Nicholas Golledge

List of Publications by Year in descending order

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108 papers 6,005 citations

71102 41 h-index 79698 73 g-index

144 all docs 144 docs citations

times ranked

144

4575 citing authors

| # | Article | IF | Citations |
|----|---|------|-----------|
| 1 | The multi-millennial Antarctic commitment to future sea-level rise. Nature, 2015, 526, 421-425. | 27.8 | 322 |
| 2 | Global environmental consequences of twenty-first-century ice-sheet melt. Nature, 2019, 566, 65-72. | 27.8 | 277 |
| 3 | The northern sector of the last British Ice Sheet: Maximum extent and demise. Earth-Science Reviews, 2008, 88, 207-226. | 9.1 | 276 |
| 4 | A community-based geological reconstruction of Antarctic Ice Sheet deglaciation since the Last Glacial Maximum. Quaternary Science Reviews, 2014, 100, 1-9. | 3.0 | 228 |
| 5 | Revisiting Antarctic ice loss due to marine ice-cliff instability. Nature, 2019, 566, 58-64. | 27.8 | 215 |
| 6 | Dynamic cycles, ice streams and their impact on the extent, chronology and deglaciation of the British–Irish ice sheet. Quaternary Science Reviews, 2009, 28, 758-776. | 3.0 | 214 |
| 7 | Projected land ice contributions to twenty-first-century sea level rise. Nature, 2021, 593, 74-82. | 27.8 | 200 |
| 8 | ISMIP6 Antarctica: a multi-model ensemble of the Antarctic ice sheet evolution over the 21st century. Cryosphere, 2020, 14, 3033-3070. | 3.9 | 198 |
| 9 | Retreat of the East Antarctic ice sheet during the last glacial termination. Nature Geoscience, 2011, 4, 195-202. | 12.9 | 169 |
| 10 | Antarctic contribution to meltwater pulse 1A from reduced Southern Ocean overturning. Nature Communications, 2014, 5, 5107. | 12.8 | 161 |
| 11 | The future sea-level contribution of the Greenland ice sheet: a multi-model ensemble study of ISMIP6. Cryosphere, 2020, 14, 3071-3096. | 3.9 | 144 |
| 12 | Retreat history of the East Antarctic Ice Sheet since the Last Glacial Maximum. Quaternary Science Reviews, 2014, 100, 10-30. | 3.0 | 140 |
| 13 | The Greenland and Antarctic ice sheets under 1.5 $\hat{A}^{o}C$ global warming. Nature Climate Change, 2018, 8, 1053-1061. | 18.8 | 135 |
| 14 | Antarctic ice sheet sensitivity to atmospheric CO ₂ variations in the early to mid-Miocene. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3453-3458. | 7.1 | 133 |
| 15 | Dynamics of the last glacial maximum Antarctic ice-sheet and its response to ocean forcing. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16052-16056. | 7.1 | 108 |
| 16 | Glaciology and geological signature of the Last Glacial Maximum Antarctic ice sheet. Quaternary Science Reviews, 2013, 78, 225-247. | 3.0 | 99 |
| 17 | Microstructures in subglacial and proglacial sediments: understanding faults, folds and fabrics, and the influence of water on the style of deformation. Quaternary Science Reviews, 2007, 26, 1499-1528. | 3.0 | 98 |
| 18 | Repeated large-scale retreat and advance of Totten Glacier indicated by inland bed erosion. Nature, 2016, 533, 385-389. | 27.8 | 98 |

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|----|--|------|-----------|
| 19 | Projecting Antarctica's contribution to future sea level rise from basal ice shelf melt using linear response functions of 16 ice sheet models (LARMIP-2). Earth System Dynamics, 2020, 11, 35-76. | 7.1 | 92 |
| 20 | Last Glacial Maximum climate in New Zealand inferred from a modelled Southern Alps icefield. Quaternary Science Reviews, 2012, 46, 30-45. | 3.0 | 91 |
| 21 | Design and results of the ice sheet model initialisation experiments initMIP-Greenland: an ISMIP6 intercomparison. Cryosphere, 2018, 12, 1433-1460. | 3.9 | 89 |
| 22 | High-resolution numerical simulation of Younger Dryas glaciation in Scotland. Quaternary Science Reviews, 2008, 27, 888-904. | 3.0 | 88 |
| 23 | Glaciation of Scotland during the Younger Dryas stadial: a review. Journal of Quaternary Science, 2010, 25, 550-566. | 2.1 | 75 |
| 24 | Antarctic ice-sheet sensitivity to obliquity forcing enhanced through ocean connections. Nature Geoscience, 2019, 12, 132-137. | 12.9 | 74 |
| 25 | Rapid Holocene thinning of an East Antarctic outlet glacier driven by marine ice sheet instability. Nature Communications, 2015, 6, 8910. | 12.8 | 70 |
| 26 | Antarctic ice sheet response to sudden and sustained ice-shelf collapse (ABUMIP). Journal of Glaciology, 2020, 66, 891-904. | 2.2 | 70 |
| 27 | initMIP-Antarctica: an ice sheet model initialization experiment of ISMIP6. Cryosphere, 2019, 13, 1441-1471. | 3.9 | 69 |
| 28 | Centennial-scale Holocene climate variations amplified by Antarctic Ice Sheet discharge. Nature, 2017, 541, 72-76. | 27.8 | 68 |
| 29 | East Antarctic ice sheet most vulnerable to Weddell Sea warming. Geophysical Research Letters, 2017, 44, 2343-2351. | 4.0 | 67 |
| 30 | Oceanic forcing of penultimate deglacial and last interglacial sea-level rise. Nature, 2020, 577, 660-664. | 27.8 | 62 |
| 31 | Simulating the Antarctic ice sheet in the late-Pliocene warm period: PLISMIP-ANT, an ice-sheet model intercomparison project. Cryosphere, 2015, 9, 881-903. | 3.9 | 61 |
| 32 | Antarctic marine ice-sheet retreat in the Ross Sea during the early Holocene. Geology, 2016, 44, 7-10. | 4.4 | 58 |
| 33 | Evolution of a Lateglacial mountain icecap in northern Scotland. Boreas, 2011, 40, 536-554. | 2.4 | 57 |
| 34 | Sustained Antarctic Research: A 21st Century Imperative. One Earth, 2019, 1, 95-113. | 6.8 | 54 |
| 35 | Sensitivity of the Southern Ocean to enhanced regional Antarctic ice sheet meltwater input. Earth's Future, 2015, 3, 317-329. | 6.3 | 50 |
| 36 | Early Last Interglacial ocean warming drove substantial ice mass loss from Antarctica. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 3996-4006. | 7.1 | 50 |

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| 37 | The Sensitivity of the Antarctic Ice Sheet to a Changing Climate: Past, Present, and Future. Reviews of Geophysics, 2020, 58, e2019RG000663. | 23.0 | 49 |
| 38 | Testing the sensitivity of the East Antarctic Ice Sheet to Southern Ocean dynamics: past changes and future implications. Journal of Quaternary Science, 2014, 29, 91-98. | 2.1 | 46 |
| 39 | Modelled glacier response to centennial temperature and precipitation trends on the Antarctic Peninsula. Nature Climate Change, 2014, 4, 993-998. | 18.8 | 46 |
| 40 | Subglacial landforms of the tweed palaeoâ€ice stream. Scottish Geographical Journal, 2005, 121, 163-173. | 1.1 | 44 |
| 41 | An ice cap landsystem for palaeoglaciological reconstructions: characterizing the Younger Dryas in western Scotland. Quaternary Science Reviews, 2007, 26, 213-229. | 3.0 | 44 |
| 42 | The Ross Sea Dipole $\hat{a}\in$ " temperature, snow accumulation and sea ice variability in the Ross Sea region, Antarctica, over the past 2700Âyears. Climate of the Past, 2018, 14, 193-214. | 3.4 | 44 |
| 43 | Aeolian sediment transport and deposition in a modern highâ€latitude glacial marine environment. Sedimentology, 2014, 61, 1535-1557. | 3.1 | 42 |
| 44 | First cosmogenic 10Be age constraint on the timing of Younger Dryas glaciation and ice cap thickness, western Scottish Highlands. Journal of Quaternary Science, 2007, 22, 785-791. | 2.1 | 40 |
| 45 | Antarctic climate and ice-sheet configuration during the early Pliocene interglacial at 4.23†Ma. Climate of the Past, 2017, 13, 959-975. | 3.4 | 40 |
| 46 | A palaeo-ice stream of the British Ice Sheet in eastern Scotland. Boreas, 2006, 35, 231-243. | 2.4 | 39 |
| 47 | Antarctic Cenozoic climate history from sedimentary records: ANDRILL and beyond. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20140301. | 3.4 | 36 |
| 48 | Spatio-temporal variability of processes across Antarctic ice-bed–ocean interfaces. Nature Communications, 2018, 9, 2289. | 12.8 | 34 |
| 49 | Widespread persistence of expanded East Antarctic glaciers in the southwest Ross Sea during the last deglaciation. Geology, 2017, 45, 403-406. | 4.4 | 33 |
| 50 | Antarctic ice sheet discharge driven by atmosphere-ocean feedbacks at the Last Glacial Termination. Scientific Reports, 2017, 7, 39979. | 3.3 | 33 |
| 51 | Evaluating Younger Dryas glacier reconstructions in part of the western Scottish Highlands: a combined empirical and theoretical approach. Boreas, 2005, 34, 274-286. | 2.4 | 32 |
| 52 | Tidally induced velocity variations of the Beardmore Glacier, Antarctica, and their representation in satellite measurements of ice velocity. Cryosphere, 2013, 7, 1375-1384. | 3.9 | 32 |
| 53 | Pattern, style and timing of British–Irish Ice Sheet retreat: Shetland and northern North Sea sector. Journal of Quaternary Science, 2021, 36, 681-722. | 2.1 | 31 |
| 54 | Late Neogene climate and glacial history of the Southern Victoria Land coast from integrated drill core, seismic and outcrop data. Global and Planetary Change, 2012, 80-81, 61-84. | 3 . 5 | 29 |

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|----|---|------|-----------|
| 55 | Future Sea Level Change Under Coupled Model Intercomparison Project Phase 5 and Phase 6 Scenarios From the Greenland and Antarctic Ice Sheets. Geophysical Research Letters, 2021, 48, e2020GL091741. | 4.0 | 28 |
| 56 | Influence of seasonality on glacier mass balance, and implications for palaeoclimate reconstructions. Climate Dynamics, 2010, 35, 757-770. | 3.8 | 27 |
| 57 | Minimal East Antarctic Ice Sheet retreat onto land during the past eight million years. Nature, 2018, 558, 284-287. | 27.8 | 27 |
| 58 | Deglacial grounding-line retreat in the Ross Embayment, Antarctica, controlled by ocean and atmosphere forcing. Science Advances, 2019, 5, eaav8754. | 10.3 | 27 |
| 59 | Ten new insights in climate science 2021: a horizon scan. Global Sustainability, 2021, 4, . | 3.3 | 26 |
| 60 | Sedimentology and architecture of De Geer moraines in the western Scottish Highlands, and implications for grounding-line glacier dynamics. Sedimentary Geology, 2008, 208, 1-14. | 2.1 | 25 |
| 61 | Past water flow beneath Pine Island and Thwaites glaciers, West Antarctica. Cryosphere, 2019, 13, 1959-1981. | 3.9 | 25 |
| 62 | Assessing the continuity of the blue ice climate record at Patriot Hills, Horseshoe Valley, West Antarctica. Geophysical Research Letters, 2016, 43, 2019-2026. | 4.0 | 24 |
| 63 | Drivers of abrupt Holocene shifts in West Antarctic ice stream direction determined from combined ice sheet modelling and geologic signatures. Antarctic Science, 2014, 26, 674-686. | 0.9 | 22 |
| 64 | Geometry and dynamics of an East Antarctic Ice Sheet outlet glacier, under past and present climates. Journal of Geophysical Research, 2011, 116, . | 3.3 | 21 |
| 65 | The influence of Antarctic subglacial volcanism on the global iron cycle during the Last Glacial Maximum. Nature Communications, 2017, 8, 15425. | 12.8 | 21 |
| 66 | The last glaciation of shetland, north atlantic. Geografiska Annaler, Series A: Physical Geography, 2008, 90, 37-53. | 1.5 | 20 |
| 67 | Mass balance, flow and subglacial processes of a modelled Younger Dryas ice cap in Scotland. Journal of Glaciology, 2009, 55, 32-42. | 2.2 | 20 |
| 68 | Southern Ocean carbon sink enhanced by sea-ice feedbacks at the Antarctic Cold Reversal. Nature Geoscience, 2020, 13, 489-497. | 12.9 | 20 |
| 69 | Tipping elements and amplified polar warming during the Last Interglacial. Quaternary Science Reviews, 2020, 233, 106222. | 3.0 | 20 |
| 70 | The last <scp>W</scp> elsh <scp>I</scp> ce <scp>C</scp> ap: Part 1 – Modelling its evolution, sensitivity and associated climate. Boreas, 2013, 42, 471-490. | 2.4 | 19 |
| 71 | Geologic controls on ice sheet sensitivity to deglacial climate forcing in the Ross Embayment, Antarctica. Quaternary Science Advances, 2020, 1, 100002. | 1.9 | 19 |
| 72 | Longâ€ŧerm projections of seaâ€ŀevel rise from ice sheets. Wiley Interdisciplinary Reviews: Climate Change, 2020, 11, e634. | 8.1 | 19 |

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| 73 | 8000 years of North Atlantic storminess reconstructed from a Scottish peat record: implications for Holocene atmospheric circulation patterns in Western Europe. Journal of Quaternary Science, 2017, 32, 1075-1084. | 2.1 | 18 |
| 74 | Mid-Holocene Antarctic sea-ice increase driven by marine ice sheet retreat. Climate of the Past, 2021, 17, 1-19. | 3.4 | 18 |
| 75 | The Loch Lomond Stadial glaciation south of Rannoch Moor: New evidence and palaeoglaciological insights. Scottish Geographical Journal, 2006, 122, 326-343. | 1,1 | 17 |
| 76 | Lichenometry on adelaide island, antarctic peninsula: sizeâ€frequency studies, growth rates and snowpatches. Geografiska Annaler, Series A: Physical Geography, 2010, 92, 111-124. | 1.5 | 17 |
| 77 | The last <scp>W</scp> elsh <scp>I</scp> ce <scp>C</scp> ap: Part 2 – Dynamics of a topographically controlled icecap. Boreas, 2013, 42, 491-510. | 2.4 | 17 |
| 78 | Selective erosion beneath the Antarctic Peninsula Ice Sheet during LGM retreat. Antarctic Science, 2014, 26, 698-707. | 0.9 | 17 |
| 79 | The influence of emissions scenarios on future Antarctic ice loss is unlikely to emerge this century. Communications Earth & Environment, 2021, 2, . | 6.8 | 17 |
| 80 | Glaci-tectonic deformation of proglacial lake sediments in the Cairngorm Mountains. Scottish Journal of Geology, 2002, 38, 127-136. | 0.1 | 16 |
| 81 | The deglacial history of NW Alexander Island, Antarctica, from surface exposure dating. Quaternary Research, 2012, 77, 273-280. | 1.7 | 16 |
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| 83 | Cosmogenic nuclides constrain surface fluctuations of an East Antarctic outlet glacier since the Pliocene. Earth and Planetary Science Letters, 2017, 480, 75-86. | 4.4 | 16 |
| 84 | Pleistocene glacial history of the New Zealand subantarctic islands. Climate of the Past, 2019, 15, 423-448. | 3.4 | 16 |
| 85 | Sedimentology, stratigraphy, and glacier dynamics, western scottish Highlands. Quaternary Research, 2007, 68, 79-95. | 1.7 | 15 |
| 86 | Rapid global ocean-atmosphere response to Southern Ocean freshening during the last glacial. Nature Communications, 2017, 8, 520. | 12.8 | 15 |
| 87 | Deglacial evolution of regional Antarctic climate and Southern Ocean conditions in transient climate simulations. Climate of the Past, 2019, 15, 189-215. | 3.4 | 14 |
| 88 | Southern Ocean temperature records and ice-sheet models demonstrate rapid Antarctic ice sheet retreat under low atmospheric CO2 during Marine Isotope Stage 31. Quaternary Science Reviews, 2020, 228, 106069. | 3.0 | 14 |
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| 90 | Morphology and Significance of Transverse Ridges (De Geer Moraines) Adjacent to the Moray Firth, NE Scotland. Scottish Geographical Journal, 2007, 123, 257-270. | 1.1 | 10 |

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| 91 | Discussion on a revised model for the last deglaciation of eastern Scotland ⟨b⟩ ⟨i⟩Journal⟨ i⟩ ⟨ b⟩, Vol. 164, 2007, 313–316. Journal of the Geological Society, 2007, 164, 1261-1263. | 2.1 | 10 |
| 92 | Ocean-forced evolution of the Amundsen Sea catchment, West Antarctica, by 2100. Cryosphere, 2020, 14, 1245-1258. | 3.9 | 10 |
| 93 | Retreat of the Antarctic Ice Sheet During the Last Interglaciation and Implications for Future Change. Geophysical Research Letters, 2021, 48, e2021GL094513. | 4.0 | 10 |
| 94 | Decadal-scale onset and termination of Antarctic ice-mass loss during the last deglaciation. Nature Communications, 2021, 12, 6683. | 12.8 | 10 |
| 95 | A palaeo-ice stream of the British Ice Sheet in eastern Scotland. Boreas, 2008, 35, 231-243. | 2.4 | 7 |
| 96 | Evaluating Younger Dryas glacier reconstructions in part of the western Scottish Highlands: a combined empirical and theoretical approach. Boreas, 2005, 34, 274-286. | 2.4 | 6 |
| 97 | Reprint of: Late Neogene climate and glacial history of the Southern Victoria Land coast from integrated drill core, seismic and outcrop data. Global and Planetary Change, 2012, 96-97, 157-180. | 3.5 | 6 |
| 98 | Basal conditions of two Transantarctic Mountains outlet glaciers from observation-constrained diagnostic modelling. Journal of Glaciology, 2014, 60, 855-866. | 2.2 | 6 |
| 99 | The Y ounger D ryas glaciation in the southeastern M onadhliath M ountains, S cotland: glacier reconstruction and palaeoclimate implications. Boreas, 2012, 41, 614-628. | 2.4 | 5 |
| 100 | Past and present dynamics of Skelton Glacier, Transantarctic Mountains. Antarctic Science, 2016, 28, 371-386. | 0.9 | 5 |
| 101 | Dynamics and palaeoclimatic significance of a Loch Lomond Stadial glacier: Coire Ardair, Creag Meagaidh, Western Highlands, Scotland. Proceedings of the Geologists Association, 2017, 128, 54-66. | 1.1 | 5 |
| 102 | Advances in numerical modelling of the Antarctic ice sheet. , 2022, , 199-218. | | 5 |
| 103 | Antarctic environmental change and ice sheet evolution through the Miocene to Pliocene – a perspective from the Ross Sea and George V to Wilkes Land Coasts. , 2022, , 389-521. | | 5 |
| 104 | Lateglacial–Holocene shoreface progradation offshore eastern Scotland: a response to climatic and coastal hydrographic change. Boreas, 2009, 38, 292-314. | 2.4 | 4 |
| 105 | Is the marine ice cliff hypothesis collapsing?. Science, 2021, 372, 1266-1267. | 12.6 | 4 |
| 106 | Multiâ€Century Impacts of Ice Sheet Retreat on Sea Level and Ocean Tides in Hudson Bay. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015104. | 2.6 | 3 |
| 107 | Subglacial Water Flow Over an Antarctic Palaeoâ€lce Stream Bed. Journal of Geophysical Research F: Earth Surface, 2022, 127, . | 2.8 | 2 |
| 108 | Corrigendum to "Sedimentology, stratigraphy, and glacier dynamics, western Scottish Highlands― [Quaternary Research 68 (2007) 79–95]. Quaternary Research, 2007, 68, 456-457. | 1.7 | 1 |