Angela Benedetti

List of Publications by Year
in descending order

67 papers	6,938 citations	147801 31 h-index	123424 61 g-index
109 all docs	109 docs citations	109 times ranked	7366 citing authors

#	Article	IF	Citations
1	THE CLOUDSAT MISSION AND THE A-TRAIN. Bulletin of the American Meteorological Society, 2002, 83, 1771-1790.	3.3	1,845
2	Biomass burning emissions estimated with a global fire assimilation system based on observed fire radiative power. Biogeosciences, 2012, 9, 527-554.	3.3	876
3	Aerosol analysis and forecast in the European Centre for Mediumâ€Range Weather Forecasts Integrated Forecast System: 2. Data assimilation. Journal of Geophysical Research, 2009, 114, .	3.3	477
4	The MACC reanalysis: an 8 yr data set of atmospheric composition. Atmospheric Chemistry and Physics, 2013, 13, 4073-4109.	4.9	424
5	The AeroCom evaluation and intercomparison of organic aerosol in global models. Atmospheric Chemistry and Physics, 2014, 14, 10845-10895.	4.9	363
6	Aerosol analysis and forecast in the European Centre for Mediumâ€Range Weather Forecasts Integrated Forecast System: Forward modeling. Journal of Geophysical Research, 2009, 114, .	3.3	360
7	McClear: a new model estimating downwelling solar radiation at ground level in clear-sky conditions. Atmospheric Measurement Techniques, 2013, 6, 2403-2418.	3.1	272
8	TOWARD A MONITORING AND FORECASTING SYSTEM FOR ATMOSPHERIC COMPOSITION. Bulletin of the American Meteorological Society, 2008, 89, 1147-1164.	3.3	253
9	State of the Climate in 2012. Bulletin of the American Meteorological Society, 2013, 94, S1-S258.	3.3	129
10	The CAMS interim Reanalysis of Carbon Monoxide, Ozone and Aerosol for 2003â€“2015. Atmospheric Chemistry and Physics, 2017, 17, 1945-1983.	4.9	127
11	Implementation of 1D+4D-Var assimilation of precipitation-affected microwave radiances at ECMWF. I: 1D-Var. Quarterly Journal of the Royal Meteorological Society, 2006, 132, 2277-2306.	2.7	102
12	Implementation of 1D+4D-Var assimilation of precipitation-affected microwave radiances at ECMWF. II: 4D-Var. Quarterly Journal of the Royal Meteorological Society, 2006, 132, 2307-2332.	2.7	85
13	Development towards a global operational aerosol consensus: basic climatological characteristics of the International Cooperative for Aerosol Prediction Multi-Model Ensemble (ICAP-MME). Atmospheric Chemistry and Physics, 2015, 15, 335-362.	4.9	76
14	The MACC-II 2007â€“2008 reanalysis: atmospheric dust evaluation and characterization over northern Africa and the Middle East. Atmospheric Chemistry and Physics, 2015, 15, 3991-4024.	4.9	76
15	Description and evaluation of the tropospheric aerosol scheme in the European Centre for Medium-Range Weather Forecasts (ECMWF) Integrated Forecasting System (IFS-AER, cycle 45R1). Geoscientific Model Development, 2019, 12, 4627-4659.	3.6	71
16	Current state of the global operational aerosol multiâ€model ensemble: An update from the International Cooperative for Aerosol Prediction (ICAP). Quarterly Journal of the Royal Meteorological Society, 2019, 145, 176-209.	2.7	66
17	Status and future of numerical atmospheric aerosol prediction with a focus on data requirements. Atmospheric Chemistry and Physics, 2018, 18, 10615-10643.	4.9	64
18	Hindcast experiments of tropospheric composition during the summer 2010 fires over western Russia. Atmospheric Chemistry and Physics, 2012, 12, 4341-4364.	4.9	62

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19	Two global data sets of daily fire emission injection heights since 2003. Atmospheric Chemistry and Physics, 2017, 17, 2921-2942.	4.9	61
20	Global Climate. Bulletin of the American Meteorological Society, 2020, 101, S9-S128.	3.3	61
21	Background error statistics for aerosols. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 391-405.	2.7	54
22	Validation of ECMWF global forecast model parameters using GLAS atmospheric channel measurements. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	53
23	Seaâ€salt and dust aerosols in the ECMWF IFS model. Geophysical Research Letters, 2008, 35, .	4.0	53
24	Aerosol analysis and forecast in the European Centre for Medium-Range Weather Forecasts Integrated Forecast System: 3. Evaluation by means of case studies. Journal of Geophysical Research, 2011, 116, .	3.3	53
25	Feedbacks of dust and boundary layer meteorology during a dust storm in the eastern Mediterranean. Atmospheric Chemistry and Physics, 2015, 15, 12909-12933.	4.9	43
26	Aerosols for Concentrating Solar Electricity Production Forecasts: Requirement Quantification and ECMWF/MACC Aerosol Forecast Assessment. Bulletin of the American Meteorological Society, 2013, 94, 903-914.	3.3	40
27	An aerosol climatology for global models based on the tropospheric aerosol scheme in the Integrated Forecasting System of ECMWF. Geoscientific Model Development, 2020, 13, 1007-1034.	3.6	40
28	LSA SAF Meteosat FRP products â€“ Part 2: Evaluation and demonstration for use in the Copernicus Atmosphere Monitoring Service (CAMS). Atmospheric Chemistry and Physics, 2015, 15, 13241-13267.	4.9	39
29	The Department of Energy's Atmospheric Radiation Measurement (ARM) Unmanned Aerospace Vehicle (UAV) Program. Bulletin of the American Meteorological Society, 2000, 81, 2915-2938.	3.3	37
30	Ice cloud microphysics retrievals from millimeter radar and visible optical depth using an estimation theory approach. Journal of Geophysical Research, 2003, 108, .	3.3	35
31	Forecasting the northern African dust outbreak towards Europe in April 2011: a model intercomparison. Atmospheric Chemistry and Physics, 2016, 16, 4967-4986.	4.9	32
32	Wind Profile Satellite Observation Requirements and Capabilities. Bulletin of the American Meteorological Society, 2020, 101, E2005-E2021.	3.3	31
33	The ENSO signal in atmospheric composition fields: emission-driven versus dynamically induced changes. Atmospheric Chemistry and Physics, 2015, 15, 9083-9097.	4.9	30
34	Experimental use of TRMM precipitation radar observations in 1D+4D-Var assimilation. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 2473-2495.	2.7	29
35	An evaluation of the impact of aerosol particles on weather forecasts from a biomass burning aerosol event over the Midwestern United States: observational-based analysis of surface temperature. Atmospheric Chemistry and Physics, 2016, 16, 6475-6494.	4.9	29
36	Saharan dust long-range transport across the Atlantic studied by an airborne Doppler wind lidar and the MACC model. Atmospheric Chemistry and Physics, 2016, 16, 11581-11600.	4.9	28

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37	On the vertical distribution of smoke in the Amazonian atmosphere during the dry season. Atmospheric Chemistry and Physics, 2016, 16, 2155-2174.	4.9	28
38	Can the Direct Effect of Aerosols Improve Subseasonal Predictability?. Monthly Weather Review, 2018, 146, 3481-3498.	1.4	28
39	Operational Dust Prediction. , 2014, , 223-265.		28
40	Assimilation of MODIS Cloud Optical Depths in the ECMWF Model. Monthly Weather Review, 2008, 136, 1727-1746.	1.4	25
41	The value of satellite observations in the analysis and short-range prediction of Asian dust. Atmospheric Chemistry and Physics, 2019, 19, 987-998.	4.9	24
42	Models transport Saharan dust too low in the atmosphere: a comparison of the MetUM and CAMS forecasts with observations. Atmospheric Chemistry and Physics, 2020, 20, 12955-12982.	4.9	24
43	A 3-D evaluation of the MACC reanalysis dust product over Europe, northern Africa and Middle East using CALIOP/CALIPSO dust satellite observations. Atmospheric Chemistry and Physics, 2018, 18, 8601-8620.	4.9	21
44	Experimental 2D-Var assimilation of ARM cloud and precipitation observations. Quarterly Journal of the Royal Meteorological Society, 2006, 132, 1325-1347.	2.7	19
45	International Operational Aerosol Observability Workshop. Bulletin of the American Meteorological Society, 2011, 92, ES21-ES24.	3.3	19
46	Verification of ECMWF and ECMWF/MACC's global and direct irradiance forecasts with respect to solar electricity production forecasts. Meteorologische Zeitschrift, 2017, 26, 1-19.	1.0	19
47	A global modelâ€“measurement evaluation of particle light scattering coefficients at elevated relative humidity. Atmospheric Chemistry and Physics, 2020, 20, 10231-10258.	4.9	19
48	Use of a Lidar Forward Model for Global Comparisons of Cloud Fraction between the ICESat Lidar and the ECMWF Model. Monthly Weather Review, 2008, 136, 3742-3759.	1.4	16
49	An evaluation of operational and research weather forecasts for southern West Africa using observations from the DACCIWA field campaign in Juneâ€“July 2016. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 1121-1148.	2.7	16
50	International Cooperative for Aerosol Prediction Workshop on Aerosol Forecast Verification. Bulletin of the American Meteorological Society, 2011, 92, ES48-ES53.	3.3	14
51	Verification of TMI-Adjusted Rainfall Analyses of Tropical Cyclones at ECMWF Using TRMM Precipitation Radar. Journal of Applied Meteorology and Climatology, 2005, 44, 1677-1690.	1.7	12
52	Properties of reflected sunlight derived from a Green's function method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 72, 201-225.	2.3	11
53	The influence of DACCIWA radiosonde data on the quality of ECMWF analyses and forecasts over southern West Africa. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 1719-1739.	2.7	10
54	Variational assimilation of radar reflectivities in a cirrus model. I: Model description and adjoint sensitivity studies. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 277-300.	2.7	9

#	Article	IF	Citations
55	Variational assimilation of radar reflectivities in a cirrus model. II: Optimal initialization and model bias estimation. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 301-319.	2.7	9
56	A Global Bottomâ€Up Approach to Estimate Fuel Consumed by Fires Using Above Ground Biomass Observations. Geophysical Research Letters, 2021, 48, e2021GL095452.	4.0	9
57	Characterization of errors in cirrus simulations from a cloud resolving model for application in ice water content retrievals. Atmospheric Research, 2001, 59-60, 393-417.	4.1	7
58	A Coupled Evaluation of Operational MODIS and Model Aerosol Products for Maritime Environments Using Sun Photometry: Evaluation of the Fine and Coarse Mode. Remote Sensing, 2022, 14, 2978.	4.0	6
59	MPLNET lidar data assimilation in the ECMWF MACC-II Aerosol system: evaluation of model performances at NCU lidar station. Proceedings of SPIE, 2014, , .	0.8	4
60	Applications of Satellite Observations ofÂVolcanic Ash in Atmospheric DispersionÂModeling. , 2016, , 233-246.		3
61	Corrigendum to "Development towards a global operational aerosol consensus: basic climatological characteristics of the International Cooperative for Aerosol Prediction Multi-Model Ensemble (ICAP-MME)" published in Atmos. Chem. Phys., 15, 335â€“362, 2015. Atmospheric Chemistry and Physics, 2015, 15, 2533-2534.	4.9	2
62	Inferring atmospheric dynamics from aerosol observations in 4Dâ€Var. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 1403-1422.	2.7	2
63	Lidar measurements during a haze episode in Penang, Malaysia and validation of the ECMWF MACC-II model. AIP Conference Proceedings, 2015, , .	0.4	1
64	A 3-D Evaluation of the MACC Reanalysis Dust Product Over Europe Using CALIOP/CALIPSO Satellite Observations. Springer Atmospheric Sciences, 2017, , 795-800.	0.3	1
65	Aerosol Analysis and Forecast in the ECMWF Integrated Forecast System: Evaluation by Means of Case Studies. NATO Science for Peace and Security Series C: Environmental Security, 2011, , 525-528.	0.2	1
66	Biomass Burning Aerosols in the Amazon Basin, Characterised by Lidar, Optical Particle Counters, and Modelling. EPJ Web of Conferences, 2016, 119, 23006.	0.3	0
67	Community Challenges and Prospects in the Operational Forecasting of Extreme Biomass Burning Smoke. , 2021, , .		0