Hirohiko Masunaga

List of Publications by Year
in descending order

70 papers	2,704 citations	172457 29 h-index	182427 51 g-index
75 all docs	75 docs citations	75 times ranked	2443 citing authors

#	Article	IF	Citations
1	A Radiation Hydrodynamic Model for Protostellar Collapse. II. The Second Collapse and the Birth of a Protostar. Astrophysical Journal, 2000, 531, 350-365.	4.5	398
2	A Radiation Hydrodynamic Model for Protostellar Collapse. I. The First Collapse. Astrophysical Journal, 1998, 495, 346-369.	4.5	227
3	Global precipitation measurements for validating climate models. Atmospheric Research, 2017, 197, 1-20.	4.1	111
4	Observing Convective Aggregation. Surveys in Geophysics, 2017, 38, 1199-1236.	4.6	102
5	An Evaluation of Microwave Land Surface Emissivities Over the Continental United States to Benefit GPM-Era Precipitation Algorithms. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 378-398.	6.3	95
6	The Maddenâ€“Julian Oscillation Recorded in Early Observations from the Tropical Rainfall Measuring Mission (TRMM). Journals of the Atmospheric Sciences, 2006, 63, 2777-2794.	1.7	90
7	Satellite Data Simulator Unit. Bulletin of the American Meteorological Society, 2010, 91, 1625-1632.	3.3	85
8	Satellite-based assessment of marine low cloud variability associated with aerosol, atmospheric stability, and the diurnal cycle. Journal of Geophysical Research, 2006, 111, .	3.3	78
9	Evaluation of Long-Term Cloud-Resolving Model Simulations Using Satellite Radiance Observations and Multifrequency Satellite Simulators. Journal of Atmospheric and Oceanic Technology, 2009, 26, 1261-1274.	1.3	78
10	Comparison of Rainfall Products Derived from TRMM Microwave Imager and Precipitation Radar. Journal of Applied Meteorology and Climatology, 2002, 41, 849-862.	1.7	76
11	Combined Radar and Radiometer Analysis of Precipitation Profiles for a Parametric Retrieval Algorithm. Journal of Atmospheric and Oceanic Technology, 2005, 22, 909-929.	1.3	76
12	A joint satellite and global cloudâ€resolving model analysis of a Maddenâ€Julian Oscillation event: Model diagnosis. Journal of Geophysical Research, 2008, 113, .	3.3	73
13	Variability in the Characteristics of Precipitation Systems in the Tropical Pacific. Part I: Spatial Structure. Journal of Climate, 2005, 18, 823-840.	3.2	71
14	Seasonality and Regionality of the Maddenâ€“Julian Oscillation, Kelvin Wave, and Equatorial Rossby Wave. Journals of the Atmospheric Sciences, 2007, 64, 4400-4416.	1.7	66
15	Does â€œ„â‰ˆ1â€•Terminate the Isothermal Evolution of Collapsing Clouds?. Astrophysical Journal, 1999, 510, 822-827.	4.5	66
16	Early Evaluation of Ku- and Ka-Band Sensitivities for the Global Precipitation Measurement (GPM) Dual-Frequency Precipitation Radar (DPR). Scientific Online Letters on the Atmosphere, 2015, 11, 14-17.	1.4	62
17	Impact of aerosols and atmospheric thermodynamics on cloud properties within the climate system. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	57
18	An MJO Simulated by the NICAM at 14- and 7-km Resolutions. Monthly Weather Review, 2009, 137, 3254-3268.	1.4	53

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19	Observations of tropical precipitating clouds ranging from shallow to deep convective systems. Geophysical Research Letters, 2006, 33, .	4.0	42
20	Improving a spectral bin microphysical scheme using TRMM satellite observations. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 382-399.	2.7	40
21	Inter-product biases in global precipitation extremes. Environmental Research Letters, 2019, 14, 125016.	5.2	40
22	A Satellite Study of the Atmospheric Forcing and Response to Moist Convection over Tropical and Subtropical Oceans. Journals of the Atmospheric Sciences, 2012, 69, 150-167.	1.7	38
23	Physical properties of maritime low clouds as retrieved by combined use of Tropical Rainfall Measuring Mission (TRMM) Microwave Imager and Visible/Infrared Scanner 2. Climatology of warm clouds and rain. Journal of Geophysical Research, 2002, 107, AAC 3-1.	3.3	37
24	A Satellite Study of Tropical Moist Convection and Environmental Variability: A Moisture and Thermal Budget Analysis. Journals of the Atmospheric Sciences, 2013, 70, 2443-2466.	1.7	37
25	Short-Term versus Climatological Relationship between Precipitation and Tropospheric Humidity. Journal of Climate, 2012, 25, 7983-7990.	3.2	36
26	A Mechanism of Tropical Convection Inferred from Observed Variability in the Moist Static Energy Budget. Journals of the Atmospheric Sciences, 2014, 71, 3747-3766.	1.7	36
27	Quantifying Global Uncertainties in a Simple Microwave Rainfall Algorithm. Journal of Atmospheric and Oceanic Technology, 2006, 23, 23-37.	1.3	33
28	Assessment of the consistency among global microwave land surface emissivity products. Atmospheric Measurement Techniques, 2015, 8, 1197-1205.	3.1	33
29	Convective and largeâ€scale mass flux profiles over tropical oceans determined from synergistic analysis of a suite of satellite observations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7958-7974.	3.3	33
30	Quantifying Uncertainties in Land-Surface Microwave Emissivity Retrievals. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 829-840.	6.3	32
31	The Meandering Margin of the Meteorological Moist Tropics. Geophysical Research Letters, 2018, 45, 1177-1184.	4.0	29
32	Equatorial Asymmetry of the East Pacific ITCZ: Observational Constraints on the Underlying Processes. Journal of Climate, 2011, 24, 1784-1800.	3.2	25
33	Physical properties of maritime low clouds as retrieved by combined use of Tropical Rainfall Measurement Mission Microwave Imager and Visible/Infrared Scanner: Algorithm. Journal of Geophysical Research, 2002, 107, AAC 1-1-AAC 1-12.	3.3	22
34	Relationship between the direction of diurnal rainfall migration and the ambient wind over the Southern Sumatra Island. Earth and Space Science, 2017, 4, 117-127.	2.6	22
35	The Southeast Pacific Warm Band and Double ITCZ. Journal of Climate, 2010, 23, 1189-1208.	3.2	20
36	Comparison of TRMM-Derived Rainfall Products for General and Extreme Rains over the Maritime Continent. Journal of Applied Meteorology and Climatology, 2017, 56, 1867-1881.	1.5	18

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37	Origins of Heavy Precipitation Biases in the TRMM PR and TMI Products Assessed with CloudSat and Reanalysis Data. Journal of Applied Meteorology and Climatology, 2019, 58, 37-54.	1.5	18
38	Revisiting the iris effect of tropical cirrus clouds with TRMM and Aâ€Train satellite data. Journal of Geophysical Research D: Atmospheres, 2017, 122, 5917-5931.	3.3	17
39	Implications of Warm Rain in Shallow Cumulus and Congestus Clouds for Large-Scale Circulations. Surveys in Geophysics, 2017, 38, 1257-1282.	4.6	17
40	Effects of atmospheric sphericity on stratospheric chemistry and dynamics over Antarctica. Journal of Geophysical Research, 2005, 110, .	3.3	16
41	Infall Signatures in Spectral Line Profiles of Protostellar Envelopes. Astrophysical Journal, 2000, 536, 406-415.	4.5	16
42	A Satellite Study of the Relationship between Sea Surface Temperature and Column Water Vapor over Tropical and Subtropical Oceans. Journal of Climate, 2013, 26, 4204-4218.	3.2	14
43	Aerosol Effects on Cumulus Congestus Population over the Tropical Pacific: A Cloud-Resolving Modeling Study. Journal of the Meteorological Society of Japan, 2013, 91, 817-833.	1.8	13
44	Reproducibility by Climate Models of Cloud Radiative Forcing Associated with Tropical Convection. Journal of Climate, 2012, 25, 1247-1262.	3.2	12
45	Freeâ€tropospheric moisture convergence and tropical convective regimes. Geophysical Research Letters, 2014, 41, 8611-8618.	4.0	12
46	New Observational Metrics of Convective Self-Aggregation: Methodology and a Case Study. Journal of the Meteorological Society of Japan, 2018, 96, 535-548.	1.8	12
47	Development of a land surface emissivity algorithm for use by microwave rain retrieval algorithms. Proceedings of SPIE, 2012, , .	0.8	11
48	Variability in the Characteristics of Precipitation Systems in the Tropical Pacific. Part II: Implications for Atmospheric Heating. Journal of Climate, 2006, 19, 1388-1406.	3.2	10
49	A Moist Static Energy Budget Analysis of Quasi-2-Day Waves Using Satellite and Reanalysis Data. Journals of the Atmospheric Sciences, 2016, 73, 743-759.	1.7	10
50	Radiative Invigoration of Tropical Convection by Preceding Cirrus Clouds. Journals of the Atmospheric Sciences, 2018, 75, 1327-1342.	1.7	10
51	A Satelliteâ€Based Estimate of Convective Vertical Velocity and Convective Mass Flux: Global Survey and Comparison With Radar Wind Profiler Observations. Geophysical Research Letters, 2021, 48, .	4.0	10
52	A 9-season TRMM Observation of the Austral Summer MJO and Low-frequency Equatorial Waves. Journal of the Meteorological Society of Japan, 2009, 87A, 295-315.	1.8	10
53	Refinement of Surface Precipitation Estimates for the Dual-frequency Precipitation Radar on the GPM Core Observatory Using Near-Nadir Measurements. Journal of the Meteorological Society of Japan, 2021, 99, 1231-1252.	1.8	6
54	Detection and Tracking of Tropical Convective Storms Based on Globally Gridded Precipitation Measurements: Algorithm and Survey over the Tropics. Journal of Applied Meteorology and Climatology, 2021, 60, 403-421.	1.5	6

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55	A Mechanism for the Maintenance of Sharp Tropical Margins. Journals of the Atmospheric Sciences, 2019, 77, 1181-1197.	1.7	5
56	A Next-generation Microwave Rainfall Retrieval Algorithm for use by TRMM and GPM. , 2007, , 235-252.		5
57	Observing Convective Aggregation. Space Sciences Series of ISSI, 2017, , 27-64.	0.0	5
58	The Potential Roles of Background Surface Wind in the SST Variability Associated with Intraseasonal Oscillations. Journal of Climate, 2014, 27, 7053-7068.	3.2	4
59	A toy model of tropical convection with a moisture storage closure. Journal of Advances in Modeling Earth Systems, 2017, 9, 647-667.	3.8	4
60	Processâ€Level Assessment of the Iris Effect Over Tropical Oceans. Geophysical Research Letters, 2022, 49, .	4.0	4
61	The Effective Cloud Fraction of Broken Clouds Obtained by Multistream Radiative Transfer. Part I: Longwave Radiation. Journals of the Atmospheric Sciences, 2001, 58, 2455-2467.	1.7	3
62	Transient Aggregation of Convection: Observed Behavior and Underlying Processes. Journal of Climate, 2021, 34, 1685-1700.	3.2	3
63	Evaluation of Precipitation and High-Level Cloud Areas Associated with Large-Scale Circulation over the Tropical Pacific in the CMIP3 Models. Journal of the Meteorological Society of Japan, 2009, 87, 771-789.	1.8	3
64	Assessment of a Satellite-Based Atmospheric Budget Analysis Method Using CINDY2011/DYNAMO/AMIE and TOGA COARE Sounding Array Data. Journal of the Meteorological Society of Japan, 2015, 93A, 21-40.	1.8	2
65	Implications of Warm Rain in Shallow Cumulus and Congestus Clouds for Large-Scale Circulations. Space Sciences Series of ISSI, 2017, , 85-110.	0.0	2
66	Temporal and Spatial Variability of Clouds and Related Aerosols. , 2009, , 127-148.		2
67	Vertical Modes and Effective Stability of Quasi-2-Day Waves. Journals of the Atmospheric Sciences, 2019, 76, 2005-2022.	1.7	1
68	Analysis of Cloud Properties Associated with Tropical Convection in Climate Models and Satellite Data. Journal of the Meteorological Society of Japan, 2012, 90, 629-646.	1.8	1
69	Characterizing Ice-Scattering Homogeneity in TRMM Microwave Imagers and Its Influence on Oceanic Rain-Rate Estimation Bias of TRMM Precipitation Radar. Atmosphere, 2021, 12, 1377.	2.3	1
70	A Radiation Hydrodynamical Model for Protostellar Collapse. Astrophysics and Space Science Library, 1999, , 169-170.	2.7	0