Stefan Hendricks

List of Publications by Year
in descending order

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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	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
2	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
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: Snow and sea ice. Elementa, 2022, 10, .	3.2	91
5	Arctic sea ice anomalies during the MOSAiC winter 2019/20. Cryosphere, 2022, 16, 981-1005.	3.9	7
6	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
7	Thermodynamic and dynamic contributions to seasonal Arctic sea ice thickness distributions from airborne observations. Elementa, 2022, 10, .	3.2	15
8	Spatiotemporal evolution of melt ponds on Arctic sea ice. Elementa, 2022, 10, .	3.2	22
9	Snowfall and snow accumulation during the MOSAiC winter and spring seasons. Cryosphere, 2022, 16, 2373-2402.	3.9	17
10	Sea ice surface temperatures from helicopter-borne thermal infrared imaging during the MOSAiC expedition. Scientific Data, 2022, 9, .	5.3	6
11	Evidence for an increasing role of ocean heat in Arctic winter sea ice growth. Journal of Climate, 2021, , 1-42.	3.2	22
12	Snow Depth and Air Temperature Seasonality on Sea Ice Derived From Snow Buoy Measurements. Frontiers in Marine Science, 2021, 8, .	2.5	22
13	Interannual variability in Transpolar Drift summer sea ice thickness and potential impact of Atlantification. Cryosphere, 2021, 15, 2575-2591.	3.9	21
14	Altimetry for the future: Building on 25 years of progress. Advances in Space Research, 2021, 68, 319-363.	2.6	119
15	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
16	Copernicus Marine Service Ocean State Report, Issue 5. Journal of Operational Oceanography, 2021, 14, 1-185.	1.2	39
17	The Arctic. Bulletin of the American Meteorological Society, 2021, 102, S263-S316.	3.3	23
18	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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19	Snow and Ice Thickness Retrievals Using GNSS-R: Preliminary Results of the MOSAiC Experiment. Remote Sensing, 2020, 12, 4038.	4.0	29
20	Surface Properties Linked to Retrieval Uncertainty of Satellite Sea-Ice Thickness with Upward-Looking Sonar Measurements. Remote Sensing, 2020, 12, 3094.	4.0	6
21	Effects of decimetre-scale surface roughness on L-band brightness temperature of sea ice. Cryosphere, 2020, 14, 461-476.	3.9	6
22	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
23	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
24	CryoSat Ice Baseline-D validation and evolutions. Cryosphere, 2020, 14, 1889-1907.	3.9	26
25	The MOSAiC ice floe: sediment-laden survivor from the Siberian shelf. Cryosphere, 2020, 14, 2173-2187.	3.9	59
26	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
27	Surface-based Ku- and Ka-band polarimetric radar for sea ice studies. Cryosphere, 2020, 14, 4405-4426.	3.9	18
28	Copernicus Marine Service Ocean State Report, Issue 3. Journal of Operational Oceanography, 2019, 12, S1-S123.	1.2	66
29	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
30	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
31	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
32	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
33	Rigorous Assessment of Mission Impact on Sea Ice Forecast Quality. , 2018, , .		0
34	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
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	Satelliteâ€observed drop of Arctic sea ice growth in winter 2015â€“2016. Geophysical Research Letters, 2017, 44, 3236-3245.	4.0	46

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37	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
38	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
39	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
40	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
41	A weekly Arctic sea-ice thickness data record from merged CryoSat-2 and SMOS satellite data. Cryosphere, 2017, 11, 1607-1623.	3.9	177
42	The Impact of Geophysical Corrections on Sea-Ice Freeboard Retrieved from Satellite Altimetry. Remote Sensing, 2016, 8, 317.	4.0	20
43	Recent summer sea ice thickness surveys in Fram Strait and associated ice volume fluxes. Cryosphere, 2016, 10, 523-534.	3.9	64
44	About the consistency between Envisat and CryoSat-2 radar freeboard retrieval over Antarctic sea ice. Cryosphere, 2016, 10, 1415-1425.	3.9	27
45	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
46	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
47	A glimpse beneath Antarctic sea ice: Platelet layer volume from multifrequency electromagnetic induction sounding. Geophysical Research Letters, 2016, 43, 222-231.	4.0	21
48	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
49	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
50	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
51	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
52	Not extinct yet: innovations in frequency domain HEM triggered by sea ice studies. Exploration Geophysics, 2015, 46, 64-73.	1.1	1
53	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
54	Improved retrieval of sea ice thickness from SMOS and CryoSat-2. , 2015, , .		14

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55	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
56	Classification of CryoSat-2 Radar Echoes. Springer Earth System Sciences, 2015, , 149-158.	0.2	5
57	Sensitivity of CryoSat-2 Arctic sea-ice freeboard and thickness on radar-waveform interpretation. Cryosphere, 2014, 8, 1607-1622.	3.9	232
58	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
59	Sea Ice Thickness Surveying with Airborne Electromagnetics - Grounded Ridges and Ice Shear Zones near Barrow, Alaska. , 2014, , .		0
60	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
61	Export of Algal Biomass from the Melting Arctic Sea Ice. Science, 2013, 339, 1430-1432.	12.6	383
62	CryoSatâ€2 estimates of Arctic sea ice thickness and volume. Geophysical Research Letters, 2013, 40, 732-737.	4.0	597
63	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
64	Characteristics of CryoSat-2 signals over multi-year and seasonal sea ice. , 2013, , .		0
65	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
66	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
67	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
68	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
69	Seasonal forecasts of Arctic sea ice initialized with observations of ice thickness. Geophysical Research Letters, 2012, 39, .	4.0	53
70	Proudly Presenting MAiSIE, a New Airborne EM Platform for Polar Research. , 2012, , .		0
71	Changes in Arctic sea ice result in increasing light transmittance and absorption. Geophysical Research Letters, 2012, 39, .	4.0	260
72	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

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73	Introducing a new generation multi-sensor airborne system for mapping sea ice cover of polar oceans. First Break, 2012, 30, .	0.4	2
74	First Data from MAiSIE, a Multi-sensor, Airborne Sea Ice Explorer. , 2012, , .		1
75	Sea ice production and water mass modification in the eastern Laptev Sea. Journal of Geophysical Research, 2011, 116, .	3.3	19
76	HELIOS, a nadir-looking sea ice monitoring camera. Cold Regions Science and Technology, 2011, 65, 308-313.	3.5	4
77	Mapping arctic landfast ice extent using L-band synthetic aperture radar interferometry. Remote Sensing of Environment, 2011, 115, 3029-3043.	11.0	39
78	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
79	Sea-ice thickness variability in Storfjorden, Svalbard. Annals of Glaciology, 2011, 52, 61-68.	1.4	19
80	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
81	Effects of surface roughness on sea ice freeboard retrieval with an Airborne Ku-Band SAR radar altimeter. , 2010, , .		17
82	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
83	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
84	Synoptic airborne thickness surveys reveal state of Arctic sea ice cover. Geophysical Research Letters, 2010, 37, .	4.0	124
85	Noise Sources for a Fixed Wing Airborne EM System, Quantified by Means of 3D Finite Element Modelling. , 2010, , .		0
86	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
87	Role of Ice Dynamics in the Sea Ice Mass Balance. Eos, 2008, 89, 515-516.	0.1	12
88	Reduced ice thickness in Arctic Transpolar Drift favors rapid ice retreat. Geophysical Research Letters, 2008, 35, .	4.0	170
89	Orientation, location, and velocity of Saturn's bow shock: Initial results from the Cassini spacecraft. Journal of Geophysical Research, 2006, 111, .	3.3	50
90	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

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91	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