

Steven Ackerman

List of Publications by Year in descending order

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133
papers

11,994
citations

44069

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docs citations

134
times ranked

7842
citing authors

#	ARTICLE	IF	CITATIONS
1	Information Content of a Synergy of Ground-Based and Space-Based Infrared Sounders. Part I: Clear-Sky Environments. <i>Journal of Atmospheric and Oceanic Technology</i> , 2022, 39, 771-787.	1.3	3
2	Evaluation of Visible Infrared Imaging Radiometer Suite (VIIRS) neural network cloud detection against current operational cloud masks. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 3371-3394.	3.1	6
3	The NASA MODIS-VIIRS Continuity Cloud Optical Properties Products. <i>Remote Sensing</i> , 2021, 13, 2.	4.0	29
4	Application of a Convolutional Neural Network for the Detection of Sea Ice Leads. <i>Remote Sensing</i> , 2021, 13, 4571.	4.0	8
5	The Continuity MODIS-VIIRS Cloud Mask. <i>Remote Sensing</i> , 2020, 12, 3334.	4.0	30
6	A Composite Perspective on Bore Passages during the PECAN Campaign. <i>Monthly Weather Review</i> , 2019, 147, 1395-1413.	1.4	22
7	The Detection and Characterization of Arctic Sea Ice Leads with Satellite Imagers. <i>Remote Sensing</i> , 2019, 11, 521.	4.0	22
8	Exploring the first aerosol indirect effect over Southeast Asia using a 10-year collocated MODIS, CALIOP, and model dataset. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 12747-12764.	4.9	20
9	A Long-Term Fine-Resolution Record of AVHRR Surface Temperatures for the Laurentian Great Lakes. <i>Remote Sensing</i> , 2018, 10, 1210.	4.0	5
10	Comparison of Satellite-, Model-, and Radiosonde-Derived Convective Available Potential Energy in the Southern Great Plains Region. <i>Journal of Applied Meteorology and Climatology</i> , 2017, 56, 1499-1513.	1.5	21
11	Enhancement and identification of dust events in the south-west region of Iran using satellite observations. <i>Journal of Earth System Science</i> , 2017, 126, 1.	1.3	15
12	The MODIS Cloud Optical and Microphysical Products: Collection 6 Updates and Examples From Terra and Aqua. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017, 55, 502-525.	6.3	489
13	Correlations of oriented ice and precipitation in marine midlatitude low clouds using collocated CloudSat, CALIOP, and MODIS observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 8056-8070.	3.3	2
14	Cross-calibration of S-NPP VIIRS moderate-resolution reflective solar bands against MODIS Aqua over dark water scenes. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 1425-1444.	3.1	29
15	State of the Climate in 2016. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, Si-S280.	3.3	132
16	Cirrus cloud optical and microphysical property retrievals from eMAS during SEAC<sup>4</sup</sup>RS using bi-spectral reflectance measurements within the 1.88µm water vapor absorption band. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 1743-1753.	3.1	8
17	Libraries, massive open online courses and the importance of place. <i>New Library World</i> , 2016, 117, 688-701.	1.1	7
18	Resolving ice cloud optical thickness biases between CALIOP and MODIS using infrared retrievals. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 5075-5090.	4.9	73

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19	Frequency and causes of failed MODIS cloud property retrievals for liquid phase clouds over global oceans. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 4132-4154.	3.3	78
20	Assimilation of thermodynamic information from advanced infrared sounders under partially cloudy skies for regional NWP. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 5469-5484.	3.3	41
21	Retrieval of Cirrus Cloud Optical Depth under Day and Night Conditions from MODIS Collection 6 Cloud Property Data. <i>Remote Sensing</i> , 2015, 7, 7257-7271.	4.0	31
22	Predicted Changes in the Frequency of Extreme Precipitable Water Vapor Events. <i>Journal of Climate</i> , 2015, 28, 7057-7070.	3.2	7
23	Application of GPS radio occultation to the assessment of temperature profile retrievals from microwave and infrared sounders. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 3751-3762.	3.1	11
24	Assimilation of clear sky Atmospheric Infrared Sounder radiances in short-term regional forecasts using community models. <i>Journal of Applied Remote Sensing</i> , 2014, 8, 083655.	1.3	14
25	Time-to-Detect Trends in Precipitable Water Vapor with Varying Measurement Error. <i>Journal of Climate</i> , 2014, 27, 8259-8275.	3.2	8
26	Contemplating synergistic algorithms for the NASA ACE Mission. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
27	Spatial and Temporal Distribution of Clouds Observed by MODIS Onboard the Terra and Aqua Satellites. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2013, 51, 3826-3852.	6.3	441
28	GEWEX cloud assessment: A review. <i>AIP Conference Proceedings</i> , 2013, , .	0.4	7
29	Assessment of Global Cloud Datasets from Satellites: Project and Database Initiated by the GEWEX Radiation Panel. <i>Bulletin of the American Meteorological Society</i> , 2013, 94, 1031-1049.	3.3	437
30	State of the Climate in 2012. <i>Bulletin of the American Meteorological Society</i> , 2013, 94, S1-S258.	3.3	129
31	Satellite Regional Cloud Climatology over the Great Lakes. <i>Remote Sensing</i> , 2013, 5, 6223-6240.	4.0	29
32	MODIS Cloud-Top Property Refinements for Collection 6. <i>Journal of Applied Meteorology and Climatology</i> , 2012, 51, 1145-1163.	1.5	192
33	Reconciling Simulated and Observed Views of Clouds: MODIS, ISCCP, and the Limits of Instrument Simulators. <i>Journal of Climate</i> , 2012, 25, 4699-4720.	3.2	256
34	State of the Climate in 2011. <i>Bulletin of the American Meteorological Society</i> , 2012, 93, S1-S282.	3.3	121
35	Arctic cloud macrophysical characteristics from CloudSat and CALIPSO. <i>Remote Sensing of Environment</i> , 2012, 124, 159-173.	11.0	83
36	Assessment of Regional Global Climate Model Water Vapor Bias and Trends Using Precipitable Water Vapor (PWV) Observations from a Network of Global Positioning Satellite (GPS) Receivers in the U.S. Great Plains and Midwest. <i>Journal of Climate</i> , 2012, 25, 5471-5493.	3.2	17

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37	Informal Science Education: A Practicum for Graduate Students. Innovative Higher Education, 2011, 36, 291-304.	2.5	18
38	A Summary of the 18th AMS Symposium on Education. Bulletin of the American Meteorological Society, 2011, 92, 61-64.	3.3	3
39	Dust and Smoke Detection for Multi-Channel Imagers. Remote Sensing, 2010, 2, 2347-2368.	4.0	61
40	Global distribution of instantaneous daytime radiative effects of high thin clouds observed by the cloud profiling radar. Journal of Applied Remote Sensing, 2010, 4, 043543.	1.3	3
41	Viewing Geometry Dependencies in MODIS Cloud Products. Journal of Atmospheric and Oceanic Technology, 2010, 27, 1519-1528.	1.3	93
42	The CALIPSO Mission. Bulletin of the American Meteorological Society, 2010, 91, 1211-1230.	3.3	847
43	Errors in Cloud Detection over the Arctic Using a Satellite Imager and Implications for Observing Feedback Mechanisms. Journal of Climate, 2010, 23, 1894-1907.	3.2	91
44	Improvements in the data quality of the Interferometric Monitor for Greenhouse Gases. Applied Optics, 2010, 49, 520.	2.1	1
45	High-Spectral- and High-Temporal-Resolution Infrared Measurements from Geostationary Orbit. Journal of Atmospheric and Oceanic Technology, 2009, 26, 2273-2292.	1.3	78
46	Computationally Efficient Methods of Collocating Satellite, Aircraft, and Ground Observations. Journal of Atmospheric and Oceanic Technology, 2009, 26, 1585-1595.	1.3	44
47	Using a Publication Analysis to Explore Mission Success. Bulletin of the American Meteorological Society, 2009, 90, 1313-1320.	3.3	0
48	Convectively Induced Transverse Band Signatures in Satellite Imagery. Weather and Forecasting, 2009, 24, 1362-1373.	1.4	25
49	Inferring Convective Weather Characteristics with Geostationary High Spectral Resolution IR Window Measurements: A Look into the Future. Journal of Atmospheric and Oceanic Technology, 2009, 26, 1527-1541.	1.3	15
50	Understanding Satellite-Observed Mountain-Wave Signatures Using High-Resolution Numerical Model Data. Weather and Forecasting, 2009, 24, 76-86.	1.4	27
51	Comparison of the MODIS Collection 5 Multilayer Cloud Detection Product with CALIPSO. , 2009, , .		0
52	Vertical distributions and relationships of cloud occurrence frequency as observed by MISR, AIRS, MODIS, OMI, CALIPSO, and CloudSat. Geophysical Research Letters, 2009, 36, .	4.0	50
53	Forecasting and nowcasting improvement in cloudy regions with high temporal GOES sounder infrared radiance measurements. Journal of Geophysical Research, 2009, 114, .	3.3	20
54	State of the Climate in 2008. Bulletin of the American Meteorological Society, 2009, 90, S1-S196.	3.3	74

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55	GOES sounding improvement and applications to severe storm nowcasting. Geophysical Research Letters, 2008, 35, .	4.0	31
56	Using the GOES Sounder to monitor upper level SO ₂ from volcanic eruptions. Journal of Geophysical Research, 2008, 113, .	3.3	15
57	Synergistic use of AIRS and MODIS radiance measurements for atmospheric profiling. Geophysical Research Letters, 2008, 35, .	4.0	20
58	Global Moderate Resolution Imaging Spectroradiometer (MODIS) cloud detection and height evaluation using CALIOP. Journal of Geophysical Research, 2008, 113, .	3.3	227
59	Cloud Detection with MODIS. Part II: Validation. Journal of Atmospheric and Oceanic Technology, 2008, 25, 1073-1086.	1.3	344
60	Cloud Detection with MODIS. Part I: Improvements in the MODIS Cloud Mask for Collection 5. Journal of Atmospheric and Oceanic Technology, 2008, 25, 1057-1072.	1.3	346
61	MODIS Global Cloud-Top Pressure and Amount Estimation: Algorithm Description and Results. Journal of Applied Meteorology and Climatology, 2008, 47, 1175-1198.	1.5	256
62	The Temporal Evolution of Convective Indices in Storm-Producing Environments. Weather and Forecasting, 2008, 23, 786-794.	1.4	38
63	IN BOX. Bulletin of the American Meteorological Society, 2007, 88, 627-638.	3.3	0
64	A Multispectral Technique for Detecting Low-Level Cloudiness near Sunrise. Journal of Atmospheric and Oceanic Technology, 2007, 24, 1800-1810.	1.3	14
65	A Quantitative Analysis of the Enhanced-V Feature in Relation to Severe Weather. Weather and Forecasting, 2007, 22, 853-872.	1.4	57
66	Mountain Wave Signatures in MODIS 6.7- μ m Imagery and Their Relation to Pilot Reports of Turbulence. Weather and Forecasting, 2007, 22, 662-670.	1.4	23
67	Trade-off studies of a hyperspectral infrared sounder on a geostationary satellite. Applied Optics, 2007, 46, 200.	2.1	23
68	The infrared cloud ice radiometer (IRCIR). , 2007, , .		0
69	Comparison between current and future environmental satellite imagers on cloud classification using MODIS. Remote Sensing of Environment, 2007, 108, 311-326.	11.0	29
70	Inference and Validation of Cloud Phase from MODIS, AIRS and CALIPSO Data. , 2007, , .		0
71	Simulation of high-spectral-resolution infrared signature of overlapping cirrus clouds and mineral dust. Geophysical Research Letters, 2006, 33, .	4.0	19
72	An Improvement to the High-Spectral-Resolution CO ₂ -Slicing Cloud-Top Altitude Retrieval. Journal of Atmospheric and Oceanic Technology, 2006, 23, 653-670.	1.3	60

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73	A Unique Satellite Perspective of the 13â€“14 January 2004 Record Cold Outbreak in the Northeast. <i>Weather and Forecasting</i> , 2005, 20, 222-225.	1.4	1
74	What Do Introductory Meteorology Students Want to Learn?. <i>Bulletin of the American Meteorological Society</i> , 2005, 86, 1431-1436.	3.3	7
75	A Comparison of GOES Sounderâ€“ and Cloud Lidar- and Radar-Retrieved Cloud-Top Heights. <i>Journal of Applied Meteorology and Climatology</i> , 2005, 44, 1234-1242.	1.7	25
76	Remote Sensing of Liquid Water and Ice Cloud Optical Thickness and Effective Radius in the Arctic: Application of Airborne Multispectral MAS Data. <i>Journal of Atmospheric and Oceanic Technology</i> , 2004, 21, 857-875.	1.3	157
77	Inference of ice cloud properties from high spectral resolution infrared observations. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2004, 42, 842-853.	6.3	75
78	Nighttime polar cloud detection with MODIS. <i>Remote Sensing of Environment</i> , 2004, 92, 181-194.	11.0	99
79	Using the â€œblue spikeâ€“to characterize biomass-burning sites during Southern African Regional Science Initiative (SAFARI) 2000. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	3
80	Cloud Classification of Satellite Radiance Data by Multicategory Support Vector Machines. <i>Journal of Atmospheric and Oceanic Technology</i> , 2004, 21, 159-169.	1.3	61
81	Recent improvements in the MODIS cloud mask. , 2004, , .		0
82	GLI/MODIS cloud mask results, comparisons, and validation. , 2004, , .		1
83	Single-scattering properties of droxtals. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2003, 79-80, 1159-1169.	2.3	115
84	Evaluation of MODIS thermal IR band L1B radiances during SAFARI 2000. <i>Journal of Geophysical Research</i> , 2003, 108, n/a-n/a.	3.3	24
85	High-Spatial-Resolution Surface and Cloud-Type Classification from MODIS Multispectral Band Measurements. <i>Journal of Applied Meteorology and Climatology</i> , 2003, 42, 204-226.	1.7	61
86	Cloud and aerosol properties, precipitable water, and profiles of temperature and water vapor from MODIS. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2003, 41, 442-458.	6.3	838
87	The MODIS cloud products: algorithms and examples from terra. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2003, 41, 459-473.	6.3	1,497
88	Applications of high spectral resolution FTIR observations demonstrated by the radiometrically accurate ground-based AERI and the scanning HIS aircraft instruments. , 2003, , .		6
89	MODIS cloud mask: current situation and its improvements. , 2003, , .		0
90	Retrieval of cloud top height, effective emissivity, and particle size, from aircraft high-spectral-resolution infrared measurements. , 2002, 4539, 50.		0

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91	Interactive Web-Based Learning with JAVA. Bulletin of the American Meteorological Society, 2002, 83, 970-975.	3.3	7
92	Radiative Effects of Various Cloud Types as Classified by the Split Window Technique over the Eastern Sub-tropical Pacific Derived from Collocated ERBE and AVHRR Data.. Journal of the Meteorological Society of Japan, 2002, 80, 1383-1394.	1.8	37
93	Examining the Relationship between Cloud and Radiation Quantities Derived from Satellite Observations and Model Calculations. Journal of Climate, 2000, 13, 3842-3859.	3.2	12
94	Model Calculations and Interferometer Measurements of Ice-Cloud Characteristics. Journal of Applied Meteorology and Climatology, 2000, 39, 634-644.	1.7	30
95	Remote sensing of cloud properties using MODIS airborne simulator imagery during SUCCESS: 2. Cloud thermodynamic phase. Journal of Geophysical Research, 2000, 105, 11781-11792.	3.3	157
96	Sea Ice Extent and Classification Mapping with the Moderate Resolution Imaging Spectroradiometer Airborne Simulator. Remote Sensing of Environment, 1999, 68, 152-163.	11.0	62
97	A comparison of cloud top heights computed from airborne lidar and MAS radiance data using CO2slicing. Journal of Geophysical Research, 1999, 104, 24547-24555.	3.3	61
98	Discriminating clear sky from clouds with MODIS. Journal of Geophysical Research, 1998, 103, 32141-32157.	3.3	1,002
99	Infrared spectral absorption of nearly invisible cirrus clouds. Geophysical Research Letters, 1998, 25, 1137-1140.	4.0	61
100	Retrieval of effective microphysical properties of clouds: A wave cloud case study. Geophysical Research Letters, 1998, 25, 1121-1124.	4.0	19
101	Discriminating heavy aerosol, clouds, and fires during SCAR-B: Application of airborne multispectral MAS data. Journal of Geophysical Research, 1998, 103, 31989-31999.	3.3	16
102	Remote sensing aerosols using satellite infrared observations. Journal of Geophysical Research, 1997, 102, 17069-17079.	3.3	341
103	Climate Parameters from Satellite Spectral Measurements. Part 1: Collocated AVHRR and HIRS/2 Observations of Spectral Greenhouse Parameter. Journal of Climate, 1996, 9, 327-344.	3.2	19
104	Global Satellite Observations of Negative Brightness Temperature Differences between 11 and 6.7 Åµm. Journals of the Atmospheric Sciences, 1996, 53, 2803-2812.	1.7	111
105	<title>Comparison of improved cloud amounts over land derived from two satellite retrieval techniques</title>. , 1996, , .		0
106	Comparison of cloud amounts derived from two satellite retrieval techniques. , 1995, 2578, 18.		0
107	Cirrus Cloud Properties Derived from High Spectral Resolution Infrared Spectrometry during FIRE II. Part II: Aircraft HIS Results. Journals of the Atmospheric Sciences, 1995, 52, 4246-4263.	1.7	33
108	Meeting Summary of the Eighth Conference on Atmospheric Radiation. Bulletin of the American Meteorological Society, 1994, 75, 1837-1838.	3.3	0

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109	Satellite remote sensing of H ₂ SO ₄ aerosol using the 8- to 12- $\frac{1}{4}$ m window region: Application to Mount Pinatubo. <i>Journal of Geophysical Research</i> , 1994, 99, 18639.	3.3	28
110	Comparison of upper tropospheric water vapor from GOES, Raman lidar, and cross-chain loran atmospheric sounding system measurements. <i>Journal of Geophysical Research</i> , 1994, 99, 21005.	3.3	18
111	Cloud Properties inferred from 8-12- $\frac{1}{4}$ m Data. <i>Journal of Applied Meteorology and Climatology</i> , 1994, 33, 212-229.	1.7	244
112	Radiation Energy Budget Studies Using Collocated AVHRR and ERBE Observations. <i>Journal of Applied Meteorology and Climatology</i> , 1994, 33, 370-378.	1.7	38
113	Remote Sensing Cloud Properties from High Spectral Resolution Infrared Observations. <i>Journals of the Atmospheric Sciences</i> , 1993, 50, 1708-1720.	1.7	70
114	University of Wisconsin Cirrus Remote Sensing Pilot Experiment. <i>Bulletin of the American Meteorological Society</i> , 1993, 74, 1041-1049.	3.3	1
115	Multiple-scattering algorithm for use with line-by-line RTE models. , 1993, 1934, 373.		0
116	Detection of aerosols from satellite observations in the infrared window region. , 1993, , .		0
117	Radiative Effects of Airborne Dust on Regional Energy Budgets at the Top of the Atmosphere. <i>Journal of Applied Meteorology and Climatology</i> , 1992, 31, 223-233.	1.7	112
118	Radiation budget studies using collocated observations from advanced very high resolution radiometer, high-resolution infrared sounder/2, and Earth Radiation Budget Experiment instruments. <i>Journal of Geophysical Research</i> , 1992, 97, 11513-11525.	3.3	14
119	Satellite monitoring of smoke from the Kuwait oil fires. <i>Journal of Geophysical Research</i> , 1992, 97, 14551-14563.	3.3	11
120	The 27-28 October 1986 FIRE IFO Cirrus Case Study: Spectral Properties of Cirrus Clouds in the 8-12 $\frac{1}{4}$ m Window. <i>Monthly Weather Review</i> , 1990, 118, 2377-2388.	1.4	143
121	Intercomparison of scanner and nonscanner measurements for the Earth Radiation Budget Experiment. <i>Journal of Geophysical Research</i> , 1990, 95, 11785-11798.	3.3	17
122	Surface weather observations of atmospheric dust over the southwest summer monsoon region. <i>Meteorology and Atmospheric Physics</i> , 1989, 41, 19-34.	2.0	77
123	Using the radiative temperature difference at 3.7 and 11 $\frac{1}{4}$ m to tract dust outbreaks. <i>Remote Sensing of Environment</i> , 1989, 27, 129-133.	11.0	102
124	Shortwave radiative parameterization of large atmospheric aerosols: Dust and water clouds. <i>Journal of Geophysical Research</i> , 1988, 93, 11063-11073.	3.3	8
125	The Absorption of Solar Radiation by Cloud Droplets: An Application of Anomalous Diffraction Theory. <i>Journals of the Atmospheric Sciences</i> , 1987, 44, 1574-1588.	1.7	90
126	Radiative Energy Budget Estimates for the 1979 Southwest Summer Monsoon. <i>Journals of the Atmospheric Sciences</i> , 1987, 44, 3052-3078.	1.7	15

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127	A Shortwave Parameterization Revised to Improve Cloud Absorption. <i>Journals of the Atmospheric Sciences</i> , 1984, 41, 687-690.	1.7	120
128	The Saudi Arabian heat low: Aerosol distributions and thermodynamic structure. <i>Journal of Geophysical Research</i> , 1982, 87, 8991-9002.	3.3	83
129	Aircraft Observations of the Shortwave Fractional Absorptance of Non-Homogeneous Clouds. <i>Journal of Applied Meteorology</i> , 1981, 20, 1510-1515.	1.1	52
130	Comparison of Satellite and All-Sky Camera Estimates of Cloud Cover during GATE. <i>Journal of Applied Meteorology</i> , 1981, 20, 581-587.	1.1	21
131	GATE phase III Mean Synoptic-Scale Radiative Convergence Profiles. <i>Monthly Weather Review</i> , 1981, 109, 371-383.	1.4	8
132	Comparison of Organ Weights of Wild and Laboratory <i>Microtus montanus</i> infected with <i>Trypanosoma brucei gambiense</i> . <i>American Midland Naturalist</i> , 1978, 100, 126.	0.4	7
133	Weight of the Spleen, Adrenals and Gonads during a Chronic <i>Trypanosoma brucei gambiense</i> Infection of Laboratory-reared <i>Microtus montanus</i> . <i>American Midland Naturalist</i> , 1976, 96, 379.	0.4	2