Bernard J Vasquez

List of Publications by Year
in descending order

101 papers	2,854 citations	172457 29 h-index	189892 50 g-index
103 all docs	103 docs citations	103 times ranked	1016 citing authors

#	Article	IF	Citations
1	Dependence of the Dissipation Range Spectrum of Interplanetary Magnetic Fluctuationson the Rate of Energy Cascade. Astrophysical Journal, 2006, 645, L85-L88.	4.5	289
2	Evaluation of the turbulent energy cascade rates from the upper inertial range in the solar wind at 1 AU. Journal of Geophysical Research, 2007, 112, .	3.3	149
3	THE TURBULENT CASCADE AND PROTON HEATING IN THE SOLAR WIND AT 1 AU. Astrophysical Journal, 2009, 697, 1119-1127.	4.5	114
4	Numerous small magnetic field discontinuities of Bartels rotation 2286 and the potential role of AlfvÃ©nic turbulence. Journal of Geophysical Research, 2007, 112, .	3.3	111
5	Anisotropies and helicities in the solar wind inertial and dissipation ranges at 1 AU. Journal of Geophysical Research, 2008, 113, .	3.3	97
6	Statistical Analysis of the Highâ€Frequency Spectral Break of the Solar Wind Turbulence at 1 AU. Astrophysical Journal, 2008, 675, 1576-1583.	4.5	91
7	Simulation study of the role of ion kinetics in low- frequency wave train evolution. Journal of Geophysical Research, 1995, 100, 1779.	3.3	86
8	Interplanetary magnetic fluctuation anisotropy in the inertial range. Journal of Geophysical Research, 2006, 111, .	3.3	84
9	Dissipation of the Perpendicular Turbulent Cascade in the Solar Wind. Astrophysical Journal, 2006, 639, 1177-1185.	4.5	73
10	OBSERVATIONAL CONSTRAINTS ON THE ROLE OF CYCLOTRON DAMPING AND KINETIC ALFVÃ‰N WAVES IN THE SOLAR WIND. Astrophysical Journal, 2012, 745, 8.	4.5	73
11	Turbulent Cascade at 1ÂAU in High Cross-Helicity Flows. Physical Review Letters, 2009, 103, 201101.	7.8	62
12	A reconnection layer associated with a magnetic cloud. Advances in Space Research, 2001, 28, 759-764.	2.6	61
13	Formation of pressure-balanced structures and fast waves from nonlinear AlfvÃ©n waves. Journal of Geophysical Research, 1999, 104, 4681-4696.	3.3	60
14	Third-moment descriptions of the interplanetary turbulent cascade, intermittency and back transfer. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140150.	3.4	60
15	Formation of arc-shaped AlfvÃ©n waves and rotational discontinuities from oblique linearly polarized wave trains. Journal of Geophysical Research, 1996, 101, 13527-13540.	3.3	55
16	Temporal and radial variation of the solar wind temperatureâ€speed relationship. Journal of Geophysical Research, 2012, 117, .	3.3	54
17	Preferential Perpendicular Heating of Coronal Hole Minor Ions by the Fermi Mechanism. Astrophysical Journal, 2007, 668, 546-556.	4.5	51
18	A SHORT-TIMESCALE CHANNEL OF DISSIPATION OF THE STRONG SOLAR WIND TURBULENCE. Astrophysical Journal, 2011, 739, 22.	4.5	49

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19	THE TURBULENT CASCADE FOR HIGH CROSS-HELICITY STATES AT 1 AU. Astrophysical Journal, 2010, 713, 920-934.	4.5	46
20	THE TURBULENT CASCADE AND PROTON HEATING IN THE SOLAR WIND DURING SOLAR MINIMUM. Astrophysical Journal, 2012, 754, 93.	4.5	45
21	Formation of spherically polarized AlfvÃ©n waves and imbedded rotational discontinuities from a small number of entirely oblique waves. Journal of Geophysical Research, 1998, 103, 335-347.	3.3	41
22	Evolution and dissipation of imbedded rotational discontinuities and AlfvÃ©n waves in nonuniform plasma and the resultant proton heating. Journal of Geophysical Research, 2001, 106, 5661-5681.	3.3	41
23	PREFERENTIAL ACCELERATION AND PERPENDICULAR HEATING OF MINOR IONS IN A COLLISIONLESS CORONAL HOLE. Astrophysical Journal, 2009, 696, 591-600.	4.5	36
24	Inertialâ€range anisotropies in the solar wind from 0.3 to 1 AU: Helios 1 observations. Journal of Geophysical Research, 2010, 115, .	3.3	34
25	A KINETIC MODEL OF SOLAR WIND GENERATION BY OBLIQUE ION-CYCLOTRON WAVES. Astrophysical Journal, 2011, 731, 88.	4.5	34
26	<i>ULYSSES</i>OBSERVATIONS OF MAGNETIC WAVES DUE TO NEWBORN INTERSTELLAR PICKUP IONS. I. NEW OBSERVATIONS AND LINEAR ANALYSIS. Astrophysical Journal, 2014, 784, 150.	4.5	34
27	<i>ULYSSES</i>OBSERVATIONS OF MAGNETIC WAVES DUE TO NEWBORN INTERSTELLAR PICKUP IONS. II. APPLICATION OF TURBULENCE CONCEPTS TO LIMITING WAVE ENERGY AND OBSERVABILITY. Astrophysical Journal, 2014, 787, 133.	4.5	33
28	VELOCITY POWER SPECTRA FROM CROSS-FIELD TURBULENCE IN THE PROTON KINETIC REGIME. Astrophysical Journal, 2012, 747, 19.	4.5	32
29	THIRD MOMENTS AND THE ROLE OF ANISOTROPY FROM VELOCITY SHEAR IN THE SOLAR WIND. Astrophysical Journal, 2011, 736, 44.	4.5	31
30	THREE-DIMENSIONAL HYBRID SIMULATION STUDY OF ANISOTROPIC TURBULENCE IN THE PROTON KINETIC REGIME. Astrophysical Journal, 2014, 788, 178.	4.5	30
31	VARIABLE CASCADE DYNAMICS AND INTERMITTENCY IN THE SOLAR WIND AT 1 AU. Astrophysical Journal, 2014, 786, 52.	4.5	29
32	VOYAGER OBSERVATIONS OF MAGNETIC WAVES DUE TO NEWBORN INTERSTELLAR PICKUP IONS: 2â€“6 au. Astrophysical Journal, 2016, 822, 94.	4.5	29
33	HEATING RATE SCALING OF TURBULENCE IN THE PROTON KINETIC REGIME. Astrophysical Journal, 2015, 806, 33.	4.5	28
34	A wave model interpretation of the evolution of rotational discontinuities. Journal of Geophysical Research, 1993, 98, 1277-1292.	3.3	26
35	PERPENDICULAR PROTON HEATING DUE TO ENERGY CASCADE OF FAST MAGNETOSONIC WAVES IN THE SOLAR CORONA. Astrophysical Journal, 2010, 709, 1003-1008.	4.5	25
36	Formation of imbedded rotational discontinuities with nearly field aligned normals. Journal of Geophysical Research, 1998, 103, 349-365.	3.3	23

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37	A SURVEY OF MAGNETIC WAVES EXCITED BY NEWBORN INTERSTELLAR He⁺ OBSERVED BY THE ACE SPACECRAFT AT 1 au. Astrophysical Journal, 2016, 830, 47.	4.5	22
38	Magnetic Waves Excited by Newborn Interstellar Pickup Ions Measured by the Voyager Spacecraft from 1 to 45 au. II. Instability and Turbulence Analyses. Astrophysical Journal, 2018, 863, 76.	4.5	22
39	Solar Wind Turbulence from 1 to 45 au. IV. Turbulent Transport and Heating of the Solar Wind Using Voyager Observations. Astrophysical Journal, 2020, 900, 94.	4.5	22
40	MAGNETIC HELICITY IN THE DISSIPATION RANGE OF STRONG IMBALANCED TURBULENCE. Astrophysical Journal, 2013, 768, 62.	4.5	21
41	Magnetic Waves Excited by Newborn Interstellar Pickup Ions Measured by the Voyager Spacecraft from 1 to 45 au. I. Wave Properties. Astrophysical Journal, 2018, 863, 75.	4.5	21
42	Deceleration of streaming alpha particles interacting with waves and imbedded rotational discontinuities. Journal of Geophysical Research, 2003, 108, .	3.3	20
43	The role of electron equation of state in heating partition of protons in a collisionless plasma. Physics of Plasmas, 2014, 21, 022301.	1.9	20
44	Solar Wind Turbulence from 1 to 45 au. III. Anisotropy of Magnetic Fluctuations in the Inertial Range Using Voyager and ACE Observations. Astrophysical Journal, 2020, 900, 93.	4.5	20
45	STATISTICAL ANALYSIS OF THE MAGNETIC HELICITY SIGNATURE OF THE SOLAR WIND TURBULENCE AT 1 AU. Astrophysical Journal, 2015, 806, 78.	4.5	19
46	Perpendicular Ion Heating by Cyclotron Resonant Dissipation of Turbulently Generated Kinetic AlfvÃ©n Waves in the Solar Wind. Astrophysical Journal, 2019, 887, 63.	4.5	18
47	Solar Wind Turbulence from 1 to 45 au. I. Evidence for Dissipation of Magnetic Fluctuations Using Voyager and ACE Observations. Astrophysical Journal, 2020, 900, 91.	4.5	18
48	Nature of fluctuations on directional discontinuities inside a solar ejection: Wind and IMP 8 observations. Journal of Geophysical Research, 2001, 106, 29283-29298.	3.3	17
49	Deceleration of relative streaming between proton components among nonlinear low-frequency AlfvÃ©n waves. Journal of Geophysical Research, 2004, 109, .	3.3	17
50	The effect of spectral anisotropy of fast magnetosonic turbulence on the plasma heating at the proton kinetic scales. Physics of Plasmas, 2010, 17, .	1.9	16
51	ACE observations of magnetic waves arising from newborn interstellar pickup helium ions. Geophysical Research Letters, 2015, 42, 9617-9623.	4.0	16
52	Magnetic Waves Excited by Newborn Interstellar Pickup Ions Measured by the <i>Voyager</i> Spacecraft from 1 to 45 au. III. Observation Times. Astrophysical Journal, Supplement Series, 2018, 237, 34.	7.7	16
53	Comment on â€œScaling Laws of Turbulence and Heating of Fast Solar Wind: The Role of Density Fluctuationsâ€• Physical Review Letters, 2010, 104, 189001; author reply 189002.	7.8	15
54	Turbulence associated with corotating interaction regions at 1 AU: Inertial and dissipation range magnetic field spectra. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	15

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55	Observation of Magnetic Waves Excited by Newborn Interstellar Pickup He+ Observed by the Voyager 2 Spacecraft at 30 au. Astrophysical Journal, 2017, 849, 61.	4.5	15
56	Correlation Scales of the Turbulent Cascade at 1 au. Astrophysical Journal, 2018, 858, 21.	4.5	15
57	Proton temperature change with heliocentric distance from 0.3 to 1 AU according to relative temperatures. Journal of Geophysical Research: Space Physics, 2014, 119, 3267-3280.	2.4	14
58	Driving and Dissipation of Solar-Wind Turbulence: What is the Evidence?. Frontiers in Astronomy and Space Sciences, 2021, 7, .	2.8	14
59	Solar Wind Turbulence from 1 to 45 au. II. Analysis of Inertial-range Fluctuations Using Voyager and ACE Observations. Astrophysical Journal, 2020, 900, 92.	4.5	14
60	Listing of 502 Times When the Ulysses Magnetic Fields Instrument Observed Waves Due to Newborn Interstellar Pickup Protons. Astrophysical Journal, 2017, 840, 13.	4.5	13
61	Observations of Low-Frequency Magnetic Waves due to Newborn Interstellar Pickup Ions Using ACE, Ulysses, and Voyager Data. Journal of Physics: Conference Series, 2017, 900, 012018.	0.4	13
62	Turbulence associated with corotating interaction regions at 1AU: Inertial range cross-helicity spectra. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	11
63	Mirror and Proton-cyclotron Instabilities Coexisting with Ambient Turbulence in a Protonâ€“Alpha Plasma. Astrophysical Journal, 2020, 889, 7.	4.5	11
64	Nonlinear AlfvÃ©n waves: 2. The influence of wave advection and finite wavelength effects. Journal of Geophysical Research, 2004, 109, .	3.3	10
65	Proton Temperature-anisotropy Instability Coexisting with Ambient Turbulence in the Solar-wind Plasma. Astrophysical Journal, 2019, 875, 125.	4.5	10
66	Ion Heating Resulting from the Deceleration of Alpha Particles by a Proton-alpha Drift Instability in a Nonuniform Solar-wind Plasma. Astrophysical Journal, 2019, 870, 121.	4.5	10
67	Nonlinear AlfvÃ©n waves: 1. Interactions between outgoing and ingoing waves according to an amplitude expansion. Journal of Geophysical Research, 2004, 109, .	3.3	9
68	MAGNETIC HELICITY OF ION KINETIC TURBULENCE WITH A NONZERO ELECTRON TEMPERATURE. Astrophysical Journal, 2016, 820, 15.	4.5	9
69	The Turbulence Magnetic Helicity Signature in the Interplanetary Medium: A Blackmanâ€“Tukey and Morlet Wavelet Analysis. Astrophysical Journal, 2018, 855, 121.	4.5	9
70	Quasilinear Consequences of Turbulent Ion Heating by Magnetic Moment Breaking. Astrophysical Journal, 2019, 870, 119.	4.5	8
71	Cross-field energy transfer of a body AlfvÃ©n wave propagating along and across a pressure-balanced structure. Geophysical Research Letters, 2004, 31, .	4.0	7
72	THE EFFECT OF ELECTRON THERMAL PRESSURE ON THE OBSERVED MAGNETIC HELICITY IN THE SOLAR WIND. Astrophysical Journal, 2016, 833, 212.	4.5	7

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73	Two-dimensional Nonlinear Simulations of Temperature-anisotropy Instabilities with a Proton-alpha Drift. Astrophysical Journal, 2018, 856, 153.	4.5	7
74	Smith<i>etÂal.</i>Reply:. Physical Review Letters, 2010, 104, .	7.8	6
75	The Turbulent Cascade for High Cross-helicity States at 1 au. II. Minor Energy. Astrophysical Journal, 2018, 867, 156.	4.5	6
76	Proton Perpendicular Heating in Turbulence Simulations: Determination of the Velocity Diffusion Coefficient. Astrophysical Journal, 2020, 893, 71.	4.5	6
77	The Effect of Solar Wind Turbulence on Parallel and Oblique Firehose Instabilities. Astrophysical Journal, 2022, 924, 111.	4.5	6
78	Resonant absorption of an AlfvÃ©n wave: Hybrid simulations. Journal of Geophysical Research, 2005, 110, .	3.3	5
79	Advance warning of highâ€speed ejecta based on realâ€time shock analyses: When fastâ€moving ejecta appear to be overtaking slowâ€moving shocks. Space Weather, 2012, 10, .	3.7	5
80	Solar wind magnetic field discontinuities and turbulence generated current layers. AIP Conference Proceedings, 2013, , .	0.4	5
81	KINETIC EVOLUTION OF CORONAL HOLE PROTONS BY IMBALANCED ION-CYCLOTRON WAVES: IMPLICATIONS FOR MEASUREMENTS BY SOLAR PROBE PLUS. Astrophysical Journal, 2015, 808, 119.	4.5	5
82	Turbulence spectrum of interplanetary magnetic fluctuations and the rate of energy cascade. AIP Conference Proceedings, 2007, , .	0.4	4
83	A Study of a Magnetic Cloud Propagating Through Largeâ€Amplitude AlfvÃ©n Waves. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027638.	2.4	4
84	Advanced Composition Explorer Observations of Turbulence from 1998 through 2002: Data Intervals. Astrophysical Journal, Supplement Series, 2020, 250, 15.	7.7	4
85	High-latitude Observations of Inertial-range Turbulence by the Ulysses Spacecraft During the Solar Minimum of 1993â€"96. Astrophysical Journal, 2022, 927, 43.	4.5	4
86	Low-frequency Waves due to Newborn Interstellar Pickup He⁺ Observed by the Ulysses Spacecraft. Astrophysical Journal, 2021, 923, 185.	4.5	4
87	Proton Heating by a Protonâ€"Alpha Drift Instability with an Anisotropic Alpha-particle Temperature in a Turbulent Solar-wind Plasma. Astrophysical Journal, 2022, 930, 120.	4.5	4
88	Analysis of multi-dimensional correlation functions in the solar wind. AIP Conference Proceedings, 2013, , .	0.4	3
89	MMS Observations of Reconnection at Dayside Magnetopause Crossings During Transitions of the Solar Wind to Subâ€AlfvÃ©nic Flow. Journal of Geophysical Research: Space Physics, 2017, 122, 9934-9951.	2.4	3
90	Effects in the Nearâ€Magnetopause Magnetosheath Elicited by Largeâ€Amplitude AlfvÃ©nic Fluctuations Terminating in a Field and Flow Discontinuity. Journal of Geophysical Research: Space Physics, 2018, 123, 8983-9004.	2.4	3

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91	Concerning the heliumâ€toâ€hydrogen number density ratio in very slow ejecta and winds near solar minimum. Journal of Geophysical Research: Space Physics, 2017, 122, 1487-1512.	2.4	2
92	Suprathermal Proton Spectra at Interplanetary Shocks in 3D Hybrid Simulations. Astrophysical Journal, 2020, 897, 109.	4.5	2
93	Solar Wind Turbulence from 1 to 45 au. V. Data Intervals from the Voyager Observations. Astrophysical Journal, Supplement Series, 2020, 250, 14.	7.7	2
94	Four-dimensional Frequencyâ€“Wavenumber Power Spectrum of a Strong Turbulence Obtained from Hybrid Kinetic Simulations. Astrophysical Journal, 2020, 903, 80.	4.5	2
95	Magnetic helicity signature produced by cross-field 2D turbulence. AIP Conference Proceedings, 2013, , .	0.4	1
96	Flight Calibration of the Van Allen Probe Magnetometers. Astrophysical Journal, Supplement Series, 2020, 250, 4.	7.7	1
97	Magnetic Waves Excited by Newborn Pickup H⁺ Near Jupiter: Neutral Hydrogen Loss by the Planetary System. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	1
98	The making of an Alfvènic fluctuation: The resolution of a second-order analysis. AIP Conference Proceedings, 1996, , .	0.4	0
99	A Kinetic Model of Acceleration and Heating of Coronal Hole Minor Ions. AIP Conference Proceedings, 2008, , .	0.4	0
100	Correlation Scales of the Turbulent Cascade at 1 AU. Journal of Physics: Conference Series, 2018, 1100, 012023.	0.4	0
101	Three-dimensional Hybrid Simulation Results of a Variable Magnetic Helicity Signature at Proton Kinetic Scales. Astrophysical Journal, 2022, 924, 41.	4.5	0