

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

172457

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98798

67
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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. | 1.6 | 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. | 3.8 | 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. | 3.9 | 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. | 3.3 | 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, . | 4.0 | 10 |
| 6 | C- and L-band SAR signatures of Arctic sea ice during freeze-up. <i>Remote Sensing of Environment</i> , 2022, 279, 113129. | 11.0 | 4 |
| 7 | Headline Indicators for Global Climate Monitoring. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E20-E37. | 3.3 | 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. | 18.8 | 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. | 4.0 | 8 |
| 10 | Anomalous collapses of Nares Strait ice arches leads to enhanced export of Arctic sea ice. <i>Nature Communications</i> , 2021, 12, 1. | 12.8 | 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. | 11.0 | 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. | 4.0 | 11 |
| 14 | Constraining Reanalysis Snowfall Over the Arctic Ocean Using CloudSat Observations. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086426. | 4.0 | 13 |
| 15 | Local-scale variability of snow density on Arctic sea ice. <i>Cryosphere</i> , 2020, 14, 4323-4339. | 3.9 | 28 |
| 16 | Spring melt pond fraction in the Canadian Arctic Archipelago predicted from RADARSAT-2. <i>Cryosphere</i> , 2020, 14, 4675-4686. | 3.9 | 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. | 2.4 | 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. | 11.0 | 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. | 4.0 | 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. | 1.6 | 9 |
| 21 | The Dynamic Response of Sea Ice to Warming in the Canadian Arctic Archipelago. <i>Geophysical Research Letters</i> , 2019, 46, 13119-13125. | 4.0 | 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. | 11.0 | 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. | 3.9 | 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. | 4.0 | 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. | 2.4 | 9 |
| 26 | Evaluating RADARSAT-2 for the Monitoring of Lake Ice Phenology Events in Mid-Latitudes. <i>Remote Sensing</i> , 2018, 10, 1641. | 4.0 | 14 |
| 27 | Semi-Automated Classification of Lake Ice Cover Using Dual Polarization RADARSAT-2 Imagery. <i>Remote Sensing</i> , 2018, 10, 1727. | 4.0 | 18 |
| 28 | Estimating lake ice thickness in Central Ontario. <i>PLoS ONE</i> , 2018, 13, e0208519. | 2.5 | 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. | 3.9 | 27 |
| 30 | Canadian snow and sea ice: historical trends and projections. <i>Cryosphere</i> , 2018, 12, 1157-1176. | 3.9 | 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. | 6.3 | 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. | 4.0 | 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, . | 0.4 | 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. | 4.4 | 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. | 4.0 | 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. | 4.0 | 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. | 4.0 | 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. | 3.9 | 48 |
| 39 | Landfast ice thickness in the Canadian Arctic Archipelago from observations and models. <i>Cryosphere</i> , 2016, 10, 1463-1475. | 3.9 | 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. | 2.6 | 22 |
| 41 | The influence of declining sea ice on shipping activity in the Canadian Arctic. <i>Geophysical Research Letters</i> , 2016, 43, 12,146. | 4.0 | 108 |
| 42 | Regional variability of a projected sea ice-free Arctic during the summer months. <i>Geophysical Research Letters</i> , 2016, 43, 256-263. | 4.0 | 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. | 11.0 | 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. | 11.0 | 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. | 0.4 | 6 |
| 46 | Ice thickness in the Northwest Passage. <i>Geophysical Research Letters</i> , 2015, 42, 7673-7680. | 4.0 | 72 |
| 47 | Evaluation of Operation IceBridge quick-look snow depth estimates on sea ice. <i>Geophysical Research Letters</i> , 2015, 42, 9302-9310. | 4.0 | 30 |
| 48 | Multiyear ice replenishment in the Canadian Arctic Archipelago: 1997-2013. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 1623-1637. | 2.6 | 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. | 3.6 | 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. | 11.0 | 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. | 1.6 | 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. | 2.6 | 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. | 3.9 | 14 |
| 54 | Variability and change in the Canadian cryosphere. <i>Climatic Change</i> , 2012, 115, 59-88. | 3.6 | 79 |

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|----|---|------|-----------|
| 55 | Landfast Sea Ice Conditions in the Canadian Arctic: 1983 – 2009. <i>Arctic</i> , 2012, 65, . | 0.4 | 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. | 3.2 | 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. | 11.0 | 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. | 6.3 | 29 |
| 62 | Sea ice conditions and melt season duration variability within the Canadian Arctic Archipelago: 1979–2008. <i>Geophysical Research Letters</i> , 2009, 36, . | 4.0 | 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. | 1.6 | 38 |
| 65 | Long-Range Prediction of the Shipping Season in Hudson Bay: A Statistical Approach. <i>Weather and Forecasting</i> , 2007, 22, 1063-1075. | 1.4 | 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. | 6.3 | 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. | 1.6 | 105 |
| 69 | Sea Ice Dynamics in Hudson Strait and its Impact on Winter Shipping Operations.. <i>Journal of Geophysical Research: Oceans</i> , 0, , . | 2.6 | 2 |