

Earl E Scime

List of Publications by Year in descending order

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145
papers

3,553
citations

172386

29
h-index

155592

55
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148
docs citations

148
times ranked

1767
citing authors

#	ARTICLE	IF	CITATIONS
1	Laboratory Observations of Electron Heating and Non-Maxwellian Distributions at the Kinetic Scale during Electron-Only Magnetic Reconnection. <i>Physical Review Letters</i> , 2022, 128, 025002.	2.9	15
2	Electron-only reconnection and associated electron heating and acceleration in PHASMA. <i>Physics of Plasmas</i> , 2022, 29, .	0.7	7
3	Mesoscale Structures in Earth's Magnetotail Observed Using Energetic Neutral Atom Imaging. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091467.	1.5	11
4	Radially localized electron heating in helicon plasmas by X-wave microwave injection. <i>Physics of Plasmas</i> , 2021, 28, 022108.	0.7	1
5	Incoherent Thomson scattering system for PHase space MApping (PHASMA) experiment. <i>Review of Scientific Instruments</i> , 2021, 92, 033102.	0.6	13
6	Alfvénic modes excited by the kink instability in PHASMA. <i>Physics of Plasmas</i> , 2021, 28, .	0.7	12
7	10.1063/5.0043499.1. , 2021, , .		0
8	Continuous-wave planar laser induced fluorescence with a fast camera. <i>Review of Scientific Instruments</i> , 2021, 92, 043532.	0.6	3
9	Magnetic field imaging in a laboratory plasma. <i>AIP Advances</i> , 2021, 11, .	0.6	1
10	Ion heating in the PISCES-RF liquid-cooled high-power, steady-state, helicon plasma device. <i>Plasma Sources Science and Technology</i> , 2021, 30, 065010.	1.3	3
11	Two-photon absorption laser induced fluorescence measurements of absolute neutral deuterium density, temperature, and bulk flow in Proto-MPEX. <i>Physics of Plasmas</i> , 2021, 28, 082501.	0.7	1
12	Influence of magnetic angle on the $E \times B$ drift in a magnetic presheath. <i>Physics of Plasmas</i> , 2021, 28, 083507.	0.7	0
13	Compact, portable, laser induced fluorescence diagnostic for laboratory plasma sources. <i>Review of Scientific Instruments</i> , 2021, 92, 013502.	0.6	2
14	Evidence for electron energization accompanying spontaneous formation of ion acceleration regions in expanding plasmas. <i>Physics of Plasmas</i> , 2020, 27, .	0.7	12
15	Three-dimensional cross-field flows at the plasma-material interface in an oblique magnetic field. <i>Physics of Plasmas</i> , 2020, 27, .	0.7	5
16	Database of Storm Time Equatorial Ion Temperatures in Earth's Magnetosphere Calculated From Energetic Neutral Atom Data. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028266.	0.8	3
17	Creation of large temperature anisotropies in a laboratory plasma. <i>Physics of Plasmas</i> , 2020, 27, .	0.7	6
18	Structure of Spontaneous Ion Acceleration Regions in Expanding Plasmas. , 2019, , .		0

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19	Decomposition of plasma kinetic entropy into position and velocity space and the use of kinetic entropy in particle-in-cell simulations. <i>Physics of Plasmas</i> , 2019, 26, .	0.7	20
20	Pressure dependence of an ion beam accelerating structure in an expanding helicon plasma. <i>Physics of Plasmas</i> , 2018, 25, .	0.7	17
21	Ion beams in multi-species plasmas. <i>Physics of Plasmas</i> , 2018, 25, 043507.	0.7	3
22	Demonstration of confocal laser induced fluorescence at long focal lengths. <i>Review of Scientific Instruments</i> , 2018, 89, 10D127.	0.6	2
23	Zeeman splitting measurements of magnetic fields in iodine plasma. <i>Review of Scientific Instruments</i> , 2018, 89, 10C113.	0.6	3
24	Micro-spectrometer for fusion plasma boundary measurements. <i>Review of Scientific Instruments</i> , 2018, 89, 10J116.	0.6	1
25	Laser-Induced Fluorescence of Singly Ionized Iodine. <i>Journal of Propulsion and Power</i> , 2018, 34, 1235-1239.	1.3	6
26	Laser induced fluorescence of Ar-I metastables in the presence of a magnetic field. <i>Plasma Sources Science and Technology</i> , 2018, 27, 065007.	1.3	14
27	Ion heating and flows in a high power helicon source. <i>Physics of Plasmas</i> , 2017, 24, 063517.	0.7	10
28	Storm time equatorial magnetospheric ion temperature derived from TWINS ENA flux. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 3985-3996.	0.8	4
29	Foreword to Special Issue: Papers from the 58th Annual Meeting of the APS Division of Plasma Physics, October 31–November 4, 2016, San Jose, California, USA. <i>Physics of Plasmas</i> , 2017, 24, 055301.	0.7	0
30	Confocal laser induced fluorescence with comparable spatial localization to the conventional method. <i>Review of Scientific Instruments</i> , 2017, 88, 103506.	0.6	8
31	Spatial structure of ion beams in an expanding plasma. <i>Physics of Plasmas</i> , 2017, 24, .	0.7	18
32	The Effect of Storm Driver and Intensity on Magnetospheric Ion Temperatures. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 9414-9426.	0.8	1
33	A micro-scale plasma spectrometer for space and plasma edge applications (invited). <i>Review of Scientific Instruments</i> , 2016, 87, 11D302.	0.6	3
34	Two-photon LIF on the HIT-SI3 experiment: Absolute density and temperature measurements of deuterium neutrals. <i>Review of Scientific Instruments</i> , 2016, 87, 11E506.	0.6	5
35	Development of core ion temperature gradients and edge sheared flows in a helicon plasma device investigated by laser induced fluorescence measurements. <i>Physics of Plasmas</i> , 2016, 23, .	0.7	17
36	Parametric scaling of neutral and ion excited state densities in an argon helicon source. <i>Plasma Sources Science and Technology</i> , 2016, 25, 025001.	1.3	2

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37	Laser induced fluorescence measurements of axial velocity, velocity shear, and parallel ion temperature profiles during the route to plasma turbulence in a linear magnetized plasma device. Review of Scientific Instruments, 2016, 87, 11E513.	0.6	4
38	Overestimation of Mach number due to probe shadow. Physics of Plasmas, 2016, 23, 073519.	0.7	14
39	Key elements of a low voltage, ultracompact plasma spectrometer. Journal of Geophysical Research: Space Physics, 2016, 121, 1452-1465.	0.8	3
40	A novel laser-induced fluorescence scheme for Ar-I in a plasma. Review of Scientific Instruments, 2016, 87, 013505.	0.6	5
41	Novel xenon calibration scheme for two-photon absorption laser induced fluorescence of hydrogen. Review of Scientific Instruments, 2016, 87, 11E504.	0.6	5
42	Models, assumptions, and experimental tests of flows near boundaries in magnetized plasmas. Physics of Plasmas, 2016, 23, .	0.7	15
43	Database of ion temperature maps during geomagnetic storms. Earth and Space Science, 2015, 2, 39-46.	1.1	10
44	Continuous wave cavity ring-down spectroscopy for velocity distribution measurements in plasma. Review of Scientific Instruments, 2015, 86, 103505.	0.6	8
45	Direct measurements of classical and enhanced gradient-aligned cross-field ion flows in a helicon plasma source using laser-induced fluorescence. Physics of Plasmas, 2015, 22, .	0.7	2
46	The hot hELicon eXperiment (HELIX) and the large experiment on instabilities and anisotropy (LEIA). Journal of Plasma Physics, 2015, 81, .	0.7	19
47	Electron heating and density production in microwave-assisted helicon plasmas. Plasma Sources Science and Technology, 2015, 24, 034016.	1.3	2
48	A comparison of ion beam measurements by retarding field energy analyzer and laser induced fluorescence in helicon plasma devices. Physics of Plasmas, 2015, 22, .	0.7	19
49	First results using TWINSâ€derived ion temperature boundary conditions in CRCM. Journal of Geophysical Research: Space Physics, 2014, 119, 3345-3361.	0.8	12
50	CO ₂ dissociation using the Versatile atmospheric dielectric barrier discharge experiment (VADER). Frontiers in Physics, 2014, 2, .	1.0	40
51	Optimization of confocal laser induced fluorescence in a plasma. Review of Scientific Instruments, 2014, 85, 11E408.	0.6	3
52	Two photon absorption laser induced fluorescence measurements of neutral density in a helicon plasma. Physics of Plasmas, 2014, 21, .	0.7	29
53	Laser induced fluorescence and continuous wave ring down spectroscopy: Measurements of argon ion velocity distribution functions in a helicon plasma. , 2014, , .		0
54	Waves in wave-produced plasmas: Ducted kinetic Alfvén waves in helicon sources. , 2014, , .		0

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55	Localization of linear kinetic Alfvén wave in an inhomogeneous plasma and generation of turbulence. <i>Physics of Plasmas</i> , 2014, 21, .	0.7	7
56	Regions of ion energization observed during the Galaxyâ€15 substorm with TWINS. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 8274-8287.	0.8	19
57	Spontaneous ion beam formation in the laboratory, space, and simulation. <i>Physics of Plasmas</i> , 2013, 20, 072118.	0.7	15
58	Instability limits for spontaneous double layer formation. <i>Physics of Plasmas</i> , 2013, 20, .	0.7	5
59	Ion heating and short wavelength fluctuations in a helicon plasma source. <i>Physics of Plasmas</i> , 2013, 20, .	0.7	14
60	Direct measurements of the ionization profile in krypton helicon plasmas. <i>Physics of Plasmas</i> , 2012, 19, 123506.	0.7	27
61	Comparison of azimuthal ion velocity profiles using Mach probes, time delay estimation, and laser induced fluorescence in a linear plasma device. <i>Review of Scientific Instruments</i> , 2012, 83, 10D708.	0.6	18
62	Laser induced fluorescence measurements of ion velocity and temperature of drift turbulence driven sheared plasma flow in a linear helicon plasma device. <i>Physics of Plasmas</i> , 2012, 19, .	0.7	29
63	A two photon absorption laser induced fluorescence diagnostic for fusion plasmas. <i>Review of Scientific Instruments</i> , 2012, 83, 10D701.	0.6	28
64	Inner magnetosphere convection and magnetotail structure of hot ions imaged by ENA during a HSSâ€driven storm. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	19
65	Remote observations of ion temperatures in the quiet time magnetosphere. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	26
66	Ducted kinetic Alfvén waves in plasma with steep density gradients. <i>Physics of Plasmas</i> , 2011, 18, .	0.7	14
67	Threshold for formation of a stable double layer in an expanding helicon plasma. <i>Plasma Sources Science and Technology</i> , 2010, 19, 025008.	1.3	16
68	Time-resolved measurements of double layer evolution in expanding plasma. <i>Physics of Plasmas</i> , 2010, 17, .	0.7	33
69	Ion acceleration in Arâ€Xe and Arâ€He plasmas. I. Electron energy distribution functions and ion composition. <i>Physics of Plasmas</i> , 2010, 17, .	0.7	14
70	Simultaneous two-dimensional laser-induced-fluorescence measurements of argon ions. <i>Review of Scientific Instruments</i> , 2010, 81, 10D701.	0.6	12
71	Ion acceleration in Arâ€Xe and Arâ€He plasmas. II. Ion velocity distribution functions. <i>Physics of Plasmas</i> , 2010, 17, .	0.7	17
72	Increased Upstream Ionization due to Formation of a Double Layer. <i>Physical Review Letters</i> , 2009, 102, 035004.	2.9	28

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73	Observation of increased upstream ionization resulting from spontaneous formation of a double layer in an expanding argon helicon plasma. , 2009, , .		0
74	Temporal evolution of double layers in pulsed helicon plasmas. Applied Physics Letters, 2009, 95, 051504.	1.5	12
75	One- and two-dimensional laser induced fluorescence at oblique incidence. Plasma Sources Science and Technology, 2009, 18, 025012.	1.3	20
76	The Two Wide-angle Imaging Neutral-atom Spectrometers (TWINS) NASA Mission-of-Opportunity. Space Science Reviews, 2009, 142, 157-231.	3.7	170
77	Radial evolution of nonthermal electron populations in the low-latitude solar wind: Helios, Cluster, and Ulysses Observations. Journal of Geophysical Research, 2009, 114, .	3.3	234
78	Electron temperature anisotropy constraints in the solar wind. Journal of Geophysical Research, 2008, 113, .	3.3	219
79	Comparison of gridded energy analyzer and laser induced fluorescence measurements of a two-component ion distribution. Review of Scientific Instruments, 2008, 79, 10F314.	0.6	23
80	Remote measurements of ion temperatures in the terrestrial magnetotail. Journal of Geophysical Research, 2008, 113, .	3.3	18
81	Temporal Evolution of Bimodal Argon-Ion Velocity Distribution in an Expanding Helicon Plasma. IEEE Transactions on Plasma Science, 2008, 36, 1376-1377.	0.6	3
82	A 300GHz collective scattering diagnostic for low temperature plasmas. Review of Scientific Instruments, 2008, 79, 10E725.	0.6	3
83	Ion beam acceleration in a divergent magnetic field. Applied Physics Letters, 2008, 92, 191502.	1.5	30
84	Fast and slow ion populations in expanding helicon plasma observed by laser induced fluorescence tomography. , 2008, , .		0
85	Two-Dimensional Argon-Ion Velocity Distributions in the Expansion Region of a Helicon Plasma Source. IEEE Transactions on Plasma Science, 2008, 36, 1216-1217.	0.6	1
86	Mini-conference on helicon plasma sources. Physics of Plasmas, 2008, 15, .	0.7	29
87	Time evolution of fast ions created in an expanding helicon plasma. , 2008, , .		0
88	Flow, flow shear, and related profiles in helicon plasmas. Physics of Plasmas, 2007, 14, 043505.	0.7	38
89	Neutral density profiles in argon helicon plasmas. Plasma Sources Science and Technology, 2007, 16, 742-749.	1.3	58
90	An alternative method for gas temperature determination in nitrogen plasmas: Fits of the bands of the first positive system ($B^1\Pi_g \rightarrow A^1\Sigma_u^+$). Journal of Applied Physics, 2007, 101, 073303.	1.1	49

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91	Vibrational population distribution and the gas temperature in the compact helicon nitrogen plasma source. <i>Review of Scientific Instruments</i> , 2006, 77, 10F301.		0
92	High time resolution laser induced fluorescence in pulsed argon plasma. <i>Review of Scientific Instruments</i> , 2006, 77, 10F301.	0.6	22
93	Evolution of remotely measured inner magnetospheric ion temperatures during a geomagnetic storm. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	12
94	Neutral argon density profile determination by comparison of spectroscopic measurements and a collisional-radiative model (invited). <i>Review of Scientific Instruments</i> , 2006, 77, 10F304.	0.6	27
95	Determination of rotational and vibrational temperatures of a nitrogen helicon plasma. <i>Review of Scientific Instruments</i> , 2006, 77, 10F117.	0.6	35
96	Nitrogen dissociation degree in a helicon plasma source inferred from microwave interferometry and langmuir probe cross measurements. , 2006, , .		0
97	Ion velocity distribution function measurements in a helium helicon plasma. , 2006, , .		0
98	Control of nitrogen species in helicon plasmas. <i>Plasma Sources Science and Technology</i> , 2005, 14, 283-292.	1.3	16
99	Laser induced fluorescence in a pulsed argon plasma. <i>Review of Scientific Instruments</i> , 2005, 76, 026107.	0.6	29
100	The ion velocity distribution function in a current-free double layer. <i>Physics of Plasmas</i> , 2005, 12, 093502.	0.7	41
101	Observation of resistive drift Alfvén waves in a helicon plasma. <i>Physics of Plasmas</i> , 2005, 12, 102105.	0.7	5
102	Evolution of the parallel and perpendicular ion velocity distribution functions in pulsed helicon plasma sources obtained by time resolved laser induced fluorescence. <i>Plasma Sources Science and Technology</i> , 2005, 14, 766-776.	1.3	38
103	Observations of Ion-Beam Formation in a Current-Free Double Layer. <i>Physical Review Letters</i> , 2005, 95, 025004.	2.9	131
104	Control of Nitrogen Dissociation Degree in a Helicon Discharge Used for Plasma Assisted Molecular Beam Epitaxy of GaN. <i>IEEE International Conference on Plasma Science</i> , 2005, , .	0.0	0
105	Radial evolution of the electron distribution functions in the fast solar wind between 0.3 and 1.5 AU. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	308
106	Effect of ion cyclotron parametric turbulence on the generation of edge suprathermal ions during ion cyclotron plasma heating. <i>Physics of Plasmas</i> , 2004, 11, 3691-3699.	0.7	6
107	Charge exchange imaging of space plasmas (invited). <i>Review of Scientific Instruments</i> , 2004, 75, 3526-3530.	0.6	4
108	Three-dimensional laser-induced fluorescence measurements in a helicon plasma. <i>Review of Scientific Instruments</i> , 2004, 75, 4103-4105.	0.6	13

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109	Scanning internal probe for plasma particle, fluctuation, and LIF tomographic measurements. Review of Scientific Instruments, 2004, 75, 4296-4298.	0.6	22
110	Parallel velocity and temperature of argon ions in an expanding, helicon source driven plasma. Plasma Sources Science and Technology, 2004, 13, 359-370.	1.3	68
111	Direct observation of microparticle gyromotion in a magnetized direct current glow discharge dusty plasma. Physics of Plasmas, 2004, 11, 2097-2105.	0.7	17
112	Laser-induced fluorescence measurements of three plasma species with a tunable diode laser. Review of Scientific Instruments, 2004, 75, 4091-4093.	0.6	59
113	Evidence for electrostatic decay in the solar wind at 5.2 AU. Journal of Geophysical Research, 2003, 108, .	3.3	26
114	Parametric decay instabilities in the HELIX helicon plasma source. Physics of Plasmas, 2003, 10, 135-144.	0.7	43
115	Ion acceleration in plasmas emerging from a helicon-heated magnetic-mirror device. Physics of Plasmas, 2003, 10, 2593-2598.	0.7	147
116	Strong ion-sound parametric turbulence and anomalous anisotropic plasma heating in helicon plasma sources. Physics of Plasmas, 2003, 10, 2247-2253.	0.7	8
117	Laser induced fluorescence in Ar and He plasmas with a tunable diode laser. Review of Scientific Instruments, 2003, 74, 4352-4360.	0.6	69
118	High vacuum feedthrough for angular, linear, and rotary motion. Review of Scientific Instruments, 2002, 73, 1970-1971.	0.6	3
119	Evidence for thermal anisotropy effects on shear modified ion acoustic instabilities. Physics of Plasmas, 2002, 9, 4399-4401.	0.7	14
120	rf Absorption and Ion Heating in Helicon Sources. Physical Review Letters, 2002, 88, 195002.	2.9	70
121	Remote ion temperature measurements of Earth's magnetosphere: Medium energy neutral atom (MENA) images. Geophysical Research Letters, 2002, 29, 80-1-80-4.	1.5	28
122	Electron temperature measurement by a helium line intensity ratio method in helicon plasmas. Physics of Plasmas, 2001, 8, 5303-5314.	0.7	75
123	Ion heating and density production in helicon sources near the lower hybrid frequency. Plasma Sources Science and Technology, 2001, 10, 284-294.	1.3	48
124	First medium energy neutral atom (MENA) Images of Earth's magnetosphere during substorm and storm-time. Geophysical Research Letters, 2001, 28, 1147-1150.	1.5	61
125	Medium energy neutral atom (MENA) imager for the IMAGE mission. Space Science Reviews, 2000, 91, 113-154.	3.7	90
126	Ion temperature anisotropy limitation in high beta plasmas. Physics of Plasmas, 2000, 7, 2157-2165.	0.7	57

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127	Beta-dependent upper bound on ion temperature anisotropy in a laboratory plasma. <i>Physics of Plasmas</i> , 2000, 7, 779-783.	0.7	15
128	Ion heating in the HELIX helicon plasma source. <i>Physics of Plasmas</i> , 1999, 6, 4767-4772.	0.7	35
129	The electron heat flux in the polar solar wind: Ulysses observations. <i>Geophysical Research Letters</i> , 1999, 26, 2129-2132.	1.5	16
130	Control of ion temperature anisotropy in a helicon plasma. <i>Plasma Sources Science and Technology</i> , 1998, 7, 186-191.	1.3	61
131	Effects of gap width on vacuum-ultraviolet transmission through submicrometer-period, freestanding transmission gratings. <i>Applied Optics</i> , 1998, 37, 5087.	2.1	17
132	A compact, intense, monochromatic, atmospheric pressure, extreme ultraviolet light source. <i>Review of Scientific Instruments</i> , 1998, 69, 1581-1583.	0.6	0
133	E ⁺ B energy-mass spectrograph for measurement of ions and neutral atoms. <i>Review of Scientific Instruments</i> , 1997, 68, 292-295.	0.6	4
134	Frequency dependent effects in helicon plasmas. <i>Physics of Plasmas</i> , 1997, 4, 2741-2747.	0.7	59
135	A mass resolving neutral atom imager. <i>Review of Scientific Instruments</i> , 1997, 68, 296-299.	0.6	1
136	OBLIQUE EMISSION OF WHISTLER-MODE WAVES AROUND INTERPLANETARY SHOCKS. <i>Solar Physics</i> , 1997, 172, 327-334.	1.0	0
137	Three-dimensional neutral atom imaging of tokamak plasmas. <i>Review of Scientific Instruments</i> , 1995, 66, 336-338.	0.6	5
138	Whistler-mode wave generation around interplanetary shocks in and out of the ecliptic plane. <i>Geophysical Research Letters</i> , 1995, 22, 3425-3428.	1.5	8
139	Novel low-energy neutral atom imaging technique. <i>Optical Engineering</i> , 1994, 33, 357.	0.5	14
140	Design and calibration of a fast-time resolution charge exchange analyzer. <i>Review of Scientific Instruments</i> , 1992, 63, 4527-4529.	0.6	14
141	Ion heating and magnetohydrodynamic dynamo fluctuations in the reversed-field pinch. <i>Physical Review Letters</i> , 1992, 68, 2165-2167.	2.9	43
142	A 300 GHz Collective Scattering System for Low Temperature Plasmas. , 0, , .		0
143	Control of nitrogen reactive species in helicon plasmas for III-N semiconductor growth. , 0, , .		2
144	Collective scattering technique for sub-millimeter wavelength fluctuation detection in a helicon plasma. , 0, , .		0

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145	Ion temperature imaging of the earth's magnetosphere. , 0 , , .		0