Seiji Kato

List of Publications by Year in Descending Order

83 papers	5,575 citations	36 h-index	74 g-index
87 ext. papers	6,488 ext. citations	4.7 avg, IF	5.44 L-index

#	Paper	IF	Citations
83	Representativity of cloud-profiling radar observations for data assimilation in numerical weather prediction. *Quarterly Journal of the Royal Meteorological Society*, **2021**, 147, 1801-1822	6.4	
82	Regional Energy and Water Budget of a Precipitating Atmosphere over Ocean. *Journal of Climate*, **2021**, 34, 4189-4205	4.4	1
81	Satellite and Ocean Data Reveal Marked Increase in Earth's Heating Rate. *Geophysical Research Letters*, **2021**, 48, e2021GL093047	4.9	18
80	Toward a Better Surface Radiation Budget Analysis Over Sea Ice in the High Arctic Ocean: A Comparative Study Between Satellite, Reanalysis, and local-scale Observations. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD032555	4.4	3
79	Uncertainty in Satellite-Derived Surface Irradiances and Challenges in Producing Surface Radiation Budget Climate Data Record. *Remote Sensing*, **2020**, 12, 1950	5	3
78	Effects of electromagnetic wave interference on observations of the Earth radiation budget. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2020**, 253, 107157	2.1	1
77	Global and Regional Entropy Production by Radiation Estimated from Satellite Observations. *Journal of Climate*, **2020**, 33, 2985-3000	4.4	3
76	An Algorithm to Derive Temperature and Humidity Profile Changes Using Spatially and Temporally Averaged Spectral Radiance Differences. *Journal of Atmospheric and Oceanic Technology*, **2020**, 37, 1173-1187	2	
75	Space-Based Observations for Understanding Changes in the Arctic-Boreal Zone. *Reviews of Geophysics*, **2020**, 58, e2019RG000652	23.1	23
74	Examining Biases in Diurnally Integrated Shortwave Irradiances due to Two- and Four-Stream Approximations in a Cloudy Atmosphere. *Journals of the Atmospheric Sciences*, **2020**, 77, 551-581	2.1	1
73	Radiative Heating Rates Computed With Clouds Derived From Satellite-Based Passive and Active Sensors and their Effects on Generation of Available Potential Energy. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 1720-1740	4.4	6
72	Measuring Global Ocean Heat Content to Estimate the Earth Energy Imbalance. *Frontiers in Marine Science*, **2019**, 6,	4.5	69
71	Surface Irradiances of Edition 4.0 Clouds and the Earth's Radiant Energy System (CERES) Energy Balanced and Filled (EBAF) Data Product. *Journal of Climate*, **2018**, 31, 4501-4527	4.4	157
70	Clouds and the Earth's Radiant Energy System (CERES) Energy Balanced and Filled (EBAF) Top-of-Atmosphere (TOA) Edition-4.0 Data Product. *Journal of Climate*, **2018**, 31, 895-918	4.4	319
69	Determining the Shortwave Radiative Flux From Earth Polychromatic Imaging Camera. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 11,479-11,491	4.4	10
68	Using AIRS and ARM SGP Clear-Sky Observations to Evaluate Meteorological Reanalyses: A Hyperspectral Radiance Closure Approach. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 11,720-11,734	4.4	2
67	Observation-Based Decomposition of Radiative Perturbations and Radiative Kernels.. *Journal of Climate*, **2018**, 31, 10039-10058	4.4	10

66	Net radiative effects of dust in the tropical North Atlantic based on integrated satellite observations and in situ measurements. *Atmospheric Chemistry and Physics*, **2018**, 18, 11303-11322	6.8	21
65	On the Lessons Learned from the Operations of the ERBE Nonscanner Instrument in Space and the Production of the Nonscanner TOA Radiation Budget Dataset. *IEEE Transactions on Geoscience and Remote Sensing*, **2018**, 56, 5936-5947	8.1	11
64	Examining Impacts of Mass-Diameter (m-D) and Area-Diameter (A-D) Relationships of Ice Particles on Retrievals of Effective Radius and Ice Water Content from Radar and Lidar Measurements. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 3396-3420	4.4	3
63	West Antarctic Ice Sheet Cloud Cover and Surface Radiation Budget from NASA A-Train Satellites. *Journal of Climate*, **2017**, 30, 6151-6170	4.4	23
62	Cloud Occurrences and Cloud Radiative Effects (CREs) from CCCM and CloudSat Radar-Lidar Products. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 8852-8884	4.4	13
61	Cloud object analysis of CERES Aqua observations of tropical and subtropical cloud regimes: Evolution of cloud object size distributions during the Madden□ulian Oscillation. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2017**, 188, 148-158	2.1	2
60	Arctic Radiation-IceBridge Sea and Ice Experiment: The Arctic Radiant Energy System during the Critical Seasonal Ice Transition. *Bulletin of the American Meteorological Society*, **2017**, 98, 1399-1426	6.1	13
59	The link between outgoing longwave radiation and the altitude at which a spaceborne lidar beam is fully attenuated. *Atmospheric Measurement Techniques*, **2017**, 10, 4659-4685	4	8
58	Investigation of the Residual in Column-Integrated Atmospheric Energy Balance Using Cloud Objects. *Journal of Climate*, **2016**, 29, 7435-7452	4.4	9
57	Understanding Climate Feedbacks and Sensitivity Using Observations of Earth's Energy Budget. *Current Climate Change Reports*, **2016**, 2, 170-178	9	11
56	Observational constraints on atmospheric and oceanic cross-equatorial heat transports: revisiting the precipitation asymmetry problem in climate models. *Climate Dynamics*, **2016**, 46, 3239-3257	4.2	41
55	Correction of ocean hemispherical spectral reflectivity for longwave irradiance computations. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2016**, 171, 57-65	2.1	1
54	Global Aerosol Direct Radiative Effect from CALIOP and C3M. *EPJ Web of Conferences*, **2016**, 119, 21001	0.3	
53	Cloud Object Analysis of CERES Aqua Observations of Tropical and Subtropical Cloud Regimes: Four-Year Climatology. *Journal of Climate*, **2016**, 29, 1617-1638	4.4	8
52	Evaluating Arctic cloud radiative effects simulated by NICAM with A-train. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 7041-7063	4.4	17
51	Large Contribution of Supercooled Liquid Clouds to the Solar Radiation Budget of the Southern Ocean. *Journal of Climate*, **2016**, 29, 4213-4228	4.4	102
50	Radiative effects of global MODIS cloud regimes. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 2299-2317	4.4	42
49	The energy balance over land and oceans: an assessment based on direct observations and CMIP5 climate models. *Climate Dynamics*, **2015**, 44, 3393-3429	4.2	185

48	CERES Synoptic Product: Methodology and Validation of Surface Radiant Flux. *Journal of Atmospheric and Oceanic Technology*, **2015**, 32, 1121-1143	2	130
47	The Observed State of the Energy Budget in the Early Twenty-First Century. *Journal of Climate*, **2015**, 28, 8319-8346	4.4	125
46	Covariance between Arctic sea ice and clouds within atmospheric state regimes at the satellite footprint level. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 12656-12678	4.4	60
45	Improving the modelling of short-wave radiation through the use of a 3D scene construction algorithm. *Quarterly Journal of the Royal Meteorological Society*, **2015**, 141, 1870-1883	6.4	8
44	The albedo of Earth. *Reviews of Geophysics*, **2015**, 53, 141-163	23.1	138
43	An examination of the nature of global MODIS cloud regimes. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 8362-8383	4.4	34
42	Boundary layer regulation in the southeast Atlantic cloud microphysics during the biomass burning season as seen by the A-train satellite constellation. *Journal of Geophysical Research D: Atmospheres* , **2014**, 119, 11,288	4.4	38
41	Effects of 3-D clouds on atmospheric transmission of solar radiation: Cloud type dependencies inferred from A-train satellite data. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 943-963	4.4	16
40	Regional Apparent Boundary Layer Lapse Rates Determined from CALIPSO and MODIS Data for Cloud-Height Determination. *Journal of Applied Meteorology and Climatology*, **2014**, 53, 990-1011	2.7	34
39	Unfiltering Earth Radiation Budget Experiment (ERBE) Scanner Radiances Using the CERES Algorithm and Its Evaluation with Nonscanner Observations. *Journal of Atmospheric and Oceanic Technology*, **2014**, 31, 843-859	2	4
38	Observing Interannual Variations in Hadley Circulation Atmospheric Diabatic Heating and Circulation Strength. *Journal of Climate*, **2014**, 27, 4139-4158	4.4	15
37	Characterizing and understanding radiation budget biases in CMIP3/CMIP5 GCMs, contemporary GCM, and reanalysis. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 8166-8184	4.4	107
36	Surface Irradiances Consistent with CERES-Derived Top-of-Atmosphere Shortwave and Longwave Irradiances. *Journal of Climate*, **2013**, 26, 2719-2740	4.4	316
35	Achieving Climate Change Absolute Accuracy in Orbit. *Bulletin of the American Meteorological Society*, **2013**, 94, 1519-1539	6.1	183
34	An Algorithm for the Constraining of Radiative Transfer Calculations to CERES-Observed Broadband Top-of-Atmosphere Irradiance. *Journal of Atmospheric and Oceanic Technology*, **2013**, 30, 1091-1106	2	36
33	A Supplementary Clear-Sky Snow and Ice Recognition Technique for CERES Level 2 Products. *Journal of Atmospheric and Oceanic Technology*, **2013**, 30, 557-568	2	5
32	An update on Earth's energy balance in light of the latest global observations. *Nature Geoscience*, **2012**, 5, 691-696	18.3	509
31	Impact of a cloud thermodynamic phase parameterization based on CALIPSO observations on climate simulation. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		13

30	The Global Character of the Flux of Downward Longwave Radiation. *Journal of Climate*, **2012**, 25, 2329-2340	4.4	83
29	Computation of Solar Radiative Fluxes by 1D and 3D Methods Using Cloudy Atmospheres Inferred from A-train Satellite Data. *Surveys in Geophysics*, **2012**, 33, 657-676	7.6	18
28	Advances in Understanding Top-of-Atmosphere Radiation Variability from Satellite Observations. *Surveys in Geophysics*, **2012**, 33, 359-385	7.6	100
27	Uncertainty Estimate of Surface Irradiances Computed with MODIS-, CALIPSO-, and CloudSat-Derived Cloud and Aerosol Properties. *Surveys in Geophysics*, **2012**, 33, 395-412	7.6	61
26	Advances in Understanding Top-of-Atmosphere Radiation Variability from Satellite Observations. *Space Sciences Series of ISSI*, **2012**, 27-53	0.1	2
25	Uncertainty Estimate of Surface Irradiances Computed with MODIS-, CALIPSO-, and CloudSat-Derived Cloud and Aerosol Properties. *Space Sciences Series of ISSI*, **2012**, 63-80	0.1	
24	Improvements of top-of-atmosphere and surface irradiance computations with CALIPSO-, CloudSat-, and MODIS-derived cloud and aerosol properties. *Journal of Geophysical Research*, **2011**, 116,		174
23	A 3D cloud-construction algorithm for the EarthCARE satellite mission. *Quarterly Journal of the Royal Meteorological Society*, **2011**, 137, 1042-1058	6.4	51
22	A study of subvisual clouds and their radiation effect with a synergy of CERES, MODIS, CALIPSO, and AIRS data. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		30
21	Detection of Atmospheric Changes in Spatially and Temporally Averaged Infrared Spectra Observed from Space. *Journal of Climate*, **2011**, 24, 6392-6407	4.4	17
20	Computation of Solar Radiative Fluxes by 1D and 3D Methods Using Cloudy Atmospheres Inferred from A-train Satellite Data. *Space Sciences Series of ISSI*, **2011**, 325-344	0.1	
19	Relationships among cloud occurrence frequency, overlap, and effective thickness derived from CALIPSO and CloudSat merged cloud vertical profiles. *Journal of Geophysical Research*, **2010**, 115,		112
18	Toward Optimal Closure of the Earth's Top-of-Atmosphere Radiation Budget. *Journal of Climate*, **2009**, 22, 748-766	4.4	723
17	Solar zenith and viewing geometry-dependent errors in satellite retrieved cloud optical thickness: Marine stratocumulus case. *Journal of Geophysical Research*, **2009**, 114,		46
16	Interannual Variability of the Global Radiation Budget. *Journal of Climate*, **2009**, 22, 4893-4907	4.4	28
15	Using observations of deep convective systems to constrain atmospheric column absorption of solar radiation in the optically thick limit. *Journal of Geophysical Research*, **2008**, 113,		14
14	Cloud Effects on the Meridional Atmospheric Energy Budget Estimated from Clouds and the Earth's Radiant Energy System (CERES) Data. *Journal of Climate*, **2008**, 21, 4223-4241	4.4	18
13	Angular Distribution Models for Top-of-Atmosphere Radiative Flux Estimation from the Clouds and the Earth's Radiant Energy System Instrument on the Terra Satellite. Part II: Validation. *Journal of Atmospheric and Oceanic Technology*, **2007**, 24, 564-584	2	109

12	Shortwave radiative closure studies for clear skies during the Atmospheric Radiation Measurement 2003 Aerosol Intensive Observation Period. *Journal of Geophysical Research*, **2006**, 111,		67
11	Estimate of satellite-derived cloud optical thickness and effective radius errors and their effect on computed domain-averaged irradiances. *Journal of Geophysical Research*, **2006**, 111,		44
10	Seasonal and interannual variations of top-of-atmosphere irradiance and cloud cover over polar regions derived from the CERES data set. *Geophysical Research Letters*, **2006**, 33,	4.9	37
9	Intercomparison of shortwave radiative transfer codes and measurements. *Journal of Geophysical Research*, **2005**, 110,		74
8	Computation of Domain-Averaged Irradiance Using Satellite-Derived Cloud Properties. *Journal of Atmospheric and Oceanic Technology*, **2005**, 22, 146-164	2	61
7	Angular Distribution Models for Top-of-Atmosphere Radiative Flux Estimation from the Clouds and the Earth Radiant Energy System Instrument on the Terra Satellite. Part I: Methodology. *Journal of Atmospheric and Oceanic Technology*, **2005**, 22, 338-351	2	217
6	Assessing 1D Atmospheric Solar Radiative Transfer Models: Interpretation and Handling of Unresolved Clouds. *Journal of Climate*, **2003**, 16, 2676-2699	4.4	109
5	Twilight Irradiance Reflected by the Earth Estimated from Clouds and the Earth's Radiant Energy System (CERES) Measurements. *Journal of Climate*, **2003**, 16, 2646-2650	4.4	15
4	Angular Distribution Models for Top-of-Atmosphere Radiative Flux Estimation from the Clouds and the Earth Radiant Energy System Instrument on the Tropical Rainfall Measuring Mission Satellite. Part I: Methodology. *Journal of Applied Meteorology and Climatology*, **2003**, 42, 240-265		175
3	Defining Top-of-the-Atmosphere Flux Reference Level for Earth Radiation Budget Studies. *Journal of Climate*, **2002**, 15, 3301-3309	4.4	36
2	Determination of the thermal offset of the Eppley precision spectral pyranometer. *Applied Optics*, **2001**, 40, 472-84	1.7	53
1	The k-distribution method and correlated-k approximation for a shortwave radiative transfer model. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **1999**, 62, 109-121	2.1	192