Magdalena A Balmaseda

List of Publications by Year
in descending order

125 papers	35,654 citations	28274 55 h-index	16650 123 g-index
147 all docs	147 docs citations	147 times ranked	26382 citing authors

#	Article	IF	Citations
1	The ERAâ€interim reanalysis: configuration and performance of the data assimilation system. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 553-597.	2.7	20,227
2	The ERAâ€40 reâ€analysis. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 2961-3012.	2.7	6,198
3	Evaluation of the ECMWF ocean reanalysis system ORAS4. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 1132-1161.	2.7	837
4	Distinctive climate signals in reanalysis of global ocean heat content. Geophysical Research Letters, 2013, 40, 1754-1759.	4.0	490
5	SEAS5: the new ECMWF seasonal forecast system. Geoscientific Model Development, 2019, 12, 1087-1117.	3.6	331
6	The ECMWF operational ensemble reanalysisâ€“analysis system for ocean and sea ice: a description of the system and assessment. Ocean Science, 2019, 15, 779-808.	3.4	330
7	The ECMWF Ocean Analysis System: ORA-S3. Monthly Weather Review, 2008, 136, 3018-3034.	1.4	288
8	Earthâ€™s Energy Imbalance. Journal of Climate, 2014, 27, 3129-3144.	3.2	275
9	Global seasonal rainfall forecasts using a coupled oceanâ€“atmosphere model. Nature, 1998, 392, 370-373.	27.8	253
10	Ocean State Estimation for Climate Research. Oceanography, 2009, 22, 160-167.	1.0	228
11	CERAâ€20C: A Coupled Reanalysis of the Twentieth Century. Journal of Advances in Modeling Earth Systems, 2018, 10, 1172-1195.	3.8	212
12	Improved sea level record over the satellite altimetry era (1993â€“2010) from the Climate Change Initiative project. Ocean Science, 2015, 11, 67-82.	3.4	205
13	Toward a Consistent Reanalysis of the Climate System. Bulletin of the American Meteorological Society, 2014, 95, 1235-1248.	3.3	184
14	The role of the ocean in the Maddenâ€“Julian Oscillation: Implications for MJO prediction. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 117-128.	2.7	175
15	Decadal and Seasonal Dependence of ENSO Prediction Skill. Journal of Climate, 1995, 8, 2705-2715.	3.2	166
16	A coupled data assimilation system for climate reanalysis. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 65-78.	2.7	145
17	The new VarEPSâ€monthly forecasting system: A first step towards seamless prediction. Quarterly Journal of the Royal Meteorological Society, 2008, 134, 1789-1799.	2.7	129
18	ECMWF seasonal forecast system 3 and its prediction of sea surface temperature. Climate Dynamics, 2011, 37, 455-471.	3.8	127

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19	Current and Emerging Developments in Subseasonal to Decadal Prediction. Bulletin of the American Meteorological Society, 2020, 101, E869-E896.	3.3	116
20	The new eddy-permitting ORAP5 ocean reanalysis: description, evaluation and uncertainties in climate signals. Climate Dynamics, 2017, 49, 791-811.	3.8	112
21	The PreVOCA experiment: modeling the lower troposphere in the Southeast Pacific. Atmospheric Chemistry and Physics, 2010, 10, 4757-4774.	4.9	109
22	Surface wave effects in the NEMO ocean model: Forced and coupled experiments. Journal of Geophysical Research: Oceans, 2015, 120, 2973-2992.	2.6	109
23	Monthly Forecast of the Maddenâ€“Julian Oscillation Using a Coupled GCM. Monthly Weather Review, 2007, 135, 2700-2715.	1.4	107
24	Tropical Atlantic SST Prediction with Coupled Oceanâ€“Atmosphere GCMs. Journal of Climate, 2006, 19, 6047-6061.	3.2	106
25	Surface warming hiatus caused by increased heat uptake across multiple ocean basins. Geophysical Research Letters, 2014, 41, 7868-7874.	4.0	99
26	How Predictable is the Indian Ocean Dipole?. Monthly Weather Review, 2012, 140, 3867-3884.	1.4	96
27	Predicting Sudden Stratospheric Warming 2018 and Its Climate Impacts With a Multimodel Ensemble. Geophysical Research Letters, 2018, 45, 13,538.	4.0	95
28	Salinity anomaly as a trigger for ENSO events. Scientific Reports, 2014, 4, 6821.	3.3	92
29	Intercomparison of the Arctic sea ice cover in global oceanâ€“sea ice reanalyses from the ORA-IP project. Climate Dynamics, 2017, 49, 1107-1136.	3.8	92
30	Decadal climate variability in the tropical Pacific: Characteristics, causes, predictability, and prospects. Science, 2021, 374, eaay9165.	12.6	92
31	Did the ECMWF Seasonal Forecast Model Outperform Statistical ENSO Forecast Models over the Last 15 Years?. Journal of Climate, 2005, 18, 3240-3249.	3.2	90
32	Comparison of the Atlantic meridional overturning circulation between 1960 and 2007 in six ocean reanalysis products. Climate Dynamics, 2017, 49, 957-982.	3.8	89
33	Ocean heat content variability and change in an ensemble of ocean reanalyses. Climate Dynamics, 2017, 49, 909-930.	3.8	88
34	The Copernicus Marine Environment Monitoring Service Ocean State Report. Journal of Operational Oceanography, 2016, 9, s235-s320.	1.2	86
35	A Comparative Analysis of Upper-Ocean Heat Content Variability from an Ensemble of Operational Ocean Reanalyses. Journal of Climate, 2012, 25, 6905-6929.	3.2	82
36	Evaluation of forecast strategies for seasonal and decadal forecasts in presence of systematic model errors. Climate Dynamics, 2013, 41, 2393-2409.	3.8	81

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37	An assessment of airâ€“sea heat fluxes from ocean and coupled reanalyses. Climate Dynamics, 2017, 49, 983-1008.	3.8	81
38	Toward an Integrated Seasonal Forecasting System for South America. Journal of Climate, 2006, 19, 3704-3721.	3.2	77
39	Impact of 2007 and 2008 Arctic ice anomalies on the atmospheric circulation: Implications for long-range predictions. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 1655-1664.	2.7	77
40	Sensitivity of dynamical seasonal forecasts to ocean initial conditions. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 647-667.	2.7	76
41	A multivariate treatment of bias for sequential data assimilation: Application to the tropical oceans. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 167-179.	2.7	75
42	Ensemble ENSO hindcasts initialized from multiple ocean analyses. Geophysical Research Letters, 2012, 39, .	4.0	73
43	Origin and Impact of Initialization Shocks in Coupled Atmosphereâ€“Ocean Forecasts*. Monthly Weather Review, 2015, 143, 4631-4644.	1.4	70
44	Balanced Ocean-Data Assimilation near the Equator. Journal of Physical Oceanography, 2002, 32, 2509-2519.	1.7	69
45	An Ensemble Generation Method for Seasonal Forecasting with an Oceanâ€“Atmosphere Coupled Model. Monthly Weather Review, 2005, 133, 441-453.	1.4	69
46	Predictability of the mid-latitude Atlantic meridional overturning circulation in a multi-model system. Climate Dynamics, 2013, 41, 775-785.	3.8	69
47	The role of off-equatorial surface temperature anomalies in the 2014 El NiÃ±o prediction. Scientific Reports, 2016, 6, 19677.	3.3	68
48	Salinity Adjustments in the Presence of Temperature Data Assimilation. Monthly Weather Review, 2002, 130, 89-102.	1.4	67
49	Ensemble estimation of backgroundâ€error variances in a threeâ€dimensional variational data assimilation system for the global ocean. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 1071-1094.	2.7	67
50	An ensemble of eddy-permitting global ocean reanalyses from the MyOcean project. Climate Dynamics, 2017, 49, 813-841.	3.8	67
51	Ocean Reanalyses: Recent Advances and Unsolved Challenges. Frontiers in Marine Science, 2019, 6, .	2.5	63
52	Decadal climate prediction with the European Centre for Medium-Range Weather Forecasts coupled forecast system: Impact of ocean observations. Journal of Geophysical Research, 2011, 116, .	3.3	62
53	The Indian Ocean: The Region of Highest Skill Worldwide in Decadal Climate Prediction*. Journal of Climate, 2013, 26, 726-739.	3.2	62
54	Observing System Evaluation Based on Ocean Data Assimilation and Prediction Systems: On-Going Challenges and a Future Vision for Designing and Supporting Ocean Observational Networks. Frontiers in Marine Science, 2019, 6, .	2.5	61

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55	Synthesis of Ocean Observations Using Data Assimilation for Operational, Real-Time and Reanalysis Systems: A More Complete Picture of the State of the Ocean. Frontiers in Marine Science, 2019, 6, .	2.5	60
56	Evaluation of Atmospheric Fields from the ECMWF Seasonal Forecasts over a 15-Year Period. Journal of Climate, 2005, 18, 3250-3269.	3.2	58
57	Ocean Initialization for Seasonal Forecasts. Oceanography, 2009, 22, 154-159.	1.0	57
58	The Importance of Wind and Buoyancy Forcing for the Boundary Density Variations and the Geostrophic Component of the AMOC at 26Â°N. Journal of Physical Oceanography, 2014, 44, 2387-2408.	1.7	56
59	Evolution of Ocean Heat Content Related to ENSO. Journal of Climate, 2019, 32, 3529-3556.	3.2	53
60	Intercomparison and validation of the mixed layer depth fields of global ocean syntheses. Climate Dynamics, 2017, 49, 753-773.	3.8	52
61	Historical reconstruction of the Atlantic Meridional Overturning Circulation from the ECMWF operational ocean reanalysis. Geophysical Research Letters, 2007, 34, .	4.0	51
62	Status and future of global and regional ocean prediction systems. Journal of Operational Oceanography, 2015, 8, s201-s220.	1.2	51
63	Multi-year predictability of climate, drought, and wildfire in southwestern North America. Scientific Reports, 2017, 7, 6568.	3.3	49
64	Observing System Evaluations Using GODAE Systems. Oceanography, 2009, 22, 144-153.	1.0	49
65	On the Energy Exchange between Tropical Ocean Basins Related to ENSO*. Journal of Climate, 2014, 27, 6393-6403.	3.2	48
66	Steric sea level variability (1993â€“2010) in an ensemble of ocean reanalyses and objective analyses. Climate Dynamics, 2017, 49, 709-729.	3.8	48
67	The Curious Case of the EL NiÃ±o That Never Happened: A Perspective from 40 Years of Progress in Climate Research and Forecasting. Bulletin of the American Meteorological Society, 2015, 96, 1647-1665.	3.3	47
68	An ensemble estimation of the variability of upper-ocean heat content over the tropical Atlantic Ocean with multi-ocean reanalysis products. Climate Dynamics, 2012, 39, 1001-1020.	3.8	46
69	How robust is the recent strengthening of the Tropical Pacific trade winds?. Geophysical Research Letters, 2014, 41, 4398-4405.	4.0	45
70	How Predictability Depends on the Nature of Uncertainty in Initial Conditions in a Coupled Model of ENSO. Journal of Climate, 2000, 13, 3298-3313.	3.2	44
71	Unprecedented 2015/2016 Indoâ€Pacific Heat Transfer Speeds Up Tropical Pacific Heat Recharge. Geophysical Research Letters, 2018, 45, 3274-3284.	4.0	43
72	The added value of the multi-system spread information for ocean heat content and steric sea level investigations in the CMEMS GREP ensemble reanalysis product. Climate Dynamics, 2019, 53, 287-312.	3.8	43

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73	ENSO prediction using a dynamical ocean model coupled to statistical atmospheres. Tellus, Series A: Dynamic Meteorology and Oceanography, 1994, 46, 497-511.	1.7	41
74	Impact of Ocean Observation Systems on Ocean Analysis and Seasonal Forecasts. Monthly Weather Review, 2007, 135, 409-429.	1.4	40
75	Global Perspectives on Observing Ocean Boundary Current Systems. Frontiers in Marine Science, 2019, 6, .	2.5	39
76	Consistency and fidelity of Indonesian-throughflow total volume transport estimated by 14 ocean data assimilation products. Dynamics of Atmospheres and Oceans, 2010, 50, 201-223.	1.8	35
77	Observation and integrated Earth-system science: A roadmap for 2016â€“2025. Advances in Space Research, 2016, 57, 2037-2103.	2.6	35
78	Influence of Westerly Wind Events stochasticity on El NiÃ±o amplitude: the case of 2014 vs. 2015. Climate Dynamics, 2019, 52, 7435-7454.	3.8	35
79	Climate drift of AMOC, North Atlantic salinity and arctic sea ice in CFSv2 decadal predictions. Climate Dynamics, 2015, 44, 559-583.	3.8	34
80	Reforecasting the ENSO Events in the Past 57 Years (1958â€“2014). Journal of Climate, 2017, 30, 7669-7693.	3.2	34
81	Westerly Wind Events and the 1997/98 El NiÃ±o Event in the ECMWF Seasonal Forecasting System: A Case Study. Journal of Climate, 2003, 16, 3153-3170.	3.2	28
82	Evaluation of the Tropical Pacific Observing System from the ocean data assimilation perspective. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 2481-2496.	2.7	28
83	Impact of Initial Conditions versus External Forcing in Decadal Climate Predictions: A Sensitivity Experiment*. Journal of Climate, 2015, 28, 4454-4470.	3.2	27
84	Importance of convective parameterization in ENSO predictions. Geophysical Research Letters, 2017, 44, 6334-6342.	4.0	27
85	Assimilation of Altimeter Data in the ECMWF Ocean Analysis System 3. Monthly Weather Review, 2009, 137, 1393-1408.	1.4	26
86	Improved reliability of ENSO hindcasts with multi-ocean analyses ensemble initialization. Climate Dynamics, 2013, 41, 2785-2795.	3.8	26
87	Arctic sea ice in the global eddy-permitting ocean reanalysis ORAP5. Climate Dynamics, 2017, 49, 775-789.	3.8	24
88	Ocean heat content variability in an ensemble of twentieth century ocean reanalyses. Climate Dynamics, 2018, 50, 3783-3798.	3.8	24
89	Observational Needs for Improving Ocean and Coupled Reanalysis, S2S Prediction, and Decadal Prediction. Frontiers in Marine Science, 2019, 6, 391.	2.5	24
90	ENSO prediction using a dynamical ocean model coupled to statistical atmospheres. Tellus, Series A: Dynamic Meteorology and Oceanography, 1994, 46, 497-511.	1.7	21

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91	Impact of the sea surface temperature forcing on hindcasts of Madden-Julian Oscillation events using the ECMWF model. Ocean Science, 2012, 8, 1071-1084.	3.4	21
92	An assessment of upper ocean salinity content from the Ocean Reanalyses Inter-comparison Project (ORA-IP). Climate Dynamics, 2017, 49, 1009-1029.	3.8	21
93	Fourth CLIVAR Workshop on the Evaluation of ENSO Processes in Climate Models: ENSO in a Changing Climate. Bulletin of the American Meteorological Society, 2016, 97, 817-820.	3.3	20
94	Sensitivity of Pacific Ocean Tropical Instability Waves to Initial Conditions. Journal of Physical Oceanography, 2003, 33, 105-121.	1.7	20
95	A surface layer variance heat budget for ENSO. Geophysical Research Letters, 2015, 42, 3529-3537.	4.0	19
96	A Bayesian approach for multi-model downscaling: Seasonal forecasting of regional rainfall and river flows in South America. Meteorological Applications, 2006, 13, 73.	2.1	18
97	Thin Arctic sea ice in L-band observations and an ocean reanalysis. Cryosphere, 2018, 12, 2051-2072.	3.9	17
98	Predicting El NiÃ±o in 2014 and 2015. Scientific Reports, 2018, 8, 10733.	3.3	17
99	Seasonal Forecasting Skill of Seaâ€Level Anomalies in a Multiâ€Model Prediction Framework. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC017060.	2.6	17
100	Interannual-decadal variability of wintertime mixed layer depths in the North Pacific detected by an ensemble of ocean syntheses. Climate Dynamics, 2017, 49, 891-907.	3.8	16
101	Ocean Observations to Improve Our Understanding, Modeling, and Forecasting of Subseasonal-to-Seasonal Variability. Frontiers in Marine Science, 2019, 6, .	2.5	16
102	The representation of winter Northern Hemisphere atmospheric blocking in ECMWF seasonal prediction systems. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 1344-1363.	2.7	16
103	The importance of North Atlantic Ocean transports for seasonal forecasts. Climate Dynamics, 2020, 55, 1995-2011.	3.8	15
104	The Time-Scale-Dependent Response of the Wintertime North Atlantic to Increased Ocean Model Resolution in a Coupled Forecast Model. Journal of Climate, 2020, 33, 3663-3689.	3.2	15
105	Simulation and hindcasts of tropical Pacific Ocean interannual variability. Tellus, Series A: Dynamic Meteorology and Oceanography, 1994, 46, 433-447.	1.7	13
106	Evaluating Twentyâ€Year Trends in Earth's Energy Flows From Observations and Reanalyses. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	13
107	Influence of Oceanic Intraseasonal Kelvin Waves on Eastern Pacific Hurricane Activity. Journal of Climate, 2016, 29, 7941-7955.	3.2	11
108	A Drift-Free Decadal Climate Prediction System for the Community Earth System Model. Journal of Climate, 2019, 32, 5967-5995.	3.2	11

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109	Variability of ENSO Forecast Skill in 2â€Year Global Reforecasts Over the 20th Century. Geophysical Research Letters, 2022, 49, .	4.0	11
110	Year-round impact of winter sea ice thickness observations on seasonal forecasts. Cryosphere, 2021, 15, 325-344.	3.9	10
111	Indian Ocean impact on ENSO evolution 2014â€“2016 in a set of seasonal forecasting experiments. Climate Dynamics, 2021, 56, 2631-2649.	3.8	9
112	Simulation and hindcasts of tropical Pacific Ocean interannual variability. Tellus, Series A: Dynamic Meteorology and Oceanography, 1994, 46, 433-447.	1.7	7
113	The ECMWF Ocean Analysis System: ORA-S3. Monthly Weather Review, 2007, preprint, 1.	1.4	7
114	Improving seasonal forecasting through tropical ocean bias corrections. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 2797-2807.	2.7	6
115	Data assimilation for initialization of seasonal forecasts. Journal of Marine Research, 2017, 75, 331-359.	0.3	6
116	The relative roles of decadal climate variations and changes in the ocean observing system on seasonal prediction skill of tropical Pacific SST. Climate Dynamics, 2021, 56, 3045-3063.	3.8	6
117	Hemispheric Impact of North Atlantic SSTs in Subseasonal Forecasts. Geophysical Research Letters, 2021, 48, e2020GL0911446.	4.0	5
118	Initialization for Seasonal and Decadal Forecasts. , 2010, , .		5
119	Seasonal forecast skill of upper-ocean heat content in coupled high-resolution systems. Climate Dynamics, 2022, 58, 3335-3350.	3.8	5
120	The 20th century global warming signature on the ocean at global and basin scales as depicted from historical reanalyses. International Journal of Climatology, 2021, 41, 5977-5997.	3.5	4
121	Tropical Pacific Airâ€Sea Interaction Processes and Biases in CESM2 and Their Relation to El NiÃ±o Development. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016967.	2.6	4
122	Seasonal and Decadal Prediction. , 2011, , 513-542.		4
123	Editorial for Ocean Reanalysis Intercomparison Special Issue. Climate Dynamics, 2017, 49, 707-708.	3.8	2
124	Intergovernmental Panel for Climate Change (IPCC) and Attribution and Prediction of Climate: Progress since the Fourth Assessment. , 2010, , .		1
125	The ECMWF Perspective. , 2006, , 361-379.		0