

Robert T Wicks

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

2,123
citations

230014

27
h-index

263392

45
g-index

64
all docs

64
docs citations

64
times ranked

1643
citing authors

#	ARTICLE	IF	CITATIONS
1	The Stability of the Electron Strahl against the Oblique Fast-magnetosonic/Whistler Instability in the Inner Heliosphere. <i>Astrophysical Journal Letters</i> , 2022, 926, L26.	3.0	8
2	The Kinetic Expansion of Solar-wind Electrons: Transport Theory and Predictions for the Very Inner Heliosphere. <i>Astrophysical Journal</i> , 2022, 927, 162.	1.6	5
3	Radial Evolution of Thermal and Suprathermal Electron Populations in the Slow Solar Wind from 0.13 to 0.5 au: Parker Solar Probe Observations. <i>Astrophysical Journal</i> , 2022, 931, 118.	1.6	15
4	The Plasma Universe: A Coherent Science Theme for Voyage 2050. <i>Frontiers in Astronomy and Space Sciences</i> , 2021, 8, .	1.1	4
5	Three-dimensional magnetic reconnection in particle-in-cell simulations of anisotropic plasma turbulence. <i>Journal of Plasma Physics</i> , 2021, 87, .	0.7	19
6	Dependence of Solar Wind Proton Temperature on the Polarization Properties of Alfvénic Fluctuations at Ion-kinetic Scales. <i>Astrophysical Journal</i> , 2021, 912, 101.	1.6	9
7	A Quarter Century of <i>Wind</i> Spacecraft Discoveries. <i>Reviews of Geophysics</i> , 2021, 59, e2020RG000714.	9.0	52
8	MagneToRE: Mapping the 3-D Magnetic Structure of the Solar Wind Using a Large Constellation of Nanosatellites. <i>Frontiers in Astronomy and Space Sciences</i> , 2021, 8, .	1.1	13
9	Deriving the bulk properties of solar wind electrons observed by Solar Orbiter. <i>Astronomy and Astrophysics</i> , 2021, 656, A10.	2.1	6
10	Evolving solar wind flow properties of magnetic inversions observed by <i>Helios</i> . <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 501, 5379-5392.	1.6	3
11	On the Determination of Kappa Distribution Functions from Space Plasma Observations. <i>Entropy</i> , 2020, 22, 212.	1.1	9
12	Determining the Bulk Parameters of Plasma Electrons from Pitch-Angle Distribution Measurements. <i>Entropy</i> , 2020, 22, 103.	1.1	12
13	The evolution of inverted magnetic fields through the inner heliosphere. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 494, 3642-3655.	1.6	29
14	Evaluating the Performance of a Plasma Analyzer for a Space Weather Monitor Mission Concept. <i>Space Weather</i> , 2020, 18, e2020SW002559.	1.3	9
15	The Solar Orbiter Science Activity Plan. <i>Astronomy and Astrophysics</i> , 2020, 642, A3.	2.1	67
16	Polytropic Behavior of Solar Wind Protons Observed by Parker Solar Probe. <i>Astrophysical Journal</i> , 2020, 901, 26.	1.6	21
17	A Quasi-linear Diffusion Model for Resonant Wave-Particle Instability in Homogeneous Plasma. <i>Astrophysical Journal</i> , 2020, 902, 128.	1.6	20
18	On the Calculation of the Effective Polytropic Index in Space Plasmas. <i>Entropy</i> , 2019, 21, 997.	1.1	11

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19	Parallel-propagating Fluctuations at Proton-kinetic Scales in the Solar Wind Are Dominated By Kinetic Instabilities. <i>Astrophysical Journal Letters</i> , 2019, 884, L53.	3.0	38
20	The Fluid-like and Kinetic Behavior of Kinetic Alfvén Turbulence in Space Plasma. <i>Astrophysical Journal</i> , 2019, 870, 106.	1.6	18
21	Editorial: Topical Collection on Multi-Point Measurements of the Thermosphere with the QB50 Mission. <i>Space Science Reviews</i> , 2019, 215, 1.	3.7	2
22	The Impact of Turbulent Solar Wind Fluctuations on Solar Orbiter Plasma Proton Measurements. <i>Astrophysical Journal</i> , 2019, 886, 101.	1.6	18
23	Active Region Modulation of Coronal Hole Solar Wind. <i>Astrophysical Journal</i> , 2019, 887, 146.	1.6	13
24	Increasing resilience to cascading events: The M.OR.D.OR. scenario. <i>Safety Science</i> , 2018, 110, 131-140.	2.6	35
25	Determining the Kappa Distributions of Space Plasmas from Observations in a Limited Energy Range. <i>Astrophysical Journal</i> , 2018, 864, 3.	1.6	32
26	The Role of Proton Cyclotron Resonance as a Dissipation Mechanism in Solar Wind Turbulence: A Statistical Study at Ion-kinetic Scales. <i>Astrophysical Journal</i> , 2018, 856, 49.	1.6	68
27	Evaluating the Skill of Forecasts of the Near-Earth Solar Wind Using a Space Weather Monitor at L5. <i>Space Weather</i> , 2018, 16, 814-828.	1.3	22
28	On Kinetic Slow Modes, Fluid Slow Modes, and Pressure-balanced Structures in the Solar Wind. <i>Astrophysical Journal</i> , 2017, 840, 106.	1.6	53
29	The Economic Impact of Space Weather: Where Do We Stand?. <i>Risk Analysis</i> , 2017, 37, 206-218.	1.5	187
30	Tests for coronal electron temperature signatures in suprathermal electron populations at 1 AU. <i>Annales Geophysicae</i> , 2017, 35, 1275-1291.	0.6	8
31	A PROTON-CYCLOTRON WAVE STORM GENERATED BY UNSTABLE PROTON DISTRIBUTION FUNCTIONS IN THE SOLAR WIND. <i>Astrophysical Journal</i> , 2016, 819, 6.	1.6	57
32	SPECTRAL ANISOTROPY OF ELSÄSSER VARIABLES IN TWO-DIMENSIONAL WAVE-VECTOR SPACE AS OBSERVED IN THE FAST SOLAR WIND TURBULENCE. <i>Astrophysical Journal Letters</i> , 2016, 816, L24.	3.0	15
33	Measures of three-dimensional anisotropy and intermittency in strong Alfvénic turbulence. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 459, 2130-2139.	1.6	35
34	Turbulent dissipation challenge: a community-driven effort. <i>Journal of Plasma Physics</i> , 2015, 81, .	0.7	42
35	DISSIPATION OF PARALLEL AND OBLIQUE ALFVÉN-CYCLOTRON WAVES—IMPLICATIONS FOR HEATING OF ALPHA PARTICLES IN THE SOLAR WIND. <i>Astrophysical Journal</i> , 2015, 814, 33.	1.6	15
36	Kinetic scale turbulence and dissipation in the solar wind: key observational results and future outlook. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015, 373, 20140147.	1.6	62

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37	Permutation entropy and statistical complexity analysis of turbulence in laboratory plasmas and the solar wind. <i>Physical Review E</i> , 2015, 91, 023101.	0.8	55
38	Ensemble downscaling in coupled solar wind-magnetosphere modeling for space weather forecasting. <i>Space Weather</i> , 2014, 12, 395-405.	1.3	27
39	Temperature anisotropy instabilities; combining plasma and magnetic field data at different distances from the Sun. , 2013, , .		1
40	Scaling anisotropy of the power in parallel and perpendicular components of the solar wind magnetic field. <i>AIP Conference Proceedings</i> , 2013, , .	0.3	1
41	CORRELATIONS AT LARGE SCALES AND THE ONSET OF TURBULENCE IN THE FAST SOLAR WIND. <i>Astrophysical Journal</i> , 2013, 778, 177.	1.6	38
42	Alignment and Scaling of Large-Scale Fluctuations in the Solar Wind. <i>Physical Review Letters</i> , 2013, 110, 025003.	2.9	41
43	THREE-DIMENSIONAL STRUCTURE OF SOLAR WIND TURBULENCE. <i>Astrophysical Journal</i> , 2012, 758, 120.	1.6	105
44	Anisotropy in Space Plasma Turbulence: Solar Wind Observations. <i>Space Science Reviews</i> , 2012, 172, 325-342.	3.7	97
45	POWER ANISOTROPY IN THE MAGNETIC FIELD POWER SPECTRAL TENSOR OF SOLAR WIND TURBULENCE. <i>Astrophysical Journal</i> , 2012, 746, 103.	1.6	29
46	DETAILED FIT OF "CRITICAL BALANCE" THEORY TO SOLAR WIND TURBULENCE MEASUREMENTS. <i>Astrophysical Journal</i> , 2011, 733, 76.	1.6	76
47	Magnetic Discontinuities in the Near-Earth Solar Wind: Evidence of In-Transit Turbulence or Remnants of Coronal Structure?. <i>Solar Physics</i> , 2011, 269, 411-420.	1.0	44
48	Use of multi-point analysis and modelling to address cross-scale coupling in space plasmas: Lessons from Cluster. <i>Planetary and Space Science</i> , 2011, 59, 630-638.	0.9	2
49	Scale-free texture of the fast solar wind. <i>Physical Review E</i> , 2011, 84, 065401.	0.8	13
50	Anisotropy of Imbalanced Alfvénic Turbulence in Fast Solar Wind. <i>Physical Review Letters</i> , 2011, 106, 045001.	2.9	82
51	Anisotropy in Space Plasma Turbulence: Solar Wind Observations. <i>Space Sciences Series of ISSI</i> , 2011, , 325-342.	0.0	0
52	INTERPRETING POWER ANISOTROPY MEASUREMENTS IN PLASMA TURBULENCE. <i>Astrophysical Journal Letters</i> , 2010, 711, L79-L83.	3.0	55
53	The Variation of Solar Wind Correlation Lengths Over Three Solar Cycles. <i>Solar Physics</i> , 2010, 262, 191-198.	1.0	34
54	Power and spectral index anisotropy of the entire inertial range of turbulence in the fast solar wind. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2010, 407, L31-L35.	1.2	151

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55	Anisotropy of Solar Wind Turbulence between Ion and Electron Scales. <i>Physical Review Letters</i> , 2010, 104, 255002.	2.9	159
56	SPATIAL CORRELATION OF SOLAR WIND FLUCTUATIONS AND THEIR SOLAR CYCLE DEPENDENCE. <i>Astrophysical Journal</i> , 2009, 690, 734-742.	1.6	27
57	Mutual information as a tool for identifying phase transitions in dynamical complex systems with limited data. <i>Physical Review E</i> , 2007, 75, 051125.	0.8	36
58	High-cadence measurements of electron pitch-angle distributions from Solar Orbiter SWA-EAS burst mode operations. <i>Astronomy and Astrophysics</i> , 0, , .	2.1	5
59	A Case for Electron-Astrophysics. <i>Experimental Astronomy</i> , 0, , 1.	1.6	11
60	Revolutionizing Our Understanding of Particle Energization in Space Plasmas Using On-Board Wave-Particle Correlator Instrumentation. <i>Frontiers in Astronomy and Space Sciences</i> , 0, 9, .	1.1	1