Christian Moestl

List of Publications by Year
in descending order

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102	4,576	81900	110387
papers	citations	39 h-index	64 g-index

139	139	139	1807
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Propagation of Interplanetary Coronal Mass Ejections: The Drag-Based Model. Solar Physics, 2013, 285, 295-315.	2.5	257
2	Observations of an extreme storm in interplanetary space caused by successive coronal mass ejections. Nature Communications, 2014, 5, 3481.	12.8	223
3	CONNECTING SPEEDS, DIRECTIONS AND ARRIVAL TIMES OF 22 CORONAL MASS EJECTIONS FROM THE SUN TO 1 AU. Astrophysical Journal, 2014, 787, 119.	4.5	145
4	Strong coronal channelling and interplanetary evolution of a solar storm up to Earth and Mars. Nature Communications, 2015, 6, 7135.	12.8	142
5	THE DEFLECTION OF THE TWO INTERACTING CORONAL MASS EJECTIONS OF 2010 MAY 23-24 AS REVEALED BY COMBINED IN SITU MEASUREMENTS AND HELIOSPHERIC IMAGING. Astrophysical Journal, 2012, 759, 68.	4.5	137
6	CHARACTERISTICS OF KINEMATICS OF A CORONAL MASS EJECTION DURING THE 2010 AUGUST 1 CMEâ€“CME INTERACTION EVENT. Astrophysical Journal, 2012, 749, 57.	4.5	127
7	A SELF-SIMILAR EXPANSION MODEL FOR USE IN SOLAR WIND TRANSIENT PROPAGATION STUDIES. Astrophysical Journal, 2012, 750, 23.	4.5	120
8	ON SUN-TO-EARTH PROPAGATION OF CORONAL MASS EJECTIONS. Astrophysical Journal, 2013, 769, 45.	4.5	120
9	MULTI-POINT SHOCK AND FLUX ROPE ANALYSIS OF MULTIPLE INTERPLANETARY CORONAL MASS EJECTIONS AROUND 2010 AUGUST 1 IN THE INNER HELIOSPHERE. Astrophysical Journal, 2012, 758, 10.	4.5	109
10	The role of aerodynamic drag in propagation of interplanetary coronal mass ejections. Astronomy and Astrophysics, 2010, 512, A43.	5.1	102
11	INTERACTIONS BETWEEN CORONAL MASS EJECTIONS VIEWED IN COORDINATED IMAGING AND IN SITU OBSERVATIONS. Astrophysical Journal Letters, 2012, 746, L15.	8.3	99
12	Consequences of the force-free model of magnetic clouds for their heliospheric evolution. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	95
13	Forecasting the Arrival Time of Coronal Mass Ejections: Analysis of the CCMC CME Scoreboard. Space Weather, 2018, 16, 1245-1260.	3.7	94
14	STEREO and Wind observations of a fast ICME flank triggering a prolonged geomagnetic storm on 5â€“7 April 2010. Geophysical Research Letters, 2010, 37, .	4.0	92
15	INFLUENCE OF THE AMBIENT SOLAR WIND FLOW ON THE PROPAGATION BEHAVIOR OF INTERPLANETARY CORONAL MASS EJECTIONS. Astrophysical Journal, 2011, 743, 101.	4.5	92
16	ESTABLISHING A STEREOSCOPIC TECHNIQUE FOR DETERMINING THE KINEMATIC PROPERTIES OF SOLAR WIND TRANSIENTS BASED ON A GENERALIZED SELF-SIMILARLY EXPANDING CIRCULAR GEOMETRY. Astrophysical Journal, 2013, 777, 167.	4.5	88
17	LINKING REMOTE IMAGERY OF A CORONAL MASS EJECTION TO ITS IN SITU SIGNATURES AT 1 AU. Astrophysical Journal, 2009, 705, L180-L185.	4.5	84
18	AN ANALYSIS OF THE ORIGIN AND PROPAGATION OF THE MULTIPLE CORONAL MASS EJECTIONS OF 2010 AUGUST 1. Astrophysical Journal, 2012, 750, 45.	4.5	82

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19	Two-spacecraft reconstruction of a magnetic cloud and comparison to its solar source. Annales Geophysicae, 2008, 26, 3139-3152.	1.6	79
20	HELIOSPHERIC PROPAGATION OF CORONAL MASS EJECTIONS: COMPARISON OF NUMERICAL WSA-ENLIL+CONE MODEL AND ANALYTICAL DRAG-BASED MODEL. Astrophysical Journal, Supplement Series, 2014, 213, 21.	7.7	76
21	Speeds and Arrival Times of Solar Transients Approximated by Self-similar Expanding Circular Fronts. Solar Physics, 2013, 285, 411-423.	2.5	73
22	Optimized Gradâ€‰â€“â€‰Shafranov Reconstruction ofÂaÂMagnetic Cloud Using STEREO-Wind Observations. Solar Physics, 2009, 256, 427-441.	2.5	69
23	Magnetic Field Configuration Models and Reconstruction Methods for Interplanetary Coronal Mass Ejections. Solar Physics, 2013, 284, 129-149.	2.5	69
24	Multispacecraft Observations of Magnetic Clouds andÂTheir Solar Origins between 19 and 23 May 2007. Solar Physics, 2009, 254, 325-344.	2.5	68
25	Modeling observations of solar coronal mass ejections with heliospheric imagers verified with the Heliophysics System Observatory. Space Weather, 2017, 15, 955-970.	3.7	65
26	ElEvoHI: A NOVEL CME PREDICTION TOOL FOR HELIOSPHERIC IMAGING COMBINING AN ELLIPTICAL FRONT WITH DRAG-BASED MODEL FITTING. Astrophysical Journal, 2016, 824, 131.	4.5	63
27	Generic Magnetic Field Intensity Profiles of Interplanetary Coronal Mass Ejections at Mercury, Venus, and Earth From Superposed Epoch Analyses. Journal of Geophysical Research: Space Physics, 2019, 124, 812-836.	2.4	62
28	The Influence of Coronal Mass Ejections on the Mass-loss Rates of Hot-Jupiters. Astrophysical Journal, 2017, 846, 31.	4.5	60
29	The size distribution of magnetic bright points derived from Hinode/SOT observations. Astronomy and Astrophysics, 2009, 498, 289-293.	5.1	57
30	Multiple, distant (40Â°) in situ observations of a magnetic cloud and a corotating interaction region complex. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 1254-1269.	1.6	56
31	Multispacecraft recovery of a magnetic cloud and its origin from magnetic reconnection on the Sun. Journal of Geophysical Research, 2009, 114, .	3.3	51
32	ARRIVAL TIME CALCULATION FOR INTERPLANETARY CORONAL MASS EJECTIONS WITH CIRCULAR FRONTS AND APPLICATION TOSTEREOOBSERVATIONS OF THE 2009 FEBRUARY 13 ERUPTION. Astrophysical Journal, 2011, 741, 34.	4.5	51
33	A statistical analysis of properties of small transients in the solar wind 2007â€“2009: STEREO and Wind observations. Journal of Geophysical Research: Space Physics, 2014, 119, 689-708.	2.4	51
34	Coronal Magnetic Structure of Earthbound CMEs and In Situ Comparison. Space Weather, 2018, 16, 442-460.	3.7	51
35	Selfâ€Similarity of ICME Flux Ropes: Observations by Radially Aligned Spacecraft in the Inner Heliosphere. Journal of Geophysical Research: Space Physics, 2019, 124, 4960-4982.	2.4	48
36	COMBINED MULTIPOINT REMOTE AND IN SITU OBSERVATIONS OF THE ASYMMETRIC EVOLUTION OF A FAST SOLAR CORONAL MASS EJECTION. Astrophysical Journal Letters, 2014, 790, L6.	8.3	45

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37	Forward Modeling of Coronal Mass Ejection Flux Ropes in the Inner Heliosphere with 3DCORE. Space Weather, 2018, 16, 216-229.	3.7	45
38	PROPAGATION OF THE 2014 JANUARY 7 CME AND RESULTING GEOMAGNETIC NON-EVENT. Astrophysical Journal, 2015, 812, 145.	4.5	43
39	CME impact on comet 67P/Churyumov-Gerasimenko. Monthly Notices of the Royal Astronomical Society, 2016, 462, S45-S56.	4.4	42
40	Constraining the Kinematics of Coronal Mass Ejections in the Inner Heliosphere with In-Situ Signatures. Solar Physics, 2012, 276, 293-314.	2.5	40
41	In situ multi-spacecraft and remote imaging observations of the first CME detected by Solar Orbiter and BepiColombo. Astronomy and Astrophysics, 2021, 656, A2.	5.1	40
42	ON THE INTERNAL STRUCTURE OF THE MAGNETIC FIELD IN MAGNETIC CLOUDS AND INTERPLANETARY CORONAL MASS EJECTIONS: WRITHE VERSUS TWIST. Astrophysical Journal Letters, 2011, 738, L18.	8.3	39
43	SUN-TO-EARTH CHARACTERISTICS OF THE 2012 JULY 12 CORONAL MASS EJECTION AND ASSOCIATED GEO-EFFECTIVENESS. Astrophysical Journal, 2016, 829, 97.	4.5	39
44	CMEs in the Heliosphere: I. A Statistical Analysis of the Observational Properties of CMEs Detected in the Heliosphere from 2007 to 2017 by STEREO/HI-1. Solar Physics, 2018, 293, 1.	2.5	36
45	Heliospheric Imaging of 3D Density Structures During the Multiple Coronal Mass Ejections of Late July to Early August 2010. Solar Physics, 2013, 285, 317-348.	2.5	34
46	Heliospheric Evolution of Magnetic Clouds. Astrophysical Journal, 2019, 877, 77.	4.5	34
47	A comparison of space weather analysis techniques used to predict the arrival of the Earthâ€directed CME and its shockwave launched on 8 April 2010. Space Weather, 2011, 9, .	3.7	30
48	PREDICTION OF GEOMAGNETIC STORM STRENGTH FROM INNER HELIOSPHERIC IN SITU OBSERVATIONS. Astrophysical Journal, 2016, 833, 255.	4.5	28
49	Ensemble Prediction of a Halo Coronal Mass Ejection Using Heliospheric Imagers. Space Weather, 2018, 16, 784-801.	3.7	27
50	Prediction of the In Situ Coronal Mass Ejection Rate for Solar Cycle 25: Implications for Parker Solar Probe In Situ Observations. Astrophysical Journal, 2020, 903, 92.	4.5	27
51	Dynamics of Magnetic Bright Points in an Active Region. Solar Physics, 2006, 237, 13-23.	2.5	26
52	On the formation of tilted flux ropes in the Earth's magnetotail observed with ARTEMIS. Journal of Geophysical Research, 2012, 117, .	3.3	26
53	Correlation of ICME Magnetic Fields at Radially Aligned Spacecraft. Solar Physics, 2018, 293, 52.	2.5	26
54	Long-Term Tracking of Corotating Density Structures Using Heliospheric Imaging. Solar Physics, 2016, 291, 1853-1875.	2.5	25

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55	CMEs in the Heliosphere: II. A Statistical Analysis of the Kinematic Properties Derived from Single-Spacecraft Geometrical Modelling Techniques Applied to CMEs Detected in the Heliosphere from 2007 to 2017 by STEREO/HI-1. Solar Physics, 2019, 294, 1.	2.5	25
56	Forecasting the Ambient Solar Wind with Numerical Models. I. On the Implementation of an Operational Framework. Astrophysical Journal, Supplement Series, 2019, 240, 35.	7.7	25
57	Multipoint Interplanetary Coronal Mass Ejections Observed with Solar Orbiter, BepiColombo, Parker Solar Probe, Wind, and STEREO-A. Astrophysical Journal Letters, 2022, 924, L6.	8.3	25
58	First observations of magnetic holes deep within the coma of a comet. Astronomy and Astrophysics, 2018, 618, A114.	5.1	24
59	Forecasting the Ambient Solar Wind with Numerical Models. II. An Adaptive Prediction System for Specifying Solar Wind Speed near the Sun. Astrophysical Journal, 2020, 891, 165.	4.5	24
60	Analysis of Coronal Mass Ejection Flux Rope Signatures Using 3DCORE and Approximate Bayesian Computation. Astrophysical Journal, Supplement Series, 2021, 252, 9.	7.7	24
61	Coronal Dimmings and the Early Phase of a CME Observed with STEREO and Hinode/EIS. Solar Physics, 2011, 273, 125-142.	2.5	23
62	Interplanetary and geomagnetic consequences of 5 January 2005 CMEs associated with eruptive filaments. Journal of Geophysical Research: Space Physics, 2013, 118, 3954-3967.	2.4	22
63	Atmospheric Mass Loss from Hot Jupiters Irradiated by Stellar Superflares. Astrophysical Journal, 2018, 869, 108.	4.5	22
64	Unusual Plasma and Particle Signatures at Mars and STEREO-A Related to CMEâ€“CME Interaction. Astrophysical Journal, 2019, 880, 18.	4.5	22
65	Evaluation of CME Arrival Prediction Using Ensemble Modeling Based on Heliospheric Imaging Observations. Space Weather, 2021, 19, e2020SW002553.	3.7	21
66	Heliospheric Observations of STEREO-Directed Coronal Mass Ejections in 2008â€‰â€“â€‰2010: Lessons for Future Observations of Earth-Directed CMEs. Solar Physics, 2012, 279, 497-515.	2.5	20
67	Evolution of Coronal Mass Ejections and the Corresponding Forbush Decreases: Modeling vs. Multi-Spacecraft Observations. Solar Physics, 2020, 295, 1.	2.5	18
68	CME Magnetic Structure and IMF Preconditioning Affecting SEP Transport. Space Weather, 2021, 19, e2020SW002654.	3.7	18
69	The role of magnetic handedness in magnetic cloud propagation. Annales Geophysicae, 2010, 28, 1075-1100.	1.6	17
70	Solar origins of a strong stealth CME detected by Solar Orbiter. Astronomy and Astrophysics, 2021, 656, L6.	5.1	16
71	The Observational Uncertainty of Coronal Hole Boundaries in Automated Detection Schemes. Astrophysical Journal, 2021, 913, 28.	4.5	16
72	Magnetic Structure and Propagation of Two Interacting CMEs From the Sun to Saturn. Journal of Geophysical Research: Space Physics, 2021, 126, .	2.4	16

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73	CMEs and SEPs During Novemberâ€“December 2020: A Challenge for Realâ€Time Space Weather Forecasting. Space Weather, 2022, 20, .	3.7	16
74	Effect of Electron Pressure on the Gradâ€“Shafranov Reconstruction of Interplanetary Coronal Mass Ejections. Solar Physics, 2013, 284, 275-291.	2.5	15
75	COMPARISON OF MAGNETIC PROPERTIES IN A MAGNETIC CLOUD AND ITS SOLAR SOURCE ON 2013 APRIL 11â€“14. Astrophysical Journal, 2016, 828, 12.	4.5	15
76	The Influence of a Stellar Flare on the Dynamical State of the Atmosphere of the Exoplanet HD 209458b. Astronomy Reports, 2018, 62, 648-653.	0.9	15
77	Radial evolution of the April 2020 stealth coronal mass ejection between 0.8 and 1 AU. Astronomy and Astrophysics, 2021, 656, A1.	5.1	15
78	Using Gradient Boosting Regression to Improve Ambient Solar Wind Model Predictions. Space Weather, 2021, 19, e2020SW002673.	3.7	15
79	CMEs in the Heliosphere: III. A Statistical Analysis of the Kinematic Properties Derived from Stereoscopic Geometrical Modelling Techniques Applied to CMEs Detected in the Heliosphere from 2008 to 2014 by STEREO/HI-1. Solar Physics, 2020, 295, 1.	2.5	13
80	Dragâ€Based CME Modeling With Heliospheric Images Incorporating Frontal Deformation: ELEvoHI 2.0. Space Weather, 2021, 19, e2021SW002836.	3.7	13
81	Machine Learning for Predicting the B_z Magnetic Field Component From Upstream in Situ Observations of Solar Coronal Mass Ejections. Space Weather, 2021, 19, e2021SW002859.	3.7	13
82	The structure of an earthward propagating magnetic flux rope early in its evolution: comparison of methods. Annales Geophysicae, 2009, 27, 2215-2224.	1.6	12
83	Assessing the Constrained Harmonic Mean Method for Deriving the Kinematics of ICMEs with a Numerical Simulation. Solar Physics, 2013, 283, 541-556.	2.5	12
84	Why are ELEvoHI CME Arrival Predictions Different if Based on STEREOâ€A or STEREOâ€B Heliospheric Imager Observations?. Space Weather, 2021, 19, e2020SW002674.	3.7	11
85	A Coronal Mass Ejection and Magnetic Ejecta Observed In Situ by STEREO-A and Wind at 55Â° Angular Separation. Astrophysical Journal, 2022, 929, 149.	4.5	11
86	Prediction of Dst During Solar Minimum Using In Situ Measurements at L5. Space Weather, 2020, 18, e2019SW002424.	3.7	10
87	The Influence of Superflares of Host Stars on the Dynamics of the Envelopes of Hot Jupiters. Astronomy Reports, 2019, 63, 94-106.	0.9	9
88	Tracking and Validating ICMEs Propagating Toward Mars Using STEREO Heliospheric Imagers Combined With Forbush Decreases Detected by MSL/RAD. Space Weather, 2019, 17, 586-598.	3.7	9
89	Forecasting GICs and Geoelectric Fields From Solar Wind Data Using LSTMs: Application in Austria. Space Weather, 2022, 20, .	3.7	9
90	Multi-spacecraft Observations of the Evolution of Interplanetary Coronal Mass Ejections between 0.3 and 2.2 au: Conjunctions with the Juno Spacecraft. Astrophysical Journal, 2022, 933, 127.	4.5	9

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91	Connecting Coronal Mass Ejections and Magnetic Clouds: A Case Study Using an Event from 22 June 2009. Solar Physics, 2012, 281, 369.	2.5	8
92	A Catalog of Interplanetary Coronal Mass Ejections Observed by Juno between 1 and 5.4 au. Astrophysical Journal, 2021, 923, 136.	4.5	8
93	Unifying the validation of ambient solar wind models. Advances in Space Research, 2023, 72, 5275-5286.	2.6	7
94	Quantifying the Uncertainty in CME Kinematics Derived From Geometric Modeling of Heliospheric Imager Data. Space Weather, 2022, 20, .	3.7	6
95	A Fast Bow Shock Location Predictorâ€Estimator From 2D and 3D Analytical Models: Application to Mars and the MAVEN Mission. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	6
96	The Magnetic Field Geometry of Small Solar Wind Flux Ropes Inferred from Their Twist Distribution. Solar Physics, 2018, 293, 1.	2.5	5
97	Making Waves: Mirror Mode Structures Around Mars Observed by the MAVEN Spacecraft. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	5
98	Deep Solar Activity Minimum 2007â€‰â€“â€‰2009: Solar Wind Properties and Major Effects on the Terrestrial Magnetosphere. Solar Physics, 2012, 281, 461.	2.5	4
99	An Ensemble Study of a January 2010 Coronal Mass Ejection (CME): Connecting a Non-obvious Solar Source with Its ICME/Magnetic Cloud. Solar Physics, 2014, 289, 4173-4208.	2.5	4
100	Predicting CMEs Using ELEvoHI With STEREOâ€HI Beacon Data. Space Weather, 2021, 19, e2021SW002873.	3.7	3
101	Comparing the Heliospheric Cataloging, Analysis, and Techniques Service (HELCATS) Manual and Automatic Catalogues of Coronal Mass Ejections Using Solar Terrestrial Relations Observatory/Heliospheric Imager (STEREO/HI) Data. Solar Physics, 2022, 297, 1.	2.5	3
102	Evolution of the 5 January 2005 CMEs associated with eruptive filaments in inner heliosphere. Proceedings of the International Astronomical Union, 2013, 8, 491-492.	0.0	1