R W Schunk

List of Publications by Year
in descending order

54 papers	3,132 citations	218677 26 h-index	197818 49 g-index
56 all docs	56 docs citations	56 times ranked	1968 citing authors

#	Article	IF	Citations
1	A mathematical model of the middle and high latitude ionosphere. Pure and Applied Geophysics, 1988, 127, 255-303.	1.9	167
2	Longitudinal variability of lowâ€latitude total electron content: Tidal influences. Journal of Geophysical Research, 2008, 113, .	3.3	147
3	Development of a physics-based reduced state Kalman filter for the ionosphere. Radio Science, 2004, 39, n/a-n/a.	1.6	129
4	Modeling polar cap Fâ€region patches using time varying convection. Geophysical Research Letters, 1993, 20, 1783-1786.	4.0	122
5	Utah State University Global Assimilation of Ionospheric Measurements Gauss-Markov Kalman filter model of the ionosphere: Model description and validation. Journal of Geophysical Research, 2006, 111, .	3.3	111
6	Storm time density enhancements in the middleâ€latitude dayside ionosphere. Journal of Geophysical Research, 2009, 114, .	3.3	106
7	Atomic nitrogen and oxygen ions in the daytime highâ€latitude F region. Journal of Geophysical Research, 1980, 85, 1255-1272.	3.3	97
8	Theoretical study of the electron temperature in the highâ€latitude ionosphere for solar maximum and winter conditions. Journal of Geophysical Research, 1986, 91, 12041-12054.	3.3	93
9	A threeâ€dimensional timeâ€dependent model of the polar wind. Journal of Geophysical Research, 1989, 94, 8973-8991.	3.3	91
10	Patches in the polar ionosphere: UT and seasonal dependence. Journal of Geophysical Research, 1994, 99, 14959.	3.3	91
11	Effect of hot electrons on the polar wind. Journal of Geophysical Research, 1984, 89, 9771-9783.	3.3	88
12	Global ionosphere-polar wind system during changing magnetic activity. Journal of Geophysical Research, 1997, 102, 11625-11651.	3.3	85
13	Mechanisms underlying the prereversal enhancement of the vertical plasma drift in the lowâ€latitude ionosphere. Journal of Geophysical Research: Space Physics, 2015, 120, 4950-4970.	2.4	78
14	CEDAR Electrodynamics Thermosphere Ionosphere (ETI) Challenge for systematic assessment of ionosphere/thermosphere models: NmF2, hmF2, and vertical drift using groundâ€based observations. Space Weather, 2011, 9, .	3.7	71
15	Intercomparison of physical models and observations of the ionosphere. Journal of Geophysical Research, 1998, 103, 2179-2192.	3.3	70
16	Plasma density features associated with strong convection in the winter highâ€latitude F region. Journal of Geophysical Research, 1981, 86, 6908-6916.	3.3	65
17	CEDAR Electrodynamics Thermosphere Ionosphere (ETI) Challenge for systematic assessment of ionosphere/thermosphere models: Electron density, neutral density, NmF2, and hmF2 using space based observations. Space Weather, 2012, 10, .	3.7	65
18	Seasonal variations of the highâ€latitude F region for strong convection. Journal of Geophysical Research, 1982, 87, 187-198.	3.3	46

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19	Temporal features of the refilling of a plasmaspheric flux tube. Journal of Geophysical Research, 1986, 91, 13433-13454.	3.3	42
20	Ionospheric Weather Forecasting on the Horizon. Space Weather, 2005, 3, n/a-n/a.	3.7	41
21	The Utah State University Gaussâ€“Markov Kalman filter of the ionosphere: The effect of slant TEC and electron density profile data on model fidelity. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 947-958.	1.6	40
22	Thermospheric response to ion heating in the dayside cusp. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 649-660.	1.6	39
23	Multistream hydrodynamic modeling of interhemispheric plasma flow. Journal of Geophysical Research, 1988, 93, 14557-14565.	3.3	38
24	Duration of an ionospheric data assimilation initialization of a coupled thermosphere-ionosphere model. Space Weather, 2007, 5, n/a-n/a.	3.7	36
25	Spatial correlations of dayâ€toâ€day ionospheric total electron content variability obtained from groundâ€based GPS. Journal of Geophysical Research, 2008, 113, .	3.3	30
26	Driving the TING model with GAIM electron densities: Ionospheric effects on the thermosphere. Journal of Geophysical Research, 2008, 113, .	3.3	27
27	Global real-time dose measurements using the Automated Radiation Measurements for Aerospace Safety (ARMAS) system. Space Weather, 2016, 14, 1053-1080.	3.7	27
28	Ensemble Modeling with Data Assimilation Models: A New Strategy for Space Weather Specifications, Forecasts, and Science. Space Weather, 2014, 12, 123-126.	3.7	26
29	Space weather forecasting with a Multimodel Ensemble Prediction System (MEPS). Radio Science, 2016, 51, 1157-1165.	1.6	26
30	Polar cap patches and the tongue of ionization: A survey of GPS TEC maps from 2009 to 2015. Geophysical Research Letters, 2016, 43, 2422-2428.	4.0	26
31	Global Assimilation of Ionospheric Measurementsâ€Gauss Markov model: Improved specifications with multiple data types. Space Weather, 2014, 12, 675-688.	3.7	25
32	Effect of polar cap patches on the polar thermosphere. Journal of Geophysical Research, 1995, 100, 19701.	3.3	24
33	Validation of Ionospheric Specifications During Geomagnetic Storms: TEC and foF2 During the 2013 March Storm Event. Space Weather, 2018, 16, 1686-1701.	3.7	22
34	Assessing models for ionospheric weather specifications over Australia during the 2004 Climate and Weather of the Sunâ€Earthâ€System (CAWSES) campaign. Journal of Geophysical Research, 2007, 112, .	3.3	19
35	Effect of polar cap patches on the thermosphere for different solar activity levels. Journal of Atmospheric and Solar-Terrestrial Physics, 1997, 59, 1823-1829.	1.6	18
36	Problems associated with uncertain parameters and missing physics for longâ€term ionosphereâ€thermosphere forecasting. Radio Science, 2012, 47, .	1.6	17

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37	CEDARâ€GEM Challenge for Systematic Assessment of Ionosphere/Thermosphere Models in Predicting TEC During the 2006 December Storm Event. Space Weather, 2017, 15, 1238-1256.	3.7	17
38	Validation study of the Ionosphere Forecast Model using the TOPEX total electron content measurements. Radio Science, 2006, 41, .	1.6	15
39	Effect of equatorial plasma bubbles on the thermosphere. Journal of Geophysical Research, 2003, 108, .	3.3	13
40	Modeling the Midlatitude Ionosphere Stormâ€Enhanced Density Distribution With a Data Assimilation Model. Space Weather, 2018, 16, 1539-1548.	3.7	13
41	The effect of downward electron heat flow and electron cooling processes in the high-latitude ionosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 2399-2409.	1.6	12
42	Effect of Sun-aligned arcs on the polar thermosphere. Journal of Geophysical Research, 1997, 102, 9729-9735.	3.3	11
43	Comparison of macroscopic particle-in-cell and semikinetic models of the polar wind. Journal of Geophysical Research, 1998, 103, 29277-29287.	3.3	11
44	Model study of multiple polar cap arcs: Occurrence and spacing. Geophysical Research Letters, 1994, 21, 649-652.	4.0	9
45	The magnetic storms of 3â€“4 August 2010 and 5â€“6 August 2011: 1. Groundâ€and spaceâ€based observations. Journal of Geophysical Research: Space Physics, 2017, 122, 3487-3499.	2.4	9
46	Hemispherical Shifted Symmetry in Polar Cap Patch Occurrence: A Survey of GPS TEC Maps From 2015â€“2018. Geophysical Research Letters, 2019, 46, 10726-10734.	4.0	9
47	Comparing fluid and particle-in-cell solutions for the polar wind. Journal of Geophysical Research, 1999, 104, 28535-28545.	3.3	7
48	Ionosphere Data Assimilation: Problems Associated with Missing Physics. , 2011, , 437-442.		7
49	Observations and model comparisons of earlyâ€time expansion characteristics of a satelliteâ€borne bariumâ€lithium release at Fâ€region altitudes. Geophysical Research Letters, 1993, 20, 2031-2034.	4.0	6
50	Effect of the theta aurora on the polar thermosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2005, 67, 489-499.	1.6	5
51	Challenges in Specifying and Predicting Space Weather. Space Weather, 2021, 19, e2019SW002404.	3.7	4
52	Supersonic neutral winds and neutral streams in the thermosphereâ€ionosphereâ€plasmasphere system. Radio Science, 2009, 44, .	1.6	1
53	Polar Topside Ionosphere During Geomagnetic Storms: Comparison of ISISâ€II With TDIM. Radio Science, 2018, 53, 906-920.	1.6	1
54	A Semikinetic Model of Plasmasphere Refilling Following Geomagnetic Storms and Comparison With Hydrodynamic Results. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028016.	2.4	1