

# Stephen E L Howell

## List of Publications by Year in descending order

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Version: 2024-02-01

69  
papers

10,433  
citations

172207

29  
h-index

98622

67  
g-index

90  
all docs

90  
docs citations

90  
times ranked

16295  
citing authors

#	ARTICLE	IF	CITATIONS
1	Snow Depth on Sea Ice and on Land in the Canadian Arctic from Long-Term Observations. <i>Atmosphere - Ocean</i> , 2023, 61, 217-233.	0.6	4
2	Representation of sea ice regimes in the Western Ross Sea, Antarctica, based on satellite imagery and AMPS wind data. <i>Climate Dynamics</i> , 2023, 60, 227-238.	1.7	1
3	Generating large-scale sea ice motion from Sentinel-1 and the RADARSAT Constellation Mission using the Environment and Climate Change Canada automated sea ice tracking system. <i>Cryosphere</i> , 2022, 16, 1125-1139.	1.5	7
4	A New Structure for the Sea Ice Essential Climate Variables of the Global Climate Observing System. <i>Bulletin of the American Meteorological Society</i> , 2022, 103, E1502-E1521.	1.7	10
5	Increasing Multiyear Sea Ice Loss in the Beaufort Sea: A New Export Pathway for the Diminishing Multiyear Ice Cover of the Arctic Ocean. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	10
6	C- and L-band SAR signatures of Arctic sea ice during freeze-up. <i>Remote Sensing of Environment</i> , 2022, 279, 113129.	4.6	4
7	Headline Indicators for Global Climate Monitoring. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E20-E37.	1.7	27
8	Impact of 1, 2 and 4°C of global warming on ship navigation in the Canadian Arctic. <i>Nature Climate Change</i> , 2021, 11, 673-679.	8.1	61
9	First Observations of a Transient Polynya in the Last Ice Area North of Ellesmere Island. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL095099.	1.5	8
10	Anomalous collapses of Nares Strait ice arches leads to enhanced export of Arctic sea ice. <i>Nature Communications</i> , 2021, 12, 1.	5.8	8,040
11	Year-Around C- and L-Band Observation Around the Mosaic Ice Floe with High Spatial and Temporal Resolution. , 2021, , .		0
12	Seasonal evolution of L-band SAR backscatter over landfast Arctic sea ice. <i>Remote Sensing of Environment</i> , 2020, 251, 112049.	4.6	11
13	Long-Term Analysis of Sea Ice Drift in the Western Ross Sea, Antarctica, at High and Low Spatial Resolution. <i>Remote Sensing</i> , 2020, 12, 1402.	1.8	11
14	Constraining Reanalysis Snowfall Over the Arctic Ocean Using CloudSat Observations. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086426.	1.5	13
15	Local-scale variability of snow density on Arctic sea ice. <i>Cryosphere</i> , 2020, 14, 4323-4339.	1.5	28
16	Spring melt pond fraction in the Canadian Arctic Archipelago predicted from RADARSAT-2. <i>Cryosphere</i> , 2020, 14, 4675-4686.	1.5	4
17	Estimation of Level and Deformed First-Year Sea Ice Surface Roughness in the Canadian Arctic Archipelago from C- and L-Band Synthetic Aperture Radar. <i>Canadian Journal of Remote Sensing</i> , 2019, 45, 457-475.	1.1	13
18	Estimating melt onset over Arctic sea ice from time series multi-sensor Sentinel-1 and RADARSAT-2 backscatter. <i>Remote Sensing of Environment</i> , 2019, 229, 48-59.	4.6	18

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19	Snow Thickness Estimation on First-Year Sea Ice from Late Winter Spaceborne Scatterometer Backscatter Variance. <i>Remote Sensing</i> , 2019, 11, 417.	1.8	12
20	Sensitivity of Ice Drift to Form Drag and Ice Strength Parameterization in a Coupled Ice-Ocean Model. <i>Atmosphere - Ocean</i> , 2019, 57, 329-349.	0.6	9
21	The Dynamic Response of Sea Ice to Warming in the Canadian Arctic Archipelago. <i>Geophysical Research Letters</i> , 2019, 46, 13119-13125.	1.5	19
22	Comparing L- and C-band synthetic aperture radar estimates of sea ice motion over different ice regimes. <i>Remote Sensing of Environment</i> , 2018, 204, 380-391.	4.6	29
23	What historical landfast ice observations tell us about projected ice conditions in Arctic archipelagoes and marginal seas under anthropogenic forcing. <i>Cryosphere</i> , 2018, 12, 3577-3588.	1.5	7
24	Assessment of the High Resolution SAR Mode of the RADARSAT Constellation Mission for First Year Ice and Multiyear Ice Characterization. <i>Remote Sensing</i> , 2018, 10, 594.	1.8	36
25	Optimal Compact Polarimetric Parameters and Texture Features for Discriminating Sea Ice Types during Winter and Advanced Melt. <i>Canadian Journal of Remote Sensing</i> , 2018, 44, 390-411.	1.1	9
26	Evaluating RADARSAT-2 for the Monitoring of Lake Ice Phenology Events in Mid-Latitudes. <i>Remote Sensing</i> , 2018, 10, 1641.	1.8	14
27	Semi-Automated Classification of Lake Ice Cover Using Dual Polarization RADARSAT-2 Imagery. <i>Remote Sensing</i> , 2018, 10, 1727.	1.8	18
28	Estimating lake ice thickness in Central Ontario. <i>PLoS ONE</i> , 2018, 13, e0208519.	1.1	17
29	Canadian snow and sea ice: assessment of snow, sea ice, and related climate processes in Canada's Earth system model and climate-prediction system. <i>Cryosphere</i> , 2018, 12, 1137-1156.	1.5	27
30	Canadian snow and sea ice: historical trends and projections. <i>Cryosphere</i> , 2018, 12, 1157-1176.	1.5	95
31	Incidence Angle Dependence of HH-Polarized C- and L-Band Wintertime Backscatter Over Arctic Sea Ice. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2018, 56, 6686-6698.	2.7	43
32	Linking Regional Winter Sea Ice Thickness and Surface Roughness to Spring Melt Pond Fraction on Landfast Arctic Sea Ice. <i>Remote Sensing</i> , 2018, 10, 37.	1.8	6
33	Temporal and Spatial Patterns of Ship Traffic in the Canadian Arctic from 1990 to 2015 + Supplementary Appendix 1: Figs. S1-S7 (See Article Tools). <i>Arctic</i> , 2018, 71, .	0.2	124
34	Navigating pressured ice: Risks and hazards for winter resource-based shipping in the Canadian Arctic. <i>Ocean and Coastal Management</i> , 2017, 137, 57-67.	2.0	19
35	Effect of Snow Salinity on CryoSat-2 Arctic First-Year Sea Ice Freeboard Measurements. <i>Geophysical Research Letters</i> , 2017, 44, 10,419.	1.5	63
36	Winter Sentinel-1 Backscatter as a Predictor of Spring Arctic Sea Ice Melt Pond Fraction. <i>Geophysical Research Letters</i> , 2017, 44, 12,262.	1.5	17

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37	Improving Sea Ice Characterization in Dry Ice Winter Conditions Using Polarimetric Parameters from C- and L-Band SAR Data. <i>Remote Sensing</i> , 2017, 9, 1270.	1.8	25
38	Intercomparison of snow depth retrievals over Arctic sea ice from radar data acquired by Operation IceBridge. <i>Cryosphere</i> , 2017, 11, 2571-2593.	1.5	48
39	Landfast ice thickness in the Canadian Arctic Archipelago from observations and models. <i>Cryosphere</i> , 2016, 10, 1463-1475.	1.5	38
40	Recent changes in sea ice area flux through the Beaufort Sea during the summer. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 2659-2672.	1.0	22
41	The influence of declining sea ice on shipping activity in the Canadian Arctic. <i>Geophysical Research Letters</i> , 2016, 43, 12,146.	1.5	108
42	Regional variability of a projected sea ice-free Arctic during the summer months. <i>Geophysical Research Letters</i> , 2016, 43, 256-263.	1.5	66
43	Detection of melt onset over the northern Canadian Arctic Archipelago sea ice from RADARSAT, 1997-2014. <i>Remote Sensing of Environment</i> , 2016, 178, 59-69.	4.6	33
44	Separability of sea ice types from wide swath C- and L-band synthetic aperture radar imagery acquired during the melt season. <i>Remote Sensing of Environment</i> , 2016, 174, 314-328.	4.6	57
45	Using RADARSAT to Identify Sea Ice Ridges and their Implications for Shipping in Canada's Hudson Strait. <i>Arctic</i> , 2016, 69, 421.	0.2	6
46	Ice thickness in the Northwest Passage. <i>Geophysical Research Letters</i> , 2015, 42, 7673-7680.	1.5	72
47	Evaluation of Operation IceBridge quick-look snow depth estimates on sea ice. <i>Geophysical Research Letters</i> , 2015, 42, 9302-9310.	1.5	30
48	Multiyear ice replenishment in the Canadian Arctic Archipelago: 1997-2013. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 1623-1637.	1.0	15
49	Changing sea ice conditions and marine transportation activity in Canadian Arctic waters between 1990 and 2012. <i>Climatic Change</i> , 2014, 123, 161-173.	1.7	123
50	Extending the QuikSCAT record of seasonal melt-freeze transitions over Arctic sea ice using ASCAT. <i>Remote Sensing of Environment</i> , 2014, 141, 214-230.	4.6	50
51	Sea-Ice Motion and Flux within the Prince Gustaf Adolf Sea, Queen Elizabeth Islands, Canada during 2010. <i>Atmosphere - Ocean</i> , 2013, 51, 1-17.	0.6	18
52	Recent changes in the exchange of sea ice between the Arctic Ocean and the Canadian Arctic Archipelago. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 3595-3607.	1.0	69
53	Recent extreme light sea ice years in the Canadian Arctic Archipelago: 2011 and 2012 eclipse 1998 and 2007. <i>Cryosphere</i> , 2013, 7, 1753-1768.	1.5	14
54	Variability and change in the Canadian cryosphere. <i>Climatic Change</i> , 2012, 115, 59-88.	1.7	79

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55	Landfast Sea Ice Conditions in the Canadian Arctic: 1983 – 2009. <i>Arctic</i> , 2012, 65, .	0.2	43
56	Trends and variability in summer sea ice cover in the Canadian Arctic based on the Canadian Ice Service Digital Archive, 1960–2008 and 1968–2008. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	116
57	Correction to “Trends and variability in summer sea ice cover in the Canadian Arctic based on the Canadian Ice Service Digital Archive, 1960–2008 and 1968–2008”, <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	7
58	Origins and Levels of Seasonal Forecast Skill for Sea Ice in Hudson Bay Using Canonical Correlation Analysis. <i>Journal of Climate</i> , 2011, 24, 1378-1395.	1.2	22
59	Extreme low sea ice years in the Canadian Arctic Archipelago: 1998 versus 2007. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	15
60	Variability in ice phenology on Great Bear Lake and Great Slave Lake, Northwest Territories, Canada, from SeaWinds/QuikSCAT: 2000–2006. <i>Remote Sensing of Environment</i> , 2009, 113, 816-834.	4.6	78
61	Fusing AMSR-E and QuikSCAT Imagery for Improved Sea Ice Recognition. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2009, 47, 1980-1989.	2.7	29
62	Sea ice conditions and melt season duration variability within the Canadian Arctic Archipelago: 1979–2008. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	95
63	Changing sea ice melt parameters in the Canadian Arctic Archipelago: Implications for the future presence of multiyear ice. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	38
64	Multi-year sea-ice conditions in the western Canadian arctic archipelago region of the northwest passage: 1968–2006. <i>Atmosphere - Ocean</i> , 2008, 46, 229-242.	0.6	38
65	Long-Range Prediction of the Shipping Season in Hudson Bay: A Statistical Approach. <i>Weather and Forecasting</i> , 2007, 22, 1063-1075.	0.5	19
66	Surface-Based Polarimetric C-Band Scatterometer for Field Measurements of Sea Ice. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2007, 45, 3405-3416.	2.7	62
67	Application of a SeaWinds/QuikSCAT sea ice melt algorithm for assessing melt dynamics in the Canadian Arctic Archipelago. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	48
68	The use of operational ice charts for evaluating passive microwave ice concentration data. <i>Atmosphere - Ocean</i> , 2003, 41, 317-331.	0.6	105
69	Sea Ice Dynamics in Hudson Strait and its Impact on Winter Shipping Operations.. <i>Journal of Geophysical Research: Oceans</i> , 0, , .	1.0	2