David Hysell

List of Publications by Year
in descending order

99 papers	2,482 citations	201674 27 h-index	214800 47 g-index
101 all docs	101 docs citations	101 times ranked	1277 citing authors

#	Article	IF	Citations
1	Comparison of COSMIC ionospheric measurements with groundâ€based observations and model predictions: Preliminary results. Journal of Geophysical Research, 2007, 112, .	3.3	266
2	Threeâ€dimensional simulation of the coupled Perkins and E_sâ€layer instabilities in the nighttime midlatitude ionosphere. Journal of Geophysical Research, 2009, 114, .	3.3	152
3	Collisional shear instability in the equatorialFregion ionosphere. Journal of Geophysical Research, 2004, 109, .	3.3	150
4	JULIA radar studies of equatorial spreadF. Journal of Geophysical Research, 1998, 103, 29155-29167.	3.3	136
5	Equatorial spread-F initiation: Post-sunset vortex, thermospheric winds, gravity waves. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 2416-2427.	1.6	124
6	Common volume coherent and incoherent scatter radar observations of mid-latitude sporadic E-layers and QP echoes. Annales Geophysicae, 2004, 22, 3277-3290.	1.6	76
7	Imaging radar observations and theory of type I and type II quasi-periodic echoes. Journal of Geophysical Research, 2002, 107, SIA 7-1.	3.3	67
8	Optimal aperture synthesis radar imaging. Radio Science, 2006, 41, n/a-n/a.	1.6	66
9	Radar imaging of equatorialFregion irregularities with maximum entropy interferometry. Radio Science, 1996, 31, 1567-1578.	1.6	59
10	Onset conditions for equatorial spreadFdetermined during EQUIS II. Geophysical Research Letters, 2005, 32, .	4.0	50
11	VHF radar and rocket observations of equatorial spreadFon Kwajalein. Journal of Geophysical Research, 1994, 99, 15065.	3.3	49
12	JULIA radar studies of electric fields in the equatorial electrojet. Geophysical Research Letters, 1997, 24, 1687-1690.	4.0	46
13	The 30 MHz imaging radar observations of auroral irregularities during the JOULE campaign. Journal of Geophysical Research, 2005, 110, .	3.3	46
14	Sporadic E layer observations over Arecibo using coherent and incoherent scatter radar: Assessing dynamic stability in the lower thermosphere. Journal of Geophysical Research, 2009, 114, .	3.3	46
15	Bottom-type scattering layers and equatorial spread <i>F</i>. Annales Geophysicae, 2004, 22, 4061-4069.	1.6	44
16	Threeâ€dimensional numerical simulation of equatorial F region plasma irregularities with bottomside shear flow. Journal of Geophysical Research, 2010, 115, .	3.3	44
17	Effects of large horizontal winds on the equatorial electrojet. Journal of Geophysical Research, 2002, 107, SIA 27-1-SIA 27-12.	3.3	41
18	Full profile incoherent scatter analysis at Jicamarca. Annales Geophysicae, 2008, 26, 59-75.	1.6	40

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19	A simulation study of coherent radar imaging. Radio Science, 2000, 35, 1129-1141.	1.6	39
20	Rocket and radar investigation of background electrodynamics and bottom-type scattering layers at the onset of equatorial spread <i>F</i>. Annales Geophysicae, 2006, 24, 1387-1400.	1.6	39
21	Imaging coherent scatter radar, incoherent scatter radar, and optical observations of quasiperiodic structures associated with sporadicElayers. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	36
22	Simulations of plasma clouds in the midlatitudeEregion ionosphere with implications for type I and type II quasiperiodic echoes. Journal of Geophysical Research, 2002, 107, SIA 17-1.	3.3	32
23	Major upwelling and overturning in the mid-latitude F region ionosphere. Nature Communications, 2018, 9, 3326.	12.8	32
24	High-resolution radar observations of daytime kilometer-scale wave structure in the equatorial electrojet. Journal of Geophysical Research, 1994, 99, 299.	3.3	31
25	Combined radar observations of equatorial electrojet irregularities at Jicamarca. Annales Geophysicae, 2007, 25, 457-473.	1.6	31
26	SAMI2â€PE: A model of the ionosphere including multistream interhemispheric photoelectron transport. Journal of Geophysical Research, 2012, 117, .	3.3	29
27	HF radar observations of decaying artificial field-aligned irregularities. Journal of Geophysical Research, 1996, 101, 26981-26993.	3.3	28
28	Topside measurements at Jicamarca during solar minimum. Annales Geophysicae, 2009, 27, 427-439.	1.6	27
29	InferringEregion electron density profiles at Jicamarca from Faraday rotation of coherent scatter. Journal of Geophysical Research, 2001, 106, 30371-30380.	3.3	24
30	High time and height resolution neutral wind profile measurements across the mesosphere/lower thermosphere region using the Arecibo incoherent scatter radar. Journal of Geophysical Research: Space Physics, 2014, 119, 2345-2358.	2.4	23
31	Dataâ€driven numerical simulations of equatorial spread F in the Peruvian sector. Journal of Geophysical Research: Space Physics, 2014, 119, 3815-3827.	2.4	22
32	High altitude large-scale plasma waves in the equatorial electrojet at twilight. Annales Geophysicae, 2004, 22, 4071-4076.	1.6	21
33	Shear flow effects at the onset of equatorial spreadF. Journal of Geophysical Research, 2006, 111, .	3.3	21
34	Comparing F region ionospheric irregularity observations from C/NOFS and Jicamarca. Geophysical Research Letters, 2009, 36, .	4.0	20
35	Equatorial spreadF-related currents: Three-dimensional simulations and observations. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	20
36	Threeâ€dimensional numerical simulations of equatorial spread F: Results and observations in the Pacific sector. Journal of Geophysical Research, 2012, 117, .	3.3	20

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37	Gravity wave effects on postsunset equatorial F region stability. Journal of Geophysical Research: Space Physics, 2014, 119, 5847-5860.	2.4	20
38	Electrostatic plasma turbulence in the topside equatorialFregion ionosphere. Journal of Geophysical Research, 2002, 107, SIA 1-1.	3.3	19
39	Inverting ionospheric radio occultation measurements using maximum entropy. Radio Science, 2007, 42, .	1.6	19
40	Observations of colocated optical and radar aurora. Journal of Geophysical Research, 2006, 111, .	3.3	18
41	Dynamic instability in the lower thermosphere inferred from irregular sporadic E layers. Journal of Geophysical Research, 2012, 117, .	3.3	18
42	Imaging radar observations of Farley Buneman waves during the JOULE II experiment. Annales Geophysicae, 2008, 26, 1837-1850.	1.6	17
43	Incoherent scatter experiments at Jicamarca using alternating codes. Radio Science, 2000, 35, 1425-1435.	1.6	16
44	Imaging radar observations and nonlocal theory of large-scale plasma waves in the equatorial electrojet. Annales Geophysicae, 2002, 20, 1167-1179.	1.6	16
45	Topside equatorial ionospheric density, temperature, and composition under equinox, low solar flux conditions. Journal of Geophysical Research: Space Physics, 2015, 120, 3899-3912.	2.4	16
46	Dataâ€driven numerical simulations of equatorial spread F in the Peruvian sector 3: Solstice. Journal of Geophysical Research: Space Physics, 2015, 120, 10,809.	2.4	15
47	Polarization of ellipticEregion plasma irregularities and implications for coherent radar backscatter from Farley-Buneman waves. Radio Science, 2006, 41, n/a-n/a.	1.6	13
48	Comparing VHF coherent scatter from the radar aurora with incoherent scatter and allâ€sky auroral imagery. Journal of Geophysical Research, 2012, 117, .	3.3	13
49	Implications of the equipotential field line approximation for equatorial spread F analysis. Geophysical Research Letters, 2012, 39, .	4.0	13
50	A multistatic HF beacon network for ionospheric specification in the Peruvian sector. Radio Science, 2016, 51, 392-401.	1.6	13
51	30 MHz radar observations of artificial E region field-aligned plasma irregularities. Annales Geophysicae, 2008, 26, 117-129.	1.6	12
52	Sporadic E ionization layers observed with radar imaging and ionospheric modification. Geophysical Research Letters, 2014, 41, 6987-6993.	4.0	12
53	Twoâ€Dimensional Maps of In Situ Ionospheric Plasma Flow Data Near Auroral Arcs Using Auroral Imagery. Journal of Geophysical Research: Space Physics, 2019, 124, 3036-3056.	2.4	12
54	Artificial E-region field-aligned plasma irregularities generated at pump frequencies near the second electron gyroharmonic. Annales Geophysicae, 2009, 27, 2711-2720.	1.6	11

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55	Excitation threshold and gyroharmonic suppression of artificialEregion field-aligned plasma density irregularities. Radio Science, 2010, 45, n/a-n/a.	1.6	11
56	Gravity Waveâ€Induced Ionospheric Irregularities in the Postsunset Equatorial Valley Region. Journal of Geophysical Research: Space Physics, 2017, 122, 11,579.	2.4	10
57	Sensitivity studies of equatorial topside electron and ion temperatures. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	9
58	Dataâ€driven numerical simulations of equatorial spread F in the Peruvian sector: 2. Autumnal equinox. Journal of Geophysical Research: Space Physics, 2014, 119, 6981-6993.	2.4	9
59	First artificial periodic inhomogeneity experiments at HAARP. Geophysical Research Letters, 2015, 42, 1297-1303.	4.0	9
60	Estimating the electron energy distribution during ionospheric modification from spectrographic airglow measurements. Journal of Geophysical Research, 2012, 117, .	3.3	8
61	Heaterâ€induced ionization inferred from spectrometric airglow measurements. Journal of Geophysical Research: Space Physics, 2014, 119, 2038-2045.	2.4	8
62	Implications of a heuristic model of auroral Farley Buneman waves and heating. Radio Science, 2013, 48, 527-534.	1.6	7
63	Ionospheric Specification and Space Weather Forecasting With an HF Beacon Network in the Peruvian Sector. Journal of Geophysical Research: Space Physics, 2018, 123, 6851-6864.	2.4	7
64	Overview of the Rocket Experiment for Neutral Upwelling Sounding Rocket 2 (RENU2). Geophysical Research Letters, 2020, 47, e2018GL081885.	4.0	7
65	Radar Investigation of Postsunset Equatorial Ionospheric Instability Over Kwajalein During Project WINDY. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027997.	2.4	7
66	Radar observations of thermal plasma oscillations in the ionosphere. Geophysical Research Letters, 2017, 44, 5301-5307.	4.0	6
67	The Case for Combining a Large Lowâ€Band Very High Frequency Transmitter With Multiple Receiving Arrays for Geospace Research: A Geospace Radar. Radio Science, 2019, 54, 533-551.	1.6	6
68	Apertureâ€Synthesis Radar Imaging With Compressive Sensing for Ionospheric Research. Radio Science, 2019, 54, 503-516.	1.6	6
69	Auroral ionospheric plasma flow extraction using subsonic retarding potential analyzers. Review of Scientific Instruments, 2020, 91, 094503.	1.3	6
70	Deep-Learning-Based Occupant Counting by Ambient RF Sensing. IEEE Sensors Journal, 2021, 21, 8564-8574.	4.7	6
71	A model of secondary Farley-Buneman waves in the auroral electrojet. Journal of Geophysical Research, 2006, 111, .	3.3	5
72	Improved electron density measurements at Jicamarca. Journal of Geophysical Research, 2007, 112, .	3.3	5

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73	Radar observations of artificial E-region field-aligned irregularities. Annales Geophysicae, 2009, 27, 2699-2710.	1.6	5
74	Sources of variability in equatorial topside ionospheric and plasmaspheric temperatures. Journal of Atmospheric and Solar-Terrestrial Physics, 2013, 103, 83-93.	1.6	5
75	Indoor Object Sensing Using Radio-Frequency Identification With Inverse Methods. IEEE Sensors Journal, 2022, 22, 11336-11344.	4.7	5
76	Highâ€altitude incoherentâ€scatter measurements at Jicamarca. Journal of Geophysical Research: Space Physics, 2017, 122, 2292-2299.	2.4	4
77	Transient Ionospheric Upflow Driven by Poleward Moving Auroral forms Observed During the Rocket Experiment for Neutral Upwelling 2 (RENU2) Campaign. Geophysical Research Letters, 2019, 46, 6297-6305.	4.0	4
78	VHF Imaging Radar Observations and Theory of Banded Midlatitude Sporadic E Ionization Layers. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029257.	2.4	4
79	Hybrid Plasma Simulations of Farleyâ€Buneman Instabilities in the Auroral Eâ€Region. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028379.	2.4	4
80	Topside measurements at Jicamarca during the 2019 â€•2020 deep solar minimum. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029695.	2.4	4
81	Improved spectral estimation of equatorial spread F through aperiodic pulsing and Bayesian inversion. Radio Science, 2008, 43, .	1.6	3
82	Xâ€mode suppression of artificial E region fieldâ€aligned plasma density irregularities. Radio Science, 2011, 46, .	1.6	3
83	Magnetic aspect sensitivity of 3-mF-region field-aligned plasma density irregularities over Jicamarca. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	3
84	Phase speed saturation of Farleyâ€Buneman waves due to stochastic, selfâ€induced fluctuations in the background flow. Journal of Geophysical Research: Space Physics, 2016, 121, 5785-5793.	2.4	3
85	Assessing Ionospheric Convection Estimates From Coherent Scatter From the Radio Aurora. Radio Science, 2018, 53, 1481-1491.	1.6	3
86	Radio Beacon and Radar Assessment and Forecasting ofÂEquatorial F Region Ionospheric Stability. Journal of Geophysical Research: Space Physics, 2019, 124, 9511-9524.	2.4	3
87	High Altitude Echoes From the Equatorial Topside Ionosphere During Solar Minimum. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028424.	2.4	3
88	Examining the Auroral Ionosphere in Three Dimensions Using Reconstructed 2D Maps of Auroral Data to Drive the 3D GEMINI Model. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029749.	2.4	3
89	On the theory of the incoherent scatter gyrolines. Radio Science, 2017, 52, 723-730.	1.6	2
90	Navigation and ionosphere characterization using highâ€frequency signals: Models and solution concepts. Navigation, Journal of the Institute of Navigation, 2021, 68, 353-367.	2.8	2

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91	Reexamining Xâ€mode suppression and fine structure in artificial E region fieldâ€aligned plasma density irregularities. Radio Science, 2013, 48, 482-490.	1.6	1
92	VHF Radar Images of Artificial Fieldâ€Aligned Ionospheric Irregularities in the Subauroral E Region. Radio Science, 2018, 53, 334-343.	1.6	1
93	Investigating Transport and Dissipation in the Subauroral E Region With Ionospheric Modification Experiments and Very High Frequency Radar Backscatter. Radio Science, 2019, 54, 245-253.	1.6	1
94	Anomalous Electron Temperature Increases in the Evening Equatorial Ionosphere. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028728.	2.4	1
95	Mapping Irregularities in the Postsunset Equatorial Ionosphere With an Expanded Network of HF Beacons. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029229.	2.4	1
96	Observations of sunlit N₂⁺ aurora at high altitudes during the RENU2 flight. Annales Geophysicae, 2021, 39, 849-859.	1.6	1
97	Planned Science and Scientific Discovery in Equatorial Aeronomy. Frontiers in Astronomy and Space Sciences, 2022, 9, .	2.8	1
98	Equatorial F â€Region Plasma Waves and Instabilities Observed Near Midnight at Solar Minimum During the NASA Too WINDY Sounding Rocket Experiment. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028408.	2.4	0
99	Fluid simulation of the Farleyâ€“Buneman instability. , 2022, , .		0