

# Thomas Krumpfen

## List of Publications by Year in descending order

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Version: 2024-02-01

79  
papers

4,461  
citations

136950

32  
h-index

110387

64  
g-index

111  
all docs

111  
docs citations

111  
times ranked

4840  
citing authors

#	ARTICLE	IF	CITATIONS
1	A 10-year record of Arctic summer sea ice freeboard from CryoSat-2. Remote Sensing of Environment, 2022, 268, 112744.	11.0	17
2	Shelf-Sourced Methane in Surface Seawater at the Eurasian Continental Slope (Arctic Ocean). Frontiers in Environmental Science, 2022, 10, .	3.3	3
3	Retrieval and parameterisation of sea-ice bulk density from airborne multi-sensor measurements. Cryosphere, 2022, 16, 259-275.	3.9	6
4	Overview of the MOSAiC expedition: Physical oceanography. Elementa, 2022, 10, .	3.2	54
5	Overview of the MOSAiC expedition: Atmosphere. Elementa, 2022, 10, .	3.2	121
6	Overview of the MOSAiC expedition: Snow and sea ice. Elementa, 2022, 10, .	3.2	91
7	Arctic sea ice anomalies during the MOSAiC winter 2019/20. Cryosphere, 2022, 16, 981-1005.	3.9	7
8	Microplastic ingestion in zooplankton from the Fram Strait in the Arctic. Science of the Total Environment, 2022, 831, 154886.	8.0	48
9	Thermodynamic and dynamic contributions to seasonal Arctic sea ice thickness distributions from airborne observations. Elementa, 2022, 10, .	3.2	15
10	Seasonality and timing of sea ice mass balance and heat fluxes in the Arctic transpolar drift during 2019â€“2020. Elementa, 2022, 10, .	3.2	21
11	Carbon Export in the Seasonal Sea Ice Zone North of Svalbard From Winter to Late Summer. Frontiers in Marine Science, 2021, 7, .	2.5	26
12	Interannual variability in Transpolar Drift summer sea ice thickness and potential impact of Atlantification. Cryosphere, 2021, 15, 2575-2591.	3.9	21
13	Recent observations of superimposed ice and snow ice on sea ice in the northwestern Weddell Sea. Cryosphere, 2021, 15, 4165-4178.	3.9	6
14	MOSAiC drift expedition from October 2019 to July 2020: sea ice conditions from space and comparison with previous years. Cryosphere, 2021, 15, 3897-3920.	3.9	45
15	Significant variability of structure and predictability of Arctic Ocean surface pathways affects basin-wide connectivity. Communications Earth & Environment, 2021, 2, .	6.8	10
16	An Adaptive Approach to Derive Sea Ice Draft from Upward-Looking Acoustic Doppler Current Profilers (ADCPs), Validated by Upward-Looking Sonar (ULS) Data. Remote Sensing, 2021, 13, 4335.	4.0	3
17	Sea-ice derived meltwater stratification slows the biological carbon pump: results from continuous observations. Nature Communications, 2021, 12, 7309.	12.8	31
18	On the Variability of Stratification in the Freshwater-Influenced Laptev Sea Region. Frontiers in Marine Science, 2020, 7, .	2.5	17

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19	Large-Scale Variability of Physical and Biological Sea-Ice Properties in Polar Oceans. <i>Frontiers in Marine Science</i> , 2020, 7, .	2.5	26
20	Microplastics in sea ice and seawater beneath ice floes from the Arctic Ocean. <i>Scientific Reports</i> , 2020, 10, 5004.	3.3	163
21	Satellite Observations for Detecting and Forecasting Sea-Ice Conditions: A Summary of Advances Made in the SPICES Project by the EU's Horizon 2020 Programme. <i>Remote Sensing</i> , 2020, 12, 1214.	4.0	16
22	New observations of the distribution, morphology and dissolution dynamics of cryogenic gypsum in the Arctic Ocean. <i>Cryosphere</i> , 2020, 14, 1795-1808.	3.9	11
23	The MOSAiC ice floe: sediment-laden survivor from the Siberian shelf. <i>Cryosphere</i> , 2020, 14, 2173-2187.	3.9	59
24	Satellite-based sea ice thickness changes in the Laptev Sea from 2002 to 2017: comparison to mooring observations. <i>Cryosphere</i> , 2020, 14, 2189-2203.	3.9	19
25	Sea Ice and Water Mass Influence Dimethylsulfide Concentrations in the Central Arctic Ocean. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	13
26	Fram Strait sea ice export affected by thinning: comparing high-resolution simulations and observations. <i>Climate Dynamics</i> , 2019, 53, 3257-3270.	3.8	16
27	Arctic warming interrupts the Transpolar Drift and affects long-range transport of sea ice and ice-rafted matter. <i>Scientific Reports</i> , 2019, 9, 5459.	3.3	108
28	Arctic sea ice is an important temporal sink and means of transport for microplastic. <i>Nature Communications</i> , 2018, 9, 1505.	12.8	670
29	Thin Sea Ice, Thick Snow, and Widespread Negative Freeboard Observed During NAO2015 North of Svalbard. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 1156-1176.	2.6	58
30	The Transpolar Drift conveys methane from the Siberian Shelf to the central Arctic Ocean. <i>Scientific Reports</i> , 2018, 8, 4515.	3.3	28
31	Properties of Sediment Trap Catchment Areas in Fram Strait: Results From Lagrangian Modeling and Remote Sensing. <i>Frontiers in Marine Science</i> , 2018, 5, .	2.5	16
32	Predicted Ice Images PRIIMA: Methodology and System Evaluation. , 2018, , .		0
33	Satellite-derived sea ice export and its impact on Arctic ice mass balance. <i>Cryosphere</i> , 2018, 12, 3017-3032.	3.9	45
34	Radium Isotopes Across the Arctic Ocean Show Time Scales of Water Mass Ventilation and Increasing Shelf Inputs. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 4853-4873.	2.6	39
35	Marine litter on deep Arctic seafloor continues to increase and spreads to the North at the HAUSGARTEN observatory. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2017, 120, 88-99.	1.4	148
36	Influence of snow depth and surface flooding on light transmission through antarctic pack ice. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 2108-2119.	2.6	37

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37	Sediment entrainment into sea ice and transport in the Transpolar Drift: A case study from the Laptev Sea in winter 2011/2012. <i>Continental Shelf Research</i> , 2017, 141, 1-10.	1.8	29
38	Dynamic benthic megafaunal communities: Assessing temporal variations in structure, composition and diversity at the Arctic deep-sea observatory HAUSGARTEN between 2004 and 2015. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2017, 122, 81-94.	1.4	31
39	Satellite-observed drop of Arctic sea ice growth in winter 2015-2016. <i>Geophysical Research Letters</i> , 2017, 44, 3236-3245.	4.0	46
40	High Quantities of Microplastic in Arctic Deep-Sea Sediments from the HAUSGARTEN Observatory. <i>Environmental Science &amp; Technology</i> , 2017, 51, 11000-11010.	10.0	630
41	Vast Quantities of Microplastics in Arctic Sea Ice- A Prime Temporary Sink for Plastic Litter and a Medium of Transport. , 2017, , 75-76.		12
42	The winter pack-ice zone provides a sheltered but food-poor habitat for larval Antarctic krill. <i>Nature Ecology and Evolution</i> , 2017, 1, 1853-1861.	7.8	96
43	Antarctic pack ice algal distribution: Floe-scale spatial variability and predictability from physical parameters. <i>Geophysical Research Letters</i> , 2017, 44, 7382-7390.	4.0	28
44	Mechanisms of fast-ice development in the south-eastern Laptev Sea: a case study for winter of 2007/08 and 2009/10. <i>Polar Research</i> , 2017, 36, 1411-1440.	1.6	11
45	Ice Algae-Produced Carbon Is Critical for Overwintering of Antarctic Krill <i>Euphausia superba</i> . <i>Frontiers in Marine Science</i> , 2017, 4, .	2.5	55
46	Winter sea ice export from the Laptev Sea preconditions the local summer sea ice cover and fast ice decay. <i>Cryosphere</i> , 2017, 11, 2383-2391.	3.9	25
47	Sea ice origin and sea ice retreat as possible drivers of variability in Arctic marine protist composition. <i>Marine Ecology - Progress Series</i> , 2017, 571, 43-57.	1.9	18
48	Recent summer sea ice thickness surveys in Fram Strait and associated ice volume fluxes. <i>Cryosphere</i> , 2016, 10, 523-534.	3.9	64
49	Diazotroph Diversity in the Sea Ice, Melt Ponds, and Surface Waters of the Eurasian Basin of the Central Arctic Ocean. <i>Frontiers in Microbiology</i> , 2016, 7, 1884.	3.5	39
50	Episodic warming of near-bottom waters under the Arctic sea ice on the central Laptev Sea shelf. <i>Geophysical Research Letters</i> , 2016, 43, 264-272.	4.0	36
51	Sea-ice retreat controls timing of summer plankton blooms in the Eastern Arctic Ocean. <i>Geophysical Research Letters</i> , 2016, 43, 12,493.	4.0	39
52	Regional- and local-scale variations in benthic megafaunal composition at the Arctic deep-sea observatory HAUSGARTEN. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2016, 108, 58-72.	1.4	25
53	Under-ice distribution of polar cod <i>Boreogadus saida</i> in the central Arctic Ocean and their association with sea-ice habitat properties. <i>Polar Biology</i> , 2016, 39, 981-994.	1.2	85
54	Implementation of an On-Site Sea Ice Information System. , 2015, , .		0

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55	Seasonal and interannual variability of fast ice extent in the southeastern Laptev Sea between 1999 and 2013. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 7791-7806.	2.6	40
56	Validation of SMOS sea ice thickness retrieval in the northern Baltic Sea. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2015, 67, 24617.	1.7	8
57	SMOS-derived thin sea ice thickness: algorithm baseline, product specifications and initial verification. <i>Cryosphere</i> , 2014, 8, 997-1018.	3.9	150
58	Empirical sea ice thickness retrieval during the freeze-up period from SMOS high incident angle observations. <i>Cryosphere</i> , 2014, 8, 439-451.	3.9	90
59	First tests on near real time ice type classification in Antarctica. , 2014, , .		5
60	Sea Ice Thickness Surveying with Airborne Electromagnetics - Grounded Ridges and Ice Shear Zones near Barrow, Alaska. , 2014, , .		0
61	Improvement and Sensitivity Analysis of Thermal Thin-Ice Thickness Retrievals. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2013, 51, 3306-3318.	6.3	37
62	Export of Algal Biomass from the Melting Arctic Sea Ice. <i>Science</i> , 2013, 339, 1430-1432.	12.6	383
63	Future projections of the Greenland ice sheet energy balance driving the surface melt. <i>Cryosphere</i> , 2013, 7, 1-18.	3.9	74
64	Cross-shelf transport of warm and saline water in response to sea ice drift on the Laptev Sea shelf. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 563-576.	2.6	25
65	Corrigendum to "A combined approach of remote sensing and airborne electromagnetics to determine the volume of polynya sea ice in the Laptev Sea" published in <i>The Cryosphere</i> , 7, 947-959, 2013. <i>Cryosphere</i> , 2013, 7, 1107-1108.	3.9	1
66	Large-scale ice thickness distribution of first-year sea ice in spring and summer north of Svalbard. <i>Annals of Glaciology</i> , 2013, 54, 13-18.	1.4	27
67	Variability and trends in Laptev Sea ice outflow between 1992-2011. <i>Cryosphere</i> , 2013, 7, 349-363.	3.9	48
68	A combined approach of remote sensing and airborne electromagnetics to determine the volume of polynya sea ice in the Laptev Sea. <i>Cryosphere</i> , 2013, 7, 947-959.	3.9	4
69	Daily thin-ice thickness maps from modis thermal infrared imagery. , 2012, , .		1
70	Impact of Siberian coastal polynyas on shelf-derived Arctic Ocean halocline waters. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	30
71	Sea ice production and water mass modification in the eastern Laptev Sea. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	19
72	HELIOS, a nadir-looking sea ice monitoring camera. <i>Cold Regions Science and Technology</i> , 2011, 65, 308-313.	3.5	4

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73	Validating satellite derived and modelled sea-ice drift in the Laptev Sea with in situ measurements from the winter of 2007/2008. <i>Polar Research</i> , 2011, 30, 7218.	1.6	35
74	Evaluation of a polynya flux model by means of thermal infrared satellite estimates. <i>Annals of Glaciology</i> , 2011, 52, 52-60.	1.4	9
75	Cross-validation of polynya monitoring methods from multisensor satellite and airborne data: a case study for the Laptev Sea. <i>Canadian Journal of Remote Sensing</i> , 2010, 36, S196-S210.	2.4	37
76	Impact of the Arctic Ocean Atlantic water layer on Siberian shelf hydrography. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	51
77	Wind-driven diversion of summer river runoff preconditions the Laptev Sea coastal polynya hydrography: Evidence from summer-to-winter hydrographic records of 2007â€“2009. <i>Continental Shelf Research</i> , 2010, 30, 1656-1664.	1.8	27
78	Observations of supercooling and frazil ice formation in the Laptev Sea coastal polynya. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	32
79	Comparison of helicopter-borne thin sea ice thickness profiles with polarimetric signatures of dual-pol Terrasar-X data. , 2009, , .		2