

# Reiner L Stenzel

## List of Publications by Year in descending order

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130  
papers

3,146  
citations

172457

29  
h-index

189892

50  
g-index

147  
all docs

147  
docs citations

147  
times ranked

954  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microwave resonator probe for localized density measurements in weakly magnetized plasmas. Review of Scientific Instruments, 1976, 47, 603-607.	1.3	221
2	Whistler wave propagation in a large magnetoplasma. Physics of Fluids, 1976, 19, 857.	1.4	143
3	Filamentation instability of a large amplitude whistler wave. Physics of Fluids, 1976, 19, 865.	1.4	120
4	Whistler waves in space and laboratory plasmas. Journal of Geophysical Research, 1999, 104, 14379-14395.	3.3	117
5	Magnetic field line reconnection experiments 1. Field topologies. Journal of Geophysical Research, 1981, 86, 649-658.	3.3	100
6	Particle dynamics and current-free double layers in an expanding, collisionless, two-electron-population plasma. Physics of Fluids B, 1991, 3, 899-914.	1.7	90
7	Novel directional ion energy analyzer. Review of Scientific Instruments, 1982, 53, 1027-1031.	1.3	75
8	Directional velocity analyzer for measuring electron distribution functions in plasmas. Review of Scientific Instruments, 1983, 54, 1302-1310.	1.3	74
9	Experiments on Magnetic-Field-Line Reconnection. Physical Review Letters, 1979, 42, 1055-1057.	7.8	71
10	Magnetic field line reconnection experiments, 4. Resistivity, heating, and energy flow. Journal of Geophysical Research, 1982, 87, 111-117.	3.3	70
11	Dynamics of fireballs. Plasma Sources Science and Technology, 2008, 17, 035006.	3.1	70
12	Antenna radiation patterns in the whistler wave regime measured in a large laboratory plasma. Radio Science, 1976, 11, 1045-1056.	1.6	69
13	Observation of beam-generated VLF hiss in a large laboratory plasma. Journal of Geophysical Research, 1977, 82, 4805-4814.	3.3	63
14	Magnetic field line reconnection experiments: 6. Magnetic turbulence. Journal of Geophysical Research, 1984, 89, 2715-2733.	3.3	62
15	Pulsed currents carried by whistlers. Part I: Excitation by magnetic antennas. Physics of Fluids B, 1993, 5, 325-338.	1.7	58
16	High-frequency instability of the sheath-plasma resonance. Physics of Fluids B, 1989, 1, 2273-2282.	1.7	56
17	Large, quiescent, magnetized plasma for wave studies. Review of Scientific Instruments, 1975, 46, 1386-1393.	1.3	50
18	Potential double layers formed by ion beam reflection in magnetized plasmas. Physics of Fluids, 1981, 24, 708.	1.4	49

#	ARTICLE	IF	CITATIONS
19	Pulsed currents carried by whistlers. V. Detailed new results of magnetic antenna excitation. Physics of Plasmas, 1995, 2, 4083-4093.	1.9	48
20	Electromagnetic radiation and nonlinear energy flow in an electron beam-plasma system. Physics of Fluids, 1985, 28, 958.	1.4	46
21	Nonlinear interactions of focused resonance cone fields with plasmas. Physics of Fluids, 1977, 20, 108.	1.4	42
22	Secondary-Electron-Emission Instability in a Plasma. Physical Review Letters, 1999, 82, 556-559.	7.8	37
23	Helicons in Unbounded Plasmas. Physical Review Letters, 2015, 114, 205005.	7.8	34
24	Pulsed currents carried by whistlers. III. Magnetic fields and currents excited by an electrode. Physics of Plasmas, 1995, 2, 1100-1113.	1.9	33
25	Filamentation of large amplitude whistler waves. Geophysical Research Letters, 1976, 3, 61-64.	4.0	32
26	Transport of Current by Whistler Waves. Physical Review Letters, 1989, 62, 272-275.	7.8	32
27	Transit time instabilities in an inverted fireball. I. Basic properties. Physics of Plasmas, 2011, 18, 012104.	1.9	32
28	A new probe for measuring small electric fields in plasmas. Review of Scientific Instruments, 1991, 62, 130-139.	1.3	30
29	Pulsed currents carried by whistlers. IV. Electric fields and radiation excited by an electrode. Physics of Plasmas, 1995, 2, 1114-1128.	1.9	30
30	Pulsed, unstable and magnetized fireballs. Plasma Sources Science and Technology, 2012, 21, 015012.	3.1	30
31	Laboratory studies of magnetic vortices. III. Collisions of electron magnetohydrodynamic vortices. Physics of Plasmas, 2000, 7, 519-528.	1.9	29
32	Electrostatic waves near the lower hybrid frequency. Physical Review A, 1975, 11, 2057-2060.	2.5	28
33	Electron magnetohydrodynamic turbulence in a high-beta plasma. I. Plasma parameters and instability conditions. Physics of Plasmas, 2000, 7, 4450-4456.	1.9	27
34	Transit time instabilities in an inverted fireball. II. Mode jumping and nonlinearities. Physics of Plasmas, 2011, 18, 012105.	1.9	27
35	High-frequency noise on antennas in plasmas. Physics of Fluids B, 1989, 1, 1369-1380.	1.7	26
36	Lower-hybrid turbulence in a nonuniform magnetoplasma. Physics of Fluids B, 1991, 3, 2568-2581.	1.7	25

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37	Pulsed currents carried by whistlers. VI. Nonlinear effects. Physics of Plasmas, 1996, 3, 2589-2598.	1.9	25
38	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
39	Helicon modes in uniform plasmas. I. Low $m$ modes. Physics of Plasmas, 2015, 22, .	1.9	24
40	Whistler Modes with Wave Magnetic Fields Exceeding the Ambient Field. Physical Review Letters, 2006, 96, 095004.	7.8	23
41	Helicon waves in uniform plasmas. II. High $m$ numbers. Physics of Plasmas, 2015, 22, .	1.9	23
42	Sheath expansion of plane probe by ion-beam reflection. Journal of Applied Physics, 1981, 52, 1197-1201.	2.5	22
43	Whistler wings from moving electrodes in a magnetized laboratory plasma. Geophysical Research Letters, 1989, 16, 361-364.	4.0	22
44	Oscillating plasma bubbles. I. Basic properties and instabilities. Physics of Plasmas, 2012, 19, .	1.9	22
45	Pulsed currents carried by whistlers. VIII. Current disruptions and instabilities caused by plasma erosion. Physics of Plasmas, 1997, 4, 26-35.	1.9	21
46	Generation of dc Magnetic Fields by Rectifying Nonlinear Whistlers. Physical Review Letters, 1998, 81, 2064-2067.	7.8	21
47	Pulsed currents carried by whistlers. IX. In situ measurements of currents disrupted by plasma erosion. Physics of Plasmas, 1997, 4, 36-52.	1.9	20
48	Upper-Hybrid Resonance Absorption, Emission, and Heating of an Afterglow Plasma Column. Journal of Applied Physics, 1971, 42, 4225-4235.	2.5	19
49	Helicon waves in uniform plasmas. IV. Bessel beams, Gendrin beams, and helicons. Physics of Plasmas, 2016, 23, .	1.9	19
50	Double layer formation during current sheet disruptions in a reconnection experiment. Geophysical Research Letters, 1982, 9, 680-683.	4.0	18
51	Nonlinear Energy Flow in a Beam-Plasma System. Physical Review Letters, 1983, 50, 1133-1136.	7.8	18
52	Modeling of induced currents from electrodynamic tethers in a laboratory plasma. Geophysical Research Letters, 1990, 17, 1589-1592.	4.0	18
53	Nonlinear penetration of whistler pulses into collisional plasmas via conductivity modifications. Physical Review Letters, 1991, 67, 1867-1870.	7.8	18
54	Cyclotron harmonic lines in the thermal magnetic fluctuation spectrum of spiraling electrons in plasmas. Physics of Fluids B, 1993, 5, 3789-3797.	1.7	18

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55	A new laboratory experiment on magnetic reconnection. <i>Physics of Plasmas</i> , 2002, 9, 1925-1930.	1.9	18
56	Magnetic antenna excitation of whistler modes. I. Basic properties. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	17
57	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
58	Three-dimensional electron magnetohydrodynamic reconnection. IV. Instabilities, fluctuations, and emissions. <i>Physics of Plasmas</i> , 2003, 10, 2810-2818.	1.9	16
59	Whistler Instability in an Electron-Magnetohydrodynamic Spheromak. <i>Physical Review Letters</i> , 2007, 99, 265005.	7.8	16
60	Electron-rich sheath dynamics. I. Transient currents and sheath-plasma instabilities. <i>Physics of Plasmas</i> , 2011, 18, 062112.	1.9	16
61	Three-dimensional electron magnetohydrodynamic reconnection. I. Fields, currents, and flows. <i>Physics of Plasmas</i> , 2003, 10, 2780-2793.	1.9	15
62	Neutral gas dynamics in fireballs. <i>Journal of Applied Physics</i> , 2011, 109, 113305.	2.5	15
63	Electron-rich sheath dynamics. II. Sheath ionization and relaxation instabilities. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	15
64	Magnetic antenna excitation of whistler modes. II. Antenna arrays. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	15
65	Helicon modes in uniform plasmas. III. Angular momentum. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	15
66	Inductive and space charge electric fields in a whistler wave packet. <i>Physical Review Letters</i> , 1994, 72, 1658-1661.	7.8	14
67	Three-dimensional currents of electrodynamic tethers obtained from laboratory models. <i>Geophysical Research Letters</i> , 1994, 21, 413-416.	4.0	14
68	Pulsed currents carried by whistlers. VII. Helicity and transport in heat pulses. <i>Physics of Plasmas</i> , 1996, 3, 2599-2609.	1.9	14
69	Thermal magnetic fluctuations of whistlers in a Maxwellian plasma. <i>Physics of Fluids B</i> , 1993, 5, 3122-3126.	1.7	13
70	Nonlinear electron magnetohydrodynamics physics. I. Whistler spheromaks, mirrors, and field reversed configurations. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	13
71	Whistler modes excited by magnetic antennas: A review. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	13
72	3D EMHD reconnection in a laboratory plasma. <i>Earth, Planets and Space</i> , 2001, 53, 553-560.	2.5	12

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73	Nonlinear electron magnetohydrodynamics physics. IV. Whistler instabilities. Physics of Plasmas, 2008, 15, 062109.	1.9	12
74	Comparison of electric dipole and magnetic loop antennas for exciting whistler modes. Physics of Plasmas, 2016, 23, .	1.9	12
75	Trivelpiece-Gould modes in a uniform unbounded plasma. Physics of Plasmas, 2016, 23, .	1.9	12
76	Vortices and Flux Ropes in Electron MHD Plasmas I. Physica Scripta, 2000, T84, 112.	2.5	11
77	Electron magnetohydrodynamic turbulence in a high-beta plasma. III. Conditionally averaged multipoint fluctuation measurements. Physics of Plasmas, 2000, 7, 4466-4476.	1.9	11
78	Electron heating by nonlinear whistler waves. Plasma Physics and Controlled Fusion, 2007, 49, A17-A27.	2.1	11
79	Plasma Fireballs. IEEE Transactions on Plasma Science, 2008, 36, 1000-1001.	1.3	11
80	On Conservation of Helicity and Energy of Reflecting Electron Magnetohydrodynamic Vortices. Physical Review Letters, 1999, 82, 4006-4009.	7.8	10
81	Three-dimensional electron magnetohydrodynamic reconnection. III. Energy conversion and electron heating. Physics of Plasmas, 2003, 10, 2801-2809.	1.9	10
82	Oscillating plasma bubbles. IV. Grids, geometry, and gradients. Physics of Plasmas, 2012, 19, .	1.9	10
83	Electron plasma waves in an unbounded uniform magnetoplasma. Physics of Fluids, 1973, 16, 565.	1.4	9
84	Beam scattering and heating at the front of an electron beam injected into a plasma. Physics of Plasmas, 1994, 1, 2063-2071.	1.9	9
85	Laboratory studies of magnetic vortices. II. Helicity reversal during reflection of a magnetic vortex at a conducting boundary. Physics of Plasmas, 1999, 6, 4458-4466.	1.9	9
86	Magnetic helicity reversal of a whistler vortex transmitted through a three-dimensional magnetic null point. Physics of Plasmas, 2001, 8, 4810-4815.	1.9	9
87	Nonlinear electron magnetohydrodynamics physics. II. Wave propagation and wave-wave interactions. Physics of Plasmas, 2008, 15, .	1.9	9
88	Oscillating plasma bubbles. II. Pulsed experiments. Physics of Plasmas, 2012, 19, .	1.9	9
89	Oscillating plasma bubbles. III. Internal electron sources and sinks. Physics of Plasmas, 2012, 19, .	1.9	9
90	Helicons in uniform fields. II. Poynting vector and angular momenta. Physics of Plasmas, 2018, 25, .	1.9	9

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91	Electron temperature measurements using a 12-channel array probe. Review of Scientific Instruments, 1983, 54, 935-939.	1.3	8
92	Transient current collection and closure for a laboratory tether. Geophysical Research Letters, 1998, 25, 733-736.	4.0	8
93	Electron magnetohydrodynamic turbulence in a high-beta plasma. II. Single point fluctuation measurements. Physics of Plasmas, 2000, 7, 4457-4465.	1.9	8
94	Field-Reversed Configurations in an Unmagnetized Plasma. Physical Review Letters, 2008, 101, 135002.	7.8	8
95	Nonlinear electron magnetohydrodynamic physics. VII. Magnetic loop antenna in a field-free plasma. Physics of Plasmas, 2009, 16, .	1.9	8
96	Three-dimensional electron magnetohydrodynamic reconnection. II. Tilt and precession of a field-reversed configuration. Physics of Plasmas, 2003, 10, 2794-2800.	1.9	7
97	Nonlinear electron magnetohydrodynamics physics. III. Electron energization. Physics of Plasmas, 2008, 15, 042309.	1.9	7
98	High frequency instability of a magnetized spherical electron sheath. Physics of Plasmas, 2010, 17, 062109.	1.9	7
99	Magnetic dipole discharges. I. Basic properties. Physics of Plasmas, 2013, 20, .	1.9	7
100	Magnetic antenna excitation of whistler modes. IV. Receiving antennas and reciprocity. Physics of Plasmas, 2015, 22, .	1.9	7
101	Direct density display with a resonance cone rf probe. Review of Scientific Instruments, 1977, 48, 485-487.	1.3	6
102	Helicity and Transport in Electron MHD Heat Pulses. Physical Review Letters, 1996, 76, 1469-1472.	7.8	6
103	Whistler spheromaks, instabilities and triggered emission experiments. Plasma Physics and Controlled Fusion, 2008, 50, 074009.	2.1	6
104	Helicons in uniform fields. I. Wave diagnostics with hodograms. Physics of Plasmas, 2018, 25, .	1.9	6
105	Energetic Ion Beam Source and Free-Stream Beam Diagnostic Techniques. Review of Scientific Instruments, 1973, 44, 617-621.	1.3	5
106	Observations of odd-half cyclotron harmonic emissions in a shell-Maxwellian laboratory plasma. Journal of Geophysical Research, 1983, 88, 7086-7094.	3.3	5
107	Mass-sensitive ion energy analyzer for multispecies plasmas. Review of Scientific Instruments, 1987, 58, 2099-2102.	1.3	5
108	Precession of an Electron-Magnetohydrodynamic Field-Reversed Configuration. Physical Review Letters, 2002, 88, 185004.	7.8	5

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109	Magnetic dipole discharges. II. Cathode and anode spot discharges and probe diagnostics. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	5
110	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
111	New properties of whistler modes. <i>Geophysical Research Letters</i> , 2017, 44, 2113-2119.	4.0	4
112	Whistler modes in highly nonuniform magnetic fields. II. Propagation in three dimensions. <i>Physics of Plasmas</i> , 2018, 25, 082109.	1.9	4
113	Whistler modes in highly nonuniform magnetic fields. I. Propagation in two-dimensions. <i>Physics of Plasmas</i> , 2018, 25, 082108.	1.9	4
114	Whistler modes in highly nonuniform magnetic fields. III. Propagation near mirror and cusp fields. <i>Physics of Plasmas</i> , 2018, 25, 082110.	1.9	4
115	Sheaths and Double Layers with Instabilities. <i>Journal of Technological and Space Plasmas</i> , 2021, 2, 70-92.	0.2	4
116	Magnetic dipole antennas in moving plasmas: A laboratory simulation. <i>Geophysical Monograph Series</i> , 1994, , 129-133.	0.1	3
117	Nonlinear electron magnetohydrodynamics physics. V. Triggered whistler emissions. <i>Physics of Plasmas</i> , 2008, 15, 062110.	1.9	3
118	Nonlinear electron magnetohydrodynamic physics. VI. Magnetic loop antenna across the ambient field. <i>Physics of Plasmas</i> , 2009, 16, 022102.	1.9	3
119	Whistler Modes in Highly Nonuniform Magnetic Fields. <i>IEEE Transactions on Plasma Science</i> , 2011, 39, 2458-2459.	1.3	3
120	Laboratory Experiments on Magnetic Field Line Reconnection. <i>Geophysical Monograph Series</i> , 0, , 398-407.	0.1	3
121	Potential Double Layers in Strongly Magnetized Plasmas. <i>Geophysical Monograph Series</i> , 0, , 226-233.	0.1	3
122	Laboratory Experiments on Current Sheet Disruptions, Double Layers Turbulence and Reconnection. <i>Symposium - International Astronomical Union</i> , 1985, 107, 47-60.	0.1	2
123	Probes to measure kinetic and magnetic phenomena in plasmas. <i>Review of Scientific Instruments</i> , 2021, 92, 111101.	1.3	2
124	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
125	Whistler Spheromaks. <i>IEEE Transactions on Plasma Science</i> , 2008, 36, 1170-1171.	1.3	1
126	Positively Biased Probes in Magnetized Plasmas. <i>Contributions To Plasma Physics</i> , 2011, 51, 560-566.	1.1	1



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127	Measurements of Helicity and Reconnection in Electron MHD Plasmas. Geophysical Monograph Series, 0, , 179-186.	0.1	1
128	Ion Acceleration in Laboratory Plasmas. Geophysical Monograph Series, 0, , 211-223.	0.1	1
129	Multidimensional fourier analysis of a whistler pulse excited by a loop antenna. Geophysical Monograph Series, 1994, , 121-124.	0.1	0
130	High-Frequency Instabilities in Sheaths and Fireballs. IEEE Transactions on Plasma Science, 2011, 39, 2448-2449.	1.3	0