Stefan Hendricks

List of Publications by Year
in descending order

91 papers	4,307 citations	172457 29 h-index	118850 62 g-index
130 all docs	130 docs citations	130 times ranked	3890 citing authors

#	Article	IF	Citations
1	CryoSatâ€2 estimates of Arctic sea ice thickness and volume. Geophysical Research Letters, 2013, 40, 732-737.	4.0	597
2	Export of Algal Biomass from the Melting Arctic Sea Ice. Science, 2013, 339, 1430-1432.	12.6	383
3	Changes in Arctic sea ice result in increasing light transmittance and absorption. Geophysical Research Letters, 2012, 39, .	4.0	260
4	Sensitivity of CryoSat-2 Arctic sea-ice freeboard and thickness on radar-waveform interpretation. Cryosphere, 2014, 8, 1607-1622.	3.9	232
5	A weekly Arctic sea-ice thickness data record from merged CryoSat-2 and SMOS satellite data. Cryosphere, 2017, 11, 1607-1623.	3.9	177
6	Helicopter-borne measurements of sea ice thickness, using a small and lightweight, digital EM system. Journal of Applied Geophysics, 2009, 67, 234-241.	2.1	176
7	Reduced ice thickness in Arctic Transpolar Drift favors rapid ice retreat. Geophysical Research Letters, 2008, 35, .	4.0	170
8	Synoptic airborne thickness surveys reveal state of Arctic sea ice cover. Geophysical Research Letters, 2010, 37, .	4.0	124
9	Altimetry for the future: Building on 25 years of progress. Advances in Space Research, 2021, 68, 319-363.	2.6	119
10	Arctic warming interrupts the Transpolar Drift and affects long-range transport of sea ice and ice-rafted matter. Scientific Reports, 2019, 9, 5459.	3.3	108
11	Overview of the MOSAiC expedition: Snow and sea ice. Elementa, 2022, 10, .	3.2	91
12	A sea-ice thickness retrieval model for 1.4 GHz radiometry and application to airborne measurements over low salinity sea-ice. Cryosphere, 2010, 4, 583-592.	3.9	78
13	SMOS sea ice product: Operational application and validation in the Barents Sea marginal ice zone. Remote Sensing of Environment, 2016, 180, 264-273.	11.0	68
14	Copernicus Marine Service Ocean State Report, Issue 3. Journal of Operational Oceanography, 2019, 12, S1-S123.	1.2	66
15	Impact of snow accumulation on CryoSatâ€2 range retrievals over Arctic sea ice: An observational approach with buoy data. Geophysical Research Letters, 2015, 42, 4447-4455.	4.0	65
16	Recent summer sea ice thickness surveys in Fram Strait and associated ice volume fluxes. Cryosphere, 2016, 10, 523-534.	3.9	64
17	The MOSAiC ice floe: sediment-laden survivor from the Siberian shelf. Cryosphere, 2020, 14, 2173-2187.	3.9	59
18	Empirical parametrization of Envisat freeboard retrieval of Arctic and Antarctic sea ice based on CryoSat-2: progress in the ESA Climate Change Initiative. Cryosphere, 2018, 12, 2437-2460.	3.9	57

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19	Variability of <scp>A</scp>rctic seaâ€ice topography and its impact on the atmospheric surface drag. Journal of Geophysical Research: Oceans, 2014, 119, 6743-6762.	2.6	56
20	Seasonal forecasts of Arctic sea ice initialized with observations of ice thickness. Geophysical Research Letters, 2012, 39, .	4.0	53
21	Orientation, location, and velocity of Saturn's bow shock: Initial results from the Cassini spacecraft. Journal of Geophysical Research, 2006, 111, .	3.3	50
22	Satelliteâ€observed drop of Arctic sea ice growth in winter 2015â€“2016. Geophysical Research Letters, 2017, 44, 3236-3245.	4.0	46
23	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
24	Comparison of the Sea-ice thickness distribution in the Lincoln Sea and adjacent Arctic Ocean in 2004 and 2005. Annals of Glaciology, 2006, 44, 247-252.	1.4	43
25	Retrieving Sea Level and Freeboard in the Arctic: A Review of Current Radar Altimetry Methodologies and Future Perspectives. Remote Sensing, 2019, 11, 881.	4.0	40
26	Mapping arctic landfast ice extent using L-band synthetic aperture radar interferometry. Remote Sensing of Environment, 2011, 115, 3029-3043.	11.0	39
27	Copernicus Marine Service Ocean State Report, Issue 5. Journal of Operational Oceanography, 2021, 14, 1-185.	1.2	39
28	Cross-validation of polynya monitoring methods from multisensor satellite and airborne data: a case study for the Laptev Sea. Canadian Journal of Remote Sensing, 2010, 36, S196-S210.	2.4	37
29	Ice and Snow Thickness Variability and Change in the High Arctic Ocean Observed by In Situ Measurements. Geophysical Research Letters, 2017, 44, 10,462.	4.0	37
30	Thickness and surface-properties of different sea-ice regimes within the Arctic Trans Polar Drift: Data from summers 2001, 2004 and 2007. Journal of Geophysical Research, 2010, 115, .	3.3	31
31	Sensitivity of simulated Arctic sea ice to realistic ice thickness distributions and snow parameterizations. Journal of Geophysical Research: Oceans, 2014, 119, 559-571.	2.6	30
32	Snow and Ice Thickness Retrievals Using GNSS-R: Preliminary Results of the MOSAiC Experiment. Remote Sensing, 2020, 12, 4038.	4.0	29
33	Large-scale ice thickness distribution of first-year sea ice in spring and summer north of Svalbard. Annals of Glaciology, 2013, 54, 13-18.	1.4	27
34	About the consistency between Envisat and CryoSat-2 radar freeboard retrieval over Antarctic sea ice. Cryosphere, 2016, 10, 1415-1425.	3.9	27
35	Sea-ice thickness from field measurements in the northwestern Barents Sea. Journal of Geophysical Research: Oceans, 2017, 122, 1497-1512.	2.6	27
36	Large-Scale Variability of Physical and Biological Sea-Ice Properties in Polar Oceans. Frontiers in Marine Science, 2020, 7, .	2.5	26

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37	CryoSat Ice Baseline-D validation and evolutions. Cryosphere, 2020, 14, 1889-1907.	3.9	26
38	Evaluation of CryoSat-2 derived sea-ice freeboard over fast ice in McMurdo Sound, Antarctica. Journal of Glaciology, 2015, 61, 285-300.	2.2	25
39	An Assessment of Stateâ€ofâ€theâ€Art Mean Sea Surface and Geoid Models of the Arctic Ocean: Implications for Sea Ice Freeboard Retrieval. Journal of Geophysical Research: Oceans, 2017, 122, 8593-8613.	2.6	24
40	Taking a look at both sides of the ice: comparison of ice thickness and drift speed as observed from moored, airborne and shore-based instruments near Barrow, Alaska. Annals of Glaciology, 2015, 56, 363-372.	1.4	23
41	The Arctic. Bulletin of the American Meteorological Society, 2021, 102, S263-S316.	3.3	23
42	Towards an estimation of sub-sea-ice platelet-layer volume with multi-frequency electromagnetic induction sounding. Annals of Glaciology, 2015, 56, 137-146.	1.4	22
43	Evidence for an increasing role of ocean heat in Arctic winter sea ice growth. Journal of Climate, 2021, , 1-42.	3.2	22
44	Snow Depth and Air Temperature Seasonality on Sea Ice Derived From Snow Buoy Measurements. Frontiers in Marine Science, 2021, 8, .	2.5	22
45	Spatiotemporal evolution of melt ponds on Arctic sea ice. Elementa, 2022, 10, .	3.2	22
46	A glimpse beneath Antarctic sea ice: Platelet layer volume from multifrequency electromagnetic induction sounding. Geophysical Research Letters, 2016, 43, 222-231.	4.0	21
47	Interannual variability in Transpolar Drift summer sea ice thickness and potential impact of Atlantification. Cryosphere, 2021, 15, 2575-2591.	3.9	21
48	The Impact of Geophysical Corrections on Sea-Ice Freeboard Retrieved from Satellite Altimetry. Remote Sensing, 2016, 8, 317.	4.0	20
49	Variability in Saturn's bow shock and magnetopause from Pioneer and Voyager: Probabilistic predictions and initial observations by Cassini. Geophysical Research Letters, 2005, 32, .	4.0	19
50	Sea ice production and water mass modification in the eastern Laptev Sea. Journal of Geophysical Research, 2011, 116, .	3.3	19
51	Sea-ice thickness variability in Storfjorden, Svalbard. Annals of Glaciology, 2011, 52, 61-68.	1.4	19
52	Satellite-based sea ice thickness changes in the Laptev Sea from 2002 to 2017: comparison to mooring observations. Cryosphere, 2020, 14, 2189-2203.	3.9	19
53	Surface-based Ku- and Ka-band polarimetric radar for sea ice studies. Cryosphere, 2020, 14, 4405-4426.	3.9	18
54	Effects of surface roughness on sea ice freeboard retrieval with an Airborne Ku-Band SAR radar altimeter. , 2010, , .		17

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55	Improved 1D inversions for sea ice thickness and conductivity from electromagnetic induction data: Inclusion of nonlinearities caused by passive bucking. Geophysics, 2016, 81, WA45-WA58.	2.6	17
56	Biogeochemical Impact of Snow Cover and Cyclonic Intrusions on the Winter Weddell Sea Ice Pack. Journal of Geophysical Research: Oceans, 2017, 122, 9548-9571.	2.6	17
57	Snowfall and snow accumulation during the MOSAiC winter and spring seasons. Cryosphere, 2022, 16, 2373-2402.	3.9	17
58	Satellite Observations for Detecting and Forecasting Sea-Ice Conditions: A Summary of Advances Made in the SPICES Project by the EUâ€™s Horizon 2020 Programme. Remote Sensing, 2020, 12, 1214.	4.0	16
59	Progressing from 1D to 2D and 3D near-surface airborne electromagnetic mapping with a multisensor, airborne sea-ice explorer. Geophysics, 2012, 77, WB109-WB117.	2.6	15
60	Thermodynamic and dynamic contributions to seasonal Arctic sea ice thickness distributions from airborne observations. Elementa, 2022, 10, .	3.2	15
61	Improved retrieval of sea ice thickness from SMOS and CryoSat-2. , 2015, , .		14
62	Arctic in Rapid Transition: Priorities for the future of marine and coastal research in the Arctic. Polar Science, 2016, 10, 364-373.	1.2	14
63	Arctic Mission Benefit Analysis: impact of sea ice thickness, freeboard, and snow depth products on sea ice forecast performance. Cryosphere, 2018, 12, 2569-2594.	3.9	13
64	The 2017 Reversal of the Beaufort Gyre: Can Dynamic Thickening of a Seasonal Ice Cover During a Reversal Limit Summer Ice Melt in the Beaufort Sea?. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016796.	2.6	13
65	Role of Ice Dynamics in the Sea Ice Mass Balance. Eos, 2008, 89, 515-516.	0.1	12
66	Comparing Coincident Elevation and Freeboard From IceBridge and Five Different CryoSat-2 Retrackers. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 1219-1229.	6.3	11
67	A New Structure for the Sea Ice Essential Climate Variables of the Global Climate Observing System. Bulletin of the American Meteorological Society, 2022, 103, E1502-E1521.	3.3	10
68	Validation of SMOS sea ice thickness retrieval in the northern Baltic Sea. Tellus, Series A: Dynamic Meteorology and Oceanography, 2015, 67, 24617.	1.7	8
69	High-Resolution Snow Depth on Arctic Sea Ice From Low-Altitude Airborne Microwave Radar Data. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16.	6.3	7
70	Arctic sea ice anomalies during the MOSAiC winter 2019/20. Cryosphere, 2022, 16, 981-1005.	3.9	7
71	Surface Properties Linked to Retrieval Uncertainty of Satellite Sea-Ice Thickness with Upward-Looking Sonar Measurements. Remote Sensing, 2020, 12, 3094.	4.0	6
72	Effects of decimetre-scale surface roughness on L-band brightness temperature of sea ice. Cryosphere, 2020, 14, 461-476.	3.9	6

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73	Retrieval and parameterisation of sea-ice bulk density from airborne multi-sensor measurements. Cryosphere, 2022, 16, 259-275.	3.9	6
74	Sea ice surface temperatures from helicopter-borne thermal infrared imaging during the MOSAiC expedition. Scientific Data, 2022, 9, .	5.3	6
75	Water content estimates of a first-year sea-ice pressure ridge keel from surface-nuclear magnetic resonance tomography. Annals of Glaciology, 2013, 54, 33-43.	1.4	5
76	Classification of CryoSat-2 Radar Echoes. Springer Earth System Sciences, 2015, , 149-158.	0.2	5
77	HELIOS, a nadir-looking sea ice monitoring camera. Cold Regions Science and Technology, 2011, 65, 308-313.	3.5	4
78	Measurements of 540â€“1740 MHz Brightness Temperatures of Sea Ice During the Winter of the MOSAiC Campaign. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-11.	6.3	4
79	A combined approach of remote sensing and airborne electromagnetics to determine the volume of polynya sea ice in the Laptev Sea. Cryosphere, 2013, 7, 947-959.	3.9	4
80	Brief communication: Increasing shortwave absorption over the Arctic Ocean is not balanced by trends in the Antarctic. Cryosphere, 2017, 11, 2111-2116.	3.9	3
81	Noise characteristics of an electromagnetic sea-ice thickness sounder on a fixed wing aircraft. Journal of Applied Geophysics, 2011, 75, 87-98.	2.1	2
82	Introducing a new generation multi-sensor airborne system for mapping sea ice cover of polar oceans. First Break, 2012, 30, .	0.4	2
83	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 The Cryosphere, 7, 947â˘’959, 2013. Cryosphere, 2013, 7, 1107-1108.	3.9	1
84	Not extinct yet: innovations in frequency domain HEM triggered by sea ice studies. Exploration Geophysics, 2015, 46, 64-73.	1.1	1
85	First Data from MAiSIE, a Multi-sensor, Airborne Sea Ice Explorer. , 2012, , .		1
86	Proudly Presenting MAiSIE, a New Airborne EM Platform for Polar Research. , 2012, , .		0
87	Characteristics of CryoSat-2 signals over multi-year and seasonal sea ice. , 2013, , .		0
88	Sea Ice Thickness Surveying with Airborne Electromagnetics - Grounded Ridges and Ice Shear Zones near Barrow, Alaska. , 2014, , .		0
89	Rigorous Assessment of Mission Impact on Sea Ice Forecast Quality. , 2018, , .		0
90	Noise Sources for a Fixed Wing Airborne EM System, Quantified by Means of 3D Finite Element Modelling. , 2010, , .		0

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91	Developments in frequency domain AEM: Tackling drift and noise with a ferrite-core, receiver triplet.. ASEG Extended Abstracts, 2013, 2013, 1-4.	0.1	0