

Richard D Sydora

List of Publications by Year in descending order

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84
papers

2,708
citations

279798

23
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182427

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85
all docs

85
docs citations

85
times ranked

2319
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluid simulations of three-dimensional reconnection that capture the lower-hybrid drift instability. <i>Journal of Plasma Physics</i> , 2021, 87, .	2.1	4
2	Electromagnetic Turbulence in the Electron Current Layer to Drive Magnetic Reconnection. <i>Astrophysical Journal Letters</i> , 2021, 909, L15.	8.3	7
3	Stimulated excitation of thermal diffusion waves in a magnetized plasma pressure filament. <i>Physics of Plasmas</i> , 2021, 28, 092112.	1.9	1
4	Shock waves in pulsed electrical discharges in liquids: numerical simulation and comparison to experiment. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 075202.	2.8	3
5	Pair plasma instability in homogeneous magnetic guide fields. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	2
6	Parametric Decay of Beam-Generated Langmuir Waves and Three-Wave Interaction in Plateau Plasmas: Implications for Type III Radiation. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 68-89.	2.4	6
7	Drift-Alfvén fluctuations and transport in multiple interacting magnetized electron temperature filaments. <i>Journal of Plasma Physics</i> , 2019, 85, .	2.1	4
8	Spiky electric and magnetic field structures in flux rope experiments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 18239-18244.	7.1	10
9	Nonlocal Ohms Law, Plasma Resistivity, and Reconnection During Collisions of Magnetic Flux Ropes. <i>Astrophysical Journal</i> , 2018, 853, 33.	4.5	12
10	Driven thermal waves and determination of the thermal conductivity in a magnetized plasma. <i>Physical Review E</i> , 2018, 98, .	2.1	4
11	Linear theory of the current sheet shear instability. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 5418-5430.	2.4	10
12	Non-local Ohm's law during collisions of magnetic flux ropes. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	6
13	Microscopic origin of the Drude-Smith model. <i>Physical Review B</i> , 2017, 96, .	3.2	140
14	HIGHER RADIAL MODES OF AZIMUTHAL SURFACE WAVES IN CYLINDRICAL WAVEGUIDES WITHOUT EXTERNAL MAGNETIC FIELD. <i>Progress in Electromagnetics Research M</i> , 2017, 54, 1-7.	0.9	2
15	Using orbital tethers to remediate geomagnetic radiation belts. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 1114-1123.	2.4	2
16	Current-driven Langmuir oscillations and formation of wave packets via modulational instability: Relevance to STEREO observations. <i>Geophysical Research Letters</i> , 2016, 43, 7348-7355.	4.0	3
17	Current-driven Langmuir oscillations and amplitude modulations—Another view on electron beam-plasma interaction. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 235-252.	2.4	6
18	Three-dimensional gyrokinetic simulation of the relaxation of a magnetized temperature filament. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	3

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19	Laboratory study of avalanches in magnetized plasmas. <i>Physical Review E</i> , 2015, 91, 031102.	2.1	13
20	AZIMUTHALLY NON-SYMMETRIC SURFACE WAVES PROPAGATING IN METAL WAVEGUIDES FILLED WITH ISOTROPIC PLASMA. <i>Progress in Electromagnetics Research B</i> , 2014, 61, 87-98.	1.0	3
21	Excitation of the surface flute waves in electron cyclotron frequency range by internal rotating electron beam in a coaxial waveguide. <i>Physica Scripta</i> , 2014, 89, 125605.	2.5	4
22	Kubo conductivity tensor for two- and three-dimensional magnetic nulls. <i>Physical Review E</i> , 2014, 90, 033103.	2.1	1
23	Numerical magnetohydrodynamic simulations of expanding flux ropes: Influence of boundary driving. <i>Physics of Plasmas</i> , 2013, 20, 072104.	1.9	1
24	Plasmoid-Induced Turbulence in Collisionless Magnetic Reconnection. <i>Physical Review Letters</i> , 2012, 109, 265004.	7.8	29
25	Mode crossing effects at electron beam-plasma interaction and related phenomena. <i>Plasma Physics and Controlled Fusion</i> , 2012, 54, 124045.	2.1	18
26	Warm plasma effects on electromagnetic ion cyclotron wave MeV electron interactions in the magnetosphere. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	81
27	Effects of superthermal ring current ion tails on the electromagnetic ion cyclotron instability in multi-ion magnetospheric plasmas. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	21
28	MAGNEOWAVE INDUCED PLASMA WAKEFIELD ACCELERATION AS A MECHANISM FOR UHECR. <i>International Journal of Modern Physics Conference Series</i> , 2011, 01, 151-156.	0.7	0
29	Hybrid Fourier-Vlasov simulation in non-inertial reference frames. <i>Computer Physics Communications</i> , 2011, 182, 2508-2518.	7.5	0
30	Nonlinear evolution of electromagnetic ion cyclotron waves. <i>Physics of Plasmas</i> , 2011, 18, 042108.	1.9	4
31	Whistler-Langmuir oscillitons and their relation to auroral hiss. <i>Annales Geophysicae</i> , 2011, 29, 1739-1753.	1.6	11
32	Beam-excited whistler waves at oblique propagation with relation to STEREO radiation belt observations. <i>Annales Geophysicae</i> , 2010, 28, 1317-1325.	1.6	28
33	Conjugate ground and multisatellite observations of compression-related EMIC Pc1 waves and associated proton precipitation. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	108
34	Parallel whistler instability in a plasma with an anisotropic bi-kappa distribution. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	38
35	Particle description of the electron diffusion region in collisionless magnetic reconnection. <i>Physics of Plasmas</i> , 2009, 16, 112309.	1.9	28
36	Magnetowave Induced Plasma Wakefield Acceleration for Ultrahigh Energy Cosmic Rays. <i>Physical Review Letters</i> , 2009, 102, 111101.	7.8	21

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37	Application of a Grid-Free Kinetic Model to the Collisionless Sheath. Contributions To Plasma Physics, 2008, 48, 116-120.	1.1	7
38	Electromagnetic particle-in-cell simulations on magnetic reconnection with adaptive mesh refinement. Computer Physics Communications, 2008, 178, 915-923.	7.5	21
39	Whistler waves associated with magnetic reconnection. Geophysical Research Letters, 2008, 35, .	4.0	59
40	Energy dissipation via electron energization in standing shear Alfvén waves. Physics of Plasmas, 2007, 14, 062904.	1.9	22
41	Instabilities and solitary structures in plasmas with ion beams: Linear theory and Vlasov simulations. Physics of Plasmas, 2007, 14, 012109.	1.9	3
42	Electron beam-plasma interaction: Linear theory and Vlasov-Poisson simulations. Physics of Plasmas, 2007, 14, 012106.	1.9	24
43	Coherent whistler waves and oscilliton formation: Kinetic simulations. Geophysical Research Letters, 2007, 34, .	4.0	19
44	Collisional particle simulation of ion acoustic instability. Journal of Plasma Physics, 2006, 72, 1295.	2.1	3
45	Particle-in-cell simulations of heat flux driven ion acoustic instability. Physics of Plasmas, 2005, 12, 012321.	1.9	6
46	Deep trapping of electrons by oblique shock waves. Physics of Plasmas, 2005, 12, 052321.	1.9	13
47	Enhanced inverse bremsstrahlung heating rates in a strong laser field. Physics of Plasmas, 2003, 10, 3385-3396.	1.9	64
48	Linear theory of nonlocal transport in a magnetized plasma. Physics of Plasmas, 2003, 10, 4633-4644.	1.9	13
49	Hybrid magnetohydrodynamic-kinetic model of standing shear Alfvén waves. Journal of Plasma Physics, 2003, 69, 277-304.	2.1	18
50	Comparison of turbulence measurements from DIII-D low-mode and high-performance plasmas to turbulence simulations and models. Physics of Plasmas, 2002, 9, 2141-2148.	1.9	64
51	Regional geoelectrical complexity of the Western Canada Basin from magnetotelluric tensor invariants. Earth, Planets and Space, 2002, 54, 899-905.	2.5	4
52	Heat transport and electron distribution function in laser produced plasmas with hot spots. Physics of Plasmas, 2002, 9, 2302-2310.	1.9	40
53	Langevin representation of laser heating in PIC simulations. Computer Physics Communications, 2002, 143, 48-53.	7.5	6
54	Origin of some anisotropic tailward flows in the plasma sheet. Annales Geophysicae, 2002, 20, 1559-1575.	1.6	5

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55	Electron distribution function in laser heated plasmas. <i>Physics of Plasmas</i> , 2001, 8, 550-556.	1.9	47
56	Effect of sheared toroidal rotation on ion temperature gradient turbulence and resistive kink stability in a large aspect ratio tokamak. <i>Physics of Plasmas</i> , 2001, 8, 4849-4855.	1.9	3
57	Non-dimensional scaling of turbulence characteristics and turbulent diffusivity. <i>Nuclear Fusion</i> , 2001, 41, 1235-1242.	3.5	100
58	The quiescent double barrier regime in the DIII-D tokamak. <i>Plasma Physics and Controlled Fusion</i> , 2001, 43, A95-A112.	2.1	35
59	Recent progress toward high performance above the Greenwald density limit in impurity seeded discharges in limiter and divertor tokamaks. <i>Physics of Plasmas</i> , 2001, 8, 2188-2198.	1.9	52
60	Nonlinear dynamics of small-scale magnetic islands in high temperature plasmas. <i>Physics of Plasmas</i> , 2001, 8, 1929-1934.	1.9	26
61	Comparisons and physics basis of tokamak transport models and turbulence simulations. <i>Physics of Plasmas</i> , 2000, 7, 969-983.	1.9	856
62	Turbulent transport and turbulence in radiative I mode plasmas in TEXTOR-94. <i>Nuclear Fusion</i> , 2000, 40, 209-221.	3.5	22
63	Impurity-induced turbulence suppression and reduced transport in the DIII-D tokamak. <i>Physics of Plasmas</i> , 2000, 7, 1870-1877.	1.9	60
64	Effect of externally imposed and self-generated flows on turbulence and magnetohydrodynamic activity in tokamak plasmas. <i>Physics of Plasmas</i> , 2000, 7, 1795-1801.	1.9	11
65	Radial electric field required to suppress ion temperature gradient modes in the Electric Tokamak. <i>Physics of Plasmas</i> , 1999, 6, 4722-4727.	1.9	16
66	Heat Transport Along an Inhomogeneous Magnetic Field. I. Periodic Magnetic Mirrors. <i>Astrophysical Journal</i> , 1999, 525, 638-650.	4.5	23
67	Fluctuation-induced heat transport results from a large global 3D toroidal particle simulation model. <i>Plasma Physics and Controlled Fusion</i> , 1996, 38, A281-A294.	2.1	196
68	Gyrokinetic simulation of internal kink modes. <i>Physics of Plasmas</i> , 1995, 2, 4257-4268.	1.9	39
69	Toroidal gyrokinetic particle simulations of core fluctuations and transport. <i>Physica Scripta</i> , 1995, 52, 474-480.	2.5	24
70	Particle simulation of the magnetized rf plasma sheath. <i>Physics of Fluids B</i> , 1992, 4, 2699-2704.	1.7	6
71	A vlasov particle ion zero mass electron model for plasma simulations. <i>Journal of Computational Physics</i> , 1992, 102, 277-296.	3.8	12
72	Magnetic reconnection driven by current repulsion. <i>Physics of Fluids B</i> , 1990, 2, 488-494.	1.7	17

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73	Fluctuations and transport due to ion-temperature-gradientâ€‘driven instabilities. Physical Review Letters, 1990, 64, 2015-2018.	7.8	33
74	Threeâ€‘dimensional gyrokinetic particle simulation of lowâ€‘frequency drift instabilities. Physics of Fluids B, 1990, 2, 1455-1460.	1.7	16
75	Simulation and non-linear stage of the electrostatic waves observed during the AMPTE lithium release in the solar wind. Advances in Space Research, 1988, 8, 35-38.	2.6	1
76	Electron beam-driven ion modes in a space plasma. Part I: Observations. Advances in Space Research, 1988, 8, 123-127.	2.6	1
77	Dynamics and fluctuation spectra of electrostatic resistive interchange turbulence. Physics of Fluids, 1986, 29, 2871-2880.	1.4	10
78	Three-dimensional particle simulation of drift-wave fluctuations in a sheared magnetic field. Physical Review Letters, 1986, 57, 3269-3272.	7.8	8
79	Particle simulations of current-driven drift waves in shearless and sheared magnetic fields. Physics of Fluids, 1986, 29, 4147.	1.4	4
80	Particle simulation of the resistive g mode in a sheared magnetic field. Physics of Fluids, 1985, 28, 255-260.	1.4	2
81	Particle simulation of drift waves in a sheared magnetic field. Physics of Fluids, 1985, 28, 528.	1.4	9
82	Electrostatic Kelvinâ€‘Helmholtz instability in a radially injected plasma cloud. Physics of Fluids, 1983, 26, 2986.	1.4	20
83	A highâ€‘altitude barium radial injection experiment. Geophysical Research Letters, 1980, 7, 1037-1040.	4.0	34
84	Particle-in-cell simulations of laser-produced hot spot. , 0, , .		0