Meers M Oppenheim

List of Publications by Year
in descending order

76	1,858	279798	289244
papers	citations	23 h-index	40 g-index

80	80	80	926
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nonlinear two-stream instabilities as an explanation for auroral bipolar wave structures. Geophysical Research Letters, 1999, 26, 1821-1824.	4.0	160
2	Evolution of Electron Phase-Space Holes in a 2D Magnetized Plasma. Physical Review Letters, 1999, 83, 2344-2347.	7.8	110
3	Scattering characteristics of high-resolution meteor head echoes detected at multiple frequencies. Journal of Geophysical Research, 2002, 107, SIA 9-1.	3.3	107
4	Evolution of electron phase-space holes in 3D. Geophysical Research Letters, 2001, 28, 1891-1894.	4.0	75
5	A technique for calculating meteor plasma density and meteoroid mass from radar head echo scattering. Icarus, 2004, 168, 43-52.	2.5	75
6	The anomalous diffusion of meteor trails. Geophysical Research Letters, 2001, 28, 2775-2778.	4.0	69
7	Determination of the meteoroid velocity distribution at the Earth using high-gain radar. Icarus, 2004, 168, 34-42.	2.5	59
8	Meteor head echo radar data: Massâ€“velocity selection effects. Icarus, 2007, 186, 547-556.	2.5	59
9	Saturation of the Farley-Buneman instability via nonlinear electron EÃ—B drifts. Journal of Geophysical Research, 1996, 101, 17273-17286.	3.3	53
10	Electrodynamics of meteor trail evolution in the equatorial E-region ionosphere. Geophysical Research Letters, 2000, 27, 3173-3176.	4.0	53
11	Interpretation of non-specular radar meteor trails. Geophysical Research Letters, 2002, 29, 8-1.	4.0	52
12	Large-scale simulations of 2-D fully kinetic Farley-Buneman turbulence. Annales Geophysicae, 2008, 26, 543-553.	1.6	49
13	Kinetic simulations of 3â€D Farleyâ€Buneman turbulence and anomalous electron heating. Journal of Geophysical Research: Space Physics, 2013, 118, 1306-1318.	2.4	43
14	Effects of electrojet turbulence on a magnetosphereâ€ionosphere simulation of a geomagnetic storm. Journal of Geophysical Research: Space Physics, 2017, 122, 5008-5027.	2.4	41
15	A new method for determining meteoroid mass from head echo data. Journal of Geophysical Research, 2005, 110, .	3.3	40
16	Remote sensing lower thermosphere wind profiles using nonâ€specular meteor echoes. Geophysical Research Letters, 2009, 36, .	4.0	36
17	Nonspecular meteor trails from nonâ€fieldâ€aligned irregularities: Can they be explained by presence of charged meteor dust?. Geophysical Research Letters, 2014, 41, 3336-3343.	4.0	31
18	A saturation mechanism for the Farley-Buneman instability. Geophysical Research Letters, 1998, 25, 1833-1836.	4.0	30

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19	Plasma instabilities in meteor trails: Linear theory. Journal of Geophysical Research, 2003, 108, .	3.3	28
20	Electrostatic Mode Excitation in Electron Holes due to Wave Bounce Resonances. Physical Review Letters, 2001, 86, 1235-1238.	7.8	27
21	Evidence and effects of a wave-driven nonlinear current in the equatorial electrojet. Annales Geophysicae, 1997, 15, 899-907.	1.6	24
22	Dependence of radar signal strength on frequency and aspect angle of nonspecular meteor trails. Journal of Geophysical Research, 2008, 113, .	3.3	24
23	Modelling high-power large-aperture radar meteor trails. Journal of Atmospheric and Solar-Terrestrial Physics, 2005, 67, 1171-1177.	1.6	23
24	Hybrid simulations of the saturated Farley-Buneman instability in the ionosphere. Geophysical Research Letters, 1995, 22, 353-356.	4.0	22
25	Spectral characteristics of the Farley-Buneman instability: Simulations versus observations. Journal of Geophysical Research, 1996, 101, 24573-24582.	3.3	22
26	Saturation of the Farley-Buneman instability via three-mode coupling. Journal of Geophysical Research, 2006, 111, .	3.3	22
27	Magnetosphere-ionosphere coupling throughEregion turbulence: 2. Anomalous conductivities and frictional heating. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	21
28	Photoelectronâ€induced waves: A likely source of 150Âkm radar echoes and enhanced electron modes. Geophysical Research Letters, 2016, 43, 3637-3644.	4.0	21
29	Plasma instabilities in meteor trails: 2-D simulation studies. Journal of Geophysical Research, 2003, 108, .	3.3	20
30	Electron holes, ion waves, and anomalous resistivity in space plasmas. Journal of Geophysical Research, 2006, 111, .	3.3	19
31	Nonspecular meteor trail altitude distributions and durations observed by a 50 MHz highâ€power radar. Journal of Geophysical Research, 2010, 115, .	3.3	19
32	Determining meteoroid bulk densities using a plasma scattering model with high-power large-aperture radar data. Icarus, 2012, 221, 300-309.	2.5	19
33	THE MULTI-SPECIES FARLEY-BUNEMAN INSTABILITY IN THE SOLAR CHROMOSPHERE. Astrophysical Journal, 2014, 783, 128.	4.5	19
34	Polarization and scattering of a long-duration meteor trail. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	18
35	Anomalous electron heating effects on the E region ionosphere in TIEGCM. Geophysical Research Letters, 2016, 43, 2351-2358.	4.0	18
36	Formation of plasma around a small meteoroid: 1. Kinetic theory. Journal of Geophysical Research: Space Physics, 2017, 122, 4669-4696.	2.4	18

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37	Meteor trail diffusion and fields: 1. Simulations. Journal of Geophysical Research, 2006, 111, .	3.3	17
38	Modeling long duration meteor trails. Journal of Geophysical Research, 2007, 112, .	3.3	17
39	Day to night variation in meteor trail measurements: Evidence for a new theory of plasma trail evolution. Geophysical Research Letters, 2008, 35, .	4.0	17
40	First 3â€D simulations of meteor plasma dynamics and turbulence. Geophysical Research Letters, 2015, 42, 681-687.	4.0	17
41	Formation of plasma around a small meteoroid: 2. Implications for radar head echo. Journal of Geophysical Research: Space Physics, 2017, 122, 4697-4711.	2.4	17
42	Meteor trail diffusion and fields: 2. Analytical theory. Journal of Geophysical Research, 2006, 111, .	3.3	16
43	Meteor plasma trails: effects of external electric field. Annales Geophysicae, 2009, 27, 279-296.	1.6	13
44	Formation of Plasma Around a Small Meteoroid: Simulation and Theory. Journal of Geophysical Research: Space Physics, 2018, 123, 4080-4093.	2.4	13
45	Meteor velocity determination with plasma physics. Atmospheric Chemistry and Physics, 2004, 4, 817-824.	4.9	12
46	Intense winds and shears in the equatorial lower thermosphere measured by highâ€resolution nonspecular meteor radar. Journal of Geophysical Research: Space Physics, 2014, 119, 2178-2186.	2.4	12
47	Solar Flare Effects on 150â€km Echoes Observed Over Jicamarca: WACCMâ€X Simulations. Geophysical Research Letters, 2019, 46, 10951-10958.	4.0	12
48	The Photoelectronâ€Driven Upper Hybrid Instability as the Cause of 150â€km Echoes. Geophysical Research Letters, 2020, 47, e2020GL087391.	4.0	11
49	Meteor induced ridge and trough formation and the structuring of the nighttime E-region ionosphere. Geophysical Research Letters, 2006, 33, .	4.0	10
50	Analysis of beam plasma instability effects on incoherent scatter spectra. Annales Geophysicae, 2010, 28, 2169-2175.	1.6	10
51	Magnetosphere-ionosphere coupling throughEregion turbulence: 1. Energy budget. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	10
52	Faster Traveling Atmosphere Disturbances Caused by Polar Ionosphere Turbulence Heating. Journal of Geophysical Research: Space Physics, 2018, 123, 2181-2191.	2.4	10
53	Newly Discovered Source of Turbulence and Heating in the Solar Chromosphere. Astrophysical Journal Letters, 2020, 891, L9.	8.3	10
54	A wave-driven nonlinear current in theE-region ionosphere. Geophysical Research Letters, 1996, 23, 3333-3336.	4.0	8

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55	Hybrid simulations of coupled Farleyâ€Buneman/gradient drift instabilities in the equatorial E region ionosphere. Journal of Geophysical Research: Space Physics, 2017, 122, 5768-5781.	2.4	8
56	Formation of Plasma Around a Small Meteoroid: Electrostatic Simulations. Journal of Geophysical Research: Space Physics, 2019, 124, 3810-3826.	2.4	8
57	Simulations of Secondary Farleyâ€Buneman Instability Driven by a Kilometerâ€Scale Primary Wave: Anomalous Transport and Formation of Flatâ€Topped Electric Fields. Journal of Geophysical Research: Space Physics, 2019, 124, 734-748.	2.4	8
58	Particleâ€inâ€cell simulation of the incoherent scatter radar spectrum. Radio Science, 2008, 43, .	1.6	7
59	Plasma parameter analysis of the Langmuir decay process via Particle-in-Cell simulations. Annales Geophysicae, 2012, 30, 1169-1183.	1.6	7
60	The Farleyâ€Buneman Spectrum in 2â€D and 3â€D Particleâ€inâ€Cell Simulations. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027326.	2.4	7
61	Particle-in-cell simulation of incoherent scatter radar spectral distortions related to beam-plasma interactions in the auroral ionosphere. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	6
62	Effects of Ion Magnetization on the Farleyâ€“Buneman Instability in the Solar Chromosphere. Astrophysical Journal, 2018, 857, 129.	4.5	6
63	Improving the Accuracy of Meteoroid Mass Estimates from Head Echo Deceleration. Earth, Moon and Planets, 2008, 102, 379-382.	0.6	5
64	Comparison of methods of determining meteoroid range rates from linear frequency modulated chirped pulses. Radio Science, 2011, 46, .	1.6	5
65	ISR Spectra Simulations With Electron-Ion Coulomb Collisions. Journal of Geophysical Research: Space Physics, 2018, 123, 2990-3004.	2.4	5
66	Nonlinear Effects of Electronâ€Electron Collisions on ISR Temperature Measurements. Journal of Geophysical Research: Space Physics, 2019, 124, 6313-6329.	2.4	5
67	Mesospheric anomalous diffusion during noctilucent cloud scenarios. Atmospheric Chemistry and Physics, 2019, 19, 5259-5267.	4.9	5
68	Interaction of plasma cloud with external electric field in lower ionosphere. Annales Geophysicae, 2010, 28, 719-736.	1.6	4
69	Generation of electric fields and currents by neutral flows in weakly ionized plasmas through collisional dynamos. Physics of Plasmas, 2016, 23, .	1.9	3
70	Simulationâ€Derived Radar Cross Sections of a New Meteor Head Plasma Distribution Model. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029171.	2.4	3
71	Effects of Electron Precipitation on Eâ€Region Instabilities: Theoretical Analysis. Journal of Geophysical Research: Space Physics, 2021, 126, .	2.4	3
72	Atomicâ€Scale Simulations of Meteor Ablation. Journal of Geophysical Research: Space Physics, 2020, 125, .	2.4	2

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73	Millstone Hill ISR Measurements of Small Aspect Angle Spectra. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027708.	2.4	1
74	Analysis of 3D Kinetic Simulations of Meteor Trails. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028889.	2.4	1
75	3D Simulations of Farley-Buneman turbulence demonstrates anomalous electron heating. , 2011, , .		0
76	Improving the Accuracy of Meteoroid Mass Estimates from Head Echo Deceleration. , 2007, , 379-382.		0