Claudia Stolle

List of Publications by Year
in descending order

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118 papers	4,255 citations	147801 31 h-index	128289 60 g-index
146 all docs	146 docs citations	146 times ranked	2624 citing authors

#	Article	IF	Citations
1	Relation of the Plasmapause to the Midlatitude Ionospheric Trough, the Subâ€Auroral Temperature Enhancement and the Distribution of Smallâ€Scale Field Aligned Currents as Observed in the Magnetosphere by THEMIS, RBSP, and Arase, and in the Topside Ionosphere by Swarm. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	12
2	Ionospheric Plasma IRregularities â€•IPIR â€•Data Product Based on Data From the Swarm Satellites. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	17
3	Examining the Wind Shear Theory of Sporadic E With ICON/MIGHTI Winds and COSMICâ€2 Radio Occultation Data. Geophysical Research Letters, 2022, 49, .	4.0	29
4	Solar Flux Influence on the Inâ€Situ Plasma Density at Topside Ionosphere Measured by Swarm Satellites. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	14
5	Geomagnetic Activity Index Hpo. Geophysical Research Letters, 2022, 49, .	4.0	24
6	On the Role of Eâ€F Region Coupling in the Generation of Nighttime MSTIDs During Summer and Equinox: Case Studies Over Northern Germany. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	3
7	Migrating solar diurnal tidal variability during Northern and Southern Hemisphere Sudden Stratospheric Warmings. Earth, Planets and Space, 2022, 74, .	2.5	4
8	Evaluation of candidate models for the 13th generation International Geomagnetic Reference Field. Earth, Planets and Space, 2021, 73, .	2.5	33
9	A Synopticâ€Scale Wavelike Structure in the Nighttime Equatorial Ionization Anomaly. Earth and Space Science, 2021, 8, e2020EA001529.	2.6	4
10	Lower-thermosphereâ€“ionosphere (LTI) quantities: current status of measuring techniques and models. Annales Geophysicae, 2021, 39, 189-237.	1.6	25
11	International Geomagnetic Reference Field: the thirteenth generation. Earth, Planets and Space, 2021, 73, .	2.5	319
12	Comparison of Thermospheric Winds Measured by GOCE and Groundâ€Based FPIs at Low and Middle Latitudes. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028182.	2.4	5
13	Observing Earthâ€™s magnetic environment with the GRACE-FO mission. Earth, Planets and Space, 2021, 73, .	2.5	16
14	Statistical Analysis of Pc1 Wave Ducting Deduced From Swarm Satellites. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA029016.	2.4	8
15	Special issue â€œCharacterization of the geomagnetic field and its dynamic environment using data from space-based magnetometersâ€• Earth, Planets and Space, 2021, 73, .	2.5	2
16	CSES High Precision Magnetometer Data Products and Example Study of an Intense Geomagnetic Storm. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028026.	2.4	8
17	The Geomagnetic Kp Index and Derived Indices of Geomagnetic Activity. Space Weather, 2021, 19, e2020SW002641.	3.7	153
18	Neutral Wind Profiles During Periods of Eastward and Westward Equatorial Electrojet. Geophysical Research Letters, 2021, 48, e2021GL093567.	4.0	19

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19	Role Of the Sun and the Middle atmosphere/thermosphere/ionosphere In Climate (ROSMIC): a retrospective and prospective view. Progress in Earth and Planetary Science, 2021, 8, .	3.0	13
20	Isolated Proton Aurora Driven by EMIC Pc1 Wave: PWING, Swarm, and NOAA POES Multiâ€Instrument Observations. Geophysical Research Letters, 2021, 48, e2021GL095090.	4.0	7
21	Understanding the Total Electron Content Variability Over Europe During 2009 and 2019 SSWs. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028751.	2.4	7
22	Correlation analysis of field-aligned currents from the magnetic measurements of GRACE follow-on mission. Earth, Planets and Space, 2021, 73, .	2.5	2
23	Calibration of the GRACE-FO Satellite Platform Magnetometers and Co-Estimation of Intrinsic Time Shift in Data. , 2021, , .		2
24	Ionospheric Plasma Irregularities Based on In Situ Measurements From the Swarm Satellites. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028103.	2.4	36
25	Ionospheric Plasma Density Oscillation Related to EMIC Pc1 Waves. Geophysical Research Letters, 2020, 47, e2020GL089000.	4.0	5
26	Plasma and Field Observations in the Magnetospheric Source Region of a Stable Auroral Red (SAR) Arc by the Arase Satellite on 28 March 2017. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028068.	2.4	8
27	Evolution of the Geomagnetic Daily Variation at Tatuoca, Brazil, From 1957 to 2019: A Transition From Sq to EEJ. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028109.	2.4	9
28	The Space Weather Atmosphere Models and Indices (SWAMI) project: Overview and first results. Journal of Space Weather and Space Climate, 2020, 10, 18.	3.3	15
29	Whole Atmosphere Model Simulations of Ultrafast Kelvin Wave Effects in the Ionosphere and Thermosphere. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027939.	2.4	10
30	On the Occurrence of GPS Signal Amplitude Degradation for Receivers on Board LEO Satellites. Space Weather, 2020, 18, e2019SW002398.	3.7	11
31	September 2019 Antarctic Sudden Stratospheric Warming: Quasiâ€6â€Day Wave Burst and Ionospheric Effects. Geophysical Research Letters, 2020, 47, e2019GL086577.	4.0	94
32	Diagnosing low-/mid-latitude ionospheric currents using platform magnetometers: CryoSat-2 and GRACE-FO. Earth, Planets and Space, 2020, 72, .	2.5	9
33	Relationship between large-scale ionospheric field-aligned currents and electron/ion precipitations: DMSP observations. Earth, Planets and Space, 2020, 72, .	2.5	19
34	Daedalus: a low-flying spacecraft for in situ exploration of the lower thermosphereâ€“ionosphere. Geoscientific Instrumentation, Methods and Data Systems, 2020, 9, 153-191.	1.6	25
35	On the Balance Between Plasma and Magnetic Pressure Across Equatorial Plasma Depletions. Journal of Geophysical Research: Space Physics, 2019, 124, 5936-5944.	2.4	11
36	Systematic Analysis of Machine Learning and Feature Selection Techniques for Prediction of the Kp Index. Space Weather, 2019, 17, 1461-1486.	3.7	27

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37	Longitudinal variability of the equatorial counter electrojet during the solar cycle 24. Studia Geophysica Et Geodaetica, 2019, 63, 304-319.	0.5	8
38	Geomagnetically Conjugate Observations of Equatorial Plasma Irregularities From Swarm Constellation and Groundâ€Based GPS Stations. Journal of Geophysical Research: Space Physics, 2019, 124, 3650-3665.	2.4	13
39	Interhemispheric field-aligned currents at the edges of equatorial plasma depletions. Scientific Reports, 2019, 9, 1233.	3.3	14
40	Average Characteristics of Lowâ€Latitude Interhemispheric and F Region Dynamo Currents Deduced From the Swarm Satellite Constellation. Journal of Geophysical Research: Space Physics, 2019, 124, 10631-10644.	2.4	24
41	Ionospheric Plasma Irregularities Characterized by the Swarm Satellites: Statistics at High Latitudes. Journal of Geophysical Research: Space Physics, 2019, 124, 1262-1282.	2.4	62
42	Dependence of Lunar Tide of the Equatorial Electrojet on the Wintertime Polar Vortex, Solar Flux, and QBO. Geophysical Research Letters, 2018, 45, 3801-3810.	4.0	12
43	Climatology of the Occurrence Rate and Amplitudes of Local Time Distinguished Equatorial Plasma Depletions Observed by Swarm Satellite. Journal of Geophysical Research: Space Physics, 2018, 123, 3014-3026.	2.4	46
44	Equatorial Counter Electrojet Longitudinal and Seasonal Variability in the American Sector. Journal of Geophysical Research: Space Physics, 2018, 123, 9906-9920.	2.4	29
45	Ionospheric plasma irregularities studied with Swarm satellites. E3S Web of Conferences, 2018, 62, 01009.	0.5	1
46	On the variability of the semidiurnal solar and lunar tides of the equatorial electrojet during sudden stratospheric warmings. Annales Geophysicae, 2018, 36, 1545-1562.	1.6	20
47	Interannual Variability of the Daytime Equatorial Ionospheric Electric Field. Journal of Geophysical Research: Space Physics, 2018, 123, 4241-4256.	2.4	11
48	Climatology of GPS signal loss observed by Swarm satellites. Annales Geophysicae, 2018, 36, 679-693.	1.6	30
49	Quasiâ€6â€Day Wave Modulation of the Equatorial Electrojet. Journal of Geophysical Research: Space Physics, 2018, 123, 4094-4109.	2.4	26
50	How Sudden Stratospheric Warming Affects the Whole Atmosphere. Eos, 2018, 99, .	0.1	72
51	Low and Midlatitude Ionospheric Plasma Density Irregularities and Their Effects on Geomagnetic Field. Space Sciences Series of ISSI, 2018, , 503-527.	0.0	1
52	Magnetic Signatures of Ionospheric and Magnetospheric Current Systems During Geomagnetic Quiet Conditionsâ€”An Overview. Space Sciences Series of ISSI, 2018, , 7-27.	0.0	0
53	On the direction of the Poynting flux associated with equatorial plasma depletions as derived from Swarm. Geophysical Research Letters, 2017, 44, 5884-5891.	4.0	17
54	Conjugate observations of electromagnetic ion cyclotron waves associated with traveling convection vortex events. Journal of Geophysical Research: Space Physics, 2017, 122, 7336-7352.	2.4	7

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55	Quantifying solar flux and geomagnetic main field influence on the equatorial ionospheric current system at the geomagnetic observatory Huancayo. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 163, 120-125.	1.6	10
56	Longitudeâ€dependent lunar tidal modulation of the equatorial electrojet during stratospheric sudden warmings. Journal of Geophysical Research: Space Physics, 2017, 122, 3760-3776.	2.4	19
57	Longitudinal Variation of the Lunar Tide in the Equatorial Electrojet. Journal of Geophysical Research: Space Physics, 2017, 122, 12,445.	2.4	24
58	Editorial: Topical Volume on Earthâ€™s Magnetic Fieldâ€”Understanding Geomagnetic Sources from the Earthâ€™s Interior and Its Environment. Space Science Reviews, 2017, 206, 1-3.	8.1	4
59	Low and Midlatitude Ionospheric Plasma Density Irregularities and Their Effects on Geomagnetic Field. Space Science Reviews, 2017, 206, 495-519.	8.1	23
60	Magnetic Signatures of Ionospheric and Magnetospheric Current Systems During Geomagnetic Quiet Conditionsâ€”An Overview. Space Science Reviews, 2017, 206, 5-25.	8.1	24
61	Morphology of highâ€latitude plasma density perturbations as deduced from the total electron content measurements onboard the Swarm constellation. Journal of Geophysical Research: Space Physics, 2017, 122, 1338-1359.	2.4	14
62	Magnetopause erosion during the 17 March 2015 magnetic storm: Combined fieldâ€aligned currents, auroral oval, and magnetopause observations. Geophysical Research Letters, 2016, 43, 2396-2404.	4.0	36
63	The role of high-resolution geomagnetic field models for investigating ionospheric currents at low Earth orbit satellites. Earth, Planets and Space, 2016, 68, .	2.5	14
64	Scale analysis of equatorial plasma irregularities derived from Swarm constellation. Earth, Planets and Space, 2016, 68, .	2.5	51
65	TheSwarmsatellite loss of GPS signal and its relation to ionospheric plasma irregularities. Space Weather, 2016, 14, 563-577.	3.7	90
66	Zonal currents in the F region deduced from Swarm constellation measurements. Journal of Geophysical Research: Space Physics, 2016, 121, 638-648.	2.4	12
67	Statistical survey of nighttime midlatitude magnetic fluctuations: Their source location and Poynting flux as derived from the Swarm constellation. Journal of Geophysical Research: Space Physics, 2016, 121, 11,235.	2.4	11
68	Special issue â€œSwarm science results after 2Âyears in spaceâ€• Earth, Planets and Space, 2016, 68, .	2.5	11
69	Daytime midlatitude plasma depletions observed by Swarm: Topside signatures of the rocket exhaust. Geophysical Research Letters, 2016, 43, 1802-1809.	4.0	21
70	SWARM electron density measurements and predictions by IRI and IRI-real-time. , 2015, , .		0
71	Nighttime magnetic field fluctuations in the topside ionosphere at midlatitudes and their relation to mediumâ€scale traveling ionospheric disturbances: The spatial structure and scale sizes. Journal of Geophysical Research: Space Physics, 2015, 120, 6818-6830.	2.4	18
72	On the relationship between weakening of the northern polar vortex and the lunar tidal amplification in the equatorial electrojet. Journal of Geophysical Research: Space Physics, 2015, 120, 10006-10019.	2.4	27

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73	A method to derive maps of ionospheric conductances, currents, and convection from the Swarm multisatellite mission. Journal of Geophysical Research: Space Physics, 2015, 120, 3263-3282.	2.4	26
74	Response of reverse convection to fast IMF transitions. Journal of Geophysical Research: Space Physics, 2015, 120, 4020-4037.	2.4	4
75	Westward tilt of lowâ€latitude plasma blobs as observed by the Swarm constellation. Journal of Geophysical Research: Space Physics, 2015, 120, 3187-3197.	2.4	11
76	A dayside plasma depletion observed at midlatitudes during quiet geomagnetic conditions. Geophysical Research Letters, 2015, 42, 967-974.	4.0	19
77	Estimating along-track plasma drift speed from electron density measurements by the three Swarm satellites. Annales Geophysicae, 2015, 33, 829-835.	1.6	5
78	Conjugate observations of traveling convection vortices associated with transient events at the magnetopause. Journal of Geophysical Research: Space Physics, 2015, 120, 2015-2035.	2.4	18
79	Relation between stratospheric sudden warming and the lunar effect on the equatorial electrojet based on Huancayo recordings. Annales Geophysicae, 2015, 33, 235-243.	1.6	24
80	Seasonal and latitudinal variations of the electron density nonmigrating tidal spectrum in the topside ionospheric F region as resolved from CHAMP observations. Journal of Geophysical Research: Space Physics, 2014, 119, 10,416.	2.4	14
81	In situ spatiotemporal measurements of the detailed azimuthal substructure of the substorm current wedge. Journal of Geophysical Research: Space Physics, 2014, 119, 927-946.	2.4	49
82	Longâ€term analysis of ionospheric polar patches based on CHAMP TEC data. Radio Science, 2013, 48, 289-301.	1.6	79
83	Multiâ€instrument observations from Svalbard of a traveling convection vortex, electromagnetic ion cyclotron wave burst, and proton precipitation associated with a bow shock instability. Journal of Geophysical Research: Space Physics, 2013, 118, 2975-2997.	2.4	38
84	Equatorial ionospheric electrodynamic perturbations during Southern Hemisphere stratospheric warming events. Journal of Geophysical Research: Space Physics, 2013, 118, 1190-1195.	2.4	16
85	Geomagnetic response to solar wind dynamic pressure impulse events at highâ€latitude conjugate points. Journal of Geophysical Research: Space Physics, 2013, 118, 6055-6071.	2.4	19
86	The Ionospheric Bubble Index deduced from magnetic field and plasma observations onboard Swarm. Earth, Planets and Space, 2013, 65, 1333-1344.	2.5	43
87	Space Weather opportunities from the Swarm mission including near real time applications. Earth, Planets and Space, 2013, 65, 1375-1383.	2.5	20
88	The Swarm Satellite Constellation Application and Research Facility (SCARF) and Swarm data products. Earth, Planets and Space, 2013, 65, 1189-1200.	2.5	222
89	Features of highly structured equatorial plasma irregularities deduced from CHAMP observations. Annales Geophysicae, 2012, 30, 1259-1269.	1.6	24
90	Observations of a Pc5 global (cavity/waveguide) mode outside the plasmasphere by THEMIS. Journal of Geophysical Research, 2012, 117, .	3.3	27

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91	Satellite Geomagnetism. Annual Review of Earth and Planetary Sciences, 2012, 40, 441-465.	11.0	41
92	Comparison between SuperDARN flow vectors and equivalent ionospheric currents from ground magnetometer arrays. Journal of Geophysical Research, 2012, 117, .	3.3	25
93	Solar flux variation of the electron temperature morning overshoot in the equatorialFregion. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	25
94	Equatorial electrodynamics and neutral background in the Asian sector during the 2009 stratospheric sudden warming. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	60
95	Field-aligned current associated with low-latitude plasma blobs as observed by the CHAMP satellite. Annales Geophysicae, 2010, 28, 697-703.	1.6	9
96	Comparing plasma bubble occurrence rates at CHAMP and GRACE altitudes during high and low solar activity. Annales Geophysicae, 2010, 28, 1647-1658.	1.6	104
97	Lunarâ€dependent equatorial ionospheric electrodynamic effects during sudden stratospheric warmings. Journal of Geophysical Research, 2010, 115, .	3.3	187
98	The characteristics of field-aligned currents associated with equatorial plasma bubbles as observed by the CHAMP satellite. Annales Geophysicae, 2009, 27, 2685-2697.	1.6	39
99	Magnetic signatures of mediumâ€scale traveling ionospheric disturbances as observed by CHAMP. Journal of Geophysical Research, 2009, 114, .	3.3	25
100	Estimating the daytime Equatorial Ionization Anomaly strength from electric field proxies. Journal of Geophysical Research, 2008, 113, .	3.3	117
101	Resolution of direction of oceanic magnetic lineations by the sixthâ€generation lithospheric magnetic field model from CHAMP satellite magnetic measurements. Geochemistry, Geophysics, Geosystems, 2008, 9, .	2.5	160
102	Magnetic signatures and conjugate features of lowâ€latitude plasma blobs as observed by the CHAMP satellite. Journal of Geophysical Research, 2008, 113, .	3.3	43
103	Towards understanding the electrodynamics of the 3-dimensional high-latitude ionosphere: present and future. Annales Geophysicae, 2008, 26, 3913-3932.	1.6	22
104	Relation between the occurrence rate of ESF and the equatorial vertical plasma drift velocity at sunset derived from global observations. Annales Geophysicae, 2008, 26, 3979-3988.	1.6	54
105	Fifth-generation lithospheric magnetic field model from CHAMP satellite measurements. Geochemistry, Geophysics, Geosystems, 2007, 8, n/a-n/a.	2.5	89
106	Longitudinal variation of F region electron density and thermospheric zonal wind caused by atmospheric tides. Geophysical Research Letters, 2007, 34, .	4.0	131
107	Solar activity dependence of the electron density in the equatorial anomaly regions observed by CHAMP. Journal of Geophysical Research, 2007, 112, .	3.3	85
108	Evaluation of the IRI model using CHAMP observations in polar and equatorial regions. Advances in Space Research, 2007, 39, 904-909.	2.6	27

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109	Magnetic signatures of equatorial spreadFas observed by the CHAMP satellite. Journal of Geophysical Research, 2006, 111, .	3.3	205
110	Third generation of the Potsdam Magnetic Model of the Earth (POMME). Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	2.5	124
111	Observing the north polar ionosphere on 30 October 2003 by GPS imaging and IS radars. Annales Geophysicae, 2006, 24, 107-113.	1.6	18
112	Earth's lithospheric magnetic field determined to spherical harmonic degree 90 from CHAMP satellite measurements. Geophysical Journal International, 2006, 164, 319-330.	2.4	97
113	A GPS based three-dimensional ionospheric imaging tool: Process and assessment. Advances in Space Research, 2006, 38, 2313-2317.	2.6	21
114	Three-Dimensional Monitoring of the Polar Ionosphere with Ground- and Space-Based GPS. , 2005, , 477-482.		2
115	GPS ionospheric imaging of the north polar ionosphere on 30 October 2003. Advances in Space Research, 2005, 36, 2201-2206.	2.6	12
116	Differential Code Bias of GPS Receivers in Low Earth Orbit: An Assessment for CHAMP and SAC-C. , 2005, , 465-470.		7
117	Comparison of high latitude electron density profiles obtained with the GPS radio occultation technique and EISCAT measurements. Annales Geophysicae, 2004, 22, 2015-2022.	1.6	27
118	3-Dimensional ionospheric electron density reconstruction based on gps measurements. Advances in Space Research, 2003, 31, 1965-1970.	2.6	17