Edward Hanna

List of Publications by Year
in descending order

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140 papers	10,757 citations	31949 53 h-index	33869 99 g-index
150 all docs	150 docs citations	150 times ranked	9761 citing authors

#	Article	IF	Citations
1	Extended North Atlantic Oscillation and Greenland Blocking Indices 1800â€“2020 from New Meteorological Reanalysis. Atmosphere, 2022, 13, 436.	1.0	4
2	Temporal Variability of Surface Reflectance Supersedes Spatial Resolution in Defining Greenlandâ€™s Bare-Ice Albedo. Remote Sensing, 2022, 14, 62.	1.8	4
3	Greenland surface air temperature changes from 1981 to 2019 and implications for iceâ€sheet melt and massâ€balance change. International Journal of Climatology, 2021, 41, E1336.	1.5	65
4	The missing pieces for better future predictions in subarctic ecosystems: A TornetrÃsk case study. Ambio, 2021, 50, 375-392.	2.8	6
5	Brief communication: <scp>CMIP6</scp> does not suggest any atmospheric blocking increase in summer over Greenland by 2100. International Journal of Climatology, 2021, 41, 2589-2596.	1.5	19
6	The role of blocking circulation and emerging open water feedbacks on Greenland coldâ€season air temperature variability over the last century. International Journal of Climatology, 2021, 41, E2778.	1.5	5
7	Forecasting the severity of the Newfoundland iceberg season using a control systems model. Journal of Operational Oceanography, 2021, 14, 24-36.	0.6	1
8	Winter Arctic Amplification at the synoptic timescale, 1979â€“2018, its regional variation and response to tropical and extratropical variability. Climate Dynamics, 2021, 56, 457-473.	1.7	12
9	A Combined Control Systems and Machine Learning Approach to Forecasting Iceberg Flux off Newfoundland. Sustainability, 2021, 13, 7705.	1.6	0
10	Effects of the tropospheric largeâ€scale circulation on European winter temperatures during the period of amplified Arctic warming. International Journal of Climatology, 2020, 40, 509-529.	1.5	43
11	Mass balance of the Greenland Ice Sheet from 1992 to 2018. Nature, 2020, 579, 233-239.	13.7	434
12	Mass balance of the ice sheets and glaciers â€“ Progress since AR5 and challenges. Earth-Science Reviews, 2020, 201, 102976.	4.0	44
13	Extreme weather and climate events in northern areas: A review. Earth-Science Reviews, 2020, 209, 103324.	4.0	92
14	The Polar Vortex and Extreme Weather: The Beast from the East in Winter 2018. Atmosphere, 2020, 11, 664.	1.0	22
15	Glacier algae accelerate melt rates on the south-western Greenland Ice Sheet. Cryosphere, 2020, 14, 309-330.	1.5	78
16	GrSMBMIP: intercomparison of the modelled 1980â€“2012 surface mass balance over the Greenland Ice Sheet. Cryosphere, 2020, 14, 3935-3958.	1.5	111
17	Earth, Air, Fire and Ice: Exploring Links between Human-induced Global Warming, Polar Ice Melt and Local Scale Extreme Weather. , 2020, , 47-64.		2
18	Greenland Ice Sheet late-season melt: investigating multiscale drivers of K-transect events. Cryosphere, 2019, 13, 2241-2257.	1.5	8

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19	State of the Climate in 2018. Bulletin of the American Meteorological Society, 2019, 100, Si-S306.	1.7	168
20	Bacterial Dynamics in Supraglacial Habitats of the Greenland Ice Sheet. Frontiers in Microbiology, 2019, 10, 1366.	1.5	23
21	Complex systems modelling for statistical forecasting of winter North Atlantic atmospheric variability: A new approach to North Atlantic seasonal forecasting. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 2568-2585.	1.0	10
22	Greenland blocking index daily series 1851â€“2015: Analysis of changes in extremes and links with North Atlantic and UK climate variability and change. International Journal of Climatology, 2018, 38, 3546-3564.	1.5	54
23	North Atlantic circulation indices: links with summer and winter UK temperature and precipitation and implications for seasonal forecasting. International Journal of Climatology, 2018, 38, e660.	1.5	48
24	Meteorological effects of the 20 March 2015 solar eclipse over the United Kingdom. Weather, 2018, 73, 71-80.	0.6	8
25	Prospects for seasonal forecasting of iceberg distributions in the North Atlantic. Natural Hazards, 2018, 91, 447-471.	1.6	5
26	Greenland coastal air temperatures linked to Baffin Bay and Greenland Sea ice conditions during autumn through regional blocking patterns. Climate Dynamics, 2018, 50, 83-100.	1.7	22
27	Arctic amplification metrics. International Journal of Climatology, 2018, 38, 4384-4394.	1.5	37
28	The Greenland and Antarctic ice sheets under 1.5 Â°C global warming. Nature Climate Change, 2018, 8, 1053-1061.	8.1	135
29	The â€œWarmâ€Arctic/Coldâ€•continentsâ€•pattern during 1901â€“2010. International Journal of Climatology, 2018, 38, 5245-5254.	1.5	21
30	Anomalous blocking over Greenland preceded the 2013 extreme early melt of local sea ice. Annals of Glaciology, 2018, 59, 181-190.	2.8	13
31	Brief communication: Recent changes in summer Greenland blocking captured by none of the CMIP5 models. Cryosphere, 2018, 12, 3287-3292.	1.5	59
32	State of the Climate in 2017. Bulletin of the American Meteorological Society, 2018, 99, Si-S310.	1.7	160
33	Mass balance of the Antarctic Ice Sheet from 1992 to 2017. Nature, 2018, 558, 219-222.	13.7	759
34	Simple Statistical Probabilistic Forecasts of the Winter NAO. Weather and Forecasting, 2017, 32, 1585-1601.	0.5	34
35	High resolution (1 km) positive degree-day modelling of Greenland ice sheet surface mass balance, 1870â€“2012 using reanalysis data. Journal of Glaciology, 2017, 63, 176-193.	1.1	35
36	Greenland Ice Sheet Surface Mass Loss: Recent Developments in Observation and Modeling. Current Climate Change Reports, 2017, 3, 345-356.	2.8	94

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37	Drivers and potential predictability of summer time North Atlantic polar front jet variability. Climate Dynamics, 2017, 48, 3869-3887.	1.7	32
38	Can Arctic warming influence UK extreme weather?. Weather, 2017, 72, 346-352.	0.6	17
39	Surface Air Temperature Fluctuations and Lapse Rates on Olivares Gamma Glacier, Rio Olivares Basin, Central Chile, from a Novel Meteorological Sensor Network. Advances in Meteorology, 2017, 2017, 1-15.	0.6	8
40	Tracking Nonlinear Correlation for Complex Dynamic Systems Using a Windowed Error Reduction Ratio Method. Complexity, 2017, 2017, 1-14.	0.9	5
41	State of the Climate in 2016. Bulletin of the American Meteorological Society, 2017, 98, Si-S280.	1.7	132
42	Greenland Blocking Index 1851â€“2015: a regional climate change signal. International Journal of Climatology, 2016, 36, 4847-4861.	1.5	182
43	Arctic cut-off high drives the poleward shift of a new Greenland melting record. Nature Communications, 2016, 7, 11723.	5.8	67
44	State of the Climate in 2015. Bulletin of the American Meteorological Society, 2016, 97, Si-S275.	1.7	142
45	Inferring the variation of climatic and glaciological contributions to West Greenland iceberg discharge in the twentieth century. Cold Regions Science and Technology, 2016, 121, 167-178.	1.6	16
46	The solar eclipse: a natural meteorological experiment. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150225.	1.6	25
47	Nonlinear response of mid-latitude weather to the changing Arctic. Nature Climate Change, 2016, 6, 992-999.	8.1	268
48	Meteorological effects of the solar eclipse of 20 March 2015: analysis of UK Met Office automatic weather station data and comparison with automatic weather station data from the Faroes and Iceland. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150212.	1.6	17
49	Controls on the transport of oceanic heat to Kangerdlugssuaq Glacier, East Greenland. Journal of Glaciology, 2016, 62, 1167-1180.	1.1	33
50	A daily Azoresâ€“Iceland North Atlantic Oscillation index back to 1850. Geoscience Data Journal, 2015, 2, 12-24.	1.8	35
51	Modelling twentieth century global ocean circulation and iceberg flux at 48Â°N: implications for west Greenland iceberg discharge. Progress in Oceanography, 2015, 138, 194-210.	1.5	15
52	Albedo decline on Greenland's Mittivakkat Gletscher in a warming climate. International Journal of Climatology, 2015, 35, 2294-2307.	1.5	15
53	The Melting Arctic and Midlatitude Weather Patterns: Are They Connected?*. Journal of Climate, 2015, 28, 7917-7932.	1.2	320
54	Recent seasonal asymmetric changes in the NAO (a marked summer decline and increased winter) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Climatology, 2015, 35, 2540-2554.	1.5	138

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55	Drivers of North Atlantic Polar Front jet stream variability. International Journal of Climatology, 2015, 35, 1697-1720.	1.5	94
56	Decadal slowdown of a land-terminating sector of the Greenland Ice Sheet despite warming. Nature, 2015, 526, 692-695.	13.7	113
57	Mass loss and imbalance of glaciers along the Andes Cordillera to the sub-Antarctic islands. Global and Planetary Change, 2015, 133, 109-119.	1.6	52
58	State of the Climate in 2014. Bulletin of the American Meteorological Society, 2015, 96, ES1-ES32.	1.7	78
59	Greenland precipitation trends in a longâ€term instrumental climate context (1890â€“2012): evaluation of coastal and ice core records. International Journal of Climatology, 2015, 35, 303-320.	1.5	84
60	Incorporating topographic indices into dynamic ecosystem modelling using LPJâ€GUESS. Ecohydrology, 2014, 7, 1147-1162.	1.1	13
61	State of the Climate in 2013. Bulletin of the American Meteorological Society, 2014, 95, S1-S279.	1.7	138
62	Resolving the Beaufort Sea High using synoptic climatological methods. International Journal of Climatology, 2014, 34, 3312-3319.	1.5	14
63	A century of variation in the dependence of Greenland iceberg calving on ice sheet surface mass balance and regional climate change. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20130662.	1.0	53
64	Atmospheric and oceanic influence on mass balance of northern North Atlantic region land-terminating glaciers. Geografiska Annaler, Series A: Physical Geography, 2014, 96, n/a-n/a.	0.6	6
65	Synoptic climatology of cold air drainage in the Derwent Valley, Peak District, UK. Meteorological Applications, 2014, 21, 161-170.	0.9	17
66	An analysis of the climate of Macaronesia, 1865â€“2012. International Journal of Climatology, 2014, 34, 604-622.	1.5	63
67	Spatial and temporal seasonal trends in coastal upwelling off Northwest Africa, 1981â€“2012. Deep-Sea Research Part I: Oceanographic Research Papers, 2014, 86, 94-111.	0.6	161
68	Three-dimensional SOlar RAdiation Model (SORAM) and its application to 3-D urban planning. Solar Energy, 2014, 101, 63-73.	2.9	50
69	Signature of the North Atlantic Oscillation on British solar radiation availability and PV potential: The winter zonal seesaw. Solar Energy, 2014, 107, 210-219.	2.9	13
70	Correlation of oscillatory behaviour in Matlab using wavelets. Computers and Geosciences, 2014, 70, 206-212.	2.0	22
71	Atmospheric and oceanic climate forcing of the exceptional Greenland ice sheet surface melt in summer 2012. International Journal of Climatology, 2014, 34, 1022-1037.	1.5	182
72	United Kingdom solar eclipse of 20 March 2015 weather effects - can you help?. Weather, 2014, 69, 351-351.	0.6	2

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73	Examination of a physically based, highâ€resolution, distributed Arctic temperatureâ€index melt model, on Midtre LovÃ©nbreen, Svalbard. Hydrological Processes, 2014, 28, 134-149.	1.1	14
74	Coastal Greenland air temperature extremes and trends 1890â€“2010: annual and monthly analysis. International Journal of Climatology, 2014, 34, 1472-1487.	1.5	46
75	The influence of North Atlantic atmospheric and oceanic forcing effects on 1900â€“2010 Greenland summer climate and ice melt/runoff. International Journal of Climatology, 2013, 33, 862-880.	1.5	193
76	Twentieth-Century Global-Mean Sea Level Rise: Is the Whole Greater than the Sum of the Parts?. Journal of Climate, 2013, 26, 4476-4499.	1.2	197
77	Volume and velocity changes at Mittivakkat Gletscher, southeast Greenland. Journal of Glaciology, 2013, 59, 660-670.	1.1	17
78	Surface mass balance model intercomparison for the Greenland ice sheet. Cryosphere, 2013, 7, 599-614.	1.5	127
79	Ecosystem change and stability over multiple decades in the Swedish subarctic: complex processes and multiple drivers. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120488.	1.8	140
80	<i>Brief communication</i> "Important role of the mid-tropospheric atmospheric circulation in the recent surface melt increase over the Greenland ice sheet". Cryosphere, 2013, 7, 241-248.	1.5	179
81	Ice-sheet mass balance and climate change. Nature, 2013, 498, 51-59.	13.7	253
82	Identification of snow ablation rate, ELA, AAR and net mass balance using transient snowline variations on two Arctic glaciers. Journal of Glaciology, 2013, 59, 649-659.	1.1	50
83	Recent warming in Greenland in a long-term instrumental (1881â€“2012) climatic context: I. Evaluation of surface air temperature records. Environmental Research Letters, 2012, 7, 045404.	2.2	135
84	Greenland plays a large role in the gloomy picture painted of probable future sea-level rise. Environmental Research Letters, 2012, 7, 041002.	2.2	1
85	An improved estimate of microbially mediated carbon fluxes from the Greenland ice sheet. Journal of Glaciology, 2012, 58, 1098-1108.	1.1	49
86	The recent shift in early summer Arctic atmospheric circulation. Geophysical Research Letters, 2012, 39, .	1.5	196
87	Linking Fine-Scale Sub-Arctic Vegetation Distribution in Complex Topography with Surface-Air-Temperature Modelled at 50-m Resolution. Ambio, 2012, 41, 292-302.	2.8	11
88	Stable dynamics in a Greenland tidewater glacier over 26 years despite reported thinning. Annals of Glaciology, 2012, 53, 241-248.	2.8	10
89	How can meteorological observations and microclimate simulations improve understanding of 1913â€“2010 climate change around Abisko, Swedish Lapland?. Meteorological Applications, 2012, 19, 454-463.	0.9	20
90	Greenland Ice Sheet surface mass balance 1870 to 2010 based on Twentieth Century Reanalysis, and links with global climate forcing. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	118

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91	Modelling surfaceâ€airâ€temperature variation over complex terrain around abisko, swedish lapland: uncertainties of measurements and models at different scales. Geografiska Annaler, Series A: Physical Geography, 2011, 93, 89-112.	0.6	23
92	Melt-induced speed-up of Greenland ice sheet offset by efficient subglacial drainage. Nature, 2011, 469, 521-524.	13.7	304
93	The cryoconite ecosystem on the Greenland ice sheet. Annals of Glaciology, 2010, 51, 123-129.	2.8	79
94	Spatially extensive estimates of annual accumulation in the dry snow zone of the Greenland Ice Sheet determined from radar altimetry. Cryosphere, 2010, 4, 467-474.	1.5	15
95	Investigating the sensitivity of numerical model simulations of the modern state of the Greenland ice-sheet and its future response to climate change. Cryosphere, 2010, 4, 397-417.	1.5	88
96	Ocean regulation hypothesis for glacier dynamics in southeast Greenland and implications for ice sheet mass changes. Journal of Geophysical Research, 2010, 115, .	3.3	162
97	Hydrologic response of the Greenland ice sheet: the role of oceanographic warming. Hydrological Processes, 2009, 23, 7-30.	1.1	110
98	Greenland Ice Sheet surface massâ€balance modelling and freshwater flux for 2007, and in a 1995â€“2007 perspective. Hydrological Processes, 2009, 23, 2470-2484.	1.1	52
99	Evolution of supra-glacial lakes across the Greenland Ice Sheet. Remote Sensing of Environment, 2009, 113, 2164-2171.	4.6	128
100	Annual accumulation for Greenland updated using ice core data developed during 2000â€“2006 and analysis of daily coastal meteorological data. Journal of Geophysical Research, 2009, 114, .	3.3	123
101	Surface mass-balance changes of the Greenland ice sheetc since 1866. Annals of Glaciology, 2009, 50, 178-184.	2.8	44
102	An analysis of the extreme rainfall in Yorkshire, June 2007, and its rarity. Weather, 2008, 63, 253-260.	0.6	16
103	Mass balance of the Greenland ice sheet from 1958 to 2007. Geophysical Research Letters, 2008, 35, .	1.5	344
104	Increased Runoff from Melt from the Greenland Ice Sheet: A Response to Global Warming. Journal of Climate, 2008, 21, 331-341.	1.2	392
105	New Insights into North European and North Atlantic Surface Pressure Variability, Storminess, and Related Climatic Change since 1830. Journal of Climate, 2008, 21, 6739-6766.	1.2	53
106	Estimation of the Greenland ice sheet surface mass balance for the 20th and 21st centuries. Cryosphere, 2008, 2, 117-129.	1.5	78
107	A new day-to-day pressure variability index as a proxy of Icelandic storminess and complement to the North Atlantic Oscillation index 18232005. Meteorologische Zeitschrift, 2007, 16, 25-36.	0.5	16
108	Impact of model physics on estimating the surface mass balance of the Greenland ice sheet. Geophysical Research Letters, 2007, 34, .	1.5	68

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109	Weather in my life â€“ Sir Patrick Moore. Weather, 2007, 62, 78-78.	0.6	0
110	Icelandic Coastal Sea Surface Temperature Records Constructed: Putting the Pulse on Airâ€“Seaâ€“Climate Interactions in the Northern North Atlantic. Part I: Comparison with HadISST1 Open-Ocean Surface Temperatures and Preliminary Analysis of Long-Term Patterns and Anomalies of SSTs around Iceland. Journal of Climate, 2006, 19, 5652-5666.	1.2	54
111	Rapid and synchronous ice-dynamic changes in East Greenland. Geophysical Research Letters, 2006, 33, .	1.5	184
112	Observed and Modeled Greenland Ice Sheet Snow Accumulation, 1958â€“2003, and Links with Regional Climate Forcing. Journal of Climate, 2006, 19, 344-358.	1.2	74
113	Recent changes in Icelandic climate. Weather, 2006, 61, 3-9.	0.6	8
114	Characteristics of Stable Flows over Southern Greenland. Pure and Applied Geophysics, 2005, 162, 1747-1778.	0.8	10
115	Snowfall-Driven Growth in East Antarctic Ice Sheet Mitigates Recent Sea-Level Rise. Science, 2005, 308, 1898-1901.	6.0	230
116	Short term mass variability in Greenland, from GRACE. Geophysical Research Letters, 2005, 32, .	1.5	29
117	Runoff and mass balance of the Greenland ice sheet: 1958â€“2003. Journal of Geophysical Research, 2005, 110, .	3.3	211
118	The great aurorae of 29 and 30 October 2003. Weather, 2004, 59, 143-144.	0.6	0
119	An analysis of Icelandic climate since the nineteenth century. International Journal of Climatology, 2004, 24, 1193-1210.	1.5	116
120	Greenland Ice Sheet: Increased coastal thinning. Geophysical Research Letters, 2004, 31, .	1.5	310
121	The Greenland ice sheet: A global warming signal?. Weather, 2003, 58, 351-357.	0.6	3
122	Recent cooling in coastal southern Greenland and relation with the North Atlantic Oscillation. Geophysical Research Letters, 2003, 30, .	1.5	79
123	Surface mass balance of the Greenland ice sheet from climate-analysis data and accumulation/runoff models. Annals of Glaciology, 2002, 35, 67-72.	2.8	32
124	Recent climate of southern Greenland. Weather, 2002, 57, 320-328.	0.6	11
125	A polar airstream and sea-ice off south-east Greenland. Weather, 2002, 57, 360-360.	0.6	0
126	Annual net snow accumulation over southern Greenland from 1975 to 1998. Journal of Geophysical Research, 2001, 106, 33827-33837.	3.3	32

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127	Anomalous peak in Antarctic sea-ice area, Winter 1998, coincident with ENSO. Geophysical Research Letters, 2001, 28, 1595-1598.	1.5	24
128	Derivation and optimization of a new Antarctic sea-ice record. International Journal of Remote Sensing, 2001, 22, 113-139.	1.3	19
129	Patterns and Variations of Snow Accumulation over Greenland, 1979â€“98, from ECMWF Analyses, and Their Verification. Journal of Climate, 2001, 14, 3521-3535.	1.2	20
130	Validation of ECMWF (re)analysis surface climate data, 1979-1998, for Greenland and implications for mass balance modelling of the ice sheet. International Journal of Climatology, 2001, 21, 171-195.	1.5	39
131	Mount Etna volcanic plume. Weather, 2001, 56, 383-384.	0.6	0
132	Meteorological effects of the solar eclipse of 11 August 1999. Weather, 2000, 55, 430-446.	0.6	51
133	Recent observations of Antarctic seaâ€ice. Weather, 1999, 54, 71-87.	0.6	4
134	The role of Antarctic sea ice in global climate change. Progress in Physical Geography, 1996, 20, 371-401.	1.4	27
135	Have longâ€term solar minima, such as the Maunder Minimum, any recognisable climatic effect?. Weather, 1996, 51, 234-242.	0.6	2
136	Have longâ€term solar minima, such as the Maunder Minimum, any recognisable climatic effect?. Weather, 1996, 51, 304-312.	0.6	5
137	How effective are tippingâ€bucket raingauges? A review. Weather, 1995, 50, 336-342.	0.6	27
138	Choosing binoculars for weather observing. Weather, 1994, 49, 221-223.	0.6	0
139	A PROMINENT OPTICAL PHENOMENON ASSOCIATED WITH THE PHYSICS OF THE IONOSPHERE. Weather, 1992, 47, 339-341.	0.6	2
140	Meteorological effects and impacts of the 10 June 2021 solar eclipse over the British Isles, Iceland and Greenland. Weather, 0, , .	0.6	0