

# J Manuel Urrutia

## List of Publications by Year in descending order

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70  
papers

1,004  
citations

430442

18  
h-index

525886

27  
g-index

75  
all docs

75  
docs citations

75  
times ranked

291  
citing authors

#	ARTICLE	IF	CITATIONS
1	Directional velocity analyzer for measuring electron distribution functions in plasmas. Review of Scientific Instruments, 1983, 54, 1302-1310.	0.6	74
2	Pulsed currents carried by whistlers. Part I: Excitation by magnetic antennas. Physics of Fluids B, 1993, 5, 325-338.	1.7	58
3	Pulsed currents carried by whistlers. V. Detailed new results of magnetic antenna excitation. Physics of Plasmas, 1995, 2, 4083-4093.	0.7	48
4	Helicons in Unbounded Plasmas. Physical Review Letters, 2015, 114, 205005.	2.9	34
5	Pulsed currents carried by whistlers. III. Magnetic fields and currents excited by an electrode. Physics of Plasmas, 1995, 2, 1100-1113.	0.7	33
6	Transport of Current by Whistler Waves. Physical Review Letters, 1989, 62, 272-275.	2.9	32
7	Pulsed currents carried by whistlers. IV. Electric fields and radiation excited by an electrode. Physics of Plasmas, 1995, 2, 1114-1128.	0.7	30
8	Laboratory studies of magnetic vortices. III. Collisions of electron magnetohydrodynamic vortices. Physics of Plasmas, 2000, 7, 519-528.	0.7	29
9	Electron magnetohydrodynamic turbulence in a high-beta plasma. I. Plasma parameters and instability conditions. Physics of Plasmas, 2000, 7, 4450-4456.	0.7	27
10	Pulsed currents carried by whistlers. VI. Nonlinear effects. Physics of Plasmas, 1996, 3, 2589-2598.	0.7	25
11	Helicon modes in uniform plasmas. I. Low $\omega$ modes. Physics of Plasmas, 2015, 22, .	0.7	24
12	Whistler Modes with Wave Magnetic Fields Exceeding the Ambient Field. Physical Review Letters, 2006, 96, 095004.	2.9	23
13	Helicon waves in uniform plasmas. II. High $\omega$ numbers. Physics of Plasmas, 2015, 22, .	0.7	23
14	Whistler wings from moving electrodes in a magnetized laboratory plasma. Geophysical Research Letters, 1989, 16, 361-364.	1.5	22
15	Oscillating plasma bubbles. I. Basic properties and instabilities. Physics of Plasmas, 2012, 19, .	0.7	22
16	Pulsed currents carried by whistlers. VIII. Current disruptions and instabilities caused by plasma erosion. Physics of Plasmas, 1997, 4, 26-35.	0.7	21
17	Pulsed currents carried by whistlers. IX. In situ measurements of currents disrupted by plasma erosion. Physics of Plasmas, 1997, 4, 36-52.	0.7	20
18	Helicon waves in uniform plasmas. IV. Bessel beams, Gendrin beams, and helicons. Physics of Plasmas, 2016, 23, .	0.7	19

#	ARTICLE	IF	CITATIONS
19	Modeling of induced currents from electrodynamic tethers in a laboratory plasma. Geophysical Research Letters, 1990, 17, 1589-1592.	1.5	18
20	A new laboratory experiment on magnetic reconnection. Physics of Plasmas, 2002, 9, 1925-1930.	0.7	18
21	Magnetic antenna excitation of whistler modes. I. Basic properties. Physics of Plasmas, 2014, 21, .	0.7	17
22	Laboratory studies of magnetic vortices. I. Directional radiation of whistler waves based on helicity injection. Physics of Plasmas, 1999, 6, 4450-4457.	0.7	16
23	Three-dimensional electron magnetohydrodynamic reconnection. IV. Instabilities, fluctuations, and emissions. Physics of Plasmas, 2003, 10, 2810-2818.	0.7	16
24	Whistler Instability in an Electron-Magnetohydrodynamic Spheromak. Physical Review Letters, 2007, 99, 265005.	2.9	16
25	Three-dimensional electron magnetohydrodynamic reconnection. I. Fields, currents, and flows. Physics of Plasmas, 2003, 10, 2780-2793.	0.7	15
26	Magnetic antenna excitation of whistler modes. II. Antenna arrays. Physics of Plasmas, 2014, 21, .	0.7	15
27	Helicon modes in uniform plasmas. III. Angular momentum. Physics of Plasmas, 2015, 22, .	0.7	15
28	Inductive and space charge electric fields in a whistler wave packet. Physical Review Letters, 1994, 72, 1658-1661.	2.9	14
29	Three-dimensional currents of electrodynamic tethers obtained from laboratory models. Geophysical Research Letters, 1994, 21, 413-416.	1.5	14
30	Pulsed currents carried by whistlers. VII. Helicity and transport in heat pulses. Physics of Plasmas, 1996, 3, 2599-2609.	0.7	14
31	Nonlinear electron magnetohydrodynamics physics. I. Whistler spheromaks, mirrors, and field reversed configurations. Physics of Plasmas, 2008, 15, .	0.7	13
32	Nonlinear electron magnetohydrodynamics physics. IV. Whistler instabilities. Physics of Plasmas, 2008, 15, 062109.	0.7	12
33	Comparison of electric dipole and magnetic loop antennas for exciting whistler modes. Physics of Plasmas, 2016, 23, .	0.7	12
34	Trivelpiece-Gould modes in a uniform unbounded plasma. Physics of Plasmas, 2016, 23, .	0.7	12
35	Vortices and Flux Ropes in Electron MHD Plasmas I. Physica Scripta, 2000, T84, 112.	1.2	11
36	Electron magnetohydrodynamic turbulence in a high-beta plasma. III. Conditionally averaged multipoint fluctuation measurements. Physics of Plasmas, 2000, 7, 4466-4476.	0.7	11

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37	Three-dimensional electron magnetohydrodynamic reconnection. III. Energy conversion and electron heating. Physics of Plasmas, 2003, 10, 2801-2809.	0.7	10
38	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.	0.7	9
39	Nonlinear electron magnetohydrodynamics physics. II. Wave propagation and wave-wave interactions. Physics of Plasmas, 2008, 15, .	0.7	9
40	Oscillating plasma bubbles. II. Pulsed experiments. Physics of Plasmas, 2012, 19, .	0.7	9
41	Oscillating plasma bubbles. III. Internal electron sources and sinks. Physics of Plasmas, 2012, 19, .	0.7	9
42	Helicons in uniform fields. II. Poynting vector and angular momenta. Physics of Plasmas, 2018, 25, .	0.7	9
43	Transient current collection and closure for a laboratory tether. Geophysical Research Letters, 1998, 25, 733-736.	1.5	8
44	Electron magnetohydrodynamic turbulence in a high-beta plasma. II. Single point fluctuation measurements. Physics of Plasmas, 2000, 7, 4457-4465.	0.7	8
45	Nonlinear electron magnetohydrodynamic physics. VII. Magnetic loop antenna in a field-free plasma. Physics of Plasmas, 2009, 16, .	0.7	8
46	Vortices and Flux Ropes in Electron MHD Plasmas II. Physica Scripta, 2000, T84, 117.	1.2	7
47	Three-dimensional electron magnetohydrodynamic reconnection. II. Tilt and precession of a field-reversed configuration. Physics of Plasmas, 2003, 10, 2794-2800.	0.7	7
48	Nonlinear electron magnetohydrodynamics physics. III. Electron energization. Physics of Plasmas, 2008, 15, 042309.	0.7	7
49	Magnetic dipole discharges. I. Basic properties. Physics of Plasmas, 2013, 20, .	0.7	7
50	Magnetic antenna excitation of whistler modes. III. Group and phase velocities of wave packets. Physics of Plasmas, 2015, 22, .	0.7	7
51	Magnetic antenna excitation of whistler modes. IV. Receiving antennas and reciprocity. Physics of Plasmas, 2015, 22, .	0.7	7
52	Helicity and Transport in Electron MHD Heat Pulses. Physical Review Letters, 1996, 76, 1469-1472.	2.9	6
53	Helicons in uniform fields. I. Wave diagnostics with hodograms. Physics of Plasmas, 2018, 25, .	0.7	6
54	Observations of odd-half cyclotron harmonic emissions in a shell-Maxwellian laboratory plasma. Journal of Geophysical Research, 1983, 88, 7086-7094.	3.3	5

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55	Magnetic dipole discharges. II. Cathode and anode spot discharges and probe diagnostics. Physics of Plasmas, 2013, 20, .	0.7	5
56	Laboratory studies of magnetic vortices. I. Directional radiation of whistler waves based on helicity injection. Physics of Plasmas, 1999, 6, 2989-2996.	0.7	4
57	New properties of whistler modes. Geophysical Research Letters, 2017, 44, 2113-2119.	1.5	4
58	Whistler modes in highly nonuniform magnetic fields. II. Propagation in three dimensions. Physics of Plasmas, 2018, 25, 082109.	0.7	4
59	Whistler modes in highly nonuniform magnetic fields. I. Propagation in two-dimensions. Physics of Plasmas, 2018, 25, 082108.	0.7	4
60	Whistler modes in highly nonuniform magnetic fields. III. Propagation near mirror and cusp fields. Physics of Plasmas, 2018, 25, 082110.	0.7	4
61	Magnetic dipole antennas in moving plasmas: A laboratory simulation. Geophysical Monograph Series, 1994, , 129-133.	0.1	3
62	Nonlinear electron magnetohydrodynamics physics. V. Triggered whistler emissions. Physics of Plasmas, 2008, 15, 062110.	0.7	3
63	Nonlinear electron magnetohydrodynamic physics. VI. Magnetic loop antenna across the ambient field. Physics of Plasmas, 2009, 16, 022102.	0.7	3
64	Whistler Modes in Highly Nonuniform Magnetic Fields. IEEE Transactions on Plasma Science, 2011, 39, 2458-2459.	0.6	3
65	Probes to measure kinetic and magnetic phenomena in plasmas. Review of Scientific Instruments, 2021, 92, 111101.	0.6	2
66	Laboratory studies of magnetic vortices. II. Helicity reversal during reflection of a magnetic vortex at a conducting boundary. Physics of Plasmas, 1999, 6, 3217-3225.	0.7	1
67	Whistler Spheromaks. IEEE Transactions on Plasma Science, 2008, 36, 1170-1171.	0.6	1
68	Positively Biased Probes in Magnetized Plasmas. Contributions To Plasma Physics, 2011, 51, 560-566.	0.5	1
69	Measurements of Helicity and Reconnection in Electron MHD Plasmas. Geophysical Monograph Series, 0, , 179-186.	0.1	1
70	Multidimensional fourier analysis of a whistler pulse excited by a loop antenna. Geophysical Monograph Series, 1994, , 121-124.	0.1	0