

Charles E Seyler

List of Publications by Year in descending order

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79
papers

2,144
citations

186265

28
h-index

243625

44
g-index

83
all docs

83
docs citations

83
times ranked

1199
citing authors

#	ARTICLE	IF	CITATIONS
1	The status of observations and theory of high latitude ionospheric and magnetospheric plasma turbulence. <i>Space Science Reviews</i> , 1985, 41, 91.	8.1	132
2	Broadband ELF plasma emission during auroral energization: 1. Slow ion acoustic waves. <i>Journal of Geophysical Research</i> , 1998, 103, 4343-4375.	3.3	119
3	A mathematical model of the structure and evolution of small-scale discrete auroral arcs. <i>Journal of Geophysical Research</i> , 1990, 95, 17199-17215.	3.3	111
4	Two-dimensional turbulence in inviscid fluids or guiding center plasmas. <i>Physics of Fluids</i> , 1975, 18, 803.	1.4	106
5	Electron acceleration by Alfvén waves in the magnetosphere. <i>Journal of Geophysical Research</i> , 1992, 97, 3953-3963.	3.3	106
6	A symmetric regularized-long-wave equation. <i>Physics of Fluids</i> , 1984, 27, 4.	1.4	97
7	On the perpendicular scale of electron phase-space holes. <i>Geophysical Research Letters</i> , 2000, 27, 169-172.	4.0	95
8	Kinetic tilting stability of field-reversed configurations. <i>Physics of Fluids</i> , 1986, 29, 2616.	1.4	86
9	Relaxation model for extended magnetohydrodynamics: Comparison to magnetohydrodynamics for dense Z-pinch. <i>Physics of Plasmas</i> , 2011, 18, 012703.	1.9	56
10	Theory and simulation of low-frequency plasma waves and comparison to Freja satellite observations. <i>Journal of Geophysical Research</i> , 1995, 100, 21453-21472.	3.3	51
11	Magnetohydrodynamic equilibrium and stability of field-reversed configurations. <i>Physics of Fluids</i> , 1983, 26, 1295.	1.4	50
12	Particle energization by oblique inertial Alfvén waves in the auroral region. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	50
13	Magnetic bubbles and kinetic Alfvén waves in the high-latitude magnetopause boundary. <i>Journal of Geophysical Research</i> , 2001, 106, 29503-29514.	3.3	49
14	Nonlinear 3D evolution of bounded kinetic Alfvén waves due to shear flow and collisionless tearing instability. <i>Geophysical Research Letters</i> , 1988, 15, 756-759.	4.0	48
15	Vlasov-fluid stability of a rigidly rotating theta pinch. <i>Physics of Fluids</i> , 1979, 22, 2324.	1.4	41
16	Theory of nearly perpendicular electrostatic plasma waves and comparison to Freja satellite observations. <i>Journal of Geophysical Research</i> , 1996, 101, 21795-21813.	3.3	41
17	Thermodynamics of two-dimensional plasmas or discrete line vortex fluids. <i>Physics of Fluids</i> , 1976, 19, 1336.	1.4	39
18	Electrostatic broadband ELF wave emission by Alfvén wave breaking. <i>Journal of Geophysical Research</i> , 1998, 103, 7027-7041.	3.3	37

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19	Helical instability in MagLIF due to axial flux compression by low-density plasma. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	37
20	Nonlinear magnetic field transport in opening switch plasmas. <i>Physics of Fluids B</i> , 1993, 5, 1115-1127.	1.7	36
21	Electron beam formation by small-scale oblique inertial Alfvén waves. <i>Journal of Geophysical Research</i> , 1999, 104, 17233-17249.	3.3	35
22	A positivity-preserving semi-implicit discontinuous Galerkin scheme for solving extended magnetohydrodynamics equations. <i>Journal of Computational Physics</i> , 2014, 278, 400-415.	3.8	35
23	Observation of Bound States and Counterrotating Lower Hybrid Eigenmodes in the Auroral Ionosphere. <i>Physical Review Letters</i> , 1998, 80, 5734-5737.	7.8	32
24	Internal waves and undular bores in mesospheric inversion layers. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	31
25	Partition function for a two-dimensional plasma in the random-phase approximation. <i>Physical Review Letters</i> , 1974, 32, 515-517.	7.8	30
26	Resonant particle effects on finite Larmor radius stabilization. <i>Physics of Fluids</i> , 1980, 23, 331.	1.4	29
27	Instability at the electron inertial scale. <i>Journal of Geophysical Research</i> , 2001, 106, 21623-21644.	3.3	29
28	Two-dimensional turbulence, space shuttle plume transport in the thermosphere, and a possible relation to the Great Siberian Impact Event. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	28
29	Stability of Vlasov equilibria. Part 1. General theory. <i>Journal of Plasma Physics</i> , 1982, 27, 13-24.	2.1	27
30	Impact of the Hall Effect on High-Energy-Density Plasma Jets. <i>Physical Review Letters</i> , 2013, 110, 015002.	7.8	26
31	SIERRA observations of Alfvénic processes in the topside auroral ionosphere. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	25
32	Instability of inertial Alfvén waves in transverse sheared flow. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	24
33	Applied axial magnetic field effects on laboratory plasma jets: Density hollowing, field compression, and azimuthal rotation. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	22
34	Stability of Vlasov equilibria. Part 3. Models. <i>Journal of Plasma Physics</i> , 1982, 27, 37-53.	2.1	21
35	Particle and fluid simulations of resistive current-driven electrostatic ion cyclotron waves. <i>Physics of Fluids</i> , 1987, 30, 3113.	1.4	19
36	Reduced magnetofluid dynamics in the lower-hybrid frequency range. <i>Physics of Fluids B</i> , 1991, 3, 2449-2451.	1.7	19

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37	Reconnection Phenomena during the Formation Phase of Field-Reversal Experiments. Physical Review Letters, 1981, 46, 1519-1522.	7.8	18
38	Stability of Vlasov equilibria. Part 2. One non-ignorable co-ordinate. Journal of Plasma Physics, 1982, 27, 25-35.	2.1	18
39	Stimulated Raman scattering of nonlinear space-charge and transverse magnetic waves with a longitudinal wiggler. Physics of Fluids, 1987, 30, 190.	1.4	18
40	Finite Larmor radius model for axisymmetric compact toroids. Physics of Fluids, 1981, 24, 1989.	1.4	17
41	The role of magnetic field in the transition to streaming ablation in wire arrays. Physics of Plasmas, 2010, 17, 052706.	1.9	15
42	Three-dimensional modeling of the electromagnetic characteristics of equatorial plasma depletions. Journal of Geophysical Research: Space Physics, 2013, 118, 3505-3514.	2.4	14
43	The impact of Hall physics on magnetized high energy density plasma jets. Physics of Plasmas, 2014, 21, .	1.9	14
44	Axial magnetic field injection in magnetized liner inertial fusion. Physics of Plasmas, 2017, 24, .	1.9	14
45	Inadequacies of finite Larmor radius treatments of the internal tilting instability in field-reversed configurations. Physics of Fluids, 1984, 27, 2151.	1.4	13
46	The dispersion functional for multidimensional equilibria. Physics of Fluids, 1985, 28, 3546.	1.4	12
47	On the existence of Alfvénic solitary waves. Physics of Plasmas, 1999, 6, 4778-4780.	1.9	12
48	THE QUANTUM WIGNER FUNCTION IN A MAGNETIC FIELD. International Journal of Modern Physics B, 2003, 17, 4555-4592.	2.0	12
49	Axial magnetic flux amplification in Hall-magnetohydrodynamic simulations of externally magnetized z-pinch. Physics of Plasmas, 2020, 27, .	1.9	12
50	The relationship between field-aligned currents and low-frequency electromagnetic fluctuations. Geophysical Research Letters, 2003, 30, .	4.0	11
51	Particle-in-cell simulations of current shear-driven instabilities and the generation of broadband ELF fluctuations. Journal of Geophysical Research, 2006, 111, .	3.3	10
52	Modeling of strongly collimated jets produced by high energy density plasmas on COBRA. Plasma Physics and Controlled Fusion, 2014, 56, 035002.	2.1	10
53	Investigation of radiative bow-shocks in magnetically accelerated plasma flows. Physics of Plasmas, 2015, 22, 052710.	1.9	10
54	Extended Magnetohydrodynamic Plasma Jets With External Magnetic Fields. IEEE Transactions on Plasma Science, 2016, 44, 638-642.	1.3	9

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55	Computational extended magneto-hydrodynamical study of shock structure generated by flows past an obstacle. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	8
56	Nonlinear space-charge wave propagation on thin annular electron beams. <i>Physics of Fluids</i> , 1984, 27, 1808.	1.4	7
57	Pinching of ablation streams via magnetic field curvature in wire-array Z-pinches. <i>Physics of Plasmas</i> , 2012, 19, 022109.	1.9	7
58	Magnetized laboratory plasma jets: Experiment and simulation. <i>Physical Review E</i> , 2015, 91, 013110.	2.1	7
59	WIGNER FUNCTION IN THE SYMMETRIC GAUGE: DE HAAS-VAN ALPHEN OSCILLATIONS, MAGNETIC FIELD LOCALIZATION AND UNCERTAINTY PRINCIPLE. <i>International Journal of Modern Physics B</i> , 2003, 17, 4683-4732.	2.0	6
60	The influence of Hall physics on power-flow along a coaxial transmission line. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	6
61	The influence of the Hall term on the development of magnetized laser-produced plasma jets. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	6
62	Pulse propagation in a magnetoplasma: 1. Longitudinal propagation. <i>Journal of Geophysical Research</i> , 1972, 77, 4237-4241.	3.3	5
63	The Generation of Warm Dense Matter Using a Magnetic Anvil Cell. <i>IEEE Transactions on Plasma Science</i> , 2018, 46, 3968-3972.	1.3	5
64	Symmetry properties of a multidimensional dispersion functional. <i>Physics of Fluids</i> , 1987, 30, 2414.	1.4	4
65	Extended magnetohydrodynamics simulations of thin-foil Z-pinch implosions with comparison to experiments. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	4
66	Formulation of 8-moment plasma transport with application to the Nernst effect. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	4
67	Kinetic stabilization of interchange modes in an axisymmetric mirror by large orbit radius thermal ions. <i>Physics of Fluids B</i> , 1991, 3, 1015-1025.	1.7	3
68	External Magnetic Field Effects on Ablation of Current-Driven Foils Using an Extended Magnetohydrodynamics Simulation. <i>IEEE Transactions on Plasma Science</i> , 2018, 46, 3746-3752.	1.3	3
69	On the most probable states of two-dimensional plasmas. <i>Journal of Plasma Physics</i> , 1996, 56, 553-567.	2.1	2
70	Anodeâ€Cathode Asymmetry in a Wire-Array Z-Pinch: Highly Resolved Axial-Shear-Flow Structure Observed on the Outer Edges of Ablating Wires. <i>IEEE Transactions on Plasma Science</i> , 2011, 39, 2430-2431.	1.3	2
71	Relativistic Modeling Capabilities in PERSEUS Extended-MHD Simulation Code for HED Plasmas. <i>IEEE Transactions on Plasma Science</i> , 2016, 44, 1112-1126.	1.3	2
72	Plasma Jet Formation Disruption From a Critical Applied Uniform Axial Magnetic Field. <i>IEEE Transactions on Plasma Science</i> , 2019, 47, 3204-3213.	1.3	2

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73	Current polarity effects on laboratory plasma jets. Physics of Plasmas, 2021, 28, .	1.9	2
74	Design of a 3-D Printed Experimental Platform for Studying the Formation and Magnetization of Turbulent Plasma Jets. IEEE Transactions on Plasma Science, 2020, 48, 4056-4067.	1.3	1
75	Reconnection Effects in z-pinch Wire Arrays from 2-D Hall-MHD Simulations. , 2007, , .		0
76	Power Flow in Pulsed-Power Systems: The Influence of Hall Physics and Modeling of the Plasma-Vacuum Interface. IEEE Transactions on Plasma Science, 2019, 47, 2064-2073.	1.3	0
77	Erratum to "Design of a 3-D Printed Experimental Platform for Studying the Formation and Magnetization of Turbulent Plasma Jets" [Nov 20 4056-4067]. IEEE Transactions on Plasma Science, 2021, 49, 1259-1259.	1.3	0
78	10.1063/5.0011833.2. , 2020, , .		0
79	Plasma thermal transport with a generalized 8-moment distribution function. Physics of Plasmas, 2022, 29, 034502.	1.9	0