Christian Moestl

List of Publications by Year
in descending order

102 papers	4,576 citations	81900 39 h-index	110387 64 g-index
139 all docs	139 docs citations	139 times ranked	1807 citing authors

#	Article	IF	Citations
1	Unifying the validation of ambient solar wind models. Advances in Space Research, 2023, 72, 5275-5286.	2.6	7
2	Quantifying the Uncertainty in CME Kinematics Derived From Geometric Modeling of Heliospheric Imager Data. Space Weather, 2022, 20, .	3.7	6
3	Making Waves: Mirror Mode Structures Around Mars Observed by the MAVEN Spacecraft. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	5
4	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
5	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
6	Forecasting GICs and Geoelectric Fields From Solar Wind Data Using LSTMs: Application in Austria. Space Weather, 2022, 20, .	3.7	9
7	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
8	CMEs and SEPs During Novemberâ€"December 2020: A Challenge for Realâ€Time Space Weather Forecasting. Space Weather, 2022, 20, .	3.7	16
9	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
10	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
11	Evaluation of CME Arrival Prediction Using Ensemble Modeling Based on Heliospheric Imaging Observations. Space Weather, 2021, 19, e2020SW002553.	3.7	21
12	Analysis of Coronal Mass Ejection Flux Rope Signatures Using 3DCORE and Approximate Bayesian Computation. Astrophysical Journal, Supplement Series, 2021, 252, 9.	7.7	24
13	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
14	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
15	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
16	Solar origins of a strong stealth CME detected by Solar Orbiter. Astronomy and Astrophysics, 2021, 656, L6.	5.1	16
17	CME Magnetic Structure and IMF Preconditioning Affecting SEP Transport. Space Weather, 2021, 19, e2020SW002654.	3.7	18
18	The Observational Uncertainty of Coronal Hole Boundaries in Automated Detection Schemes. Astrophysical Journal, 2021, 913, 28.	4.5	16

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19	Using Gradient Boosting Regression to Improve Ambient Solar Wind Model Predictions. Space Weather, 2021, 19, e2020SW002673.	3.7	15
20	Dragâ€Based CME Modeling With Heliospheric Images Incorporating Frontal Deformation: ELEvoHI 2.0. Space Weather, 2021, 19, e2021SW002836.	3.7	13
21	Magnetic Structure and Propagation of Two Interacting CMEs From the Sun to Saturn. Journal of Geophysical Research: Space Physics, 2021, 126, .	2.4	16
22	Predicting CMEs Using ELEvoHI With STEREOâ€HI Beacon Data. Space Weather, 2021, 19, e2021SW002873.	3.7	3
23	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
24	A Catalog of Interplanetary Coronal Mass Ejections Observed by Juno between 1 and 5.4 au. Astrophysical Journal, 2021, 923, 136.	4.5	8
25	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
26	Evolution of Coronal Mass Ejections and the Corresponding Forbush Decreases: Modeling vs. Multi-Spacecraft Observations. Solar Physics, 2020, 295, 1.	2.5	18
27	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
28	Prediction of <i>D</i><i>s</i><i>t</i> During Solar Minimum Using In Situ Measurements at L5. Space Weather, 2020, 18, e2019SW002424.	3.7	10
29	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
30	Unusual Plasma and Particle Signatures at Mars and STEREO-A Related to CMEâ€“CME Interaction. Astrophysical Journal, 2019, 880, 18.	4.5	22
31	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
32	Heliospheric Evolution of Magnetic Clouds. Astrophysical Journal, 2019, 877, 77.	4.5	34
33	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
34	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
35	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
36	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

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37	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
38	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
39	Forward Modeling of Coronal Mass Ejection Flux Ropes in the Inner Heliosphere with 3DCORE. Space Weather, 2018, 16, 216-229.	3.7	45
40	Correlation of ICME Magnetic Fields at Radially Aligned Spacecraft. Solar Physics, 2018, 293, 52.	2.5	26
41	First observations of magnetic holes deep within the coma of a comet. Astronomy and Astrophysics, 2018, 618, A114.	5.1	24
42	Ensemble Prediction of a Halo Coronal Mass Ejection Using Heliospheric Imagers. Space Weather, 2018, 16, 784-801.	3.7	27
43	Atmospheric Mass Loss from Hot Jupiters Irradiated by Stellar Superflares. Astrophysical Journal, 2018, 869, 108.	4.5	22
44	The Magnetic Field Geometry of Small Solar Wind Flux Ropes Inferred from Their Twist Distribution. Solar Physics, 2018, 293, 1.	2.5	5
45	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
46	Coronal Magnetic Structure of Earthbound CMEs and In Situ Comparison. Space Weather, 2018, 16, 442-460.	3.7	51
47	Forecasting the Arrival Time of Coronal Mass Ejections: Analysis of the CCMC CME Scoreboard. Space Weather, 2018, 16, 1245-1260.	3.7	94
48	The Influence of Coronal Mass Ejections on the Mass-loss Rates of Hot-Jupiters. Astrophysical Journal, 2017, 846, 31.	4.5	60
49	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
50	Long-Term Tracking of Corotating Density Structures Using Heliospheric Imaging. Solar Physics, 2016, 291, 1853-1875.	2.5	25
51	PREDICTION OF GEOMAGNETIC STORM STRENGTH FROM INNER HELIOSPHERIC IN SITU OBSERVATIONS. Astrophysical Journal, 2016, 833, 255.	4.5	28
52	SUN-TO-EARTH CHARACTERISTICS OF THE 2012 JULY 12 CORONAL MASS EJECTION AND ASSOCIATED GEO-EFFECTIVENESS. Astrophysical Journal, 2016, 829, 97.	4.5	39
53	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
54	CME impact on comet 67P/Churyumov-Gerasimenko. Monthly Notices of the Royal Astronomical Society, 2016, 462, S45-S56.	4.4	42

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55	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
56	PROPAGATION OF THE 2014 JANUARY 7 CME AND RESULTING GEOMAGNETIC NON-EVENT. Astrophysical Journal, 2015, 812, 145.	4.5	43
57	Strong coronal channelling and interplanetary evolution of a solar storm up to Earth and Mars. Nature Communications, 2015, 6, 7135.	12.8	142
58	Observations of an extreme storm in interplanetary space caused by successive coronal mass ejections. Nature Communications, 2014, 5, 3481.	12.8	223
59	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
60	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
61	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
62	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
63	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
64	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
65	Propagation of Interplanetary Coronal Mass Ejections: The Drag-Based Model. Solar Physics, 2013, 285, 295-315.	2.5	257
66	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
67	Magnetic Field Configuration Models and Reconstruction Methods for Interplanetary Coronal Mass Ejections. Solar Physics, 2013, 284, 129-149.	2.5	69
68	Effect of Electron Pressure on the Gradâ€“Shafranov Reconstruction of Interplanetary Coronal Mass Ejections. Solar Physics, 2013, 284, 275-291.	2.5	15
69	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
70	Speeds and Arrival Times of Solar Transients Approximated by Self-similar Expanding Circular Fronts. Solar Physics, 2013, 285, 411-423.	2.5	73
71	ON SUN-TO-EARTH PROPAGATION OF CORONAL MASS EJECTIONS. Astrophysical Journal, 2013, 769, 45.	4.5	120
72	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

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73	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
74	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
75	INTERACTIONS BETWEEN CORONAL MASS EJECTIONS VIEWED IN COORDINATED IMAGING AND IN SITU OBSERVATIONS. Astrophysical Journal Letters, 2012, 746, L15.	8.3	99
76	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
77	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
78	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
79	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
80	On the formation of tilted flux ropes in the Earth's magnetotail observed with ARTEMIS. Journal of Geophysical Research, 2012, 117, .	3.3	26
81	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
82	A SELF-SIMILAR EXPANSION MODEL FOR USE IN SOLAR WIND TRANSIENT PROPAGATION STUDIES. Astrophysical Journal, 2012, 750, 23.	4.5	120
83	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
84	Constraining the Kinematics of Coronal Mass Ejections in the Inner Heliosphere with In-Situ Signatures. Solar Physics, 2012, 276, 293-314.	2.5	40
85	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
86	INFLUENCE OF THE AMBIENT SOLAR WIND FLOW ON THE PROPAGATION BEHAVIOR OF INTERPLANETARY CORONAL MASS EJECTIONS. Astrophysical Journal, 2011, 743, 101.	4.5	92
87	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
88	ARRIVAL TIME CALCULATION FOR INTERPLANETARY CORONAL MASS EJECTIONS WITH CIRCULAR FRONTS AND APPLICATION TO<i>STEREO</i>OBSERVATIONS OF THE 2009 FEBRUARY 13 ERUPTION. Astrophysical Journal, 2011, 741, 34.	4.5	51
89	Coronal Dimmings and the Early Phase of a CME Observed with STEREO and Hinode/EIS. Solar Physics, 2011, 273, 125-142.	2.5	23
90	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

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91	The role of magnetic handedness in magnetic cloud propagation. Annales Geophysicae, 2010, 28, 1075-1100.	1.6	17
92	The role of aerodynamic drag in propagation of interplanetary coronal mass ejections. Astronomy and Astrophysics, 2010, 512, A43.	5.1	102
93	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
94	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
95	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
96	Multispacecraft Observations of Magnetic Clouds andÂTheir Solar Origins between 19 and 23 May 2007. Solar Physics, 2009, 254, 325-344.	2.5	68
97	Optimized Gradâ€‰â€“â€‰Shafranov Reconstruction ofÂaÂMagnetic Cloud Using STEREO-Wind Observations. Solar Physics, 2009, 256, 427-441.	2.5	69
98	Multispacecraft recovery of a magnetic cloud and its origin from magnetic reconnection on the Sun. Journal of Geophysical Research, 2009, 114, .	3.3	51
99	The size distribution of magnetic bright points derived from Hinode/SOT observations. Astronomy and Astrophysics, 2009, 498, 289-293.	5.1	57
100	Two-spacecraft reconstruction of a magnetic cloud and comparison to its solar source. Annales Geophysicae, 2008, 26, 3139-3152.	1.6	79
101	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
102	Dynamics of Magnetic Bright Points in an Active Region. Solar Physics, 2006, 237, 13-23.	2.5	26