

# Andrés Rivera

## List of Publications by Year in descending order

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114  
papers

7,515  
citations

117571

34  
h-index

56687

83  
g-index

131  
all docs

131  
docs citations

131  
times ranked

7330  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bedmap2: improved ice bed, surface and thickness datasets for Antarctica. <i>Cryosphere</i> , 2013, 7, 375-393.	1.5	1,455
2	Continental-scale temperature variability during the past two millennia. <i>Nature Geoscience</i> , 2013, 6, 339-346.	5.4	954
3	Accelerated ice discharge from the Antarctic Peninsula following the collapse of Larsen B ice shelf. <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	546
4	Contribution of the Patagonia Icefields of South America to Sea Level Rise. <i>Science</i> , 2003, 302, 434-437.	6.0	455
5	Accelerated Sea-Level Rise from West Antarctica. <i>Science</i> , 2004, 306, 255-258.	6.0	317
6	Recommendations for the compilation of glacier inventory data from digital sources. <i>Annals of Glaciology</i> , 2009, 50, 119-126.	2.8	213
7	Glacier fluctuations in extratropical South America during the past 1000years. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2009, 281, 242-268.	1.0	188
8	Distribution of antibiotic resistance genes in glacier environments. <i>Environmental Microbiology Reports</i> , 2013, 5, 127-134.	1.0	161
9	Ice elevation and areal changes of glaciers from the Northern Patagonia Icefield, Chile. <i>Global and Planetary Change</i> , 2007, 59, 126-137.	1.6	147
10	A review of remote sensing methods for glacier mass balance determination. <i>Global and Planetary Change</i> , 2007, 59, 138-148.	1.6	129
11	Ice loss from the Southern Patagonian Ice Field, South America, between 2000 and 2012. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	128
12	Rapid urban growth, land-use changes and air pollution in Santiago, Chile. <i>Atmospheric Environment</i> , 1999, 33, 4039-4047.	1.9	124
13	Long-term glacier variations in the Central Andes of Argentina and Chile, inferred from historical records and tree-ring reconstructed precipitation. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2009, 281, 334-344.	1.0	124
14	A study of the energy balance and melt regime on Juncal Norte Glacier, semi-árid Andes of central Chile, using melt models of different complexity. <i>Hydrological Processes</i> , 2008, 22, 3980-3997.	1.1	112
15	Use of remotely sensed and field data to estimate the contribution of Chilean glaciers to eustatic sea-level rise. <i>Annals of Glaciology</i> , 2002, 34, 367-372.	2.8	111
16	Recent ice loss from the Fleming and other glaciers, Wordie Bay, West Antarctic Peninsula. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	1.5	80
17	Recent glacier variations at the Aconcagua basin, central Chilean Andes. <i>Annals of Glaciology</i> , 2008, 48, 43-48.	2.8	80
18	A Review of the Current State and Recent Changes of the Andean Cryosphere. <i>Frontiers in Earth Science</i> , 2020, 8, .	0.8	74

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19	Meteorological and Climatological Aspects of the Southern Patagonia Icefield. Series of the Centro De Estudios Científicos De Santiago, 2002, , 29-41.	0.2	69
20	The surface energy balance of an active ice-covered volcano: Villarrica Volcano, southern Chile. Annals of Glaciology, 2007, 45, 104-114.	2.8	62
21	Climate changes and recent glacier behaviour in the Chilean Lake District. Global and Planetary Change, 2007, 59, 79-86.	1.6	61
22	Glacier inventory of the upper Huasco valley, Norte Chico, Chile: glacier characteristics, glacier change and comparison with central Chile. Annals of Glaciology, 2009, 50, 111-118.	2.8	60
23	Ice-elevation changes of Glaciar Chico, southern Patagonia, using ASTER DEMs, aerial photographs and GPS data. Journal of Glaciology, 2005, 51, 105-112.	1.1	59
24	Geomorphological evidence for variations of the North Patagonian Icefield during the Holocene. Geomorphology, 2005, 71, 263-277.	1.1	57
25	Volume changes on Pio XI glacier, Patagonia: 1975–1995. Global and Planetary Change, 1999, 22, 233-244.	1.6	52
26	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.	3.3	50
27	Retreat of Glaciar Tyndall, Patagonia, over the last half-century. Journal of Glaciology, 2005, 51, 239-247.	1.1	46
28	Ice Elevation, Areal, and Frontal Changes of Glaciers from National Park Torres del Paine, Southern Patagonia Icefield. Arctic, Antarctic, and Alpine Research, 2004, 36, 379-389.	0.4	44
29	Improved estimation of the mass balance of glaciers draining into the Amundsen Sea sector of West Antarctica from the CECS/NASA 2002 campaign. Annals of Glaciology, 2004, 39, 231-237.	2.8	44
30	New eyes in the sky measure glaciers and ice sheets. Eos, 2000, 81, 265.	0.1	43
31	Glaciar Jorge Montt (Chilean Patagonia) dynamics derived from photos obtained by fixed cameras and satellite image feature tracking. Annals of Glaciology, 2012, 53, 147-155.	2.8	43
32	Little Ice Age advance and retreat of Glaciar Jorge Montt, Chilean Patagonia. Climate of the Past, 2012, 8, 403-414.	1.3	43
33	Satellite-derived volume loss rates and glacier speeds for the Cordillera Darwin Icefield, Chile. Cryosphere, 2013, 7, 823-839.	1.5	40
34	Glacier shrinkage and negative mass balance in the Chilean Lake District (40°S) / Rétrécissement glaciaire et bilan massique négatif dans la Région des Lacs du Chili (40°S). Hydrological Sciences Journal, 2005, 50, .	1.2	37
35	Variaciones recientes de glaciares en Chile. Investigaciones Geográficas, 2013, , 29.	0.0	35
36	Exploration of Ellsworth Subglacial Lake: a concept paper on the development, organisation and execution of an experiment to explore, measure and sample the environment of a West Antarctic subglacial lake. Reviews in Environmental Science and Biotechnology, 2007, 6, 161-179.	3.9	34

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37	First Glacier Inventory and Recent Changes in Glacier Area in the Monte San Lorenzo Region (47°S), Southern Patagonian Andes, South America. <i>Arctic, Antarctic, and Alpine Research</i> , 2013, 45, 19-28.	0.4	34
38	Antarctic ice sheet discharge driven by atmosphere-ocean feedbacks at the Last Glacial Termination. <i>Scientific Reports</i> , 2017, 7, 39979.	1.6	33
39	Assessing glacier melt contribution to streamflow at Universidad Glacier, central Andes of Chile. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 3249-3266.	1.9	33
40	Recent Fluctuations of Glaciar Pio XI, Patagonia: Discussion of a Glacial Surge Hypothesis. <i>Mountain Research and Development</i> , 1997, 17, 309.	0.4	31
41	Holocene stability of the Amundsen-Weddell ice divide, West Antarctica. <i>Geology</i> , 2011, 39, 935-938.	2.0	31
42	Variations in Sediment yield Over the Advance and Retreat of a Calving Glacier, Laguna San Rafael, North Patagonian Icefield. <i>Quaternary Research</i> , 2010, 73, 84-95.	1.0	30
43	Topographic and hydrological controls on Subglacial Lake Ellsworth, West Antarctica. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	29
44	Ice thickness of the northern half of the Patagonia Icefields of South America from high-resolution airborne gravity surveys. <i>Geophysical Research Letters</i> , 2016, 43, 241-249.	1.5	29
45	Ice volumetric changes on active volcanoes in southern Chile. <i>Annals of Glaciology</i> , 2006, 43, 111-122.	2.8	28
46	Comparative study of lahars generated by the 1961 and 1971 eruptions of Calbuco and Villarrica volcanoes, Southern Andes of Chile. <i>Journal of Volcanology and Geothermal Research</i> , 2010, 190, 297-311.	0.8	28
47	Ice Thickness and Bed Elevation of the Northern and Southern Patagonian Icefields. <i>Geophysical Research Letters</i> , 2019, 46, 6626-6635.	1.5	28
48	The 20th-century advance of Glaciar Pio XI, Chilean Patagonia. <i>Annals of Glaciology</i> , 1997, 24, 66-71.	2.8	27
49	Monitoring ice-capped active Volcán Villarrica, southern Chile, using terrestrial photography combined with automatic weather stations and global positioning systems. <i>Journal of Glaciology</i> , 2008, 54, 920-930.	1.1	26
50	Glacier responses to recent volcanic activity in Southern Chile. <i>Environmental Research Letters</i> , 2012, 7, 014036.	2.2	26
51	Inventory of glaciers in isla Riesco, Patagonia, Chile, based on aerial photography and satellite imagery. <i>Annals of Glaciology</i> , 2002, 34, 373-378.	2.8	25
52	Recent glacier variations on active ice capped volcanoes in the Southern Volcanic Zone (37°-46°S), Chilean Andes. <i>Journal of South American Earth Sciences</i> , 2013, 45, 345-356.	0.6	25
53	Net accumulation rates derived from ice core stable isotope records of Pío XI glacier, Southern Patagonia Icefield. <i>Cryosphere</i> , 2013, 7, 1635-1644.	1.5	25
54	A century-long recession record of Glaciar O'Higgins, Chilean Patagonia. <i>Annals of Glaciology</i> , 1997, 24, 106-110.	2.8	23

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55	Air Temperature Characteristics, Distribution, and Impact on Modeled Ablation for the South Patagonia Icefield. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 907-925.	1.2	22
56	Six Decades (1958–2018) of Geodetic Glacier Mass Balance in Monte San Lorenzo, Patagonian Andes. <i>Frontiers in Earth Science</i> , 2019, 7, .	0.8	21
57	Detailed dynamic, geometric and supraglacial moraine data for Glaciar Pio XI, the only surge-type glacier of the Southern Patagonia Icefield. <i>Annals of Glaciology</i> , 2016, 57, 119-130.	2.8	20
58	Southern Ocean carbon sink enhanced by sea-ice feedbacks at the Antarctic Cold Reversal. <i>Nature Geoscience</i> , 2020, 13, 489-497.	5.4	20
59	Recent ice-surface-elevation changes of Fleming Glacier in response to the removal of the Wordie Ice Shelf, Antarctic Peninsula. <i>Annals of Glaciology</i> , 2010, 51, 97-102.	2.8	19
60	Mass Balance and Climate History of a High-Altitude Glacier, Desert Andes of Chile. <i>Frontiers in Earth Science</i> , 2020, 8, .	0.8	19
61	Current Knowledge of the Southern Patagonia Icefield. Series of the Centro De Estudios Científicos De Santiago, 2002, , 67-83.	0.2	19
62	A century-long recession record of Glaciar O'Higgins, Chilean Patagonia. <i>Annals of Glaciology</i> , 1997, 24, 106-110.	2.8	19
63	Greatest Holocene advance of Glaciar Pio XI, Chilean Patagonia: possible causes. <i>Annals of Glaciology</i> , 1997, 24, 11-15.	2.8	18
64	A potential high-elevation ice-core site at Hielo Patagónico Sur. <i>Annals of Glaciology</i> , 2006, 43, 8-13.	2.8	18
65	Weak properties and robustness of t-Hill estimators. <i>Extremes</i> , 2016, 19, 591-626.	0.5	18
66	Glaciological investigations on Union Glacier, Ellsworth Mountains, West Antarctica. <i>Annals of Glaciology</i> , 2010, 51, 91-96.	2.8	17
67	50 MHz helicopter-borne radar data for determination of glacier thermal regime in the central Chilean Andes. <i>Annals of Glaciology</i> , 2015, 56, 193-201.	2.8	17
68	Area changes of glaciers on active volcanoes in Latin America between 1986 and 2015 observed from multi-temporal satellite imagery. <i>Journal of Glaciology</i> , 2019, 65, 542-556.	1.1	17
69	Ice dynamics of union glacier from SAR offset tracking. <i>Global and Planetary Change</i> , 2019, 174, 1-15.	1.6	16
70	Ice Thickness Measurements on the Southern Patagonia Icefield. Series of the Centro De Estudios Científicos De Santiago, 2002, , 101-115.	0.2	16
71	The 20th-century advance of Glaciar Pio XI, Chilean Patagonia. <i>Annals of Glaciology</i> , 1997, 24, 66-71.	2.8	16
72	A first shallow firn-core record from Glaciar La Ollada, Cerro Mercedario, central Argentine Andes. <i>Annals of Glaciology</i> , 2006, 43, 14-22.	2.8	15

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73	Airborne radar sounder for temperate ice: initial results from Patagonia. <i>Journal of Glaciology</i> , 2009, 55, 507-512.	1.1	15
74	Recent ice dynamics and mass balance of Jorge Montt Glacier, Southern Patagonia Icefield. <i>Journal of Glaciology</i> , 2019, 65, 732-744.	1.1	15
75	First Glacier Inventory and Recent Glacier Variation on Isla Grande de Tierra Del Fuego and Adjacent Islands in Southern Chile. , 2014, , 661-674.		15
76	Mass balance of the Antarctic ice sheet at Patriot Hills. <i>Annals of Glaciology</i> , 1998, 27, 130-134.	2.8	14
77	Elevation change and ice flow at Horseshoe Valley, Patriot Hills, West Antarctica. <i>Annals of Glaciology</i> , 2004, 39, 20-28.	2.8	14
78	Late Pleistocene and early Holocene change in the Weddell Sea: a new climate record from the Patriot Hills, Ellsworth Mountains, West Antarctica. <i>Journal of Quaternary Science</i> , 2013, 28, 697-704.	1.1	14
79	Subglacial Lake CECs: Discovery and in situ survey of a privileged research site in West Antarctica. <i>Geophysical Research Letters</i> , 2015, 42, 3944-3953.	1.5	14
80	Slope estimation influences on ice thickness inversion models: a case study for Monte Tronador glaciers, North Patagonian Andes. <i>Journal of Glaciology</i> , 2020, 66, 996-1005.	1.1	12
81	On ecosystems dynamics. <i>Ecological Complexity</i> , 2017, 29, 10-29.	1.4	11
82	Ellsworth Subglacial Lake, West Antarctica: A review of its history and recent field campaigns. <i>Geophysical Monograph Series</i> , 2011, , 221-233.	0.1	11
83	Airborne laser altimetry survey of Glaciar Tyndall, Patagonia. <i>Global and Planetary Change</i> , 2007, 59, 101-109.	1.6	10
84	A low power consumption radar system for measuring ice thickness and snow/firn accumulation in Antarctica. <i>Annals of Glaciology</i> , 2014, 55, 39-48.	2.8	10
85	Recent ice dynamic and surface mass balance of Union Glacier in the West Antarctic Ice Sheet. <i>Cryosphere</i> , 2014, 8, 1445-1456.	1.5	10
86	Glacier wastage on southern Adelaide Island, Antarctica, and its impact on snow runway operations. <i>Annals of Glaciology</i> , 2005, 41, 57-62.	2.8	9
87	Glacier Variations in Central Chile (32°S-41°S). , 0, , 246-247.		9
88	Reassessment of ice mass balance at Horseshoe Valley, Antarctica. <i>Antarctic Science</i> , 2009, 21, 505-513.	0.5	9
89	Detecting Glacier Surface Motion by Optical Flow. <i>Photogrammetric Engineering and Remote Sensing</i> , 2018, 84, 33-42.	0.3	8
90	Climate Fluctuations Derived from Tree-rings and Other Proxy-records in the Chilean Andes: State of the Art and Future Prospects. <i>Advances in Global Change Research</i> , 2005, , 145-156.	1.6	8

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91	Probe technology for the direct measurement and sampling of Ellsworth Subglacial Lake. <i>Geophysical Monograph Series</i> , 2011, , 159-186.	0.1	8
92	Subglacial lakes and hydrology across the Ellsworth Subglacial Highlands, West Antarctica. <i>Cryosphere</i> , 2020, 14, 4507-4524.	1.5	8
93	Anthropogenic influence on surface changes at the Olivares glaciers; Central Chile. <i>Science of the Total Environment</i> , 2022, 833, 155068.	3.9	8
94	Glacier Mass-Balance Data For Southern South America (30°S-56°S). , 0, , 239-241.		7
95	A fifty year record of winter glacier melt events in southern Chile, 38°â€“42°S. <i>Environmental Research Letters</i> , 2012, 7, 045403.	2.2	7
96	Mediciones de espesor en glaciares de Chile centro-sur. <i>Investigaciones Geográficas</i> , 2013, , 67.	0.0	7
97	Recent changes in total ice volume on Volcán Villarrica, Southern Chile. <i>Natural Hazards</i> , 2015, 75, 33-55.	1.6	6
98	On dynamics underlying variance of mass balance estimation in Chilean glaciers. <i>Ecological Complexity</i> , 2017, 31, 149-164.	1.4	6
99	GPS reflectometry study detecting snow height changes in the Southern Patagonia Icefield. <i>Cold Regions Science and Technology</i> , 2019, 166, 102840.	1.6	6
100	Evolution of Surface Characteristics of Three Debris-Covered Glaciers in the Patagonian Andes From 1958 to 2020. <i>Frontiers in Earth Science</i> , 2021, 9, .	0.8	6
101	Mapping Blue-Ice Areas and Crevasses in West Antarctica Using ASTER Images, GPS, and Radar Measurements. , 2014, , 743-757.		5
102	Ice thickness surveys of the Southern Patagonian Ice Field using a low frequency ice penetrating radar system. , 2017, , .		4
103	Blue-ice moraines formation in the Heritage Range, West Antarctica: Implications for ice sheet history and climate reconstruction. <i>Quaternary Science Advances</i> , 2022, 6, 100051.	1.1	4
104	Investigating potential icequakes at Llaima volcano, Chile. <i>Volcanica</i> , 2020, 3, 29-42.	0.6	3
105	Surface ablation and its drivers along a westâ€“east transect of the Southern Patagonia Icefield. <i>Journal of Glaciology</i> , 2022, 68, 305-318.	1.1	2
106	OPTICAL FLOW APPLIED TO TIME-LAPSE IMAGE SERIES TO ESTIMATE GLACIER MOTION IN THE SOUTHERN PATAGONIA ICE FIELD. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> , 0, XLI-B8, 503-509.	0.2	2
107	Ice elevation changes surveyed with Airborne laser scanning data. , 2017, , .		1
108	Priority statement and some properties of t-lgHill estimator. <i>Extremes</i> , 2020, 23, 493-499.	0.5	1

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109	First Results of a Paleoatmospheric Chemistry and Climate Study of Cerro Tapado Glacier, Chile. Series of the Centro De Estudios Científicos De Santiago, 2002, , 157-167.	0.2	1
110	Persistent shallow micro-seismicity at Llama volcano, Chile, with implications for long-term monitoring. Journal of Volcanology and Geothermal Research, 2022, 426, 107528.	0.8	1
111	High resolution FM-CW radar for internal layers mapping in cold ice. , 2017, , .		0
112	Recent glacier area variations at Cerro O'Higgins (48°30'S, 73°10'W), southern Patagonian icefield. , 2017, , .		0
113	An integrated bathymetric and seismic profiling system. , 2017, , .		0
114	Reply to the comments by Kochtitzky and Edwards (2020) on the study "Area changes of glaciers on active volcanoes in Latin America" by Reinthaler and others (2019). Journal of Glaciology, 2020, 66, 887-888.	1.1	0