Chris Crabtree

List of Publications by Year
in descending order

54 papers	718 citations	471509 17 h-index	552781 26 g-index
55 all docs	55 docs citations	55 times ranked	590 citing authors

#	Article	IF	Citations
1	Particle Dynamics in the Earth's Radiation Belts: Review of Current Research and Open Questions. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA026735.	2.4	81
2	Linear and nonlinear Landau resonance of kinetic AlfvÃ©n waves: Consequences for electron distribution and wave spectrum in the solar wind. Physics of Plasmas, 2011, 18, 012307.	1.9	77
3	Weak turbulence in the magnetosphere: Formation of whistler wave cavity by nonlinear scattering. Physics of Plasmas, 2012, 19, .	1.9	53
4	Co-existence of whistler waves with kinetic Alfven wave turbulence for the high-beta solar wind plasma. Physics of Plasmas, 2012, 19, .	1.9	50
5	Finite gyroradius theory of drift compressional modes. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	29
6	The solar-wind driven magnetosphereâ€“ionosphere as a complex dynamical system. Physics of Plasmas, 1999, 6, 4178-4184.	1.9	27
7	Spontaneous Electromagnetic Emission from a Strongly Localized Plasma Flow. Physical Review Letters, 2011, 106, 185001.	7.8	27
8	Bounce-averaged stability of compressional modes in geotail flux tubes. Journal of Geophysical Research, 2003, 108, .	3.3	25
9	Experimental observation of cnoidal waveform of nonlinear dust acoustic waves. Physics of Plasmas, 2018, 25, .	1.9	24
10	Bayesian spectral analysis of chorus subelements from the Van Allen Probes. Journal of Geophysical Research: Space Physics, 2017, 122, 6088-6106.	2.4	23
11	Low frequency stability of geotail plasma. Physics of Plasmas, 2001, 8, 2415-2424.	1.9	20
12	Theory of charged particle heating by low-frequency AlfvÃ©n waves. Physics of Plasmas, 2008, 15, .	1.9	20
13	Evolution of lower hybrid turbulence in the ionosphere. Physics of Plasmas, 2015, 22, .	1.9	20
14	Stability properties of high-pressure geotail flux tubes. Journal of Geophysical Research, 2001, 106, 18803-18822.	3.3	19
15	Weak turbulence theory of the nonlinear evolution of the ion ring distribution. Physics of Plasmas, 2011, 18, 055710.	1.9	18
16	Laboratory studies of nonlinear whistler wave processes in the Van Allen radiation belts. Physics of Plasmas, 2015, 22, .	1.9	17
17	Experimental characterization of nonlinear processes of whistler branch waves. Physics of Plasmas, 2016, 23, .	1.9	17
18	Nonlinear Generation of Electromagnetic Waves through Induced Scattering by Thermal Plasma. Scientific Reports, 2016, 5, 17852.	3.3	16

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19	Quasilinear evolution of plasma distribution functions and consequences on wave spectrum and perpendicular ion heating in the turbulent solar wind. Physics of Plasmas, 2012, 19, .	1.9	14
20	Multiâ€pass whistler gain in a magnetospheric cavity due to induced nonlinear scattering. Geophysical Research Letters, 2012, 39, .	4.0	12
21	Kinetic Equilibrium of Dipolarization Fronts. Scientific Reports, 2018, 8, 17186.	3.3	12
22	Kinetic Equilibrium and Stability Analysis of Dipolarization Fronts. Journal of Geophysical Research: Space Physics, 2019, 124, 2010-2028.	2.4	11
23	Understanding and Harnessing the Dual Electrostatic/Electromagnetic Character of Plasma Turbulence in the Nearâ€Earth Space Environment. Journal of Geophysical Research: Space Physics, 2019, 124, 10365-10375.	2.4	11
24	Convective amplification of electromagnetic ion cyclotron waves from ringâ€distribution protons in the inner magnetosphere. Journal of Geophysical Research: Space Physics, 2013, 118, 7538-7544.	2.4	10
25	Analysis of self-consistent nonlinear wave-particle interactions of whistler waves in laboratory and space plasmas. Physics of Plasmas, 2017, 24, .	1.9	9
26	A forced Kortewegâ€“de Vries model for nonlinear mixing of oscillations in a dusty plasma. Physics of Plasmas, 2020, 27, .	1.9	9
27	Generation of electromagnetic waves in the very low frequency band by velocity gradient. Physics of Plasmas, 2014, 21, 012107.	1.9	8
28	Early Time Evolution of Turbulence in the Space Environment by Neutral Beam Injection. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027587.	2.4	8
29	Van Allen Probes Observations of Symmetric Stormtime Compressional ULF Waves. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	7
30	Behavior of compressed plasmas in magnetic fields. Reviews of Modern Plasma Physics, 2020, 4, 12.	4.1	6
31	Cross-scale energy cascade powered by magnetospheric convection. Scientific Reports, 2022, 12, 4446.	3.3	6
32	Collisionless and collisional dissipation of magnetospherically reflecting whistler waves. Geophysical Research Letters, 2012, 39, .	4.0	5
33	A Concept for Elimination of Small Orbital Debris. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2012, 10, Pr_23-Pr_27.	0.2	5
34	Lower-hybrid wave instability due to multiple fast heavy ion ring distributions in the SMART experiment. Physics of Plasmas, 2020, 27, .	1.9	5
35	Electromagnetic fluctuations in the intermediate frequency range originating from a plasma boundary layer. Physics of Plasmas, 2017, 24, 052107.	1.9	4
36	Effects of neutral interactions on velocity-shear-driven plasma waves. Physics of Plasmas, 2014, 21, .	1.9	3

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37	A New Perspective for Dipolarization Front Dynamics: Electromagnetic Effects of Velocity Inhomogeneity. Journal of Geophysical Research: Space Physics, 2019, 124, 7533-7542.	2.4	3
38	Formation and dynamics of an artificial ring of dust for active orbital debris removal. , 2013, , .		2
39	Geomagnetic transport in the solar wind driven nightside magnetosphereâ€“ionosphere system. Physics of Plasmas, 2002, 9, 3712-3720.	1.9	1
40	Active debris removal by micron-scale dust injection. , 2012, , .		1
41	Active removal of orbital debris by induced hypervelocity impact of injected dust grains. , 2014, , .		1
42	Analytical and numerical analysis of self-consistent whistler wave Hamiltonian. Plasma Physics and Controlled Fusion, 2017, 59, 114002.	2.1	1
43	Comment on â€œRadiation-Belt Remediation Using Space-Based Antennas and Electron Beamsâ€•by Carlsten et al.. IEEE Transactions on Plasma Science, 2020, 48, 602-603.	1.3	1
44	Stabilization of an injected conducting layer for artificially enhancing drag on orbital debris. Advances in Space Research, 2013, 52, 1987-1992.	2.6	0
45	Wave-kinetic simulations of lower-hybrid turbulence driven by velocity ring instabilities. , 2014, , .		0
46	Hypervelocity impacts of microscopic dust grains for orbital debris remediation. , 2014, , .		0
47	Particle-in-cell simulations of lowerhybrid waves generated by an ion-ring velocity distribution. , 2014, , .		0
48	Weak turbulence in radiation belts. , 2015, , .		0
49	Theoretical and computational predictions for the upcoming SMART experiment. , 2019, , .		0
50	Kinetic Physics of Dipolarization Fronts: Theory, Simulation, Laboratory Experiments and in situ Observations. , 2019, , .		0
51	On the rate of energy deposition by an ion ring velocity beam. Physics of Plasmas, 2021, 28, 052102.	1.9	0
52	Lower-hybrid waves coupled to multiple heavy ion ring distributions in the SMART experiment1. , 2021, , .		0
53	Predicted Effects of Nonlinear Induced Scattering in the SMART Experiment. , 2021, , .		0
54	10.1063/5.0025379.1. , 2020, , .		0