

Wayne A Scales

List of Publications by Year in descending order

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88
papers

997
citations

471371

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92
all docs

92
docs citations

92
times ranked

534
citing authors

#	ARTICLE	IF	CITATIONS
1	Statistical Analysis of Refractive and Diffractive Scintillation at High Latitudes. <i>Radio Science</i> , 2022, 57, .	0.8	5
2	Investigating the impact of the latitudinal velocity profile on nonlinear gradient drift instability development in the subauroral ionosphere. <i>Radiation Effects and Defects in Solids</i> , 2022, 177, 2-14.	0.4	1
3	GNSS-based hardware-in-the-loop simulations of spacecraft formation flying with the global ionospheric model TIEGCM. <i>GPS Solutions</i> , 2021, 25, 1.	2.2	8
4	Modeling the dominance of the gradient drift or Kelvinâ€“Helmholtz instability in sheared ionospheric Eâ€“ flows. <i>Physics of Plasmas</i> , 2021, 28, .	0.7	6
5	Investigation of the Gradient Drift Instability as a Cause of Density Irregularities in Subauroral Polarization Streams. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA029027.	0.8	6
6	Geomagnetic field impacts on second harmonic generation during high power radio wave-ionosphere interaction. <i>Physics of Plasmas</i> , 2021, 28, 062901.	0.7	3
7	Characterization of multi-scale ionospheric irregularities using ground-based and space-based GNSS observations. <i>Satellite Navigation</i> , 2021, 2, .	4.6	16
8	Ionospheric Scintillation Data Inversion to Characterize the Structures Associated With a Series of Polar Cap Patches. <i>Radio Science</i> , 2021, 56, e2020RS007235.	0.8	2
9	Ionospheric Remote Sensing with GNSS. <i>Encyclopedia</i> , 2021, 1, 1246-1256.	2.4	0
10	Coupling 1D xRAGE simulations with machine learning for graded inner shell design optimization in double shell capsules. <i>Physics of Plasmas</i> , 2021, 28, .	0.7	10
11	Likelihood of gradient drift instability development during the August 21, 2017 solar eclipse. <i>Radiation Effects and Defects in Solids</i> , 2020, 175, 136-140.	0.4	1
12	Simulation studies of strongly turbulent stimulated Brillouin backscattering during ionospheric heating. <i>Radiation Effects and Defects in Solids</i> , 2020, 175, 141-149.	0.4	2
13	GPSâ€“based satellite formation flight simulation and applications to ionospheric remote sensing. <i>Navigation, Journal of the Institute of Navigation</i> , 2020, 67, 3-21.	1.7	8
14	Teaching and research of plasma/fluid mechanics to undergraduate students at a US university. <i>Radiation Effects and Defects in Solids</i> , 2020, 175, 3-6.	0.4	0
15	GNSS-based simulation of spacecraft formation flight: A case study of ionospheric plasma remote sensing. <i>Radiation Effects and Defects in Solids</i> , 2020, 175, 998-1001.	0.4	3
16	SAPS in the 17 March 2013 Storm Event: Initial Results From the Coupled Magnetosphereâ€“Ionosphereâ€“Thermosphere Model. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 6212-6225.	0.8	27
17	Flow curvature effects on the parallel velocity shear driven instability: MHD simulations. <i>Radiation Effects and Defects in Solids</i> , 2019, 174, 691-696.	0.4	0
18	A New Perspective for Dipolarization Front Dynamics: Electromagnetic Effects of Velocity Inhomogeneity. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 7533-7542.	0.8	3

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19	Pump Power Effects on Second Harmonic Stimulated Electromagnetic Emissions During Ionosphere Heating. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 9739-9754.	0.8	3
20	Satellite Formation Flight Simulation Using Multi-Constellation GNSS and Applications to Ionospheric Remote Sensing. <i>Remote Sensing</i> , 2019, 11, 2851.	1.8	9
21	Kinetic modeling of stimulated electromagnetic emissions during ionospheric heating experiment. , 2018, , .		2
22	Recent Advances in Ionospheric Stimulated Electromagnetic Emission Investigations (Invited Paper). , 2018, , .		1
23	Asymmetry in Stimulated Emission Polarization and Irregularity Evolution During Ionospheric Electron Gyroharmonic Heating. <i>Geophysical Research Letters</i> , 2018, 45, 9363-9371.	1.5	9
24	Survey of Ionospheric Pc3–5 ULF Wave Signatures in SuperDARN High Time Resolution Data. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 4215-4231.	0.8	20
25	FDTD Analysis of Propagation and Absorption in Nonuniform Anisotropic Magnetized Plasma Slab. <i>IEEE Transactions on Plasma Science</i> , 2018, 46, 2146-2153.	0.6	19
26	Artificial Ionospheric GPS Phase Scintillation Excited During High–Power Radiowave Modulation of the Ionosphere. <i>Radio Science</i> , 2018, 53, 775-789.	0.8	3
27	First Observations of Narrowband Stimulated Electromagnetic Emissions at the Pump Frequency Second Harmonic During Ionosphere Interaction Experiments. <i>Geophysical Research Letters</i> , 2018, 45, 8690-8697.	1.5	12
28	Dusty Space Plasma Diagnosis Using the Behavior of Polar Mesospheric Summer Echoes During Electron Precipitation Events. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 7697-7709.	0.8	5
29	Remote sensing of mesospheric dust layers using active modulation of PMWE by high–power radio waves. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 843-856.	0.8	6
30	The Role of Solar Wind Density in Cross Polar Cap Potential Saturation Under Northward Interplanetary Magnetic Field. <i>Geophysical Research Letters</i> , 2017, 44, 11,729-11,734.	1.5	3
31	Nonlinear saturation of the Weibel instability. <i>Physics of Plasmas</i> , 2017, 24, .	0.7	16
32	Multi-constellation GNSS scintillation at mid-latitudes. , 2017, , .		0
33	Recent advances in stimulated radiation studies during radiowave heating the near earth space environment. <i>Radiation Effects and Defects in Solids</i> , 2016, 171, 2-12.	0.4	10
34	Satellite–beacon Ionospheric–scintillation Global Model of the upper Atmosphere (SIGMA) II: Inverse modeling with high–latitude observations to deduce irregularity physics. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 9188-9203.	0.8	26
35	Charged dust phenomena in the near-Earth space environment. <i>Reports on Progress in Physics</i> , 2016, 79, 106802.	8.1	13
36	Investigation of a rare event where the polar ionospheric reverse convection potential does not saturate during a period of extreme northward IMF solar wind driving. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 5422-5435.	0.8	12

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37	Investigation of the role of plasma wave cascading processes in the formation of midlatitude irregularities utilizing GPS and radar observations. <i>Radio Science</i> , 2016, 51, 836-851.	0.8	15
38	Stimulated Brillouin scattering during electron gyro-harmonic heating at EISCAT. <i>Annales Geophysicae</i> , 2015, 33, 983-990.	0.6	20
39	Identification of the plasma instabilities responsible for mid-latitude decameter-scale ionospheric irregularities. , 2015, , .		0
40	Effects of Local Plasma Environment on Dynamics of Electrodynamic Tether Systems. <i>Journal of Spacecraft and Rockets</i> , 2015, 52, 496-505.	1.3	2
41	â€œTwisted Beamâ€SEE Observations of Ionospheric Heating from HAARP. <i>Earth, Moon and Planets</i> , 2015, 116, 55-66.	0.3	5
42	First modulation of highâ€frequency polar mesospheric summer echoes by radio heating of the ionosphere. <i>Geophysical Research Letters</i> , 2014, 41, 5347-5353.	1.5	15
43	Impact of active geomagnetic conditions on stimulated radiation during ionospheric second electron gyroharmonic heating. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 548-565.	0.8	9
44	Ion gyroharmonic structures in stimulated radiation during second electron gyroharmonic heating: 2. Simulations. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 462-478.	0.8	17
45	Investigation of the generation source of decameter-scale sub-auroral ionospheric irregularities during geomagnetically quiet periods. , 2014, , .		1
46	New stimulated electromagnetic emission experiment at EISCAT. , 2014, , .		1
47	Investigation of temperature gradient instability as the source of mid-latitude decameter-scale quiet-time ionospheric irregularities. , 2014, , .		1
48	Investigation of the temperature gradient instability as the source of midlatitude quiet time decameterâ€scale ionospheric irregularities: 1. Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 4872-4881.	0.8	8
49	Investigation of the temperature gradient instability as the source of midlatitude quiet time decameterâ€scale ionospheric irregularities: 2. Linear analysis. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 4882-4893.	0.8	19
50	Nonlinear evolution of the temperature gradient instability in the midlatitude ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 7889-7901.	0.8	10
51	Electron gyroharmonic effects on ionospheric stimulated Brillouin scatter. <i>Geophysical Research Letters</i> , 2014, 41, 5710-5716.	1.5	17
52	Narrowband stimulated electromagnetic emissions (SEE) spectra: A new ionospheric diagnostic technique. , 2014, , .		4
53	Model for charged dust expansion across a magnetic field. <i>Physics of Plasmas</i> , 2013, 20, .	0.7	8
54	Investigation of Stimulated Electromagnetic Emission SEE during second electron gyro-harmonic heating. , 2013, , .		0

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55	Ion gyroharmonic structuring in the stimulated radiation spectrum and optical emissions during electron gyroharmonic heating. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 1270-1287.	0.8	29
56	Ion gyroharmonic structures in stimulated radiation during second electron gyroharmonic heating: 1. Theory. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 502-514.	0.8	26
57	Ion gyro-harmonic structuring in the stimulated radiation spectrum during third electron gyro-harmonic heating. , 2013, , .		0
58	Investigation of ionospheric stimulated Brillouin scatter generated at pump frequencies near electron gyroharmonics. <i>Radio Science</i> , 2013, 48, 685-697.	0.8	28
59	Stimulated Brillouin scatter and stimulated ion Bernstein scatter during electron gyroharmonic heating experiments. <i>Radio Science</i> , 2013, 48, 607-616.	0.8	28
60	First observations of minority ion (H^{+}) structuring in stimulated radiation during second electron gyroharmonic heating experiments. <i>Geophysical Research Letters</i> , 2013, 40, 1479-1483.	1.5	15
61	On ion gyro-harmonic structuring in the stimulated electromagnetic emission spectrum during second electron gyro-harmonic heating. <i>Annales Geophysicae</i> , 2012, 30, 1587-1594.	0.6	14
62	Model for nonlinear evolution of localized ion ring beam in magnetoplasma. <i>Physics of Plasmas</i> , 2012, 19, 062902.	0.7	8
63	Nonlinear evolution of the lower hybrid irregularities in artificially created dusty space plasmas. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	1
64	Irregularity excitation associated with charged dust cloud boundary layers. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	8
65	Temporal evolution of radar echoes associated with mesospheric dust clouds after turn-on of radio wave heating. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	6
66	Nonlinear Evolution of the Dust Acoustic Instability in Artificially Created Dusty Space Plasmas. <i>IEEE Transactions on Plasma Science</i> , 2012, 40, 1223-1228.	0.6	12
67	Nonlinear evolution of the ion acoustic instability in artificially created dusty space plasmas. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	5
68	Observations and theory of ion gyro-harmonic structures in the stimulated radiation spectrum during second electron gyro-harmonic heating. , 2011, , .		10
69	Dusty space plasma diagnosis using temporal behavior of polar mesospheric summer echoes during active modification. <i>Annales Geophysicae</i> , 2011, 29, 2169-2179.	0.6	22
70	Three dimensional character of whistler turbulence. <i>Physics of Plasmas</i> , 2010, 17, 052310.	0.7	74
71	Irregularities Associated With Creation of Dusty Plasmas in the Near-Earth Space Environment. <i>IEEE Transactions on Plasma Science</i> , 2010, 38, 880-885.	0.6	7
72	Perturbation of Mesospheric Dust Associated Irregularities by High Powered Radio Waves. , 2007, , .		0

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73	Active Perturbation of Dust-Associated Electron Irregularities in the Earth's Mesosphere: Discrete-Charging Effects. IEEE Transactions on Plasma Science, 2007, 35, 731-735.	0.6	7
74	Culture and Cognition: Implications for Cognitive Design of Learning Resources. Proceedings of the Human Factors and Ergonomics Society, 2005, 49, 1444-1448.	0.2	1
75	Electron temperature enhancement effects on plasma irregularities associated with charged dust in the Earth's mesosphere. Journal of Geophysical Research, 2005, 110, .	3.3	28
76	Electron Temperature Effects on Small-Scale Plasma Irregularities Associated With Charged Dust in the Earth's Mesosphere. IEEE Transactions on Plasma Science, 2004, 32, 724-730.	0.6	24
77	Guest Editorial Dusty Plasmas in the Light of the Caribbean Sun. IEEE Transactions on Plasma Science, 2004, 32, 534-536.	0.6	3
78	Nonlinear evolution of dust waves driven by cross-field electron currents. Geophysical Research Letters, 2003, 30, .	1.5	2
79	Low frequency oscillations in a plasma with spatially variable field-aligned flow. Physics of Plasmas, 2002, 9, 2321-2329.	0.7	64
80	Numerical simulation studies on the broad upshifted maximum of ionospheric stimulated electromagnetic emission. Journal of Geophysical Research, 2001, 106, 12787-12801.	3.3	10
81	Multiscale Coherent Structures and Broadband Waves due to Parallel Inhomogeneous Flows. Physical Review Letters, 2000, 85, 4285-4288.	2.9	65
82	Theoretical and Numerical Simulation Investigation of Parametric Processes Associated with Up-shifted Ionospheric Stimulated Radiation. Physica Scripta, 2000, T84, 184.	1.2	9
83	Theoretical and simulation studies of broad up-shifted sideband generation in ionospheric stimulated radiation. Geophysical Research Letters, 1998, 25, 955-958.	1.5	12
84	Simulation studies of parametric decay processes associated with ionospheric stimulated radiation. Radio Science, 1997, 32, 2099-2107.	0.8	13
85	Early time evolution of negative ion clouds and electron density depletions produced during electron attachment chemical release experiments. Journal of Geophysical Research, 1994, 99, 373.	3.3	19
86	Small-scale plasma irregularities produced during electron attachment chemical releases. Geophysical Research Letters, 1994, 21, 605-608.	1.5	15
87	Small Satellite Formation Flying Simulation with Multi-Constellation GNSS and Applications to Future Multi-Scale Space Weather Observations. , 0, , .		8
88	Neutral air turbulence in the mesosphere and associated polar mesospheric summer echoes (PMSEs). Radio Science, 0, , .	0.8	0