

# Reiner L Stenzel

## List of Publications by Year in descending order

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130  
papers

3,146  
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189892

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147  
docs citations

147  
times ranked

954  
citing authors

#	ARTICLE	IF	CITATIONS
1	Sheaths and Double Layers with Instabilities. Journal of Technological and Space Plasmas, 2021, 2, 70-92.	0.2	4
2	Probes to measure kinetic and magnetic phenomena in plasmas. Review of Scientific Instruments, 2021, 92, 111101.	1.3	2
3	Whistler modes excited by magnetic antennas: A review. Physics of Plasmas, 2019, 26, .	1.9	13
4	Helicons in uniform fields. II. Poynting vector and angular momenta. Physics of Plasmas, 2018, 25, .	1.9	9
5	Helicons in uniform fields. I. Wave diagnostics with hodograms. Physics of Plasmas, 2018, 25, .	1.9	6
6	Whistler modes in highly nonuniform magnetic fields. II. Propagation in three dimensions. Physics of Plasmas, 2018, 25, 082109.	1.9	4
7	Whistler modes in highly nonuniform magnetic fields. I. Propagation in two-dimensions. Physics of Plasmas, 2018, 25, 082108.	1.9	4
8	Whistler modes in highly nonuniform magnetic fields. III. Propagation near mirror and cusp fields. Physics of Plasmas, 2018, 25, 082110.	1.9	4
9	New properties of whistler modes. Geophysical Research Letters, 2017, 44, 2113-2119.	4.0	4
10	Comparison of electric dipole and magnetic loop antennas for exciting whistler modes. Physics of Plasmas, 2016, 23, .	1.9	12
11	Trivelpiece-Gould modes in a uniform unbounded plasma. Physics of Plasmas, 2016, 23, .	1.9	12
12	Whistler waves with angular momentum in space and laboratory plasmas and their counterparts in free space. Advances in Physics: X, 2016, 1, 687-710.	4.1	25
13	Helicon waves in uniform plasmas. IV. Bessel beams, Gendrin beams, and helicons. Physics of Plasmas, 2016, 23, .	1.9	19
14	Magnetic antenna excitation of whistler modes. IV. Receiving antennas and reciprocity. Physics of Plasmas, 2015, 22, .	1.9	7
15	Helicon modes in uniform plasmas. I. Low $m$ modes. Physics of Plasmas, 2015, 22, .	1.9	24
16	Helicon waves in uniform plasmas. II. High $m$ numbers. Physics of Plasmas, 2015, 22, .	1.9	23
17	Helicons in Unbounded Plasmas. Physical Review Letters, 2015, 114, 205005.	7.8	34
18	Helicon modes in uniform plasmas. III. Angular momentum. Physics of Plasmas, 2015, 22, .	1.9	15

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19	Magnetic antenna excitation of whistler modes. I. Basic properties. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	17
20	Magnetic antenna excitation of whistler modes. II. Antenna arrays. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	15
21	Magnetic dipole discharges. I. Basic properties. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	7
22	Magnetic dipole discharges. II. Cathode and anode spot discharges and probe diagnostics. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	5
23	Oscillating plasma bubbles. IV. Grids, geometry, and gradients. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	10
24	Oscillating plasma bubbles. II. Pulsed experiments. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	9
25	Oscillating plasma bubbles. III. Internal electron sources and sinks. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	9
26	Oscillating plasma bubbles. I. Basic properties and instabilities. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	22
27	Pulsed, unstable and magnetized fireballs. <i>Plasma Sources Science and Technology</i> , 2012, 21, 015012.	3.1	30
28	Whistler Modes in Highly Nonuniform Magnetic Fields. <i>IEEE Transactions on Plasma Science</i> , 2011, 39, 2458-2459.	1.3	3
29	Neutral gas dynamics in fireballs. <i>Journal of Applied Physics</i> , 2011, 109, 113305.	2.5	15
30	Transit time instabilities in an inverted fireball. II. Mode jumping and nonlinearities. <i>Physics of Plasmas</i> , 2011, 18, 012105.	1.9	27
31	Transit time instabilities in an inverted fireball. I. Basic properties. <i>Physics of Plasmas</i> , 2011, 18, 012104.	1.9	32
32	Electron-rich sheath dynamics. I. Transient currents and sheath-plasma instabilities. <i>Physics of Plasmas</i> , 2011, 18, 062112.	1.9	16
33	Electron-rich sheath dynamics. II. Sheath ionization and relaxation instabilities. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	15
34	Positively Biased Probes in Magnetized Plasmas. <i>Contributions To Plasma Physics</i> , 2011, 51, 560-566.	1.1	1
35	High-Frequency Instabilities in Sheaths and Fireballs. <i>IEEE Transactions on Plasma Science</i> , 2011, 39, 2448-2449.	1.3	0
36	High frequency instability of a magnetized spherical electron sheath. <i>Physics of Plasmas</i> , 2010, 17, 062109.	1.9	7

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37	Nonlinear electron magnetohydrodynamic physics. VII. Magnetic loop antenna in a field-free plasma. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	8
38	Nonlinear electron magnetohydrodynamic physics. VI. Magnetic loop antenna across the ambient field. <i>Physics of Plasmas</i> , 2009, 16, 022102.	1.9	3
39	Plasma Fireballs. <i>IEEE Transactions on Plasma Science</i> , 2008, 36, 1000-1001.	1.3	11
40	Dynamics of fireballs. <i>Plasma Sources Science and Technology</i> , 2008, 17, 035006.	3.1	70
41	Whistler Spheromaks. <i>IEEE Transactions on Plasma Science</i> , 2008, 36, 1170-1171.	1.3	1
42	Whistler spheromaks, instabilities and triggered emission experiments. <i>Plasma Physics and Controlled Fusion</i> , 2008, 50, 074009.	2.1	6
43	Field-Reversed Configurations in an Unmagnetized Plasma. <i>Physical Review Letters</i> , 2008, 101, 135002.	7.8	8
44	Nonlinear electron magnetohydrodynamics physics. V. Triggered whistler emissions. <i>Physics of Plasmas</i> , 2008, 15, 062110.	1.9	3
45	Nonlinear electron magnetohydrodynamics physics. II. Wave propagation and wave-wave interactions. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	9
46	Nonlinear electron magnetohydrodynamics physics. I. Whistler spheromaks, mirrors, and field reversed configurations. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	13
47	Nonlinear electron magnetohydrodynamics physics. III. Electron energization. <i>Physics of Plasmas</i> , 2008, 15, 042309.	1.9	7
48	Nonlinear electron magnetohydrodynamics physics. IV. Whistler instabilities. <i>Physics of Plasmas</i> , 2008, 15, 062109.	1.9	12
49	Whistler Instability in an Electron-Magnetohydrodynamic Spheromak. <i>Physical Review Letters</i> , 2007, 99, 265005.	7.8	16
50	Electron heating by nonlinear whistler waves. <i>Plasma Physics and Controlled Fusion</i> , 2007, 49, A17-A27.	2.1	11
51	Whistler Modes with Wave Magnetic Fields Exceeding the Ambient Field. <i>Physical Review Letters</i> , 2006, 96, 095004.	7.8	23
52	Three-dimensional electron magnetohydrodynamic reconnection. III. Energy conversion and electron heating. <i>Physics of Plasmas</i> , 2003, 10, 2801-2809.	1.9	10
53	Three-dimensional electron magnetohydrodynamic reconnection. II. Tilt and precession of a field-reversed configuration. <i>Physics of Plasmas</i> , 2003, 10, 2794-2800.	1.9	7
54	Three-dimensional electron magnetohydrodynamic reconnection. I. Fields, currents, and flows. <i>Physics of Plasmas</i> , 2003, 10, 2780-2793.	1.9	15

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55	Three-dimensional electron magnetohydrodynamic reconnection. IV. Instabilities, fluctuations, and emissions. <i>Physics of Plasmas</i> , 2003, 10, 2810-2818.	1.9	16
56	Precession of an Electron-Magnetohydrodynamic Field-Reversed Configuration. <i>Physical Review Letters</i> , 2002, 88, 185004.	7.8	5
57	A new laboratory experiment on magnetic reconnection. <i>Physics of Plasmas</i> , 2002, 9, 1925-1930.	1.9	18
58	3D EMHD reconnection in a laboratory plasma. <i>Earth, Planets and Space</i> , 2001, 53, 553-560.	2.5	12
59	Magnetic helicity reversal of a whistler vortex transmitted through a three-dimensional magnetic null point. <i>Physics of Plasmas</i> , 2001, 8, 4810-4815.	1.9	9
60	Vortices and Flux Ropes in Electron MHD Plasmas I. <i>Physica Scripta</i> , 2000, T84, 112.	2.5	11
61	Electron magnetohydrodynamic turbulence in a high-beta plasma. III. Conditionally averaged multipoint fluctuation measurements. <i>Physics of Plasmas</i> , 2000, 7, 4466-4476.	1.9	11
62	Electron magnetohydrodynamic turbulence in a high-beta plasma. II. Single point fluctuation measurements. <i>Physics of Plasmas</i> , 2000, 7, 4457-4465.	1.9	8
63	Laboratory studies of magnetic vortices. III. Collisions of electron magnetohydrodynamic vortices. <i>Physics of Plasmas</i> , 2000, 7, 519-528.	1.9	29
64	Electron magnetohydrodynamic turbulence in a high-beta plasma. I. Plasma parameters and instability conditions. <i>Physics of Plasmas</i> , 2000, 7, 4450-4456.	1.9	27
65	Secondary-Electron-Emission Instability in a Plasma. <i>Physical Review Letters</i> , 1999, 82, 556-559.	7.8	37
66	Laboratory studies of magnetic vortices. II. Helicity reversal during reflection of a magnetic vortex at a conducting boundary. <i>Physics of Plasmas</i> , 1999, 6, 3217-3225.	1.9	1
67	Laboratory studies of magnetic vortices. II. Helicity reversal during reflection of a magnetic vortex at a conducting boundary. <i>Physics of Plasmas</i> , 1999, 6, 4458-4466.	1.9	9
68	Laboratory studies of magnetic vortices. I. Directional radiation of whistler waves based on helicity injection. <i>Physics of Plasmas</i> , 1999, 6, 4450-4457.	1.9	16
69	On Conservation of Helicity and Energy of Reflecting Electron Magnetohydrodynamic Vortices. <i>Physical Review Letters</i> , 1999, 82, 4006-4009.	7.8	10
70	Laboratory studies of magnetic vortices. I. Directional radiation of whistler waves based on helicity injection. <i>Physics of Plasmas</i> , 1999, 6, 2989-2996.	1.9	4
71	Whistler waves in space and laboratory plasmas. <i>Journal of Geophysical Research</i> , 1999, 104, 14379-14395.	3.3	117
72	Transient current collection and closure for a laboratory tether. <i>Geophysical Research Letters</i> , 1998, 25, 733-736.	4.0	8

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73	Generation of dc Magnetic Fields by Rectifying Nonlinear Whistlers. <i>Physical Review Letters</i> , 1998, 81, 2064-2067.	7.8	21
74	Pulsed currents carried by whistlers. VIII. Current disruptions and instabilities caused by plasma erosion. <i>Physics of Plasmas</i> , 1997, 4, 26-35.	1.9	21
75	Pulsed currents carried by whistlers. IX. In situ measurements of currents disrupted by plasma erosion. <i>Physics of Plasmas</i> , 1997, 4, 36-52.	1.9	20
76	Helicity and Transport in Electron MHD Heat Pulses. <i>Physical Review Letters</i> , 1996, 76, 1469-1472.	7.8	6
77	Pulsed currents carried by whistlers. VII. Helicity and transport in heat pulses. <i>Physics of Plasmas</i> , 1996, 3, 2599-2609.	1.9	14
78	Pulsed currents carried by whistlers. VI. Nonlinear effects. <i>Physics of Plasmas</i> , 1996, 3, 2589-2598.	1.9	25
79	Pulsed currents carried by whistlers. V. Detailed new results of magnetic antenna excitation. <i>Physics of Plasmas</i> , 1995, 2, 4083-4093.	1.9	48
80	Pulsed currents carried by whistlers. III. Magnetic fields and currents excited by an electrode. <i>Physics of Plasmas</i> , 1995, 2, 1100-1113.	1.9	33
81	Pulsed currents carried by whistlers. IV. Electric fields and radiation excited by an electrode. <i>Physics of Plasmas</i> , 1995, 2, 1114-1128.	1.9	30
82	Multidimensional fourier analysis of a whistler pulse excited by a loop antenna. <i>Geophysical Monograph Series</i> , 1994, , 121-124.	0.1	0
83	Magnetic dipole antennas in moving plasmas: A laboratory simulation. <i>Geophysical Monograph Series</i> , 1994, , 129-133.	0.1	3
84	Inductive and space charge electric fields in a whistler wave packet. <i>Physical Review Letters</i> , 1994, 72, 1658-1661.	7.8	14
85	Beam scattering and heating at the front of an electron beam injected into a plasma. <i>Physics of Plasmas</i> , 1994, 1, 2063-2071.	1.9	9
86	Three-dimensional currents of electrodynamic tethers obtained from laboratory models. <i>Geophysical Research Letters</i> , 1994, 21, 413-416.	4.0	14
87	Thermal magnetic fluctuations of whistlers in a Maxwellian plasma. <i>Physics of Fluids B</i> , 1993, 5, 3122-3126.	1.7	13
88	Cyclotron harmonic lines in the thermal magnetic fluctuation spectrum of spiraling electrons in plasmas. <i>Physics of Fluids B</i> , 1993, 5, 3789-3797.	1.7	18
89	Pulsed currents carried by whistlers. Part I: Excitation by magnetic antennas. <i>Physics of Fluids B</i> , 1993, 5, 325-338.	1.7	58
90	A new probe for measuring small electric fields in plasmas. <i>Review of Scientific Instruments</i> , 1991, 62, 130-139.	1.3	30

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91	Particle dynamics and current-free double layers in an expanding, collisionless, two-electron-population plasma. <i>Physics of Fluids B</i> , 1991, 3, 899-914.	1.7	90
92	Lower-hybrid turbulence in a nonuniform magnetoplasma. <i>Physics of Fluids B</i> , 1991, 3, 2568-2581.	1.7	25
93	Nonlinear penetration of whistler pulses into collisional plasmas via conductivity modifications. <i>Physical Review Letters</i> , 1991, 67, 1867-1870.	7.8	18
94	Modeling of induced currents from electrodynamic tethers in a laboratory plasma. <i>Geophysical Research Letters</i> , 1990, 17, 1589-1592.	4.0	18
95	Transport of Current by Whistler Waves. <i>Physical Review Letters</i> , 1989, 62, 272-275.	7.8	32
96	High-frequency instability of the sheath-plasma resonance. <i>Physics of Fluids B</i> , 1989, 1, 2273-2282.	1.7	56
97	Whistler wings from moving electrodes in a magnetized laboratory plasma. <i>Geophysical Research Letters</i> , 1989, 16, 361-364.	4.0	22
98	High-frequency noise on antennas in plasmas. <i>Physics of Fluids B</i> , 1989, 1, 1369-1380.	1.7	26
99	Mass-sensitive ion energy analyzer for multispecies plasmas. <i>Review of Scientific Instruments</i> , 1987, 58, 2099-2102.	1.3	5
100	Laboratory Experiments on Current Sheet Disruptions, Double Layers Turbulence and Reconnection. <i>Symposium - International Astronomical Union</i> , 1985, 107, 47-60.	0.1	2
101	Electromagnetic radiation and nonlinear energy flow in an electron beam-plasma system. <i>Physics of Fluids</i> , 1985, 28, 958.	1.4	46
102	Magnetic field line reconnection experiments: 6. Magnetic turbulence. <i>Journal of Geophysical Research</i> , 1984, 89, 2715-2733.	3.3	62
103	Observations of odd-half cyclotron harmonic emissions in a shell-Maxwellian laboratory plasma. <i>Journal of Geophysical Research</i> , 1983, 88, 7086-7094.	3.3	5
104	Nonlinear Energy Flow in a Beam-Plasma System. <i>Physical Review Letters</i> , 1983, 50, 1133-1136.	7.8	18
105	Electron temperature measurements using a 12-channel array probe. <i>Review of Scientific Instruments</i> , 1983, 54, 935-939.	1.3	8
106	Directional velocity analyzer for measuring electron distribution functions in plasmas. <i>Review of Scientific Instruments</i> , 1983, 54, 1302-1310.	1.3	74
107	Double layer formation during current sheet disruptions in a reconnection experiment. <i>Geophysical Research Letters</i> , 1982, 9, 680-683.	4.0	18
108	Magnetic field line reconnection experiments, 4. Resistivity, heating, and energy flow. <i>Journal of Geophysical Research</i> , 1982, 87, 111-117.	3.3	70

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109	Novel directional ion energy analyzer. <i>Review of Scientific Instruments</i> , 1982, 53, 1027-1031.	1.3	75
110	Magnetic field line reconnection experiments 1. Field topologies. <i>Journal of Geophysical Research</i> , 1981, 86, 649-658.	3.3	100
111	Sheath expansion of plane probe by ion beam reflection. <i>Journal of Applied Physics</i> , 1981, 52, 1197-1201.	2.5	22
112	Potential double layers formed by ion beam reflection in magnetized plasmas. <i>Physics of Fluids</i> , 1981, 24, 708.	1.4	49
113	Experiments on Magnetic-Field-Line Reconnection. <i>Physical Review Letters</i> , 1979, 42, 1055-1057.	7.8	71
114	Direct density display with a resonance cone rf probe. <i>Review of Scientific Instruments</i> , 1977, 48, 485-487.	1.3	6
115	Nonlinear interactions of focused resonance cone fields with plasmas. <i>Physics of Fluids</i> , 1977, 20, 108.	1.4	42
116	Observation of beam-generated VLF hiss in a large laboratory plasma. <i>Journal of Geophysical Research</i> , 1977, 82, 4805-4814.	3.3	63
117	Filamentation of large amplitude whistler waves. <i>Geophysical Research Letters</i> , 1976, 3, 61-64.	4.0	32
118	Antenna radiation patterns in the whistler wave regime measured in a large laboratory plasma. <i>Radio Science</i> , 1976, 11, 1045-1056.	1.6	69
119	Microwave resonator probe for localized density measurements in weakly magnetized plasmas. <i>Review of Scientific Instruments</i> , 1976, 47, 603-607.	1.3	221
120	Filamentation instability of a large amplitude whistler wave. <i>Physics of Fluids</i> , 1976, 19, 865.	1.4	120
121	Whistler wave propagation in a large magnetoplasma. <i>Physics of Fluids</i> , 1976, 19, 857.	1.4	143
122	Large, quiescent, magnetized plasma for wave studies. <i>Review of Scientific Instruments</i> , 1975, 46, 1386-1393.	1.3	50
123	Electrostatic waves near the lower hybrid frequency. <i>Physical Review A</i> , 1975, 11, 2057-2060.	2.5	28
124	Electron plasma waves in an unbounded uniform magnetoplasma. <i>Physics of Fluids</i> , 1973, 16, 565.	1.4	9
125	Energetic Ion Beam Source and Free-Stream Beam Diagnostic Techniques. <i>Review of Scientific Instruments</i> , 1973, 44, 617-621.	1.3	5
126	Upper-Hybrid Resonance Absorption, Emission, and Heating of an Afterglow Plasma Column. <i>Journal of Applied Physics</i> , 1971, 42, 4225-4235.	2.5	19



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127	Measurements of Helicity and Reconnection in Electron MHD Plasmas. Geophysical Monograph Series, 0, , 179-186.	0.1	1
128	Laboratory Experiments on Magnetic Field Line Reconnection. Geophysical Monograph Series, 0, , 398-407.	0.1	3
129	Potential Double Layers in Strongly Magnetized Plasmas. Geophysical Monograph Series, 0, , 226-233.	0.1	3
130	Ion Acceleration in Laboratory Plasmas. Geophysical Monograph Series, 0, , 211-223.	0.1	1