-044.	1.9	36
61	Future constraints on dynamical dark-energy using gravitational-wave standard sirens. Physical Review D, 2019, 100, .	1.6	35
62	Screening vector field modifications of general relativity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 725, 212-217.	1.5	32
63	Hydrodynamic effects in the symmetron and f(R)-gravity models. Monthly Notices of the Royal Astronomical Society, 2015, 449, 3635-3644.	1.6	32
64	Constraining entropic cosmology. Journal of Cosmology and Astroparticle Physics, 2011, 2011, 027-027.	1.9	31
65	Cosmic voids in modified gravity scenarios. Astronomy and Astrophysics, 2019, 632, A52.	2.1	31
66	Qualitative analysis of universes with varying alpha. Classical and Quantum Gravity, 2002, 19, 6197-6212.	1.5	30
67	CMB statistics in noncommutative inflation. Journal of High Energy Physics, 2011, 2011, 1.	1.6	29
68	On structure formation from a small-scales-interacting dark sector. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 042-042.	1.9	29
69	Breaking the Vainshtein screening in clusters of galaxies. Physical Review D, 2017, 95, .	1.6	25
70	An Improved Semianalytical Spherical Collapse Model for Nonlinear Density Evolution. Astrophysical Journal, Supplement Series, 2008, 174, 277-281.	3.0	24
71	Gravitational redshift profiles in thef(R)and symmetron models. Astronomy and Astrophysics, 2014, 562, A9.	2.1	24
72	Shape of Clusters of Galaxies as a Probe of Screening Mechanisms in Modified Gravity. Physical Review Letters, 2013, 110, 151104.	2.9	21

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73	Cosmological direct detection of dark energy: Non-linear structure formation signatures of dark energy scattering with visible matter. Monthly Notices of the Royal Astronomical Society, 2022, 512, 1885-1905.	1.6	21
74	Indistinguishable macroscopic behaviour of Palatini gravities and general relativity. Classical and Quantum Gravity, 2009, 26, 055018.	1.5	20
75	Scalar perturbations in f(T) gravity using the $$1 + 3$$ covariant approach. European Physical Journal C, 2020, 80, 1.	1.4	20
76	Cosmology with the Einstein telescope: No Slip Gravity model and redshift specifications. Monthly Notices of the Royal Astronomical Society, 2021, 502, 5563-5575.	1.6	20
77	Dark matter haloes in modified gravity and dark energy: interaction rate, small- and large-scale alignment. Monthly Notices of the Royal Astronomical Society, 2017, 468, 3174-3183.	1.6	19
78	No need for dark matter in galaxy clusters within Galileon theory. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 033-033.	1.9	17
79	VARYING ALPHA FROMN-BODY SIMULATIONS. Astrophysical Journal, 2011, 728, 108.	1.6	15
80	COSMOLOGY OF CHAMELEONS WITH POWER-LAW COUPLINGS. Astrophysical Journal, 2011, 733, 7.	1.6	15
81	Spatial variations of the fine-structure constant in symmetron models. Physical Review D, 2014, 89, .	1.6	15
82	Halo collapse: virialization by shear and rotation in dynamical dark-energy models. Effects on weak-lensing peaks. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 060-060.	1.9	15
83	Mass-temperature relation in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="normal">Î›</mml:mi><mml:mi>CDM</mml:mi></mml:math> and modified gravity. Physical Review D, 2019, 100, .	1.6	15
84	ISW-LSS CROSS-CORRELATION IN COUPLED DARK ENERGY MODELS WITH MASSIVE NEUTRINOS. Astrophysical Journal, 2012, 744, 3.	1.6	11
85	Breaking cosmic degeneracies: Disentangling neutrinos and modified gravity with kinematic information. Astronomy and Astrophysics, 2019, 629, A46.	2.1	11
86	Screenings in modified gravity: a perturbative approach. Astronomy and Astrophysics, 2019, 622, A62.	2.1	11
87	Forecast constraints on anisotropic stress in dark energy using gravitational waves. Monthly Notices of the Royal Astronomical Society, 2020, 497, 879-893.	1.6	11
88	Probing scalar tensor theories for gravity in redshift space. Astronomy and Astrophysics, 2016, 592, A38.	2.1	10
89	Testing alternative theories of dark matter with the CMB. Physical Review D, 2008, 78, .	1.6	9
90	Evolution of the chameleon scalar field in the early universe. Physical Review D, 2012, 86, .	1.6	8

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91	Nonzero Density-Velocity Consistency Relations for Large Scale Structures. Physical Review Letters, 2016, 117, 081301.	2.9	8
92	N-body simulations ofÎ³gravity. Astronomy and Astrophysics, 2016, 587, A132.	2.1	7
93	Spherical collapse and cluster number counts in dark energy models disformally coupled to dark matter. Physical Review D, 2018, 98, .	1.6	7
94	Turnaround radius in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="normal">Î›</mml:mi><mml:mi>CDM</mml:mi></mml:math> and dark matter cosmologies with shear and vorticity. Physical Review D, 2020, 101, .	1.6	7
95	Probing modified gravity in cosmic filaments. Astronomy and Astrophysics, 2018, 619, A122.	2.1	6
96	Screening mechanisms in hybrid metric-Palatini gravity. Physical Review D, 2018, 97, .	1.6	6
97	MATTER INSTABILITIES IN GENERAL GAUSS-BONNET GRAVITY. Modern Physics Letters A, 2010, 25, 885-899.	0.5	5
98	Wave propagation in modified gravity. Physical Review D, 2016, 93, .	1.6	5
99	The dynamics of the local group as a probe of Dark Energy and Modified Gravity. Monthly Notices of the Royal Astronomical Society, 0, , stx056.	1.6	5
100	Inflationary constraints in teleparallel gravity theory. International Journal of Geometric Methods in Modern Physics, 2021, 18, 2150027.	0.8	5
101	No slip gravity in light of LISA standard sirens. Monthly Notices of the Royal Astronomical Society, 2022, 514, 1274-1281.	1.6	5
102	Cosmic microwave background anomalies from imperfect dark energy. Astronomy and Astrophysics, 2014, 564, A113.	2.1	3
103	Probing screened modified gravity with nonlinear structure formation. International Journal of Modern Physics D, 2018, 27, 1830003.	0.9	3
104	Degeneracies between modified gravity and baryonic physics. Astronomy and Astrophysics, 2018, 615, A134.	2.1	3
105	Accelerating universe in modified teleparallel gravity theory. Proceedings of the International Astronomical Union, 2019, 15, 397-399.	0.0	3
106	Non-linear phenomenology of disformally coupled quintessence. Monthly Notices of the Royal Astronomical Society, 2020, 491, 1868-1886.	1.6	2
107	Nonlinear structure formation in gravity theories beyond general relativity. Modern Physics Letters A, 2016, 31, 1640007.	0.5	0