

# Brian T Welsch

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8255787/publications.pdf>

Version: 2024-02-01

30  
papers

1,743  
citations

361045

20  
h-index

454577

30  
g-index

30  
all docs

30  
docs citations

30  
times ranked

1182  
citing authors

#	ARTICLE	IF	CITATIONS
1	GLOBAL ENERGETICS OF THIRTY-EIGHT LARGE SOLAR ERUPTIVE EVENTS. <i>Astrophysical Journal</i> , 2012, 759, 71.	1.6	340
2	ILCT: Recovering Photospheric Velocities from Magnetograms by Combining the Induction Equation with Local Correlation Tracking. <i>Astrophysical Journal</i> , 2004, 610, 1148-1156.	1.6	171
3	A Model for the Emergence of a Twisted Magnetic Flux Tube. <i>Astrophysical Journal</i> , 2000, 545, 1089-1100.	1.6	142
4	Global Forces in Eruptive Solar Flares: The Lorentz Force Acting on the Solar Atmosphere and the Solar Interior. <i>Solar Physics</i> , 2012, 277, 59-76.	1.0	109
5	Solar Magnetic Tracking. I. Software Comparison and Recommended Practices. <i>Astrophysical Journal</i> , 2007, 666, 576-587.	1.6	105
6	Tests and Comparisons of Velocity Inversion Techniques. <i>Astrophysical Journal</i> , 2007, 670, 1434-1452.	1.6	103
7	A Database of Flare Ribbon Properties from the Solar Dynamics Observatory. I. Reconnection Flux. <i>Astrophysical Journal</i> , 2017, 845, 49.	1.6	98
8	Magnetic Helicity Injection by Horizontal Flows in the Quiet Sun. I. Mutual Helicity Flux. <i>Astrophysical Journal</i> , 2003, 588, 620-629.	1.6	79
9	WHAT IS THE RELATIONSHIP BETWEEN PHOTOSPHERIC FLOW FIELDS AND SOLAR FLARES?. <i>Astrophysical Journal</i> , 2009, 705, 821-843.	1.6	75
10	Critical Science Plan for the Daniel K. Inouye Solar Telescope (DKIST). <i>Solar Physics</i> , 2021, 296, 1.	1.0	65
11	A COMPREHENSIVE METHOD OF ESTIMATING ELECTRIC FIELDS FROM VECTOR MAGNETIC FIELD AND DOPPLER MEASUREMENTS. <i>Astrophysical Journal</i> , 2014, 795, 17.	1.6	56
12	The Coronal Global Evolutionary Model: Using HMI Vector Magnetogram and Doppler Data to Model the Buildup of Free Magnetic Energy in the Solar Corona. <i>Space Weather</i> , 2015, 13, 369-373.	1.3	51
13	ESTIMATING ELECTRIC FIELDS FROM VECTOR MAGNETOGRAM SEQUENCES. <i>Astrophysical Journal</i> , 2010, 715, 242-259.	1.6	48
14	PHOTOSPHERIC ELECTRIC FIELDS AND ENERGY FLUXES IN THE ERUPTIVE ACTIVE REGION NOAA 11158. <i>Astrophysical Journal</i> , 2015, 811, 16.	1.6	47
15	Magnetic Flux Cancellation and Coronal Magnetic Energy. <i>Astrophysical Journal</i> , 2006, 638, 1101-1109.	1.6	36
16	A MAGNETIC CALIBRATION OF PHOTOSPHERIC DOPPLER VELOCITIES. <i>Astrophysical Journal</i> , 2013, 765, 98.	1.6	32
17	Can We Determine Electric Fields and Poynting Fluxes from Vector Magnetograms and Doppler Measurements?. <i>Solar Physics</i> , 2012, 277, 153-163.	1.0	29
18	Flux Accretion and Coronal Mass Ejection Dynamics. <i>Solar Physics</i> , 2018, 293, 1.	1.0	28

#	ARTICLE	IF	CITATIONS
19	The PDFL_SS Electric Field Inversion Software. <i>Astrophysical Journal, Supplement Series</i> , 2020, 248, 2.	3.0	24
20	The Coronal Global Evolutionary Model: Using HMI Vector Magnetogram and Doppler Data to Determine Coronal Magnetic Field Evolution. <i>Astrophysical Journal, Supplement Series</i> , 2020, 250, 28.	3.0	22
21	DECORRELATION TIMES OF PHOTOSPHERIC FIELDS AND FLOWS. <i>Astrophysical Journal</i> , 2012, 747, 130.	1.6	15
22	The Roles of Reconnected Flux and Overlying Fields in CME Speeds. <i>Solar Physics</i> , 2017, 292, 1.	1.0	11
23	Invited Review: Short-term Variability with the Observations from the Helioseismic and Magnetic Imager (HMI) Onboard the Solar Dynamics Observatory (SDO): Insights into Flare Magnetism. <i>Solar Physics</i> , 2022, 297, .	1.0	11
24	Probing the Effect of Cadence on the Estimates of Photospheric Energy and Helicity Injections in Eruptive Active Region NOAA AR 11158. <i>Solar Physics</i> , 2019, 294, 1.	1.0	10
25	Data-driven, time-dependent modeling of pre-eruptive coronal magnetic field configuration at the periphery of NOAA AR 11726. <i>Astronomy and Astrophysics</i> , 2022, 658, A200.	2.1	10
26	Toward Improved Understanding of Magnetic Fields Participating in Solar Flares: Statistical Analysis of Magnetic Fields within Flare Ribbons. <i>Astrophysical Journal</i> , 2022, 926, 56.	1.6	9
27	Active Region Emergence and Remote Flares. <i>Solar Physics</i> , 2016, 291, 383-410.	1.0	8
28	ARE DECAYING MAGNETIC FIELDS ABOVE ACTIVE REGIONS RELATED TO CORONAL MASS EJECTION ONSET?. <i>Astrophysical Journal</i> , 2012, 758, 22.	1.6	3
29	Deriving Potential Coronal Magnetic Fields from Vector Magnetograms. <i>Solar Physics</i> , 2016, 291, 1681-1710.	1.0	3
30	Reconstruction of Photospheric Velocity Fields from Highly Corrupted Data. <i>Astrophysical Journal</i> , 2022, 933, 2.	1.6	3