

Luke A Barnard

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69
papers

1,307
citations

20
h-index

32
g-index

81
ext. papers

1,600
ext. citations

3.2
avg, IF

4.68
L-index

#	Paper	IF	Citations
69	Why are ELEvoHI CME Arrival Predictions Different if Based on STEREO-A or STEREO-B Heliospheric Imager Observations?. <i>Space Weather</i> , 2021 , 19, e2020SW002674	3.7	5
68	Extreme Space-Weather Events and the Solar Cycle. <i>Solar Physics</i> , 2021 , 296, 1	2.6	7
67	Forecasting Occurrence and Intensity of Geomagnetic Activity With Pattern-Matching Approaches. <i>Space Weather</i> , 2021 , 19, e2020SW002624	3.7	2
66	Inferring thermospheric composition from ionogram profiles: a calibration with the TIMED spacecraft. <i>Annales Geophysicae</i> , 2021 , 39, 309-319	2	
65	Modeling the Observed Distortion of Multiple (Ghost) CME Fronts in STEREO Heliospheric Imagers. <i>Astrophysical Journal Letters</i> , 2021 , 917, L16	7.9	1
64	Drag-Based CME Modeling With Heliospheric Images Incorporating Frontal Deformation: ELEvoHI 2.0. <i>Space Weather</i> , 2021 , 19, e2021SW002836	3.7	3
63	Semi-annual, annual and Universal Time variations in the magnetosphere and in geomagnetic activity: 4. Polar Cap motions and origins of the Universal Time effect. <i>Journal of Space Weather and Space Climate</i> , 2021 , 11, 15	2.5	4
62	The Visual Complexity of Coronal Mass Ejections Follows the Solar Cycle. <i>Space Weather</i> , 2020 , 18, e2020SW002556	3.7	15
61	Ensemble CME Modeling Constrained by Heliospheric Imager Observations. <i>AGU Advances</i> , 2020 , 1, e2020AV000214	3.4	6
60	The Value of CME Arrival Time Forecasts for Space Weather Mitigation. <i>Space Weather</i> , 2020 , 18, e2020SW002507	3.7	8
59	A Computationally Efficient, Time-Dependent Model of the Solar Wind for Use as a Surrogate to Three-Dimensional Numerical Magnetohydrodynamic Simulations. <i>Solar Physics</i> , 2020 , 295, 1	2.6	13
58	Semi-annual, annual and Universal Time variations in the magnetosphere and in geomagnetic activity: 2. Response to solar wind power input and relationships with solar wind dynamic pressure and magnetospheric flux transport. <i>Journal of Space Weather and Space Climate</i> , 2020 , 10, 30	2.5	10
57	Semi-annual, annual and Universal Time variations in the magnetosphere and in geomagnetic activity: 3. Modelling. <i>Journal of Space Weather and Space Climate</i> , 2020 , 10, 61	2.5	5
56	Semi-annual, annual and Universal Time variations in the magnetosphere and in geomagnetic activity: 1. Geomagnetic data. <i>Journal of Space Weather and Space Climate</i> , 2020 , 10, 23	2.5	20
55	The Development of a Space Climatology: 2. The Distribution of Power Input Into the Magnetosphere on a 3-Hourly Timescale. <i>Space Weather</i> , 2019 , 17, 157-179	3.7	9
54	Extracting Inner-Heliosphere Solar Wind Speed Information From Heliospheric Imager Observations. <i>Space Weather</i> , 2019 , 17, 925-938	3.7	9
53	Using Ghost Fronts Within STEREO Heliospheric Imager Data to Infer the Evolution in Longitudinal Structure of a Coronal Mass Ejection. <i>Space Weather</i> , 2019 , 17, 539-552	3.7	7

52	The Development of a Space Climatology: 1. Solar Wind Magnetosphere Coupling as a Function of Timescale and the Effect of Data Gaps. <i>Space Weather</i> , 2019 , 17, 133-156	3.7	19
51	Time-of-day/time-of-year response functions of planetary geomagnetic indices. <i>Journal of Space Weather and Space Climate</i> , 2019 , 9, A20	2.5	10
50	The Variation of Geomagnetic Storm Duration with Intensity. <i>Solar Physics</i> , 2019 , 294, 1	2.6	10
49	The Development of a Space Climatology: 3. Models of the Evolution of Distributions of Space Weather Variables With Timescale. <i>Space Weather</i> , 2019 , 17, 180-209	3.7	13
48	Ion Charge States and Potential Geoeffectiveness: The Role of Coronal Spectroscopy for Space-Weather Forecasting. <i>Space Weather</i> , 2018 , 16, 694-703	3.7	5
47	Long-term variations in the heliosphere. <i>Proceedings of the International Astronomical Union</i> , 2018 , 13, 108-114	0.1	1
46	A homogeneous aa index: 1. Secular variation. <i>Journal of Space Weather and Space Climate</i> , 2018 , 8, A53	2.5	13
45	A homogeneous aa index: 2. Hemispheric asymmetries and the equinoctial variation. <i>Journal of Space Weather and Space Climate</i> , 2018 , 8, A58	2.5	16
44	Generation of Inverted Heliospheric Magnetic Flux by Coronal Loop Opening and Slow Solar Wind Release. <i>Astrophysical Journal Letters</i> , 2018 , 868, L14	7.9	13
43	Space climate and space weather over the past 400 years: 2. Proxy indicators of geomagnetic storm and substorm occurrence. <i>Journal of Space Weather and Space Climate</i> , 2018 , 8, A12	2.5	16
42	What can the annual ¹⁰ Be solar activity reconstructions tell us about historic space weather?. <i>Journal of Space Weather and Space Climate</i> , 2018 , 8, A23	2.5	7
41	Testing the current paradigm for space weather prediction with heliospheric imagers. <i>Space Weather</i> , 2017 , 15, 782-803	3.7	15
40	Coronal mass ejections are not coherent magnetohydrodynamic structures. <i>Scientific Reports</i> , 2017 , 7, 4152	4.9	40
39	Solar forcing for CMIP6 (v3.2). <i>Geoscientific Model Development</i> , 2017 , 10, 2247-2302	6.3	199
38	Space climate and space weather over the past 400 years: 1. The power input to the magnetosphere. <i>Journal of Space Weather and Space Climate</i> , 2017 , 7, A25	2.5	21
37	Tracking CMEs using data from the Solar Stormwatch project; observing deflections and other properties. <i>Space Weather</i> , 2017 , 15, 1125-1140	3.7	5
36	The space environment before the space age. <i>Astronomy and Geophysics</i> , 2017 , 58, 2.12-2.16	0.2	3
35	The Maunder minimum and the Little Ice Age: an update from recent reconstructions and climate simulations. <i>Journal of Space Weather and Space Climate</i> , 2017 , 7, A33	2.5	35

34	Using the ionospheric response to the solar eclipse on 20 March 2015 to detect spatial structure in the solar corona. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016 , 374,	3	5
33	The National Eclipse Weather Experiment: an assessment of citizen scientist weather observations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016 , 374,	3	6
32	Tests of Sunspot Number Sequences: 4. Discontinuities Around 1946 in Various Sunspot Number and Sunspot-Group-Number Reconstructions. <i>Solar Physics</i> , 2016 , 291, 2843-2867	2.6	12
31	AN ASSESSMENT OF SUNSPOT NUMBER DATA COMPOSITES OVER 1845–2014. <i>Astrophysical Journal</i> , 2016 , 824, 54	4.7	27
30	Tests of Sunspot Number Sequences: 3. Effects of Regression Procedures on the Calibration of Historic Sunspot Data. <i>Solar Physics</i> , 2016 , 291, 2829-2841	2.6	29
29	Tests of Sunspot Number Sequences: 1. Using Ionosonde Data. <i>Solar Physics</i> , 2016 , 291, 2785-2809	2.6	16
28	On the origins and timescales of geoeffective IMF. <i>Space Weather</i> , 2016 , 14, 406-432	3.7	53
27	Solar Forcing for CMIP6 (v3.1) 2016 ,		19
26	Near-Earth heliospheric magnetic field intensity since 1750: 1. Sunspot and geomagnetic reconstructions. <i>Journal of Geophysical Research: Space Physics</i> , 2016 , 121, 6048-6063	2.6	27
25	The National Eclipse Weather Experiment: use and evaluation of a citizen science tool for schools outreach. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016 , 374,	3	8
24	Tests of Sunspot Number Sequences: 2. Using Geomagnetic and Auroral Data. <i>Solar Physics</i> , 2016 , 291, 2811-2828	2.6	18
23	Near-Earth heliospheric magnetic field intensity since 1750: 2. Cosmogenic radionuclide reconstructions. <i>Journal of Geophysical Research: Space Physics</i> , 2016 , 121, 6064-6074	2.6	16
22	NEAR-EARTH COSMIC RAY DECREASES ASSOCIATED WITH REMOTE CORONAL MASS EJECTIONS. <i>Astrophysical Journal</i> , 2015 , 801, 5	4.7	11
21	Differences between the CME fronts tracked by an expert, an automated algorithm, and the Solar Stormwatch project. <i>Space Weather</i> , 2015 , 13, 709-725	3.7	8
20	An arch in the UK. <i>Astronomy and Geophysics</i> , 2015 , 56, 4.25-4.30	0.2	16
19	The heliospheric Hale cycle over the last 300 years and its implications for a late 18th century solar cycle. <i>Journal of Space Weather and Space Climate</i> , 2015 , 5, A30	2.5	9
18	Solar Stormwatch: tracking solar eruptions SOLAR STORMWATCH. <i>Astronomy and Geophysics</i> , 2015 , 56, 4.20-4.24	0.2	5
17	Validation of a priori CME arrival predictions made using real-time heliospheric imager observations. <i>Space Weather</i> , 2015 , 13, 35-48	3.7	25

16	The Solar Stormwatch CME catalogue: Results from the first space weather citizen science project. <i>Space Weather</i> , 2014 , 12, 657-674	3.7	20
15	Reconstruction of geomagnetic activity and near-Earth interplanetary conditions over the past 167 yr [Part 4: Near-Earth solar wind speed, IMF, and open solar flux. <i>Annales Geophysicae</i> , 2014 , 32, 383-399 ²		53
14	Centennial variations in sunspot number, open solar flux, and streamer belt width: 2. Comparison with the geomagnetic data. <i>Journal of Geophysical Research: Space Physics</i> , 2014 , 119, 5183-5192	2.6	19
13	Centennial variations in sunspot number, open solar flux, and streamer belt width: 1. Correction of the sunspot number record since 1874. <i>Journal of Geophysical Research: Space Physics</i> , 2014 , 119, 5172-5182	3.6	44
12	Reconstruction of geomagnetic activity and near-Earth interplanetary conditions over the past 167 yr [Part 3: Improved representation of solar cycle 11. <i>Annales Geophysicae</i> , 2014 , 32, 367-381	2	19
11	Evidence for solar wind modulation of lightning. <i>Environmental Research Letters</i> , 2014 , 9, 055004	6.2	40
10	Modulation of UK lightning by heliospheric magnetic field polarity. <i>Environmental Research Letters</i> , 2014 , 9, 115009	6.2	23
9	Reconstruction of geomagnetic activity and near-Earth interplanetary conditions over the past 167 yr [Part 2: A new reconstruction of the interplanetary magnetic field. <i>Annales Geophysicae</i> , 2013 , 31, 1979-1992	2	28
8	Reconstruction of geomagnetic activity and near-Earth interplanetary conditions over the past 167 yr [Part 1: A new geomagnetic data composite. <i>Annales Geophysicae</i> , 2013 , 31, 1957-1977	2	32
7	Solar cycle 24: what is the Sun up to?. <i>Astronomy and Geophysics</i> , 2012 , 53, 3.09-3.15	0.2	21
6	A survey of gradual solar energetic particle events. <i>Journal of Geophysical Research</i> , 2011 , 116,		11
5	Solar cycle 24: Implications for energetic particles and long-term space climate change. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	33
4	The persistence of solar activity indicators and the descent of the Sun into Maunder Minimum conditions. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	36
3	Predicting space climate change. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	53
2	The solar influence on the probability of relatively cold UK winters in the future. <i>Environmental Research Letters</i> , 2011 , 6, 034004	6.2	14
1	Towards GIC forecasting: Statistical downscaling of the geomagnetic field to improve geoelectric field forecasts. <i>Space Weather</i> , e2021SW002903	3.7	