

# William B Rossow

## List of Publications by Year in descending order

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123  
papers

16,438  
citations

19657

61  
h-index

19190

118  
g-index

123  
all docs

123  
docs citations

123  
times ranked

8739  
citing authors

#	ARTICLE	IF	CITATIONS
1	Advances in Understanding Clouds from ISCCP. Bulletin of the American Meteorological Society, 1999, 80, 2261-2287.	3.3	1,850
2	THE CLOUDSAT MISSION AND THE A-TRAIN. Bulletin of the American Meteorological Society, 2002, 83, 1771-1790.	3.3	1,845
3	ISCCP Cloud Data Products. Bulletin of the American Meteorological Society, 1991, 72, 2-20.	3.3	1,322
4	Calculation of radiative fluxes from the surface to top of atmosphere based on ISCCP and other global data sets: Refinements of the radiative transfer model and the input data. Journal of Geophysical Research, 2004, 109, .	3.3	920
5	Overview of Arctic Cloud and Radiation Characteristics. Journal of Climate, 1996, 9, 1731-1764.	3.2	649
6	Near-Global Survey of Effective Droplet Radii in Liquid Water Clouds Using ISCCP Data. Journal of Climate, 1994, 7, 465-497.	3.2	488
7	Radiative Effects of Cloud-Type Variations. Journal of Climate, 2000, 13, 264-286.	3.2	364
8	Cloud Detection Using Satellite Measurements of Infrared and Visible Radiances for ISCCP. Journal of Climate, 1993, 6, 2341-2369.	3.2	353
9	Cloud ice: A climate model challenge with signs and expectations of progress. Journal of Geophysical Research, 2009, 114, .	3.3	313
10	Spatial and temporal variability of global surface solar irradiance. Journal of Geophysical Research, 1991, 96, 16839-16858.	3.3	272
11	Aerosol retrievals over the ocean by use of channels 1 and 2 AVHRR data: sensitivity analysis and preliminary results. Applied Optics, 1999, 38, 7325.	2.1	242
12	Comparison of ISCCP and Other Cloud Amounts. Journal of Climate, 1993, 6, 2394-2418.	3.2	232
13	Remote sensing of global wetland dynamics with multiple satellite data sets. Geophysical Research Letters, 2001, 28, 4631-4634.	4.0	227
14	Cloud microphysics: Analysis of the clouds of Earth, Venus, Mars and Jupiter. Icarus, 1978, 36, 1-50.	2.5	207
15	Long-Term Satellite Record Reveals Likely Recent Aerosol Trend. Science, 2007, 315, 1543-1543.	12.6	206
16	Microwave land surface emissivities estimated from SSM/I observations. Journal of Geophysical Research, 1997, 102, 21867-21890.	3.3	196
17	An attempt to quantify the impact of changes in wetland extent on methane emissions on the seasonal and interannual time scales. Global Biogeochemical Cycles, 2010, 24, .	4.9	177
18	Validation of ISCCP Cloud Detections. Journal of Climate, 1993, 6, 2370-2393.	3.2	172

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19	Behavior of Deep Convective Clouds in the Tropical Pacific Deduced from ISCCP Radiances. <i>Journal of Climate</i> , 1990, 3, 1129-1152.	3.2	160
20	Cloud Vertical Structure and Its Variations from a 20-Yr Global Rawinsonde Dataset. <i>Journal of Climate</i> , 2000, 13, 3041-3056.	3.2	160
21	Cloud morphology and motions from Pioneer Venus images. <i>Journal of Geophysical Research</i> , 1980, 85, 8107-8128.	3.3	159
22	ISCCP Cloud Properties Associated with Standard Cloud Types Identified in Individual Surface Observations. <i>Journal of Climate</i> , 2001, 14, 11-28.	3.2	157
23	Characterizing Tropical Cirrus Life Cycle, Evolution, and Interaction with Upper-Tropospheric Water Vapor Using Lagrangian Trajectory Analysis of Satellite Observations. <i>Journal of Climate</i> , 2004, 17, 4541-4563.	3.2	157
24	Sensitivity of cirrus cloud albedo, bidirectional reflectance and optical thickness retrieval accuracy to ice particle shape. <i>Journal of Geophysical Research</i> , 1996, 101, 16973-16985.	3.3	154
25	Major Characteristics of Southern Ocean Cloud Regimes and Their Effects on the Energy Budget. <i>Journal of Climate</i> , 2011, 24, 5061-5080.	3.2	154
26	A review of cloud top height and optical depth histograms from MISR, ISCCP, and MODIS. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	152
27	Tropical climate described as a distribution of weather states indicated by distinct mesoscale cloud property mixtures. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	144
28	Increases in tropical rainfall driven by changes in frequency of organized deep convection. <i>Nature</i> , 2015, 519, 451-454.	27.8	143
29	Measuring Cloud Properties from Space: A Review. <i>Journal of Climate</i> , 1989, 2, 201-213.	3.2	142
30	The International Satellite Cloud Climatology Project H-Series climate data record product. <i>Earth System Science Data</i> , 2018, 10, 583-593.	9.9	135
31	Synoptically Driven Arctic Winter States. <i>Journal of Climate</i> , 2011, 24, 1747-1762.	3.2	132
32	Land Surface Microwave Emissivities over the Globe for a Decade. <i>Bulletin of the American Meteorological Society</i> , 2006, 87, 1573-1584.	3.3	127
33	Past, present, and future of global aerosol climatologies derived from satellite observations: A perspective. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2007, 106, 325-347.	2.3	117
34	Global, Seasonal Cloud Variations from Satellite Radiance Measurements. Part II. Cloud Properties and Radiative Effects. <i>Journal of Climate</i> , 1990, 3, 1204-1253.	3.2	115
35	Radiometric calibration and monitoring of NOAA AVHRR data for ISCCP. <i>International Journal of Remote Sensing</i> , 1992, 13, 235-273.	2.9	113
36	Global Survey of the Relationships of Cloud Albedo and Liquid Water Path with Droplet Size Using ISCCP. <i>Journal of Climate</i> , 1998, 11, 1516-1528.	3.2	112

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37	Cloud Layer Thicknesses from a Combination of Surface and Upper-Air Observations. <i>Journal of Climate</i> , 1995, 8, 550-568.	3.2	111
38	Global, Seasonal Cloud Variations from Satellite Radiance Measurements. Part I: Sensitivity of Analysis. <i>Journal of Climate</i> , 1989, 2, 419-458.	3.2	108
39	Global Patterns of Cloud Optical Thickness Variation with Temperature. <i>Journal of Climate</i> , 1992, 5, 1484-1495.	3.2	107
40	Update of Radiance Calibrations for ISCCP. <i>Journal of Atmospheric and Oceanic Technology</i> , 1997, 14, 1091-1109.	1.3	106
41	Aerosol retrievals from AVHRR radiances: effects of particle nonsphericity and absorption and an updated long-term global climatology of aerosol properties. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2003, 79-80, 953-972.	2.3	106
42	Effects of Cloud Vertical Structure on Atmospheric Circulation in the GISS GCM. <i>Journal of Climate</i> , 1998, 11, 3010-3029.	3.2	99
43	Sensitivity of satellite microwave and infrared observations to soil moisture at a global scale: Relationship of satellite observations to in situ soil moisture measurements. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	99
44	Interannual variations of river water storage from a multiple satellite approach: A case study for the Rio Negro River basin. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	99
45	Cirrus-cloud thermostat for tropical sea surface temperatures tested using satellite data. <i>Nature</i> , 1992, 358, 394-394.	27.8	98
46	Observations of cloud liquid water path over oceans: Optical and microwave remote sensing methods. <i>Journal of Geophysical Research</i> , 1994, 99, 20907.	3.3	91
47	Comparison between SAGE II and ISCCP high-level clouds: 1. Global and zonal mean cloud amounts. <i>Journal of Geophysical Research</i> , 1995, 100, 1121-1135.	3.3	88
48	Influence of Ocean Surface Conditions on Atmospheric Vertical Thermodynamic Structure and Deep Convection. <i>Journal of Climate</i> , 1994, 7, 1092-1108.	3.2	85
49	Global Two-Channel AVHRR Retrievals of Aerosol Properties over the Ocean for the Period of NOAA-9 Observations and Preliminary Retrievals Using NOAA-7 and NOAA-11 Data. <i>Journals of the Atmospheric Sciences</i> , 2002, 59, 262-278.	1.7	85
50	Variability of Cloud Vertical Structure during ASTEX Observed from a Combination of Rawinsonde, Radar, Ceilometer, and Satellite. <i>Monthly Weather Review</i> , 1999, 127, 2484-2502.	1.4	84
51	Cloud and Radiation Variations Associated with Northern Midlatitude Low and High Sea Level Pressure Regimes. <i>Journal of Climate</i> , 2000, 13, 312-327.	3.2	84
52	Surface solar irradiance from the International Satellite Cloud Climatology Project 1983-1991. <i>Journal of Geophysical Research</i> , 1997, 102, 6883-6910.	3.3	83
53	Comparison of the Climatologies of High-Level Clouds from HIRS and ISCCP. <i>Journal of Climate</i> , 1996, 9, 2850-2879.	3.2	81
54	Global variation of column droplet concentration in low-level clouds. <i>Geophysical Research Letters</i> , 1998, 25, 1419-1422.	4.0	79

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55	Implications of the Observed Mesoscale Variations of Clouds for the Earth's Radiation Budget. <i>Journal of Climate</i> , 2002, 15, 557-585.	3.2	78
56	Microwave radiometric signatures of different surface types in deserts. <i>Journal of Geophysical Research</i> , 1999, 104, 12147-12158.	3.3	71
57	Land surface skin temperatures from a combined analysis of microwave and infrared satellite observations for an all-weather evaluation of the differences between air and skin temperatures. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	70
58	Tropical Precipitation Extremes. <i>Journal of Climate</i> , 2013, 26, 1457-1466.	3.2	70
59	Tropospheric gas composition and cloud structure of the Jovian north equatorial belt. <i>Journal of Geophysical Research</i> , 1993, 98, 5251-5290.	3.3	69
60	Three Different Behaviors of Liquid Water Path of Water Clouds in Aerosol-Cloud Interactions. <i>Journals of the Atmospheric Sciences</i> , 2002, 59, 726-735.	1.7	69
61	Comparison of different global information sources used in surface radiative flux calculation: Radiative properties of the near-surface atmosphere. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	65
62	Seasonal Variation of Liquid and Ice Water Path in Nonprecipitating Clouds over Oceans. <i>Journal of Climate</i> , 1996, 9, 2890-2902.	3.2	63
63	Interaction of Tropical Deep Convection with the Large-Scale Circulation in the MJO. <i>Journal of Climate</i> , 2010, 23, 1837-1853.	3.2	61
64	Intercomparison of water and energy budgets for five Mississippi subbasins between ECMWF reanalysis (ERA-40) and NASA Data Assimilation Office fvGCM for 1990-1999. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	60
65	Global maps of microwave land surface emissivities: Potential for land surface characterization. <i>Radio Science</i> , 1998, 33, 745-751.	1.6	56
66	A Statistical Model of Cloud Vertical Structure Based on Reconciling Cloud Layer Amounts Inferred from Satellites and Radiosonde Humidity Profiles. <i>Journal of Climate</i> , 2005, 18, 3587-3605.	3.2	56
67	The cloud radiative effects of International Satellite Cloud Climatology Project weather states. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	56
68	Did the Eruption of the Mt. Pinatubo Volcano Affect Cirrus Properties?. <i>Journal of Climate</i> , 2002, 15, 2806-2820.	3.2	55
69	22-Year survey of tropical convection penetrating into the lower stratosphere. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	53
70	Normalization and Calibration of Geostationary Satellite Radiances for the international Satellite Cloud Climatology Project. <i>Journal of Atmospheric and Oceanic Technology</i> , 1993, 10, 304-325.	1.3	52
71	The Effects of Physical Processes on the Hadley Circulation. <i>Journals of the Atmospheric Sciences</i> , 1984, 41, 479-507.	1.7	49
72	Comparison between SAGE II and ISCCP high-level clouds: 2. Locating cloud tops. <i>Journal of Geophysical Research</i> , 1995, 100, 1137-1147.	3.3	49

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73	Precipitation water path and rainfall rate estimates over oceans using special sensor microwave imager and International Satellite Cloud Climatology Project data. <i>Journal of Geophysical Research</i> , 1997, 102, 9359-9374.	3.3	47
74	Rotation of EOFs by the Independent Component Analysis: Toward a Solution of the Mixing Problem in the Decomposition of Geophysical Time Series. <i>Journals of the Atmospheric Sciences</i> , 2002, 59, 111-123.	1.7	47
75	A New Climatology for Investigating Storm Influences in and on the Extratropics. <i>Journal of Applied Meteorology and Climatology</i> , 2016, 55, 1287-1303.	1.5	45
76	Relations of polarized scattering signatures observed by the TRMM Microwave Instrument with electrical processes in cloud systems. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	4.0	44
77	Wetland dynamics using a suite of satellite observations: A case study of application and evaluation for the Indian Subcontinent. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	44
78	Sensitivity of Atmospheric Radiative Heating Rate Profiles to Variations of Cloud Layer Overlap. <i>Journal of Climate</i> , 2000, 13, 2941-2959.	3.2	43
79	Detection of cirrus overlapping low-level clouds. <i>Journal of Geophysical Research</i> , 1997, 102, 1727-1737.	3.3	42
80	Temporal variability of ultraviolet cloud features in the Venus stratosphere. <i>Icarus</i> , 1982, 51, 391-415.	2.5	41
81	Comparison of different global information sources used in surface radiative flux calculation: Radiative properties of the surface. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	41
82	Comparison of surface radiative flux data sets over the Arctic Ocean. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	39
83	Climate feedback implied by observed radiation and precipitation changes with midlatitude storm strength and frequency. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	39
84	Effects of satellite data resolution on measuring the space/time variations of surfaces and clouds. <i>International Journal of Remote Sensing</i> , 1991, 12, 921-952.	2.9	38
85	The Interaction Between Deep Convection and Easterly Waves over Tropical North Africa: A Weather State Perspective. <i>Journal of Climate</i> , 2011, 24, 4276-4294.	3.2	38
86	Evaluation of a Statistical Model of Cloud Vertical Structure Using Combined CloudSat and CALIPSO Cloud Layer Profiles. <i>Journal of Climate</i> , 2010, 23, 6641-6653.	3.2	35
87	Time-cumulated visible and infrared radiance histograms used as descriptors of surface and cloud variations. <i>International Journal of Remote Sensing</i> , 1991, 12, 877-920.	2.9	34
88	Structural Characteristics of Convective Systems over South America Related to Cold-Frontal Incursions. <i>Monthly Weather Review</i> , 2005, 133, 1045-1064.	1.4	33
89	Monitoring changes of clouds. <i>Climatic Change</i> , 1995, 31, 305-347.	3.6	32
90	The Precipitation Characteristics of ISCCP Tropical Weather States. <i>Journal of Climate</i> , 2013, 26, 772-788.	3.2	29

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91	Microwave polarized signatures generated within cloud systems: Special Sensor Microwave Imager (SSM/I) observations interpreted with radiative transfer simulations. <i>Journal of Geophysical Research</i> , 2001, 106, 28243-28258.	3.3	28
92	Exploiting diurnal variations to evaluate the ISCCPâ€FD flux calculations and radiativeâ€fluxâ€analysisâ€processed surface observations from BSRN, ARM, and SURFRAD. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	25
93	Global, multiyear variations of optical thickness with temperature in low and cirrus clouds. <i>Geophysical Research Letters</i> , 1994, 21, 2211-2214.	4.0	24
94	Comparisons of the Millimeter and Submillimeter Bands for Atmospheric Temperature and Water Vapor Soundings for Clear and Cloudy Skies. <i>Journal of Applied Meteorology and Climatology</i> , 2006, 45, 1622-1633.	1.5	24
95	Decadal changes in tropical convection suggest effects on stratospheric water vapor. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	22
96	The effects of aspect ratio and surface roughness on satellite retrievals of ice-cloud properties. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 1999, 63, 559-583.	2.3	21
97	Potential effects of cloud optical thickness on climate warming. <i>Nature</i> , 1993, 366, 670-672.	27.8	19
98	Characterizing Some of the Influences of the General Circulation on Subtropical Marine Boundary Layer Clouds. <i>Journals of the Atmospheric Sciences</i> , 2003, 60, 711-728.	1.7	19
99	Tropical cloud and precipitation regimes as seen from nearâ€simultaneous TRMM, CloudSat, and CALIPSO observations and comparison with ISCCP. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 5988-6003.	3.3	18
100	Decadal variations of global energy and ocean heat budget and meridional energy transports inferred from recent global data sets. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	17
101	Decorrelation Scales of High-Resolution Turbulent Fluxes at the Ocean Surface and a Method to Fill in Gaps in Satellite Data Products. <i>Journal of Climate</i> , 2006, 19, 3378-3393.	3.2	13
102	Time Scales of Variability of the Tropical Atmosphere Derived from Cloud-Defined Weather States. <i>Journal of Climate</i> , 2011, 24, 602-608.	3.2	13
103	Comparison of Radiative Energy Flows in Observational Datasets and Climate Modeling. <i>Journal of Applied Meteorology and Climatology</i> , 2016, 55, 93-117.	1.5	12
104	The Interaction between Deep Convection and Easterly Wave Activity over Africa: Convective Transitions and Mechanisms. <i>Monthly Weather Review</i> , 2018, 146, 1945-1961.	1.4	12
105	Monitoring Changes of Clouds. , 1996, , 175-217.		11
106	Microwave Boundary Conditions on the Atmosphere and Clouds of Venus. <i>Journals of the Atmospheric Sciences</i> , 1975, 32, 1164-1176.	1.7	10
107	Evaluation of Long-Term Calibrations of the AVHRR Visible Radiances. <i>Journal of Atmospheric and Oceanic Technology</i> , 2015, 32, 744-766.	1.3	10
108	Atmospheric Diabatic Heating in Different Weather States and the General Circulation. <i>Journal of Climate</i> , 2016, 29, 1059-1065.	3.2	10

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109	Near-global survey of cloud column susceptibilities using ISCCP data. <i>Geophysical Research Letters</i> , 2000, 27, 3221-3224.	4.0	9
110	Cloud Radiative Effects and Precipitation in Extratropical Cyclones. <i>Journal of Climate</i> , 2016, 29, 6483-6507.	3.2	8
111	GEWEX cloud assessment: A review. <i>AIP Conference Proceedings</i> , 2013, , .	0.4	7
112	The Clouds of Venus: II. An Investigation of the Influence of Coagulation on the Observed Droplet Size Distribution. <i>Journals of the Atmospheric Sciences</i> , 1977, 34, 417-431.	1.7	6
113	Contributions of Individual Atmospheric Diabatic Heating Processes to the Generation of Available Potential Energy. <i>Journal of Climate</i> , 2013, 26, 4244-4263.	3.2	5
114	Extension and statistical analysis of the GACP aerosol optical thickness record. <i>Atmospheric Research</i> , 2015, 164-165, 268-277.	4.1	4
115	An Intercomparison of the Spatiotemporal Variability of Satellite- and Ground-Based Cloud Datasets Using Spectral Analysis Techniques. <i>Journal of Climate</i> , 2015, 28, 5716-5736.	3.2	4
116	Determination of top-of-atmosphere longwave radiative fluxes: A comparison between two approaches using ScaRaB data. <i>Journal of Geophysical Research</i> , 2002, 107, ACL 6-1.	3.3	3
117	Refining surface net radiation estimates in arid and semi-arid climates of Iran. <i>Advances in Space Research</i> , 2018, 61, 2932-2941.	2.6	3
118	A thermostat in the tropics?. <i>Nature</i> , 1993, 361, 412-412.	27.8	2
119	Building an Accessible, Integrated Earth Observing and Information System: The International Satellite Cloud Climatology Project as a Pathfinder. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 2423-2431.	3.3	2
120	Satellite Observations of Radiation and Clouds to Diagnose Energy Exchanges in the Climate: Part II. , 1993, , 143-164.		1
121	Satellite Observations of Radiation and Clouds to Diagnose Energy Exchanges in the Climate: Part I. , 1993, , 123-141.		1
122	Properties of Clouds and Cloud Systems. , 1996, , 193-216.		1
123	<title>Calibration of channel 3 of the AVHRR</title>. , 1999, 3759, 130.		0