John K Webb

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2396707/publications.pdf

Version: 2024-02-01

142 papers	7,755 citations	66343 42 h-index	51608 86 g-index
142 all docs	142 docs citations	142 times ranked	2625 citing authors

#	Article	IF	Citations
1	Further Evidence for Cosmological Evolution of the Fine Structure Constant. Physical Review Letters, 2001, 87, 091301.	7.8	663
2	Search for Time Variation of the Fine Structure Constant. Physical Review Letters, 1999, 82, 884-887.	7.8	636
3	Further evidence for a variable fine-structure constant from Keck/HIRES QSO absorption spectra. Monthly Notices of the Royal Astronomical Society, 2003, 345, 609-638.	4.4	441
4	Indications of a Spatial Variation of the Fine Structure Constant. Physical Review Letters, 2011, 107, 191101.	7.8	386
5	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.	6.7	350
6	Possible evidence for a variable fine-structure constant from QSO absorption lines: motivations, analysis and results. Monthly Notices of the Royal Astronomical Society, 2001, 327, 1208-1222.	4.4	290
7	Space-Time Variation of Physical Constants and Relativistic Corrections in Atoms. Physical Review Letters, 1999, 82, 888-891.	7.8	258
8	Calculations of the relativistic effects in many-electron atoms and space-time variation of fundamental constants. Physical Review A, 1999, 59, 230-237.	2.5	241
9	The gaseous extent of galaxies and the origin of Lyman-alpha absorption systems: A survey of galaxies in the fields of Hubble Space Telescope spectroscopic target QSOs. Astrophysical Journal, 1995, 442, 538.	4.5	237
10	Spatial variation in the fine-structure constant - new results from VLT/UVES. Monthly Notices of the Royal Astronomical Society, 2012, 422, 3370-3414.	4.4	217
11	Is there deuterium in the Formula Complex in the Spectrum of Formula?. Monthly Notices of the Royal Astronomical Society, 1994, 268, L1-L4.	4.4	159
12	The Origin of CivAbsorption Systems at Redshiftsz< 1: Discovery of Extended CivEnvelopes around Galaxies. Astrophysical Journal, 2001, 556, 158-163.	4.5	141
13	The Gaseous Extent of Galaxies and the Origin of LyÎ± Absorption Systems. III.HubbleSpaceTelescopeImaging of LyÎ±â€absorbing Galaxies atz< 1. Astrophysical Journal, 1998, 498, 77-94.	4.5	137
14	A high deuterium abundance at redshift z = 0.7. Nature, 1997, 388, 250-252.	27.8	133
15	Evidence for structure in the H I column density distribution of QSO absorbers. Monthly Notices of the Royal Astronomical Society, 1993, 262, 499-505.	4.4	132
16	The Gaseous Extent of Galaxies and the Origin of LyÎ± Absorption Systems. V. Optical and Nearâ€Infrared Photometry of LyÎ±â€absorbing Galaxies atzâ€‰<â€‰1. Astrophysical Journal, 2001, 559, 654-674.	4.5	125
17	Further constraints on variation of the fine-structure constant from alkali-doublet QSO absorption lines. Monthly Notices of the Royal Astronomical Society, 2001, 327, 1237-1243.	4.4	114
18	Possible evidence for a variable fine-structure constant from QSO absorption lines: systematic errors. Monthly Notices of the Royal Astronomical Society, 2001, 327, 1223-1236.	4.4	107

#	Article	IF	Citations
19	Revision of VLT/UVES constraints on a varying fine-structure constant. Monthly Notices of the Royal Astronomical Society, 2008, 384, 1053-1062.	4.4	104
20	Improved constraints on possible variation of physical constants from H I 21-cm and molecular QSO absorption lines. Monthly Notices of the Royal Astronomical Society, 2001, 327, 1244-1248.	4.4	100
21	Constraining Variationsin the Fine-Structure Constant, Quark Massesand the Strong Interaction. Lecture Notes in Physics, 2004, , 131-150.	0.7	96
22	Stringent Null Constraint on Cosmological Evolution of the Proton-to-Electron Mass Ratio. Physical Review Letters, 2008, 101, 251304.	7.8	96
23	New limits on the possible variation of physical constants. Monthly Notices of the Royal Astronomical Society, 1998, 295, 457-462.	4.4	85
24	Comment on â€œLimits on the Time Variation of the Electromagnetic Fine-Structure Constant in the Low Energy Limit from Absorption Lines in the Spectra of Distant Quasarsâ€• Physical Review Letters, 2007, 99, 239001.	7.8	84
25	Selection of ThAr lines for wavelength calibration of echelle spectra and implications for variations in the fine-structure constant. Monthly Notices of the Royal Astronomical Society, 2007, 378, 221-230.	4.4	79
26	High-redshift QSO absorbing clouds and the background ionizing source. Astrophysical Journal, 1987, 319, 709.	4.5	79
27	Inconstant Constants. Scientific American, 2005, 292, 56-63.	1.0	71
28	Deuterium/hydrogen in a new Lyman limit absorption system atz= 3.256 towards PKS1937â˜'1009. Monthly Notices of the Royal Astronomical Society, 2004, 355, 1042-1052.	4.4	69
29	Limits on Variations in Fundamental Constants from 21-cm and Ultraviolet Quasar Absorption Lines. Physical Review Letters, 2005, 95, 041301.	7.8	68
30	The high-redshift deuterium abundance: the z = 3.086 absorption complex towards Q 0420-388. Monthly Notices of the Royal Astronomical Society, 1996, 278, 506-518.	4.4	62
31	A survey for redshifted molecular and atomic absorption lines - II. Associated Hâ€fi, OH and millimetre lines in thezâ‰³ 3 Parkes quarter-Jansky flat-spectrum sample. Monthly Notices of the Royal Astronomical Society, 2008, 391, 765-784.	4.4	59
32	The Lyman forest of 0014 + 813. Astrophysical Journal, 1992, 390, 387.	4.5	59
33	Does the fine structure constant vary? A third quasar absorption sample consistent with varying Î±. Astrophysics and Space Science, 2003, 283, 565-575.	1.4	56
34	High-resolution spectroscopy of Q1100 - 264 again. Astrophysical Journal, 1991, 371, 36.	4.5	56
35	New constraint on cosmological variation of the proton-to-electron mass ratio from Q0528â˜'250. Monthly Notices of the Royal Astronomical Society, 2011, 417, 3010-3024.	4.4	53
36	A survey for redshifted molecular and atomic absorption lines - I. The Parkes half-Jansky flat-spectrum red quasar sample. Monthly Notices of the Royal Astronomical Society, 2006, 371, 431-443.	4.4	52

#	Article	IF	Citations
37	The remarkable broad absorption line QSO 0059-2735 with extensive Fe II absorption. Astrophysical Journal, 1987, 323, 263.	4.5	48
38	Spin temperatures and covering factors for Hâ€ƒi 21-cm absorption in damped LymanÎ±systems. Monthly Notices of the Royal Astronomical Society, 2005, 356, 1509-1518.	4.4	47
39	The University of New South Wales Extrasolar Planet Search: methods and first results from a field centred on NGC 6633. Monthly Notices of the Royal Astronomical Society, 2005, 360, 703-717.	4.4	47
40	Probing variations in fundamental constants with radio and optical quasar absorption-line observations. Monthly Notices of the Royal Astronomical Society, 2007, 374, 634-646.	4.4	47
41	A robust deuterium abundance; re-measurement of the zÂ=Â3.256 absorption system towards the quasar PKS 1937â˜'101. Monthly Notices of the Royal Astronomical Society, 2015, 447, 2925-2936.	4.4	47
42	Does the fine structure constant vary? A detailed investigation into systematic effects. Astrophysics and Space Science, 2003, 283, 577-582.	1.4	45
43	The connection between metallicity and metal-line kinematics in (sub-)damped LyÎ± systems. Monthly Notices of the Royal Astronomical Society, 2007, 376, 673-681.	4.4	45
44	Four direct measurements of the fine-structure constant 13 billion years ago. Science Advances, 2020, 6, .	10.3	45
45	Precise laboratory wavelengths of the Mg I and Mg II resonance transitions at 2853, 2803 and 2796 A. Monthly Notices of the Royal Astronomical Society, 1998, 300, 131-134.	4.4	40
46	Damped Lyalpha Absorption Associated with an Early-Type Galaxy at Redshift z=0.16377.. Astronomical Journal, 1997, 114, 1337.	4.7	36
47	Is there further evidence for spatial variation of fundamental constants?. Physical Review D, 2011, 83, .	4.7	35
48	The detectability of Hâ€ƒi 21-cm absorption in damped Lyman Î± systems. Monthly Notices of the Royal Astronomical Society, 2006, 371, 356-362.	4.4	34
49	Redshifted Hâ€ƒi and OH absorption in radio galaxies and quasars. Monthly Notices of the Royal Astronomical Society, 2011, 413, 1165-1173.	4.4	34
50	A precise deuterium abundance: remeasurement of the zÂ=Â3.572 absorption system towards the quasar PKS1937â€“101. Monthly Notices of the Royal Astronomical Society, 2017, 468, 3239-3250.	4.4	34
51	Accurate laboratory wavelengths of some ultraviolet lines of Cr, Zn and Ni relevant to time variations of the fine structure constant. Monthly Notices of the Royal Astronomical Society, 2002, 319, 163-167.	4.4	33
52	Editorial: Reflections on Forty. Information Technology and Libraries, 2007, 26, 3.	0.9	32
53	The Gunn-Peterson effect and the H I column density distribution of Lyman alpha forest clouds at z = 4. Monthly Notices of the Royal Astronomical Society, 1992, 255, 319-324.	4.4	30
54	A re-analysis of the spectrum of QSO 2206 - 199. Monthly Notices of the Royal Astronomical Society, 1993, 260, 589-609.	4.4	30

#	Article	IF	Citations
55	A Catalogue of Damped Lyman Alpha Absorption Systems and Radio Flux Densities of the Background Quasars. Publications of the Astronomical Society of Australia, 2002, 19, 455-474.	3.4	29
56	A new era of fine structure constant measurements at high redshift. Monthly Notices of the Royal Astronomical Society, 2020, 500, 1-21.	4.4	28
57	Molecular fraction limits in damped Lyman Î± absorption systems. Monthly Notices of the Royal Astronomical Society, 2004, 352, 563-570.	4.4	27
58	New searches for Hâ€ƒi 21 cm in damped Lyman Î± absorption systems. Monthly Notices of the Royal Astronomical Society, 2010, 402, 35-45.	4.4	27
59	The primordial deuterium abundance at zabsÂ=Â2.504 from a high signal-to-noise spectrum of Q1009+2956. Monthly Notices of the Royal Astronomical Society, 2018, 477, 5536-5553.	4.4	26
60	Strong Clustering of High-Redshift LyÎ± Forest Absorption Systems. Astrophysical Journal, 1996, 460, .	4.5	26
61	Solutions to the tethered galaxy problem in an expanding universe and the observation of receding blueshifted objects. American Journal of Physics, 2003, 71, 358-364.	0.7	25
62	Detection of broad 21-cm absorption at zabs = 0.656 in the complex sight-line towards 3C 336. Monthly Notices of the Royal Astronomical Society: Letters, 2007, 381, L6-L10.	3.3	24
63	Artificial intelligence applied to the automatic analysis of absorption spectra. Objective measurement of the fine structure constant.. Monthly Notices of the Royal Astronomical Society, 0, , stx179.	4.4	24
64	Probing the Gravitational Dependence of the Fine-Structure Constant from Observations of White Dwarf Stars. Universe, 2017, 3, 32.	2.5	24
65	On measuring the deuterium abundance in QSO absorption systems. Monthly Notices of the Royal Astronomical Society, 1991, 250, 657-665.	4.4	23
66	The first high-amplitude Â Scuti star in an eclipsing binary system. Monthly Notices of the Royal Astronomical Society, 2007, 382, 239-244.	4.4	23
67	Relationships between the Hâ€ƒi 21-cm line strength, Mgâ€ƒii equivalent width and metallicity in damped Lyman Î± absorption systems. Monthly Notices of the Royal Astronomical Society, 2007, 382, 1331-1341.	4.4	23
68	Cosmological evolution of heavy-element andH2abundances. Monthly Notices of the Royal Astronomical Society, 2004, 351, L24-L28.	4.4	22
69	H I and OH absorption in the lensing galaxy of MG J0414+0534. Monthly Notices of the Royal Astronomical Society: Letters, 2007, 382, L11-L15.	3.3	22
70	On the absence of molecular absorption in high-redshift millimetre-band searches. Monthly Notices of the Royal Astronomical Society, 2011, 416, 2143-2153.	4.4	22
71	The Gaseous Extent of Galaxies and the Origin of LyÎ± Absorption Systems. II. Identification of a Group or Cluster of LyÎ± Absorbing Galaxies at [ITAL]z[/ITAL] â‰ˆ 0.26. Astrophysical Journal, 1996, 456, .	4.5	22
72	Discovery of the Galaxy Proximity Effect and Implications for Measurements of the Ionizing Background Radiation at Low Redshifts. Astrophysical Journal, 2001, 560, 101-109.	4.5	21

#	Article	IF	Citations
73	Relativistic effects in Ni II and the search for variation of the fine-structure constant. Physical Review A, 2001, 63, .	2.5	21
74	Hyperfine structure of the ground state in singly ionized manganese. Monthly Notices of the Royal Astronomical Society, 2005, 364, 705-711.	4.4	21
75	A new detached K7 dwarf eclipsing binary system. Monthly Notices of the Royal Astronomical Society, 2006, 370, 1529-1533.	4.4	21
76	Precision and consistency of astrocombs. Monthly Notices of the Royal Astronomical Society, 2020, 493, 3997-4011.	4.4	21
77	Extensive dark-matter haloes in low-luminosity galaxies revealed by quasar absorption lines. Nature, 1995, 376, 321-323.	27.8	19
78	Microvariability and Long-Term Variability of Four Blazars. Astronomical Journal, 2004, 127, 17-23.	4.7	19
79	The University of New South Wales Extrasolar Planet Search: a catalogue of variable stars from fields observed between 2004 and 2007. Monthly Notices of the Royal Astronomical Society, 2008, 385, 1749-1763.	4.4	18
80	A new analysis of fine-structure constant measurements and modelling errors from quasar absorption lines. Monthly Notices of the Royal Astronomical Society, 2015, 454, 3082-3093.	4.4	18
81	Large-scale structure in the Lyman-Â forest--II. Analysis of a group of 10 QSOs. Monthly Notices of the Royal Astronomical Society, 2000, 311, 657-667.	4.4	17
82	Measuring space-time variation of the fundamental constants with redshifted submillimetre transitions of neutral carbon. Astronomy and Astrophysics, 2011, 533, A55.	5.1	15
83	Localized Hâ€ƒi 21-cm absorption towards a double-lobed z= 0.24 radio galaxy. Monthly Notices of the Royal Astronomical Society: Letters, 2011, 414, L26-L30.	3.3	14
84	Could We Detect O2 in the Atmosphere of a Transiting Extra-solar Earth-like Planet?. Publications of the Astronomical Society of Australia, 2001, 18, 252-258.	3.4	13
85	Evaluating the New Automatic Method for the Analysis of Absorption Spectra Using Synthetic Spectra. Universe, 2017, 3, 34.	2.5	13
86	Non-uniqueness in quasar absorption models and implications for measurements of the fine structure constant. Monthly Notices of the Royal Astronomical Society, 2021, 507, 27-42.	4.4	13
87	The heavy element abundance in the z = 2.076 absorption system towards the QSO 2206 â€“ 199N. Monthly Notices of the Royal Astronomical Society, 1990, 242, 698-703.	4.4	12
88	A search for inhomogeneities in the Lyman Î± forest. Monthly Notices of the Royal Astronomical Society, 1991, 250, 270-277.	4.4	12
89	A search for high-redshift molecular absorption lines towards millimetre-loud, optically faint quasars. Monthly Notices of the Royal Astronomical Society, 2003, 342, 830-836.	4.4	12
90	Optical and ultraviolet observations of 3C 279 during outburst. Astronomical Journal, 1994, 107, 904.	4.7	12

#	Article	IF	Citations
91	The multifrequency spectral evolution of blazar 3C 345. Astrophysical Journal, 1994, 422, 570.	4.5	12
92	VLA Imaging of a Sample of Steep-Spectrum Radio Galaxies. Astrophysical Journal, Supplement Series, 1996, 107, 175.	7.7	12
93	Observations of QSO J2233â^'606 in the Southern Hubble Deep Field. Astrophysical Journal, 1998, 499, L135-L138.	4.5	12
94	Measuring the fine structure constant on a white dwarf surface; a detailed analysis of FeÂV absorption in G191-B2B. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	12
95	Modelling long-range wavelength distortions in quasar absorption echelle spectra. Monthly Notices of the Royal Astronomical Society, 2017, , .	4.4	11
96	Artificial intelligence and quasar absorption system modelling; application to fundamental constants at high redshift. Monthly Notices of the Royal Astronomical Society, 2021, 504, 1787-1800.	4.4	11
97	The deuterium abundance in thez= 0.7 absorber towards QSO PG1718+4807. Monthly Notices of the Royal Astronomical Society, 2003, 345, 243-252.	4.4	9
98	Atomic Transition Frequencies, Isotope Shifts, and Sensitivity to Variation of the Fine Structure Constant for Studies of Quasar Absorption Spectra. Thirty Years of Astronomical Discovery With UKIRT, 2011, , 9-16.	0.3	9
99	Getting the model right: an information criterion for spectroscopy. Monthly Notices of the Royal Astronomical Society, 2021, 501, 2268-2278.	4.4	9
100	The Gaseous Extent of Galaxies and the Origin of LyÎ± Absorption Systems. IV. LyÎ± Absorbers Arising in a Galaxy Group. Astrophysical Journal, 1999, 523, 72-77.	4.5	8
101	Limits on heavy element abundances in QSO LyÂ absorption systems. Monthly Notices of the Royal Astronomical Society, 1989, 237, 635-652.	4.4	7
102	The effect of clustering on the equivalent width distribution of QSO Lyman-alpha clouds. Monthly Notices of the Royal Astronomical Society, 1991, 253, 207-211.	4.4	7
103	A FOURTH H I 21 cm ABSORPTION SYSTEM IN THE SIGHT LINE OF MG J0414+0534: A RECORD FOR INTERVENING ABSORBERS. Astrophysical Journal Letters, 2013, 772, L25.	8.3	7
104	A far-UV survey of three hot, metal-polluted white dwarf stars: WD0455â^'282, WD0621â^'376, and WD2211â^'495. Monthly Notices of the Royal Astronomical Society, 2019, 487, 3470-3487.	4.4	7
105	Precision in high resolution absorption line modelling, analytic Voigt derivatives, and optimization methods. Monthly Notices of the Royal Astronomical Society, 2021, 508, 3620-3633.	4.4	7
106	A method for detecting gravitational waves coincident with gamma-ray bursts. Monthly Notices of the Royal Astronomical Society, 2000, 316, 657-664.	4.4	6
107	A search for molecules in damped Lyman-alpha absorbers occulting millimetre-loud quasars. Astronomy and Astrophysics, 2002, 394, 763-768.	5.1	6
108	Editorial: I Keep My Eyes Wide Open All the Time. Information Technology and Libraries, 2006, 25, 3.	0.9	6

#	Article	IF	Citations
109	Constraining the magnetic field on white dwarf surfaces; Zeeman effects and fine structure constant variation. Monthly Notices of the Royal Astronomical Society, 2019, 485, 5050-5058.	4.4	6
110	Collections and systems: a new organizational paradigm for collection development. Library Collections Acquisitions and Technical Services, 2001, 25, 461-468.	0.1	5
111	A third H <scp>i</scp> 21-cm absorption system in the sight-line of MG J0414+0534: a redshift for Object X?. Monthly Notices of the Royal Astronomical Society: Letters, 2011, 413, L86-L90.	3.3	5
112	Avoiding Bias in Measurements of Fundamental Constants from High Resolution Quasar Spectra. Universe, 2022, 8, 266.	2.5	5
113	Editorial: First Have Something to Say. Information Technology and Libraries, 2005, 24, 3.	0.9	4
114	Origin of Metals around Galaxies. I. Catalogs of Metal-line Absorption Doublets from High-resolution Quasar Spectra. Astrophysical Journal, 2018, 862, 50.	4.5	4
115	The absorption spectra of Q1107+487 and Q1442+295. Astronomical Journal, 1995, 109, 1531.	4.7	4
116	Large-scale structure in the Lyman-alpha forest: a new technique. Monthly Notices of the Royal Astronomical Society, 1998, 301, 787-796.	4.4	3
117	Are the laws of nature changing with time?. Physics World, 2003, 16, 33-38.	0.0	3
118	A search for cosmological anisotropy using the Lyman alpha forest from SDSS quasar spectra. Monthly Notices of the Royal Astronomical Society, 2019, 489, 3966-3980.	4.4	3
119	The Gaseous Extent of Galaxies and the Origin of LyÎ± Absorption Systems. Globular Clusters - Guides To Galaxies, 1995, , 263-272.	0.1	3
120	Revisiting VLT/UVES Constraints on a Varying Fine-structure Constant. , 2008, , 95-99.		3
121	Spectral shape corrections for SDSS BOSS quasars. Astronomy and Astrophysics, 2021, 655, A53.	5.1	3
122	Addendum: Precision in high resolution absorption line modelling, analytic Voigt derivatives, and optimization methods. Monthly Notices of the Royal Astronomical Society, 2022, 511, 198-200.	4.4	3
123	The Red Bright Quasar Survey (RBQS). International Astronomical Union Colloquium, 1995, 148, 522-527.	0.1	2
124	Large-scale structure in the Lyman-Â forest: a new technique. Monthly Notices of the Royal Astronomical Society, 1998, 301, 787-796.	4.4	2
125	A 22-GHz search for molecular absorption at z Â 3 with the upgraded ATCA. Monthly Notices of the Royal Astronomical Society, 2003, 340, 139-142.	4.4	2
126	A walk in the Lyman-Î± forest. Nature, 1989, 338, 620-621.	27.8	1

#	Article	IF	Citations
127	Constraints on the Unseen Galaxy Population from the LyÎ± Forest. International Astronomical Union Colloquium, 1999, 171, 35-42.	0.1	1
128	Relativistic Corrections in Atoms and Space-Time Variation of the Fine Structure Constant. Lecture Notes in Physics, 2001, , 564-575.	0.7	1
129	Does the Fine Structure Constant Vary? A Third Quasar Absorption Sample Consistent with Varying Î±. , 2003, , 127-137.		1
130	Deep Searches for High Redshift Molecular Absorption. Highlights of Astronomy, 2005, 13, 845-847.	0.0	0
131	Searching for Extrasolar Planets from UNSW. Proceedings of the International Astronomical Union, 2005, 1, 193-198.	0.0	0
132	Editorial: Bottom Tech Trends. Information Technology and Libraries, 2005, 24, 98.	0.9	0
133	Editorial: Information Technology Dissonance. Information Technology and Libraries, 2005, 24, 156.	0.9	0
134	Editorial: A Confession, a Speculation, and a Farewell. Information Technology and Libraries, 2006, 25, 115.	0.9	0
135	Editorial: LITA and ITAL: Forty and Still Counting. Information Technology and Libraries, 2006, 25, 51.	0.9	0
136	Editorial: The Virtues of Deliberation. Information Technology and Libraries, 2007, 26, 3.	0.9	0
137	Editorial: Farewell and Thank You. Information Technology and Libraries, 2007, 26, 2.	0.9	0
138	Keck constraints on a varying fine-structure constant: wavelength calibration errors. Proceedings of the International Astronomical Union, 2009, 5, 315-315.	0.0	0
139	Markov Chain Monte Carlo methods applied to measuring the fine structure constant from quasar spectroscopy. Proceedings of the International Astronomical Union, 2009, 5, 318-318.	0.0	0
140	Evidence of Structure in the Lyman-Î± Forest. Globular Clusters - Guides To Galaxies, 1999, , 234-235.	0.1	0
141	The Hubble Deep Field-South QSO. Globular Clusters - Guides To Galaxies, 1999, , 278-279.	0.1	0
142	John D Barrow (1952â€“2020). Astronomy and Geophysics, 2020, 61, 6.11-6.12.	0.2	0