

Wayne A Scales

List of Publications by Year in descending order

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88
papers

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471371

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92
all docs

92
docs citations

92
times ranked

534
citing authors

#	ARTICLE	IF	CITATIONS
1	Three dimensional character of whistler turbulence. Physics of Plasmas, 2010, 17, 052310.	0.7	74
2	Multiscale Coherent Structures and Broadband Waves due to Parallel Inhomogeneous Flows. Physical Review Letters, 2000, 85, 4285-4288.	2.9	65
3	Low frequency oscillations in a plasma with spatially variable field-aligned flow. Physics of Plasmas, 2002, 9, 2321-2329.	0.7	64
4	Ion gyroharmonic structuring in the stimulated radiation spectrum and optical emissions during electron gyroharmonic heating. Journal of Geophysical Research: Space Physics, 2013, 118, 1270-1287.	0.8	29
5	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
6	Investigation of ionospheric stimulated Brillouin scatter generated at pump frequencies near electron gyroharmonics. Radio Science, 2013, 48, 685-697.	0.8	28
7	Stimulated Brillouin scatter and stimulated ion Bernstein scatter during electron gyroharmonic heating experiments. Radio Science, 2013, 48, 607-616.	0.8	28
8	SAPS in the 17 March 2013 Storm Event: Initial Results From the Coupled Magnetosphere-Ionosphere-Thermosphere Model. Journal of Geophysical Research: Space Physics, 2019, 124, 6212-6225.	0.8	27
9	Ion gyroharmonic structures in stimulated radiation during second electron gyroharmonic heating: 1. Theory. Journal of Geophysical Research: Space Physics, 2013, 118, 502-514.	0.8	26
10	Satellite-beacon Ionospheric Scintillation Global Model of the upper Atmosphere (SIGMA) II: Inverse modeling with high-latitude observations to deduce irregularity physics. Journal of Geophysical Research: Space Physics, 2016, 121, 9188-9203.	0.8	26
11	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
12	Dusty space plasma diagnosis using temporal behavior of polar mesospheric summer echoes during active modification. Annales Geophysicae, 2011, 29, 2169-2179.	0.6	22
13	Stimulated Brillouin scattering during electron gyro-harmonic heating at EISCAT. Annales Geophysicae, 2015, 33, 983-990.	0.6	20
14	Survey of Ionospheric Pc3-5 ULF Wave Signatures in SuperDARN High Time Resolution Data. Journal of Geophysical Research: Space Physics, 2018, 123, 4215-4231.	0.8	20
15	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
16	Investigation of the temperature gradient instability as the source of midlatitude quiet time decameter-scale ionospheric irregularities: 2. Linear analysis. Journal of Geophysical Research: Space Physics, 2014, 119, 4882-4893.	0.8	19
17	FDTD Analysis of Propagation and Absorption in Nonuniform Anisotropic Magnetized Plasma Slab. IEEE Transactions on Plasma Science, 2018, 46, 2146-2153.	0.6	19
18	Ion gyroharmonic structures in stimulated radiation during second electron gyroharmonic heating: 2. Simulations. Journal of Geophysical Research: Space Physics, 2014, 119, 462-478.	0.8	17

#	ARTICLE	IF	CITATIONS
19	Electron gyroharmonic effects on ionospheric stimulated Brillouin scatter. Geophysical Research Letters, 2014, 41, 5710-5716.	1.5	17
20	Nonlinear saturation of the Weibel instability. Physics of Plasmas, 2017, 24, .	0.7	16
21	Characterization of multi-scale ionospheric irregularities using ground-based and space-based GNSS observations. Satellite Navigation, 2021, 2, .	4.6	16
22	Small-scale plasma irregularities produced during electron attachment chemical releases. Geophysical Research Letters, 1994, 21, 605-608.	1.5	15
23	First observations of minority ion (H^{+}) structuring in stimulated radiation during second electron gyroharmonic heating experiments. Geophysical Research Letters, 2013, 40, 1479-1483.	1.5	15
24	First modulation of high-frequency polar mesospheric summer echoes by radio heating of the ionosphere. Geophysical Research Letters, 2014, 41, 5347-5353.	1.5	15
25	Investigation of the role of plasma wave cascading processes in the formation of midlatitude irregularities utilizing GPS and radar observations. Radio Science, 2016, 51, 836-851.	0.8	15
26	On ion gyro-harmonic structuring in the stimulated electromagnetic emission spectrum during second electron gyro-harmonic heating. Annales Geophysicae, 2012, 30, 1587-1594.	0.6	14
27	Simulation studies of parametric decay processes associated with ionospheric stimulated radiation. Radio Science, 1997, 32, 2099-2107.	0.8	13
28	Charged dust phenomena in the near-Earth space environment. Reports on Progress in Physics, 2016, 79, 106802.	8.1	13
29	Theoretical and simulation studies of broad up-shifted sideband generation in ionospheric stimulated radiation. Geophysical Research Letters, 1998, 25, 955-958.	1.5	12
30	Nonlinear Evolution of the Dust Acoustic Instability in Artificially Created Dusty Space Plasmas. IEEE Transactions on Plasma Science, 2012, 40, 1223-1228.	0.6	12
31	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. Journal of Geophysical Research: Space Physics, 2016, 121, 5422-5435.	0.8	12
32	First Observations of Narrowband Stimulated Electromagnetic Emissions at the Pump Frequency Second Harmonic During Ionosphere Interaction Experiments. Geophysical Research Letters, 2018, 45, 8690-8697.	1.5	12
33	Numerical simulation studies on the broad upshifted maximum of ionospheric stimulated electromagnetic emission. Journal of Geophysical Research, 2001, 106, 12787-12801.	3.3	10
34	Observations and theory of ion gyro-harmonic structures in the stimulated radiation spectrum during second electron gyro-harmonic heating. , 2011, , .		10
35	Nonlinear evolution of the temperature gradient instability in the midlatitude ionosphere. Journal of Geophysical Research: Space Physics, 2014, 119, 7889-7901.	0.8	10
36	Recent advances in stimulated radiation studies during radiowave heating the near earth space environment. Radiation Effects and Defects in Solids, 2016, 171, 2-12.	0.4	10

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37	Coupling 1D xRACE simulations with machine learning for graded inner shell design optimization in double shell capsules. <i>Physics of Plasmas</i> , 2021, 28, .	0.7	10
38	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
39	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
40	Satellite Formation Flight Simulation Using Multi-Constellation GNSS and Applications to Ionospheric Remote Sensing. <i>Remote Sensing</i> , 2019, 11, 2851.	1.8	9
41	Theoretical and Numerical Simulation Investigation of Parametric Processes Associated with Up-shifted Ionospheric Stimulated Radiation. <i>Physica Scripta</i> , 2000, T84, 184.	1.2	9
42	Model for nonlinear evolution of localized ion ring beam in magnetoplasma. <i>Physics of Plasmas</i> , 2012, 19, 062902.	0.7	8
43	Irregularity excitation associated with charged dust cloud boundary layers. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	8
44	Model for charged dust expansion across a magnetic field. <i>Physics of Plasmas</i> , 2013, 20, .	0.7	8
45	Investigation of the temperature gradient instability as the source of midlatitude quiet time decameter-scale ionospheric irregularities: 1. Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 4872-4881.	0.8	8
46	GPS-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
47	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
48	Small Satellite Formation Flying Simulation with Multi-Constellation GNSS and Applications to Future Multi-Scale Space Weather Observations. , 0, , .		8
49	Active Perturbation of Dust-Associated Electron Irregularities in the Earth's Mesosphere: Discrete-Charging Effects. <i>IEEE Transactions on Plasma Science</i> , 2007, 35, 731-735.	0.6	7
50	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
51	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
52	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
53	Modeling the dominance of the gradient drift or Kelvin-Helmholtz instability in sheared ionospheric E-B flows. <i>Physics of Plasmas</i> , 2021, 28, .	0.7	6
54	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

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55	Nonlinear evolution of the ion acoustic instability in artificially created dusty space plasmas. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	5
56	â€œTwisted Beamâ€•SEE Observations of Ionospheric Heating from HAARP. Earth, Moon and Planets, 2015, 116, 55-66.	0.3	5
57	Dusty Space Plasma Diagnosis Using the Behavior of Polar Mesospheric Summer Echoes During Electron Precipitation Events. Journal of Geophysical Research: Space Physics, 2018, 123, 7697-7709.	0.8	5
58	Statistical Analysis of Refractive and Diffractive Scintillation at High Latitudes. Radio Science, 2022, 57, .	0.8	5
59	Narrowband stimulated electromagnetic emissions (SEE) spectra: A new ionospheric diagnostic technique. , 2014, , .		4
60	Guest Editorial Dusty Plasmas in the Light of the Caribbean Sun. IEEE Transactions on Plasma Science, 2004, 32, 534-536.	0.6	3
61	The Role of Solar Wind Density in Cross Polar Cap Potential Saturation Under Northward Interplanetary Magnetic Field. Geophysical Research Letters, 2017, 44, 11,729-11,734.	1.5	3
62	Artificial Ionospheric GPS Phase Scintillation Excited During Highâ€•Power Radiowave Modulation of the Ionosphere. Radio Science, 2018, 53, 775-789.	0.8	3
63	A New Perspective for Dipolarization Front Dynamics: Electromagnetic Effects of Velocity Inhomogeneity. Journal of Geophysical Research: Space Physics, 2019, 124, 7533-7542.	0.8	3
64	Pump Power Effects on Second Harmonic Stimulated Electromagnetic Emissions During Ionosphere Heating. Journal of Geophysical Research: Space Physics, 2019, 124, 9739-9754.	0.8	3
65	Geomagnetic field impacts on second harmonic generation during high power radio wave-ionosphere interaction. Physics of Plasmas, 2021, 28, 062901.	0.7	3
66	GNSS-based simulation of spacecraft formation flight: A case study of ionospheric plasma remote sensing. Radiation Effects and Defects in Solids, 2020, 175, 998-1001.	0.4	3
67	Nonlinear evolution of dust waves driven by crossâ€•field electron currents. Geophysical Research Letters, 2003, 30, .	1.5	2
68	Effects of Local Plasma Environment on Dynamics of Electrodynamic Tether Systems. Journal of Spacecraft and Rockets, 2015, 52, 496-505.	1.3	2
69	Kinetic modeling of stimulated electromagnetic emissions during ionospheric heating experiment. , 2018, , .		2
70	Simulation studies of strongly turbulent stimulated Brillouin backscattering during ionospheric heating. Radiation Effects and Defects in Solids, 2020, 175, 141-149.	0.4	2
71	Ionospheric Scintillation Data Inversion to Characterize the Structures Associated With a Series of Polar Cap Patches. Radio Science, 2021, 56, e2020RS007235.	0.8	2
72	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

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73	Nonlinear evolution of the lower hybrid irregularities in artificially created dusty space plasmas. Journal of Geophysical Research, 2012, 117, .	3.3	1
74	Investigation of the generation source of decameter-scale sub-auroral ionospheric irregularities during geomagnetically quiet periods. , 2014, , .		1
75	New stimulated electromagnetic emission experiment at EISCAT. , 2014, , .		1
76	Investigation of temperature gradient instability as the source of mid-latitude decameter-scale quiet-time ionospheric irregularities. , 2014, , .		1
77	Recent Advances in Ionospheric Stimulated Electromagnetic Emission Investigations (Invited Paper). , 2018, , .		1
78	Likelihood of gradient drift instability development during the August 21, 2017 solar eclipse. Radiation Effects and Defects in Solids, 2020, 175, 136-140.	0.4	1
79	Investigating the impact of the latitudinal velocity profile on nonlinear gradient drift instability development in the subauroral ionosphere. Radiation Effects and Defects in Solids, 2022, 177, 2-14.	0.4	1
80	Perturbation of Mesospheric Dust Associated Irregularities by High Powered Radio Waves. , 2007, , .		0
81	Investigation of Stimulated Electromagnetic Emission SEE during second electron gyro-harmonic heating. , 2013, , .		0
82	Ion gyro-harmonic structuring in the stimulated radiation spectrum during third electron gyro-harmonic heating. , 2013, , .		0
83	Identification of the plasma instabilities responsible for mid-latitude decameter-scale ionospheric irregularities. , 2015, , .		0
84	Flow curvature effects on the parallel velocity shear driven instability: MHD simulations. Radiation Effects and Defects in Solids, 2019, 174, 691-696.	0.4	0
85	Teaching and research of plasma/fluid mechanics to undergraduate students at a US university. Radiation Effects and Defects in Solids, 2020, 175, 3-6.	0.4	0
86	Multi-constellation GNSS scintillation at mid-latitudes. , 2017, , .		0
87	Ionospheric Remote Sensing with GNSS. Encyclopedia, 2021, 1, 1246-1256.	2.4	0
88	Neutral air turbulence in the mesosphere and associated polar mesospheric summer echoes (PMSEs). Radio Science, 0, , .	0.8	0