FranÃ§ois Massonnet

List of Publications by Year
in descending order

63 papers	2,532 citations	236925 25 h-index	214800 47 g-index
116 all docs	116 docs citations	116 times ranked	3687 citing authors

#	Article	IF	Citations
1	Optimising assimilation of sea ice concentration in an Earth system model with a multicategory sea ice model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 70, 1435945.	1.7	26
2	PARASO, a circum-Antarctic fully coupled ice-sheetâ€“oceanâ€“sea-iceâ€“atmosphereâ€“land model involving f.ETISh1.7, NEMO3.6, LIM3.6, COSMO5.0 and CLM4.5. Geoscientific Model Development, 2022, 15, 553-594.	3.6	15
3	The EC-Earth3 Earth system model for the Coupled Model Intercomparison Project 6. Geoscientific Model Development, 2022, 15, 2973-3020.	3.6	192
4	Southern Ocean sea ice concentration budgets of five ocean-sea ice reanalyses. Climate Dynamics, 2022, 59, 3265-3285.	3.8	5
5	Summertime changes in climate extremes over the peripheral Arctic regions after a sudden sea ice retreat. Weather and Climate Dynamics, 2022, 3, 555-573.	3.5	2
6	An anatomy of Arctic sea ice forecast biases in the seasonal prediction system with EC-Earth. Climate Dynamics, 2021, 56, 1799-1813.	3.8	7
7	An inter-comparison of the mass budget of the Arctic sea ice in CMIP6 models. Cryosphere, 2021, 15, 951-982.	3.9	42
8	Benefits of sea ice initialization for the interannual-to-decadal climate prediction skill in the Arctic in EC-Earth3. Geoscientific Model Development, 2021, 14, 4283-4305.	3.6	7
9	Sensitivity of Arctic sea ice to melt pond processes and atmospheric forcing: A model study. Ocean Modelling, 2021, 167, 101872.	2.4	5
10	Evaluation of sea-ice thickness from four reanalyses in the Antarctic Weddell Sea. Cryosphere, 2021, 15, 31-47.	3.9	10
11	The potential of numerical prediction systems to support the design of Arctic observing systems: Insights from the <scp>APPLICATE</scp> and <scp>YOPP</scp> projects. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 3863-3877.	2.7	6
12	SITool (v1.0) â€“ a new evaluation tool for large-scale sea ice simulations: application to CMIP6 OMIP. Geoscientific Model Development, 2021, 14, 6331-6354.	3.6	2
13	Replicability of the EC-Earth3 Earth system model under a change in computing environment. Geoscientific Model Development, 2020, 13, 1165-1178.	3.6	37
14	Link Between Autumnal Arctic Sea Ice and Northern Hemisphere Winter Forecast Skill. Geophysical Research Letters, 2020, 47, e2019GL086753.	4.0	9
15	Antarctic Sea Ice Area in CMIP6. Geophysical Research Letters, 2020, 47, e2019GL086729.	4.0	129
16	Making Seasonal Outlooks of Arctic Sea Ice and Atlantic Hurricanes Valuableâ€"Not Just Skillful. Bulletin of the American Meteorological Society, 2020, 101, E36-E42.	3.3	7
17	The Future of Sea Ice Modeling: Where Do We Go from Here?. Bulletin of the American Meteorological Society, 2020, 101, E1304-E1311.	3.3	22
18	Antarctica and the Southern Ocean. Bulletin of the American Meteorological Society, 2020, 101, S287-S320.	3.3	15

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19	Earth System Model Evaluation Tool (ESMValTool) v2.0 â€“ an extended set of large-scale diagnostics for quasi-operational and comprehensive evaluation of Earth system models in CMIP. Geoscientific Model Development, 2020, 13, 3383-3438.	3.6	69
20	Valuable, Not Just Skillfull: Enhancing Seasonal Outlooks of Sea Ice and Hurricanes. Bulletin of the American Meteorological Society, 2020, 101, 48-52.	3.3	0
21	Statistical predictability of the Arctic sea ice volume anomaly: identifying predictors and optimal sampling locations. Cryosphere, 2020, 14, 2409-2428.	3.9	9
22	The Year of Polar Prediction in the Southern Hemisphere (YOPP-SH). Bulletin of the American Meteorological Society, 2020, 101, E1653-E1676.	3.3	24
23	Impact of the ice thickness distribution discretization on the sea ice concentration variability in the NEMO3.6â€“LIM3 global oceanâ€“sea ice model. Geoscientific Model Development, 2020, 13, 4773-4787.	3.6	8
24	Brief communication: Arctic sea ice thickness internal variability and its changes under historical and anthropogenic forcing. Cryosphere, 2020, 14, 3479-3486.	3.9	0
25	An assessment of ten ocean reanalyses in the polar regions. Climate Dynamics, 2019, 52, 1613-1650.	3.8	88
26	Impact of model resolution on Arctic sea ice and North Atlantic Ocean heat transport. Climate Dynamics, 2019, 53, 4989-5017.	3.8	42
27	On the discretization of the ice thickness distribution in the NEMO3.6-LIM3 global oceanâ€“sea ice model. Geoscientific Model Development, 2019, 12, 3745-3758.	3.6	14
28	December 2016: Linking the Lowest Arctic Sea-Ice Extent on Record with the Lowest European Precipitation Event on Record. Bulletin of the American Meteorological Society, 2019, 100, S43-S48.	3.3	9
29	Climate Models as Guidance for the Design of Observing Systems: the Case of Polar Climate and Sea Ice Prediction. Current Climate Change Reports, 2019, 5, 334-344.	8.6	0
30	On the timescales and length scales of the Arctic sea ice thickness anomalies: a study based on 14 reanalyses. Cryosphere, 2019, 13, 521-543.	3.9	9
31	Arctic sea-ice-free season projected to extend into autumn. Cryosphere, 2019, 13, 79-96.	3.9	21
32	An assessment of regional sea ice predictability in the Arctic ocean. Climate Dynamics, 2019, 53, 427-440.	3.8	12
33	The Role of Sea Ice in Sub-seasonal Predictability. , 2019, , 201-221.		12
34	An R package for climate forecast verification. Environmental Modelling and Software, 2018, 103, 29-42.	4.5	27
35	Quantifying climate feedbacks in polar regions. Nature Communications, 2018, 9, 1919.	12.8	254
36	Insights on Sea Ice Data Assimilation from Perfect Model Observing System Simulation Experiments. Journal of Climate, 2018, 31, 5911-5926.	3.2	23

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37	Arctic sea-ice change tied to its mean state through thermodynamic processes. Nature Climate Change, 2018, 8, 599-603.	18.8	68
38	Uncertainty propagation in observational references to climate modelÂscales. Remote Sensing of Environment, 2017, 203, 101-108.	11.0	18
39	Multi-model seasonal forecast of Arctic sea-ice: forecast uncertainty at pan-Arctic and regional scales. Climate Dynamics, 2017, 49, 1399-1410.	3.8	41
40	Relationships between Arctic sea ice drift and strength modelled by NEMO-LIM3.6. Cryosphere, 2017, 11, 2829-2846.	3.9	25
41	The Role of Arctic Sea Ice and Sea Surface Temperatures on the Cold 2015 February Over North America. Bulletin of the American Meteorological Society, 2016, 97, S36-S41.	3.3	8
42	The CMIP6 Sea-Ice Model Intercomparison Project (SIMIP): understanding sea ice through climate-model simulations. Geoscientific Model Development, 2016, 9, 3427-3446.	3.6	83
43	Paving the Way for the Year of Polar Prediction. Bulletin of the American Meteorological Society, 2016, 97, ES85-ES88.	3.3	20
44	Record Low Northern Hemisphere Sea Ice Extent in March 2015. Bulletin of the American Meteorological Society, 2016, 97, S136-S140.	3.3	1
45	Using climate models to estimate the quality of global observational data sets. Science, 2016, 354, 452-455.	12.6	43
46	Benefits of Increasing the Model Resolution for the Seasonal Forecast Quality in EC-Earth. Journal of Climate, 2016, 29, 9141-9162.	3.2	51
47	Clusters of interannual sea ice variability in the northern hemisphere. Climate Dynamics, 2016, 47, 1527-1543.	3.8	11
48	The 2014 High Record of Antarctic Sea Ice Extent. Bulletin of the American Meteorological Society, 2015, 96, S163-S167.	3.3	16
49	Advancements in decadal climate predictability: The role of nonoceanic drivers. Reviews of Geophysics, 2015, 53, 165-202.	23.0	81
50	Assimilation of sea surface temperature, sea ice concentration and sea ice drift in a model of the Southern Ocean. Ocean Modelling, 2015, 93, 22-39.	2.4	22
51	Benefits from representing snow properties and related processes in coupled oceanâ€"sea ice models. Ocean Modelling, 2015, 87, 81-85.	2.4	4
52	Prospects for improved seasonal Arctic sea ice predictions from multivariate data assimilation. Ocean Modelling, 2015, 88, 16-25.	2.4	52
53	The 2014 High Record of Antarctic Sea Ice Extent. Bulletin of the American Meteorological Society, 2015, 96, S163-S167.	3.3	2
54	Modeled Arctic sea ice evolution through 2300 in CMIP5 extended RCPs. Cryosphere, 2014, 8, 1195-1204.	3.9	29

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55	Calibration of sea ice dynamic parameters in an oceanâ€sea ice model using an ensemble Kalman filter. Journal of Geophysical Research: Oceans, 2014, 119, 4168-4184.	2.6	42
56	A model reconstruction of the Antarctic sea ice thickness and volume changes over 1980â€“2008 using data assimilation. Ocean Modelling, 2013, 64, 67-75.	2.4	75
57	On the formulation of snow thermal conductivity in largeâ€scale sea ice models. Journal of Advances in Modeling Earth Systems, 2013, 5, 542-557.	3.8	40
58	How does internal variability influence the ability of CMIP5 models to reproduce the recent trend in Southern Ocean sea ice extent?. Cryosphere, 2013, 7, 451-468.	3.9	135
59	Better constraints on the sea-ice state using global sea-ice data assimilation. Geoscientific Model Development, 2012, 5, 1501-1515.	3.6	23
60	Constraining projections of summer Arctic sea ice. Cryosphere, 2012, 6, 1383-1394.	3.9	239
61	Projected decline in spring snow depth on Arctic sea ice caused by progressively later autumn open ocean freezeâ€up this century. Geophysical Research Letters, 2012, 39, .	4.0	85
62	On the influence of model physics on simulations of Arctic and Antarctic sea ice. Cryosphere, 2011, 5, 687-699.	3.9	62
63	What sea-ice biogeochemical modellers need from observers. Elementa, 0, 4, 000084.	3.2	17