Matthew J Martin

List of Publications by Year
in descending order

88 papers	6,584 citations	101543 36 h-index	71685 76 g-index
95 all docs	95 docs citations	95 times ranked	6659 citing authors

#	Article	IF	Citations
1	A multiple length scale correlation operator for ocean data assimilation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 68, 29744.	1.7	37
2	Observation impact statement on satellite sea surface salinity data from two operational global ocean forecasting systems. Journal of Operational Oceanography, 2022, 15, 87-103.	1.2	4
3	Assimilation of sea ice thickness derived from CryoSat-2 along-track freeboard measurements into the Met Office's Forecast Ocean Assimilation ModelÂ(FOAM). Cryosphere, 2022, 16, 61-85.	3.9	9
4	Improving the Met Office's Forecast Ocean Assimilation Model (<scp>FOAM</scp>) with the assimilation of satelliteâ€derived seaâ€ice thickness data from <scp>CryoSat</scp>â€2 and <scp>SMOS</scp> in the Arctic. Quarterly Journal of the Royal Meteorological Society, 2022, 148, 1144-1167.	2.7	11
5	Short-Term Predictability of the Bay of Bengal Region Using a High-Resolution Indian Ocean Model. Marine Geodesy, 2021, 44, 215-237.	2.0	3
6	Improved High Resolution Ocean Reanalyses Using a Simple Smoother Algorithm. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002626.	3.8	2
7	Assimilating realistically simulated wide-swath altimeter observations in a high-resolution shelf-seas forecasting system. Ocean Science, 2021, 17, 1791-1813.	3.4	1
8	The impact of Argo observations in a global weakly coupled oceanâ€“atmosphere data assimilation and shortâ€range prediction system. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 401-414.	2.7	8
9	The Current Configuration of the OSTIA System for Operational Production of Foundation Sea Surface Temperature and Ice Concentration Analyses. Remote Sensing, 2020, 12, 720.	4.0	161
10	Use of Uncertainty Inflation in OSTIA to Account for Correlated Errors in Satellite-Retrieved Sea Surface Temperature Data. Remote Sensing, 2020, 12, 1083.	4.0	1
11	Assessing the Potential Impact of Changes to the Argo and Moored Buoy Arrays in an Operational Ocean Analysis System. Frontiers in Marine Science, 2020, 7, .	2.5	2
12	Sea Ice Thickness Forecast Performance in the Barents Sea. , 2020, , .		3
13	Improvements to feature resolution in the OSTIA sea surface temperature analysis using the NEMOVAR assimilation scheme. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 3609-3625.	2.7	24
14	Synergies in Operational Oceanography: The Intrinsic Need for Sustained Ocean Observations. Frontiers in Marine Science, 2019, 6, .	2.5	39
15	From Observation to Information and Users: The Copernicus Marine Service Perspective. Frontiers in Marine Science, 2019, 6, .	2.5	135
16	Variational bias correction of satellite seaâ€surface temperature data incorporating observations of the bias. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 2733-2754.	2.7	10
17	Satellite Salinity Observing System: Recent Discoveries and the Way Forward. Frontiers in Marine Science, 2019, 6, .	2.5	120
18	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

#	Article	IF	Citations
19	Assimilating satellite seaâ€surface salinity data from SMOS, Aquarius and SMAP into a global ocean forecasting system. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 705-726.	2.7	19
20	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
21	Observational Needs for Improving Ocean and Coupled Reanalysis, S2S Prediction, and Decadal Prediction. Frontiers in Marine Science, 2019, 6, 391.	2.5	24
22	Requirements for an Integrated in situ Atlantic Ocean Observing System From Coordinated Observing System Simulation Experiments. Frontiers in Marine Science, 2019, 6, .	2.5	21
23	Strongly Coupled Data Assimilation Experiments with Linearized Oceanâ€“Atmosphere Balance Relationships. Monthly Weather Review, 2018, 146, 1233-1257.	1.4	11
24	Prospects for seasonal forecasting of iceberg distributions in the North Atlantic. Natural Hazards, 2018, 91, 447-471.	3.4	5
25	CERAâ€20C: A Coupled Reanalysis of the Twentieth Century. Journal of Advances in Modeling Earth Systems, 2018, 10, 1172-1195.	3.8	212
26	Improving the initialisation of the Met Office operational shelf-seas model. Ocean Modelling, 2018, 130, 1-14.	2.4	25
27	The EU-FP7 ERA-CLIM2 Project Contribution to Advancing Science and Production of Earth System Climate Reanalyses. Bulletin of the American Meteorological Society, 2018, 99, 1003-1014.	3.3	26
28	Steric sea level variability (1993â€“2010) in an ensemble of ocean reanalyses and objective analyses. Climate Dynamics, 2017, 49, 709-729.	3.8	48
29	Intercomparison and validation of the mixed layer depth fields of global ocean syntheses. Climate Dynamics, 2017, 49, 753-773.	3.8	52
30	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
31	Ocean heat content variability and change in an ensemble of ocean reanalyses. Climate Dynamics, 2017, 49, 909-930.	3.8	88
32	Reducing ocean model imbalances in the equatorial region caused by data assimilation. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 195-208.	2.7	24
33	An operational analysis system for the global diurnal cycle of sea surface temperature: implementation and validation. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 1787-1803.	2.7	17
34	A real-time ocean reanalyses intercomparison project in the context of tropical pacific observing system and ENSO monitoring. Climate Dynamics, 2017, 49, 3647-3672.	3.8	33
35	Research priorities in support of ocean monitoring and forecasting at the Met Office. Ocean Science, 2016, 12, 217-231.	3.4	16
36	Estimating background error covariance parameters and assessing their impact in the OSTIA system. Remote Sensing of Environment, 2016, 176, 117-138.	11.0	12

#	Article	IF	Citations
37	Suitability of satellite sea surface salinity data for use in assessing and correcting ocean forecasts. Remote Sensing of Environment, 2016, 180, 305-319.	11.0	9
38	Application of Data Assimilation to Ocean and Climate Prediction. , 2016, , 3-10.		0
39	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
40	Impact of assimilating temperature and salinity measurements by animalâ€borne sensors on FOAM ocean model fields. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 2934-2943.	2.7	22
41	Implementing a variational data assimilation system in an operational 1/4 degree global ocean model. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 333-349.	2.7	127
42	Progress and challenges in short- to medium-range coupled prediction. Journal of Operational Oceanography, 2015, 8, s239-s258.	1.2	34
43	Status and future of data assimilation in operational oceanography. Journal of Operational Oceanography, 2015, 8, s28-s48.	1.2	48
44	Use of satellite observations for operational oceanography: recent achievements and future prospects. Journal of Operational Oceanography, 2015, 8, s12-s27.	1.2	64
45	Assessing the impact of observations on ocean forecasts and reanalyses: Part 1, Global studies. Journal of Operational Oceanography, 2015, 8, s49-s62.	1.2	54
46	Recent progress in performance evaluations and near real-time assessment of operational ocean products. Journal of Operational Oceanography, 2015, 8, s221-s238.	1.2	41
47	Assessing the impact of observations on ocean forecasts and reanalyses: Part 2, Regional applications. Journal of Operational Oceanography, 2015, 8, s63-s79.	1.2	55
48	The Ocean Reanalyses Intercomparison Project (ORA-IP). Journal of Operational Oceanography, 2015, 8, s80-s97.	1.2	169
49	Synthesis of new scientific challenges for GODAE OceanView. Journal of Operational Oceanography, 2015, 8, s259-s271.	1.2	9
50	Assessing a New Coupled Data Assimilation System Based on the Met Office Coupled Atmosphereâ€“Landâ€“Oceanâ€“Sea Ice Model. Monthly Weather Review, 2015, 143, 4678-4694.	1.4	89
51	An operational analysis of Lake Surface Water Temperature. Tellus, Series A: Dynamic Meteorology and Oceanography, 2014, 66, 21247.	1.7	18
52	Recent development of the Met Office operational ocean forecasting system: an overview and assessment of the new Global FOAM forecasts. Geoscientific Model Development, 2014, 7, 2613-2638.	3.6	145
53	Demonstrating the complementarity of observations in an operational ocean forecasting system. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 2037-2049.	2.7	36
54	Skillful longâ€range prediction of European and North American winters. Geophysical Research Letters, 2014, 41, 2514-2519.	4.0	618

#	Article	IF	Citations
55	EN4: Quality controlled ocean temperature and salinity profiles and monthly objective analyses with uncertainty estimates. Journal of Geophysical Research: Oceans, 2013, 118, 6704-6716.	2.6	1,117
56	Objective Determination of Feature Resolution in Two Sea Surface Temperature Analyses. Journal of Climate, 2013, 26, 2514-2533.	3.2	31
57	Evaluating a new NEMO-based Persian/Arabian Gulf tidal operational model. Journal of Operational Oceanography, 2013, 6, 3-16.	1.2	10
58	Atmosphere drives recent interannual variability of the Atlantic meridional overturning circulation at 26.5Â°N. Geophysical Research Letters, 2013, 40, 5164-5170.	4.0	90
59	The Mid-Atlantic Current Hindcast. , 2013, , .		0
60	Development of a variational data assimilation system for the diurnal cycle of sea surface temperature. Journal of Geophysical Research: Oceans, 2013, 118, 2845-2862.	2.6	4
61	Daily, Global, High-Resolution SST and Sea Ice Reanalysis for 1985â€“2007 Using the OSTIA System. Journal of Climate, 2012, 25, 6215-6232.	3.2	90
62	GODAE inter-comparisons in the Tasman and Coral Seas. Journal of Operational Oceanography, 2012, 5, 11-24.	1.2	14
63	An operational ocean forecast system incorporating NEMO and SST data assimilation for the tidally driven European North-West shelf. Journal of Operational Oceanography, 2012, 5, 3-17.	1.2	134
64	Assessing equatorial surface currents in the FOAM Global and Indian Ocean models against observations from the global tropical moored buoy array. Journal of Operational Oceanography, 2012, 5, 25-39.	1.2	9
65	The Operational Sea Surface Temperature and Sea Ice Analysis (OSTIA) system. Remote Sensing of Environment, 2012, 116, 140-158.	11.0	904
66	Assimilation of pCO₂ data into a global coupled physicalâ€biogeochemical ocean model. Journal of Geophysical Research, 2012, 117, .	3.3	20
67	Group for High Resolution Sea Surface Temperature (GHRSST) analysis fields inter-comparisonsâ€”Part 2: Near real time web-based level 4 SST Quality Monitor (L4-SQUAM). Deep-Sea Research Part II: Topical Studies in Oceanography, 2012, 77-80, 31-43.	1.4	62
68	Group for High Resolution Sea Surface temperature (GHRSST) analysis fields inter-comparisons. Part 1: A GHRSST multi-product ensemble (GMPE). Deep-Sea Research Part II: Topical Studies in Oceanography, 2012, 77-80, 21-30.	1.4	121
69	Validation of FOAM near-surface ocean current forecasts using Lagrangian drifting buoys. Ocean Science, 2012, 8, 551-565.	3.4	22
70	Assimilating GlobColour ocean colour data into a pre-operational physical-biogeochemical model. Ocean Science, 2012, 8, 751-771.	3.4	42
71	Ocean Forecasting Systems: Product Evaluation and Skill. , 2011, , 611-631.		8
72	Forecasting the ocean state using NEMO:The new FOAM system. Journal of Operational Oceanography, 2010, 3, 3-15.	1.2	88

#	Article	IF	Citations
73	Synthesis and Assimilation Systems - Essential Adjuncts to the Global Ocean Observing System. , 2010, , .		11
74	Validation and Intercomparison Studies Within GODAE. Oceanography, 2009, 22, 128-143.	1.0	47
75	GODAE Systems in Operation. Oceanography, 2009, 22, 80-95.	1.0	93
76	Ocean Data Assimilation Systems for GODAE. Oceanography, 2009, 22, 96-109.	1.0	81
77	Observing System Evaluations Using GODAE Systems. Oceanography, 2009, 22, 144-153.	1.0	49
78	Ocean altimeter assimilation with observationalâ€•and modelâ€bias correction. Quarterly Journal of the Royal Meteorological Society, 2008, 134, 1761-1774.	2.7	48
79	Sea ice concentration and motion assimilation in a sea iceâ"ocean model. Journal of Geophysical Research, 2008, 113, .	3.3	61
80	OSTIA : An operational, high resolution, real time, global sea surface temperature analysis system. , 2007, , .		185
81	Data assimilation in the FOAM operational short-range ocean forecasting system: a description of the scheme and its impact. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 981-995.	2.7	149
82	Influence of systematic error correction on the temporal behavior of an ocean model. Journal of Geophysical Research, 2006, 111, .	3.3	11
83	Assimilation of data into an ocean model with systematic errors near the equator. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 873-893.	2.7	101
84	Assessment of wind-stress errors using bias corrected ocean data assimilation. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 853-871.	2.7	17
85	Estimation of systematic error in an equatorial ocean model using data assimilation. International Journal for Numerical Methods in Fluids, 2002, 40, 435-444.	1.6	19
86	Skill of the Extended Range Prediction (ERP) for Indian Summer Monsoon Rainfall with NCMRWF Global Coupled Modelling System. Quarterly Journal of the Royal Meteorological Society, 0, , .	2.7	1
87	A new global ocean ensemble system at the Met Office: Assessing the impact of hybrid data assimilation and inflation settings. Quarterly Journal of the Royal Meteorological Society, 0, , .	2.7	4
88	The impact of hybrid oceanic data assimilation in a coupled model: a case study of a tropical cyclone. Quarterly Journal of the Royal Meteorological Society, 0, , .	2.7	0