

# Andrea M Molod

## List of Publications by Year in descending order

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Version: 2024-02-01

50  
papers

11,261  
citations

236833

25  
h-index

189801

50  
g-index

58  
all docs

58  
docs citations

58  
times ranked

12898  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Modern-Era Retrospective Analysis for Research and Applications, Version 2 (MERRA-2). <i>Journal of Climate</i> , 2017, 30, 5419-5454.	1.2	4,520
2	MERRA: NASA's Modern-Era Retrospective Analysis for Research and Applications. <i>Journal of Climate</i> , 2011, 24, 3624-3648.	1.2	4,118
3	Development of the GEOS-5 atmospheric general circulation model: evolution from MERRA to MERRA2. <i>Geoscientific Model Development</i> , 2015, 8, 1339-1356.	1.3	822
4	Introduction to the SPARC Reanalysis Intercomparison Project (S-RIP) and overview of the reanalysis systems. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 1417-1452.	1.9	276
5	Atmospheric Water Balance and Variability in the MERRA-2 Reanalysis. <i>Journal of Climate</i> , 2017, 30, 1177-1196.	1.2	132
6	Windows of Opportunity for Skillful Forecasts Subseasonal to Seasonal and Beyond. <i>Bulletin of the American Meteorological Society</i> , 2020, 101, E608-E625.	1.7	124
7	Practice and philosophy of climate model tuning across six US modeling centers. <i>Geoscientific Model Development</i> , 2017, 10, 3207-3223.	1.3	100
8	Development of two-moment cloud microphysics for liquid and ice within the NASA Goddard Earth Observing System Model (GEOS-5). <i>Geoscientific Model Development</i> , 2014, 7, 1733-1766.	1.3	78
9	Structure and Dynamics of the Quasi-Biennial Oscillation in MERRA-2. <i>Journal of Climate</i> , 2016, 29, 5339-5354.	1.2	78
10	An assessment of upper troposphere and lower stratosphere water vapor in MERRA, MERRA2, and ECMWF reanalyses using Aura MLS observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 11,468.	1.2	72
11	Large-scale Atmospheric Transport in GEOS-5 Replay Simulations. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 2545-2560.	1.3	64
12	Improved boundary layer depth retrievals from MPLNET. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 9870-9879.	1.2	53
13	GEOS-5S2S Version 2: The GMAO High-Resolution Coupled Model and Assimilation System for Seasonal Prediction. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031767.	1.2	52
14	Tropical Waves and the Quasi-Biennial Oscillation in a 7-km Global Climate Simulation. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 3771-3783.	0.6	50
15	Frequency and impact of summertime stratospheric intrusions over Maryland during DISCOVER-AQ (2011): New evidence from NASA's GEOS-5 simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 3687-3706.	1.2	49
16	Errors and improvements in the use of archived meteorological data for chemical transport modeling: an analysis using GEOS-Chem v11-01 driven by GEOS-5 meteorology. <i>Geoscientific Model Development</i> , 2018, 11, 305-319.	1.3	49
17	Chemical Mechanisms and Their Applications in the Goddard Earth Observing System (GEOS) Earth System Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 3019-3044.	1.3	47
18	Sensitivity of Tropical Cyclones to Parameterized Convection in the NASA GEOS-5 Model. <i>Journal of Climate</i> , 2015, 28, 551-573.	1.2	45

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19	Comparison of GEOS-5 AGCM planetary boundary layer depths computed with various definitions. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 6717-6727.	1.9	42
20	The Climatology of Parameterized Physical Processes in the GEOS-1 GCM and Their Impact on the GEOS-1 Data Assimilation System. <i>Journal of Climate</i> , 1996, 9, 764-785.	1.2	37
21	Constraints on the Profiles of Total Water PDF in AGCMs from AIRS and a High-Resolution Model. <i>Journal of Climate</i> , 2012, 25, 8341-8352.	1.2	37
22	Estimating Planetary Boundary Layer Heights from NOAA Profiler Network Wind Profiler Data. <i>Journal of Atmospheric and Oceanic Technology</i> , 2015, 32, 1545-1561.	0.5	36
23	An evaluation of gravity waves and gravity wave sources in the Southern Hemisphere in a 7 km global climate simulation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017, 143, 2481-2495.	1.0	35
24	Direct estimation of the global distribution of vertical velocity within cirrus clouds. <i>Scientific Reports</i> , 2017, 7, 6840.	1.6	33
25	A global assessment of the mosaic approach to modeling land surface heterogeneity. <i>Journal of Geophysical Research</i> , 2002, 107, ACL 9-1.	3.3	30
26	Assessing the Grell-Freitas Convection Parameterization in the <sc>NASA GEOS</sc> Modeling System. <i>Journal of Advances in Modeling Earth Systems</i> , 2018, 10, 1266-1289.	1.3	29
27	Atmospheric summer teleconnections and Greenland Ice Sheet surface mass variations: insights from MERRA-2. <i>Environmental Research Letters</i> , 2016, 11, 024002.	2.2	26
28	Differences in tropical high clouds among reanalyses: origins and radiative impacts. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 8989-9030.	1.9	26
29	Local Air-Sea Interactions at Ocean Mesoscale and Submesoscale in a Western Boundary Current. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	20
30	An evaluation of deep convective mixing in the Goddard Chemical Transport Model using International Satellite Cloud Climatology Project cloud parameters. <i>Journal of Geophysical Research</i> , 1997, 102, 25467-25476.	3.3	19
31	Impact of planetary boundary layer turbulence on model climate and tracer transport. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 7269-7286.	1.9	16
32	The impact of limiting ocean roughness on GEOS-5 AGCM tropical cyclone forecasts. <i>Geophysical Research Letters</i> , 2013, 40, 411-416.	1.5	14
33	Subseasonal-to-Seasonal Hindcast Skill Assessment of Ridging Events Related to Drought Over the Western United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD033655.	1.2	12
34	Satellite Sea Surface Salinity Observations Impact on El Niño/Southern Oscillation Predictions: Case Studies From the NASA GEOS Seasonal Forecast System. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015788.	1.0	12
35	Convective Entrainment Rates Estimated From Aura CO and CloudSat/CALIPSO Observations and Comparison With GEOS-5. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 9796-9807.	1.2	11
36	Connections between the Spring Breakup of the Southern Hemisphere Polar Vortex, Stationary Waves, and Air-Sea Roughness. <i>Journals of the Atmospheric Sciences</i> , 2013, 70, 2137-2151.	0.6	10

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37	Quantitative Sensitivity Analysis of Physical Parameterizations for Cases of Deep Convection in the NASA GEOS-5. <i>Journal of Climate</i> , 2016, 29, 455-479.	1.2	10
38	Three- to Six-Day Air-Sea Oscillation in Models and Observations. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085837.	1.5	10
39	The Impact of SST-Forced and Unforced Teleconnections on 2015/16 El Niño Winter Precipitation over the Western United States. <i>Journal of Climate</i> , 2018, 31, 5825-5844.	1.2	9
40	Annual Cycle of Planetary Boundary Layer Heights Estimated From Wind Profiler Network Data. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 6207-6221.	1.2	9
41	Using a Simple Water Balance Framework to Quantify the Impact of Soil Moisture Initialization on Subseasonal Evapotranspiration and Air Temperature Forecasts. <i>Journal of Hydrometeorology</i> , 2020, 21, 1705-1722.	0.7	9
42	Consequences of different air-sea feedbacks on ocean using MITgcm and MERRA-2 forcing: Implications for coupled data assimilation systems. <i>Ocean Modelling</i> , 2018, 132, 91-111.	1.0	5
43	Seasonal Prediction of the Quasi-Biennial Oscillation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	5
44	Representation of Tropical Cyclones by the Modern-Era Retrospective Analysis for Research and Applications Version 2. <i>Asia-Pacific Journal of Atmospheric Sciences</i> , 2021, 57, 35-49.	1.3	4
45	Impacts of the Eruption of Mount Pinatubo on Surface Temperatures and Precipitation Forecasts With the NASA GEOS Subseasonal to Seasonal System. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034830.	1.2	4
46	Seasonality in Prediction Skill of the Madden-Julian Oscillation and Associated Dynamics in Version 2 of NASA's GEOS-5S Forecast System. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034961.	1.2	4
47	To What Extent Biomass Burning Aerosols Impact South America Seasonal Climate Predictions?. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088096.	1.5	3
48	Asymmetry in Subseasonal Surface Air Temperature Forecast Error with Respect to Soil Moisture Initialization. <i>Journal of Hydrometeorology</i> , 2021, 22, 2505-2519.	0.7	2
49	Earth system model parameter adjustment using a Green's functions approach. <i>Geoscientific Model Development</i> , 2022, 15, 2309-2324.	1.3	2
50	Effects of grid spacing on high-frequency precipitation variance in coupled high-resolution global ocean-atmosphere models. <i>Climate Dynamics</i> , 2022, 59, 2887-2913.	1.7	2